

## Investigating the Role of Trade Credit Insurance in the Credit Risk Management in the Branches of Mellat Bank of Isfahan and Providing Solutions

Mehdi Moghtadaei\*, Saeid Aghasi

*Department of Management, Islamic Azad University, Dehaghan Branch, Isfahan, Iran*

---

**Abstract:** Banks and financial institutes as the main symbols of money markets, have significant roles in the fluid flow of cash and credits and consequently, economic growth and development in Iran. What is obvious is that due to the basic role of these economic firms, their inappropriate performance can result in the occurrence of reverse outcomes and disorder in macro-economic variables. The return of submitted resources always has been one of the points regarded by banks and authorities monitoring these institutes. The present study is meant to investigate the role of trade credit insurance in the credit risk management of the branches of Mellat Bank in Isfahan in 2014. The present study is an applied and causal-descriptive study which employs a survey research for collecting the data. The population of the study is all credit employees, managers and deputies of the branches of Mellat Bank of Isfahan City in the spring 2014. The population of the study consisted of 240 individuals, among which a 127 participant sample were selected. The data were obtained using a simple random sampling and through a researcher-made questionnaire whose content validity was confirmed and the reliability of the items of the questionnaire was obtained as 0.851 by Cronbach's alpha. The results of analyzing the data by SPSS indicated that in general, using trade credit insurance results in credit risk management of the bank and the reduction in the outstanding bank debts. The effect of the degree of respondents' education on the attitude to the role of trade credit insurance in credit management risk of Mellat bank was confirmed, but the effects of the personal variables such as gender, age, and years of service of the respondents were not confirmed.

**Key words:** *Credit risk; Trade credit insurance; Export credit insurance; Domestic credit insurance; Mellat Bank*

---

### 1. Introduction

Banks have significant roles in economic growth, production growth, investment and employment with organizing surplus cash resources of people and equipping and guiding their savings and deposits to natural and legal persons faced with the cash shortage. A large part of the financial resources of banks are supplied through collecting installments of overdue facilities. The amount of granted facilities-based on the information mentioned in the report of the performance of the banking system of Iran have had outstanding growth during ten years ago; however, the amount of bank debts have increases by several times. Among the factors of the outstanding increase in the overdue receivables of the banking system, cases such as the lack of a comprehensive database of customer information for financial and credit institutes (banks and insurances), the lack of transparency in transactions and exchanges conducted by economic agents, overall poor economic conditions of Iran, the government's pressure on banks in granting mandatory facilities, the adoption of policies in order to determine the interest rates, the lowness of delay penalty rate, the adoption of policies of the impunity of crimes, delays in granted facilities, the existence of

strict rules regarding the acquisition of collateral by banks, facilities receivers' disability due to death and disability and etc. can be referred to. The severe lack of liquidity which most of state and private firms suffers from, has engendered a chain of unsettled debts which in turn has deepened stagnation and bankruptcy.

With a view to the reasons of shaping overdue receivables, the factors of customer credit defaults can be divided into two headings: the first set covers all factors which cause that customers of banks do not tend to repay their debts timely (the reasons such as the lowness of delay penalty rate, the adoption of policies of the impunity of crimes, delays in granted facilities, the existence of strict rules regarding the acquisition of collateral by banks, facilities receivers' disability due to death and disability and etc.) and the second set includes factors which result in customers' inability in repaying their debts (bankruptcy, death, ...). What is obvious is that the necessary factor of reducing the amount of banking overdue receivables, identifying the reasons of its shaping, creating grounds and using tools for reducing or possibly deleting them. Therefore, having knowledge of the factors affecting the performance of credit repayments is necessary and can be an appropriate guidance for planners of credit section and help them to adopt practical appropriate strategies.

---

\* Corresponding Author.

