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# Survey of Financial Literacy of Bank Customers on the Use of Electronic Banking and Reducing of Traffic Accidents

**Mohsen Ghane[1, 2], Nasim Shahmoradi[1*], Mahmoud Moein[1]**

1. Department of Accounting, School of Management, Accounting, and Economy, Islamic Azad University, Yazd Branch, Yazd, Iran
2. Bank Assistant Manager, Danesh Junction Branch, Refah Bank, Yazd, Iran

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**Corresponding Author:**
Nasim Shahmoradi
n.shahmoradi@iauyazd.ac.ir

**ABSTRACT**

**Introduction**: One of the factors affecting the health of the society is economic factors, and financial literacy and familiarity in the field of electronic banking can affect the economics of individuals. The purpose of this study was to investigate the effect of financial literacy of bank customers on the use of electronic banking and the reduction of traffic accidents.

**Methods**: This descriptive study was conducted in a researcher-made questionnaire using Cronbach's alpha = 0.87. The research community was Yazd banks' customers in 2017. The research sample was determined and 380 people were randomly selected. Data analysis was performed using structural equation modeling (SEM) with partial least squares (PLS) approach.

**Results**: Data analysis showed that 73% of the samples were male and 38% of them were between the ages of 30-39 and 41% had a bachelor's degree. The value of the path coefficient (beta) of the customers' financial literacy to the use of electronic banking is equal to (0.493).

**Conclusion**: The results indicated a positive and significant impact of financial literacy and its domains on the use of electronic banking, which can indirectly reduce traffic and road accidents.

**Keywords:** Financial Literacy, Electronic Banking, Traffic Accidents

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## Introduction

Financial literacy includes the set of skills and perceptions needed to deal with everyday financial problems in the general economy, and the proper use of skills enhances people's access to long-term financial welfare (1). Policy makers in developed and developing countries increasingly recognize the importance of financial literacy and subsequently allocate their resources in the area of financial education and promotion. Financial literacy can include concepts such as financial awareness, knowledge and science about financial products and financial institutions, or concepts such as financial skills, the ability to calculate combined interest payments and, generally, the financial ability to manage money and financial planning however in practice these concepts overlap and are common (2). A person with more knowledge and skills in the field of literacy will suffer a lesser degree of crisis. Governmental programs in Australia, Canada, Japan, the United States, and England focus on educating and motivating people and increasing interest in personal finances (1). During crises, financial literacy is better able to prepare individuals for macroeconomic imbalances (3). Research has shown that financial literacy enhances people's power and socio-economic status, and literacy financial; knowledge and awareness of individuals are effective in using electronic banking services.

Factors such as changes in the political, economic, social and technological environment, the emergence of the Internet, changing customers' needs and raising their awareness and increasing competition are factors that have led to changes in the financial services sector, including banking. Given these developments, banks have found that more effort and initiative is needed to protect their customers (4). Electronic banking is a banking service that was first used in the United States in 1995, and then quickly expanded among developed countries. Electronic banking refers to the provision of banking services through the Internet by personal computers or other equipment with Internet access (5). Customers and visitors of the bank and banking systems must have the necessary financial and banking literacy of electronic banking facilities to communicate with the bank with greater ease and confidence (6). Internet banking allows customers to conduct a variety of electronic banking transactions through the bank's website at any time and place at a faster rate and lower cost than the traditional one, and includes all the electronic channels that customers use them to access to the account and transfer funds between accounts or pay their bills. These channels include: Internet, Mobile, Phone, Digital TV, and ATMs (7).

Electronic banking, as one of the most important elements in competitive advantage, should once again be evaluated and reviewed from marketing and financial literacy. Objectives, strategies, policies, procedures and techniques are created, and the unprecedented opportunities of electronic banking to accompany changes in global banking are used(8).

Financial literacy is one of the factors affecting economic development and welfare of the community (2). Health is independent of macroeconomic variables, and many pieces of evidence suggest that economic problems increase the risk of mental illness (9). Researchers believe that promoting health is, in fact, the basis for social action for the development of health (10). Social health and social capital are among the most important categories of sustainable development. Health is central to socioeconomic development and the most basic component of society's welfare (10). More health is considered as a means to achieve a goal and source that allows individuals to live individually, socially, and economically. Health is not just about living; it is a source of everyday life (11). Incidents, on the one hand, cause physical and psychological damage and, on the other hand, cause loss of capital and economic losses (12). Iran is one of the first countries in the field of accidents, and more than 17,000 people are killed in the accidents each year (13). According to the statistics, the share of urban accidents has



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increased in recent years. The largest share was in business and service points. Therefore, by electronizing urban services, the accidents can be reduced (14).

Banks' customers are the best example of people who are in the monetary and financial circle, and their financial literacy affects their economies and society. On the other hand, their need in the field of financial turnover and the need to go to banks is inevitable. Therefore, the purpose of this study was to investigate the effect of financial literacy of bank customers on the use of electronic banking and the reduction of traffic accidents.

## Methods

The present research is descriptive and the results can be applied in practice. A researcher-made questionnaire was used to collect data. The research community consisted of all clients referring to the banks of Yazd city. The sample size was selected by random sampling of 380 people. Data analysis was performed using structural equation modeling (SEM) with partial least squares (PLS) approach.