**2. Statement of the problem and its importance**

Banks and financial institutes as the main symbols of money markets, have significant roles in the fluid flow of cash and credits and consequently, economic growth and development in Iran. What is obvious is that due to the basic role of these economic firms, their inappropriate performance can result in the occurrence of reverse outcomes and disorder in macro-economic variables. The return of submitted resources always has been one of the points regarded by banks and authorities monitoring these institutes. The present problem of Iran's banking system which considered as one of the main concerns of managers of banks to find a solution for eliminating it, is the increasing amount of overdue receivables in recent years. The unfavorable effects of this issue such as liquidity shortage, the inaccessibility of economic firms to cash, the slow production cycle, and etc. can be observed obviously in Iran. Recent states of banks indicate that tools which so far has been used for credit decision makings, were not efficient enough and for improving the financial structure of banks and supplying more benefits for investors and actual applicants of funds requires other solutions.

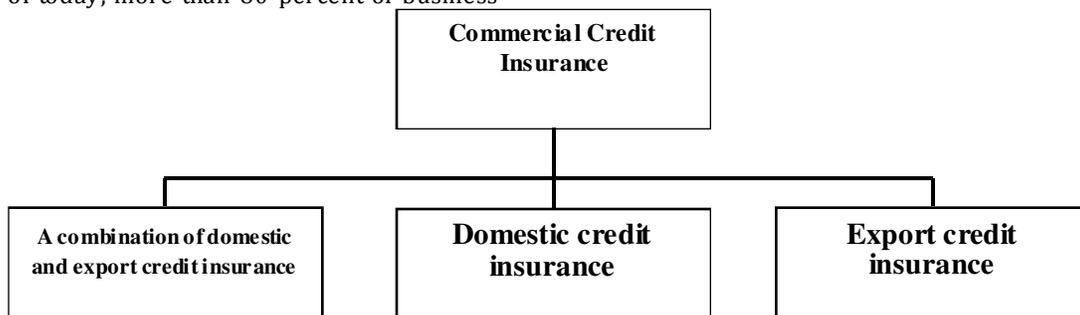
What is inferred from the concept of credit insurance are: 1- realizing the needs of economic sections by banks due to reduction in the fear of failure to repayment of installments and providing facilities which result in installment sales and finally more sales. 2- Realizing the needs of those customers who cannot afford purchasing in cash, for instance, they can be a natural person, to buy a TV set or the legal buyers for realizing their necessities. 3- Insurance companies which can facilitate and solve the problems of installment sales contracts by providing above insurance coverage and optimizing the composition of the portfolio (Esmali, Faraji, and Taheri, 2011). But this is a reality that insurance industry has not been able to realize the needs of industrial, financial, credit and bank sections. In the world of today, more than 80 percent of business

exchanges are conducted using credits. In spite of the different advantages of credit systems, using credits can engender complicated problems for credit providers. The most important problem is the risk of the lack of repayment debts due to the occurrence of risks as follows:

1. Financial inability of economic firms for account settlement with other economic firms from which they have received goods.
2. Political measures which prevent the payment of debts by credit receivers to credit providers in another country.
3. The bankruptcy of a financial institute in which savings are delivered.
4. Financial inability of natural and legal individuals in the repayment of credit to the financial institute from which they have received facilities.
5. Death or disability of the credit receiver.
6. The removal of accounting documents for proving the amount of the granted credit of the credit provider to the credit receiver (Brando Christian, 2009).

Regarding the mentioned risks, credit insurance is a kind of insurance for covering facilities or every kind of credit and all or parts of the credit which the facilities receiver cannot pay for some certain reasons. The demanders of credit insurance, private firms offering facilities, banks, loan funds, credit cooperatives, credit institutes and all natural and legal persons receiving credits (Eslami, Faraji, and Taheri, 2011).

One of the headings of credit insurances in the insurance industry is trade credit insurances (Fig. 1). Trade credit insurance is a contract between an insurance company and an economic firm by which the economic firm (as insurer) is assured that all credit unusual damages created by inability or the force of trade debtors in the commercial domains of export, domestic trade, a combination of domestic and export credit insurance) are covered by the insurance (Sehhat and Zandi, 2007).



**Fig. 1:** trade credit insurance and its sub-sets

From the perspective of Islamic banking, a desired customer refers to that customer who both spends the granted facilities in different economic sections and returns them to the banking systems; therefore, investigating the credit risk of legal costumers of banks is very important (Rabizadeh, 2007: 85). The presumption of creating

transformation in credit insurances is the existence of a flexible regulation which limits the executive measures of in insurers. Therefore, principally, the growth and expansion of credit insurance necessitate a revision in conditions and regulations in the insurance policy, which one of these practical ways is to submit terms to insurance companies. But,

currently, the cession authorities to insurance companies seems necessary. Considering the privileges and the necessity of using credit insurance in Iran, the emphasis of overdue and doubtful receivables collection regulations of credit institutes approved by the Council of Ministers and regarding that now, one of the conditions of joining international organizations is the index of credit insurance development in countries, the adoption of strategies of expanding and developing the use of credit insurance and consequently increasingly economic growth of each country is necessary. In addition to moving in line with reducing the causes and grounds of customers' involuntary default including political and economic problems, bankruptcy, unemployment and etc. credit insurance services can help.

The credit risk is the probability of the failure to return of the principal and interest of granted facilities and also the probability of the loss due to the exchange in terms of the quality of goods, exchanged cases, and reliability and validity of the parties to the exchange. In fact, credit risk refers to the probability of not collecting the granted facilities to individuals due to bankruptcy or the reduction in the financial position and credit facilities of the receiver of facilities. It is available in the facilities granting section of financial institutes and particularly banks. In other words, credit risk means customers' repayment to banks for the granted facilities may be done with delay or even it may not be collected. This risk can be shown in the following states:

1. The probability of the reduction in the ability of repayment of the principal and interest of the granted facilities
2. The probability of the failure to repay the principal and interest of the granted facilities
3. The probability of repayment pending of the principal and interest of the granted facilities

To measure credit risk, the following cases should be considered:

- a. The amount of credit commitment: indicates that in the time of default, how much of obligations are related to the default.
- b. The percentage of default: the percentage of the issue that one party, during the time determined in the contract, is not obliged to all or part of its obligations and obligations, whether consciously or unconsciously.
- c. Credit recovery in case of default: indicates that in case of obligation default, what share of obligation may be recovered by different ways such as collaterals (Shamsoddini, 2010).

In this line, the Basel Committee, with the aim of motivating banks and their supervisors at the world level, declared the principles of credit risk management in a collection titled as the Principles for the Management of Credit Risk in September 2000, and all members of the Basel Committee agreed that these principles be applied for

establishing credit management risk. These principles are as follows:

1. Establishing an appropriate credit risk environment
2. Operating under a sound credit granting process
3. Maintaining an appropriate credit administration, measurement and monitoring process
4. Ensuring adequate controls over credit risk (Rose, 1999).

According to Arani (2001), to determine credit management risk, the following methods can be used:

- Designing a system of determining credit ratings for facilities receivers
- Determining the maximum of grantable facilities and required collaterals regarding the determined credit ratings
- Creating diversity in the range of granted facilities with different credit ratings at different levels
- Determining the cost or fine in case of repayment pending of the principal and interest of facilities
- Using credit derivative financial instruments with the facilities contract
- Evaluating credit and value of institutions and firms contracting and exchanging with banks
- Revising industrial sections and also a general revision of industries, involved groups and firms
- Rating facilities (evaluating)
- Controlling and informing with the aim of providing credit security
- Revising the realities of credit data and credit originality as well as informing the findings to all offices and branches of banks
- Documented information about stocks (announcing risks available in stocks)
- Risk assessment methodology of the stocks of firms (Bahraini, 2009).

Regarding the policies of credit risk management, it can be said that management and particularly management of financial institutions is never an easy task and in recent years, it has been encountered a lot of problems in terms of the existence of risks in economic environments. But, the main part of business of financial institutions such as banks, insurance companies, pension funds and financing companies is granting loans. Further, these institutions, to make more benefits, should be successful in repaying their complete debts by their customers; in other words, their credit risk should be at low lever (Luigi, 2008). The basis of a favorable credit risk management can be summarized in identifying accurately and timely the natural and main risks available in the processes and activities related to granting facilities. The methods of measuring, evaluating and also activities applied for reducing and coping with risks, generally provide clear definitions of the policies of risk management in organizations. In addition, factors by which credit risks are controlled, are identified in this way. In fact, due to the existence of such controls that the limitations due to the adopted policies in accepting risks are investigated and consequently, the

sufficiency of diversification of debts portfolio for reducing mentioned risks are guaranteed (Shamsoddini, 2010).

Different methods of identifying and evaluating the amount of risks for management and reducing it in the credit risk management domain can be divided into three kinds of policies:

1. Policies limiting or reducing credit risks such as the policies of centralization of facilities and granting facilities to organizations and related institutes
2. Policies related to calculation of properties which covers cases such as different and timed evaluations of debts portfolio for evaluating and controlling the capability and collection of debts and also other similar credit services which are imposing credit risks on banks.
3. Policies of reducing losses using precautionary measures and precautionary reserves and also granting sufficient authorities to managers for deleting losses due to participation of customer, not only in the process of granting facilities, but in all bank properties exposed to the risk of loss (Mishkin and Eakins, 2004).

Regarding the conducted research and the needs of today of banking systems, the need to research and investigation of the role of credit insurance in credit risk management have particular importance. Regarding the role and importance of trade credit insurance in credit risk management, the present study is to investigate the role of trade credit insurance in the credit risk management of the branches of Mellat Bank in Isfahan in 2014. In the present study, the degree of influencing trade credit insurances (export credit, domestic credit and a combination of domestic and export credit insurance) is the independent variable and credit risk management is the conceptual (latent) dependent variable. In fact, the main aim of the present study is to investigate the vulnerability of trade credit insurances from the perspective of management science in order to have favorable effects on credit risk management of banks and try to explain its reason and provide scientific strategies.

### 3. Literature review

Mazlumi (1996), in a research investigated the nature of risks and the insurability risks adjustment with credit risk. The results of this comparison indicate that firstly, in all credit exchanges, risk is not conditional at the same degree, secondly, its insurability is different based on the case and type of exchange, thirdly, asymmetric information threatens the insurer based on different cases and degrees. In addition, the findings of the research indicate that the more the element of risk conditionality in the type of trade exchange is, the more its distance from the condition of insuring is and the less accessible the information related to it is, and the more tangible the presence of government, visible or invisible, but exclusive is. The risk due to political upheavals in export credits engenders a complete instance of

these cases. Mutually, in cases which the conditions are readier, and insurers can control and supervise related conditional risks by adoption of known controls in markets, no necessity for direct actions by the government, except in supervision level, was not observed. Seddigh Nuhi (1996), in his research introduced credit insurance and presented the Indian experience.

Dadras Javan and Givehchi (1996), in a research investigated the legal dimensions of export credit insurances. In this research, related exceptions and coverage were discussed. The results indicated that the issue that among exporters, banks, insurers and governments, which one should endure the risks related to the payment of receivables in the issue of international trade will continue to the next century.

Sohrabi (1996), in his study, investigated the nature of credit insurances and their implementation in developing countries. In this research, the difference between Export Guarantee Fund and credit insurances and the ratio of them and the presence of Export Guarantee Fund in developing countries was considered as the most important difference.

Sehat and Zandi (2007), in a research investigated the literature available in relation with discussions of the credit system, credit risk management and most importantly, credit insurance and extracted the probable factors affecting the lack of growth and development of trade credit insurance in Iran. They identified the final factors by collecting the ideas of elites of this field in state insurance companies and using statistical analysis methods whose most important was Sign test.

Binazir (2009) investigated the strategies of developing credit and guarantee insurances in Iran. In this research, they introduced and investigated the primary principles of credit insurances and the reasons of the lack of development of credit insurances were presented. The vagueness of insurers regarding the insurability of credit risks due to their vagueness in the nature of the risk of credit insurances and being worry about the catastrophic effect of the probable losses of credit insurances, and also the ability of banks for influencing the degree of loss due to credit insurance were among the most important at reasons for the lack of tendency of insurers to develop credit insurances.

Sehat and Zand (2010), in their book investigated trade credit insurance and its related risks. In this study, firstly, the trade credit system was considered and then, trade credit risk management and evaluation were investigated. One section of the book was assigned to trade credit insurance in Iran.

Elahi Moghaddam (2009), in his research, introduced the Derivatives of insurances such as SWAPs of catastrophic events, Industry loss Warranties (ILW), and the authority of exchanges of PCS and compared these derivatives with reinsurance. Further, in this research, the experiences of two countries of the USA and England in applying these derivatives were compared. In

addition, the challenges and visions of these tools were presented.

Mahdavi Najabadi (2002), in an article titled as "basic differences of distributing risks in two Islamic and traditional banking systems", investigated four kinds of financial, operational, market, and out-organizational risks in Islamic and traditional banking systems and concluded that risk management in Islamic banking is more difficult than traditional banking due to its particular characteristics. He investigated the corporate risk by the debt receiver via getting bail by banks and also implementing a proxy system by banks.

Saiflu (2009; 2010), in a similar research investigated the securities of insurances. In this research, the insurance securities were investigated and the process of their development and structures were studied. In addition, in this research, regarding the advantages of these securities, it is suggested that the insurance industries or activists of the capital market should release these securities.

Sandra Rajan and Erico (2002), in a research titled as "the status of investment instruments and Islamic financial institutes in the international financial system of the main discussions in risk management and the present challenges" investigated the complicatedness of financial supply via participatory methods and risks due to it in Islamic banking. Further, they pointed out the lack of financial instruments of risk management in Islamic banking and after that, they emphasized the reinforcement of regulatory framework for pricing and controlling risks based on main elements of the favorable banking system, i.e. Capital, Assets, Management, Earnings Liquidity and Sensitivity (CAMELS) and the movement of Islamic banking in line with improving the indices of the favorable banking system.

Khan and Ahmad (2001), in a research titled as "Risk Management - An Analysis of Issues in Islamic Financial Industry" conducted for a Islamic Development Bank, experimentally, evaluated risk management in Islamic financial and bank institutions and. To conduct this research, they sent questionnaires for quantifying operational, liquidity, market and credit risks for partnership, participation, ancestor, Istisna'a, Morabaha and rent contracts, to 68 Islamic banks and financial institutions in 28 countries. Among them, 17 institutions from 10 countries completed questionnaires and returned them to the researchers. By analyzing them, the researchers concluded that credit risk had the least risk among other risks in the Islamic financial and bank system. They considered the reason of this issue to be the point that most of the methods of the Islamic financial supply are due to property and this property can be used as collateral.

Obaidullah (2002), in a research titled as "Islamic risk management: towards a greater ethics and efficiency and morality" defined efficacy and investigated the use of an option contract for reducing and managing risks in the framework of

Islamic laws and proved that the option contract is more efficient than options in a usury system.

#### 4. Research questions

Based on the conducted researches, the present study is to answer the following questions:

1. Does the use of trade credit insurances result in credit risk preparation management of the bank?
2. Does the use of export credit insurances result in credit risk preparation management of the bank?
3. Does the use of domestic credit insurances result in credit risk preparation management of the bank?
4. Does the use of trade and export credit insurances result in credit risk preparation management of the bank?

#### 5. Research variables:

**Dependent variable:** in the present study, "credit risk preparation management" in the conceptual dependent variable (latent).

**Independent variable:** in the present study, independent variables are the components of the degree of the influence of trade credit insurances (export credit, domestic credit, and a combination of domestic and export credit).

**Trade credit insurance:** Trade credit insurance is a contract between an insurance company and an economic firm by which the economic firm (as insurer) is assured that all credit unusual damages created by inability or the force of trade debtors in the commercial domains of export, domestic trade, a combination of domestic and export credit insurance) are covered by the insurance (Sehhat and Zandi, 2007).

**Export credit insurance:** is a contract among an insurance company and an economic firm under which the economic firm (as insurer) is assured that all credit unusual damages created by inability or the force of trade debtors regarding export trade are covered by the insurance (Eslami, Faraji and Taheri, 2011).

**Domestic credit insurance:** is a contract among an insurance company and an economic firm under which the economic firm (as insurer) is assured that all credit unusual damages created by inability or the force of trade debtors regarding domestic trade are covered by the insurance (Eslami, Faraji and Taheri, 2011).

**A combination of domestic and export credit insurance:** is a contract among an insurance company and an economic firm under which the economic firm (as insurer) is assured that all credit unusual damages created by inability or the force of trade debtors regarding domestic and export trade are covered by the insurance (Eslami, Faraji and Taheri, 2011).



Fig. 1: research model (adapted from the theory of Marshal L.P.)

## 6. Research methodology

The method used in the present study is a causal-descriptive one using a survey study to collect data. The population of the study consisted of all credit staff, managers and deputies of the branches of Mellat Bank in Isfahan. The number of the branches of Mellat Bank in Isfahan consisted of 80 individuals and the number of the members of the population consisted of 240 individuals. The sample size was calculated as 148 participants. In the present study, a researcher-made questionnaire was used for collecting data. The main questions of the questionnaires were designed based on five-point Likert scale in numerical codes from 1 to 5 for alternatives strongly agree, agree, no idea, disagree, strongly disagree. The content validity of the questionnaire was confirmed by the supervising professor and to evaluate the reliability of the measuring instrument of Cronbach's alpha was used and based on a primary research and pre-test, the reliability of the instrument was confirmed. In the present study, to evaluate the data, descriptive statistics such as frequency percentage, mean and SD were used for describing phenomena and variables of the research. In addition, to answer the research questions, t-test, as a technique of inferential statistics, was used. To evaluate the differences in respondents' attitudes towards the indices of the research, regarding the demographic variables such as gender, education, age and years of service, two

sample t-test and variance analysis were used. And to rank the dimensions of trade credit insurances, Friedman test was employed. To analyze the data, SPSS 19 was used.

## 7. Research findings

In the present study, a 127 participant sample including 87.4% males, and 12.6% females was used. In terms of age, most of the participants (52.00%) were from 31 to 40 years old and the least number of them (4.7%) were more than 50 years old. The most number of the participants (50.4%) held BA and the least number of them (11%) held MA. The most number of them (48%) had a record from 11 to 20 years of service and the least number of them (12.6%) had less than 5 years of service. In descriptive analysis of the variables of the research, the results indicate that the highest mean with a value of 3.27 is related to the variable of a combination of domestic and export credit and the lowest mean with the value of 3.2 is related to export credit insurances. The mean index of the research was more than the mean of Likert scale, i.e. 3; therefore, the respondents evaluated the role of trade credit insurances in credit risk preparation management higher than the moderate level. The values of the SD are a small numbers which indicate that the data enjoy proper accuracy. In investigating the normality of the data, regarding the variables of the research, significance levels of Kolmogorov-Smirnov test were more than 5% for the research variables; therefore, the data were normal and parametric tests could be used for answering the research questions.

1. Does the use of trade credit insurances result in credit risk preparation management of the bank?

In other words, is the mean of the respondents' attitudes towards the role of trade credit insurances in credit risk preparation management more than the mean of Likert scale, i.e. 3?

Table 1: t-test in investigating the first research question

Parameter	Mean	t-statistics	df	Significance level (p)
the role of trade credit insurances in credit risk preparation management	3.26	5.03	126	0.0001

In Table 1, the significance level of t-test is less than error level (0.05) or even (0.01); therefore, it can be stated that the mean is greater than the average 3 and trade credit insurances have roles in credit risk preparation management of the bank in higher than the moderate level.

2. Does the use of export credit insurances result in credit risk preparation management of the bank?

In other words, is the mean of the respondents' attitudes towards the role of export credit

insurances in credit risk preparation management more than the mean of Likert scale, i.e. 3?

In Table 2, the significance level of t-test is less than error level (0.05) or even (0.01); therefore, it can be stated that the mean is greater than the average 3 and export credit insurances have roles in credit risk preparation management of the bank in higher than the moderate level.

**Table 2:** t-test in investigating the second research question

Parameter	Mean	t-statistics	df	Significance level (p)
the role of export credit insurances in credit risk preparation management	3.22	4.09	126	0.0001

3. Does the use of domestic credit insurances result in credit risk preparation management of the bank?

In other words, is the mean of the respondents' attitudes towards the role of domestic credit insurances in credit risk preparation management more than the mean of Likert scale, i.e. 3?

In Table 3, the significance level of t-test is less than error level (0.05) or even (0.01); therefore, it can be stated that the mean is greater than the average 3 and domestic credit insurances have roles in credit risk preparation management of the bank in higher than the moderate level.

**Table 3:** t-test in investigating the third research question

Parameter	Mean	t-statistics	df	Significance level (p)
the role of domestic credit insurances in credit risk preparation management	3.26	4.76	126	0.0001

4. Does the use of trade and export credit insurances result in credit risk preparation management of the bank?

In other words, is the mean of the respondents' attitudes towards the role of export and domestic credit insurances in credit risk preparation management more than the mean of Likert scale, i.e. 3?

In Table 4, the significance level of t-test is less than error level (0.05) or even (0.01); therefore, it can be stated that the mean is greater than the average 3 and a combination of export and domestic credit insurances have roles in credit risk preparation management of the bank in higher than the moderate level.

**Table 4:** t-test in investigating the fourth research question

Parameter	Mean	t-statistics	df	Significance level (p)
the role of export and domestic credit insurances in credit risk preparation management	3.27	4.79	126	0.0001

In testing the effect of respondents' demographic variables on trade credit insurances, it can be said that in the effect of respondents' gender, the significance level of t-value in the test of comparing the means of research indices is not less than 5%; therefore, it can state that gender is not effective on respondents' attitudes towards research indices. Regarding respondents' education, the significance level of t-value in comparing the mean of research indices is less than 5%; therefore, it can be stated that respondents' education is effective on the attitude toward research indices and the results of Duncan post hoc and grouping tests indicated that respondents holding BA had the most and those holding associate diploma and MA had the least attitudes toward research indices. Regarding respondents' years of service, the significance level of t-value in comparing the mean of research indices is not less than 5%; therefore, it can be stated that respondents' years of service is not effective on the attitude toward research indices. Regarding respondents' age, the significance level of t-value in comparing the mean of research indices is not less than 5%; therefore, it can be stated that respondents' age is not effective on the attitude toward research indices. Regarding the ranking of the research indices using Friedman test, the significance level of the test is less than 5%; therefore, it can be concluded that the effect of research indices on

credit risk preparation management of the bank is not equal and there is a significant difference between the effects of indices. The mean of ranks for research indices indicates that the indices of domestic and export insurances has the highest mean rank; therefore, it has the most effect on credit risk preparation management of the bank. After that, domestic credit insurances and export credit insurances are in the next ranks.

**8. Conclusion**

The present article investigated the role of trade credit insurances in credit risk management in the branches of Mellat Bank in Isfahan. Comparing the results of the present study with those of the researches done by Mazlumi (1996), Sehat and Zand (2007), Dadras Javan and Givvehchin (1996), Sohrabi (1996), and Galdeh (1996), it can be said that the nature of insurable risks are compatible with credit risks and credit risk management and more importantly, credit insurance are possible factors affecting the development of trade credit insurances in Iran. Regarding export credit insurances, among the exporters, banks, insurers or the government, each should cover its share and the nature of credit insurances and the mode of their implementation in developing countries, the difference between Export Guarantee Fund and

credit insurances and the ratio of them should be explained. Facilities default received by the credit customers of banks originates from two groups of factors: the first group of factors includes all factors which result in the customers' inability of repaying debts which are unintentional (bankruptcy, death ...). The second set covers all factors which cause that customers of banks do not tend to repay their debts, timely which are intentional (the reasons such as the lowness of delay penalty rate, the adoption of policies of the impunity of crimes, delays in granted facilities, the existence of strict rules regarding the acquisition of collateral by banks, facilities receivers' disability due to death and disability and etc.). In this regard, if an applicant of credit insurance is credit receiver, due to the lack of consistency with insurance principles (the voluntary nature of their occurrence) are not insurable. As a result, they are insurable due the customers' unwillingness in repaying facilities (debts) timely, it is considered as a risk for the bank, on the condition that banks have strong authentication systems and do their commitments to insurers appropriately. In the present conditions which the necessary grounds for reducing the voluntary default rate of customers have not been provided, insurers, in spite of receiving premiums, after a while, they do not conduct their commitments by the increase in the amount of overdue debts of banks. This is while that the problem of the bank remains untouched. Regarding the advantages and necessity of using credit insurances in Iran, the emphasis doubtful receivables collection regulations of credit institutes approved by the Council of Ministers and regarding that now, one of the conditions of joining international organizations is the index of credit insurance development in countries, the adoption of strategies of expanding and developing the use of credit insurance and consequently increasingly economic growth of each country is necessary. In addition to moving in line with reducing the causes and grounds of customers' involuntary default including political and economic problems, bankruptcy, unemployment and etc. credit insurance services can help.

### 8.1. Suggestions

Regarding the theoretical and experimental results of the present study, the following suggestions are presented:

1. Trade, export, domestic and a combination of domestic and export credit insurances should be used in a principled way and with the observation of principles and regulations and the performance of countries such as Malaysia should be used.
2. The feasibility of establishing specialized investment funds for insurance companies should be investigated.
3. Appropriate and optimum investment portfolio of insurance companies and factors

affecting the investments of insurance companies should be identified.

4. The weaknesses of capital market in organizing funds of insurances and financial needs of capital market, companies with low credit and investors should be identified.

### References

- Aon Benfield Securities. (2009). "insurance-linked securities: Adapting to an Evolving Market 2009".
- Aon Benfield Securities. (2010). "insurance-linked securities: Market Momentum 2010".
- Binazir, S. A. (2009). Investigating the strategies of improving credit and guarantee insurance in Iran. (In press). Insurance Research Institute.
- Central Bank of the Islamic Republic of Iran (1984). Interest-free banking law. Tehran: Central Bank of the Islamic Republic of Iran.
- Eftekhari, M. (2006). Economic analysis of investment life insurance mathematical reserves in financial operations and development projects in Iran. *Journal of Insurance Industry*. No. 81. Pp. 115-136.
- Eslami, A. Faraji, R. and Tahri, B. (2011). Credit insurance, new financial instruments to reduce outstanding bank debt with the approach to development financial institutions of Iran. Research Institute for Monetary and Banking. Twenty-first Meeting of the monetary and foreign sites, May 2011. Pp. 1-6.
- Galdeh, A. (1996). Export credit insurance and investment *Journal of Insurance Industry*. No. 42. 95-101.
- Khan, T and Ahmed, H. 2001, Risk Management: An Analysis of issues in Islamic Financial Industry. Jeddah: Islamic Research and Training Institute (IRTI).
- Laster, David (2001), "capital market innovation in insurance industry", *Swiss Re, Sigma*, no. 3, pp. 14-16.
- Mellat Insurance (2005). An introduction to concepts of credit insurance.
- Omidinejad, M. (2007-2008). Performance report of the banking system. Higher Institute of Iranian Banking
- Paikarjou, K. (2001). Evaluating the efficiency of the volume of investment returns public insurance companies and the effect of privatization on the capital market. *Journal of Insurance Industry*. No. 64. Pp. 31-60.
- Saiflu, S. (2010). Securities Insurance tool to enhance the insurer in the insurance industry in Iran. Seventeenth National Congress of the Third International Conference on Insurance and Development, Tehran.

Sandra Rajan, V. and Erico, L. (2002). The status of investment tools and Islamic financial institutions in the international system, the major issues and challenges in risk management. Proceedings of the Thirteenth Conference on Islamic Banking, Tehran: Iran's Higher Institute of Banking.

Sehat, S. and Zandi, P. (2007). Identifying and ranking the factors affecting the growth and development of domestic trade credit insurance in the insurance market (case study: public insurances companies). *Journal of Insurance Industry*. No. 87. 67-93.

Sehat, S. and Zandi, P. (2010). *Commercial Credit Risk Management and Insurance*. Tehran: Faculty of Economic Sciences Publications.

Seiflou, Sajjad (2009), "Insurance-linked securities", first international conferences on insurance industry: challenges and opportunities, Tehran, The School of Economic Sciences (SES).

Swiss Reinsurance Company Economic Research & Consulting 2006, "credit insurance and Surety: solidifying Commitments", *Sigma*, no. 6.

Tarshizi Farouji, H. (2005). Credit insurance and economic development. *Message of Iran Insurance*. Iran Insurance Publications. No. 7. Pp. 45-61.

[www.thebanker.com/](http://www.thebanker.com/)" [www.THEBANKER.Com](http://www.THEBANKER.Com).

[www.Tadbir.com/125](http://www.Tadbir.com/125).