The research tool in this research was a researcher-made questionnaire of financial literacy consisting of 15 questions. It consists of three sections: business literacy and savings (including five questions), insurance and retirement literacy (including five questions), and literacy of cost and borrowing (including five questions). In connection with the use of electronic banking, electronic banking components were originally drawn from the source and with the help of professors, seven questions were designed, and then their validity and reliability were tested. The people's opinion about health and traffic accidents was also asked. For the test, structural equation method was used, and the criteria of goodness of fit of the model including load factors index, external model reliability, combined reliability, the validity of the external model were investigated solely for the presentation of the shortcomings of the final results of the model. The values of the Cronbach's alpha coefficient for each dimension of the research questionnaire are shown in Table 1.

**Table 1.** Cronbach alpha coefficients

| Structure | Variable Symbol | Cronbach's alpha |
|---|---|---|
| Business Literacy and Savings | A | 0.88 |
| Cost and Borrowing | B | 0.84 |
| Insurance and Retirement literacy | C | 0.83 |
| Financial Knowledge | D | 0.90 |
| Using Electronic Banking | E | 0.90 |

According to the above table, the Cronbach's alpha coefficient for the five structures is above 0.7, which indicates the model's reliability.

A survey of the overall research model has been done through the GOF criterion and with using the average total values of all variables in the first-order hidden research, including four dimensions, business literacy, and savings, cost and borrowing, insurance and retirement education, and the use of electronic banking. The value of the index (GOF) was 0.605, with respect to the three values 0.01, 0.25 and 0.36, which are presented as weak, moderate and strong values for the GOF index, so with the value of .605 for GOF in this study, the fit to the conceptual model of the research was confirmed.

## Results

Descriptive statistics are shown in Table 2. Frequency and percentage of frequency, variables of gender, age and education are presented. 73% of the population were male and only 26% of the population were female. 38% of them were aged between 30-39 years old, and 41% were graduated.



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**Table 2.** Descriptive statistics of variables

| Variable | Sub Variable | Frequency | Frequency Percentage |
|---|---|---|---|
| Gender | Male | 278 | 0.73 |
| | Female | 102 | 0.27 |
| Age | 18-29 years old | 71 | 0.18 |
| | 30-39 years old | 145 | 0.38 |
| | 40-49 years old | 121 | 0.32 |
| | Up to 50 | 43 | 0.12 |
| Education | Diploma | 32 | 0.08 |
| | Upper Diploma | 76 | 0.2 |
| | Bachelor | 159 | 0.42 |
| | MA | 90 | 0.24 |
| | Doctoral | 23 | 0.06 |

Regarding the main hypothesis that the financial literacy of bank customers affects their use of electronic banking, and taking into account three areas of business literacy, cost and borrowing literacy, insurance and retirement literacy for financial literacy, the analysis of data is as follows.

**Table 3.** T-test results and path coefficient of the main hypothesis

| Hypothesis | (T-Value) | Path Coefficient (beta) | Status |
|---|---|---|---|
| The financial literacy of bank customers affects the use of electronic banking. | 5.826 | 0.493 | Accepted |
| The first sub- hypothesis: Business literacy and savings of bank customers affect their use of electronic banking. | 2.291 | 0.297 | Accepted |
| The second sub-Hypothesis: The cost and borrowing literacy of bank customers affects their use of electronic banking. | 2.219 | 0.287 | Accepted |
| The third sub-hypothesis: The insurance and retirement literacy of bank customers affects their use of electronic banking. | 8.249 | 0.698 | Accepted |

According to the data in the above table, the value (T-value) is 5.826, which is greater than 1.96. Therefore, the main hypothesis of the research is accepted and the financial literacy of the customers of the bank always affects the use of electronic banking. In addition, according to the beta rate (0.493), the bank's financial literacy positively affects the use of electronic banking.

In the first sub-hypothesis it was claimed that business literacy and savings of bank customers affect their use of electronic banking. Structural equation modeling has been used to investigate and validate this hypothesis. The value of the statistic (T-value) and path coefficient (beta) for examining and proving the first hypothesis of the study is presented in Table 3. According to the data in the mentioned table, the value (T-value) is 2.291, which is greater than 1.96. Therefore, the first hypothesis of the research has been accepted, and the business literacy and savings of bank customers will affect their use of electronic banking. Regarding the path coefficient to beta (0.297), it can be said that business literacy and customer savings positively affect their use of electronic banking.

In the second sub-hypothesis, it was claimed that the spending literacy and borrowing of customers of the bank affected their use of electronic banking. Structural equation modeling has been used to investigate and validate this hypothesis. The value of the statistic (T-value) and path coefficient (beta) for examining and proving the second hypothesis of the study is presented in Table 3. According to the data in the mentioned table, the value (T-value) is 2.219, which is greater than 96/1. Therefore, the





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second hypothesis of the research has been accepted, and the bank's customers' cost and borrowing literacy always affect their use of electronic banking. In other words, in terms of the path coefficient (beta), which is equal to 28.07, the literacy of customers' cost and borrowing positively affects their use of electronic banking.

In the third sub-hypothesis, it was claimed that the insurance and retirement literacy of bank customers affects their use of electronic banking. Structural equation modeling has been used to investigate and validate this hypothesis. The value of the T-value and path coefficient (beta) for examining the third hypothesis of the study is presented in Table 3. According to the data in the mentioned table, the value (T-value) is 8.249, which is greater than 1.96. Therefore, the third sub-hypothesis of the research is accepted and the insurance and retirement literacy of the customers of the bank always affect their use of electronic banking. In other words, in terms of the path coefficient (beta) which is equal to 0.698, insurance literacy and retirement benefits of bank customers positively affect their use of electronic banking.

Figure 1 shows the value of the statistic (t) and the figure 2 shows the path coefficient (beta) about the fact that the financial literacy of customers affects their use of electronic banking.

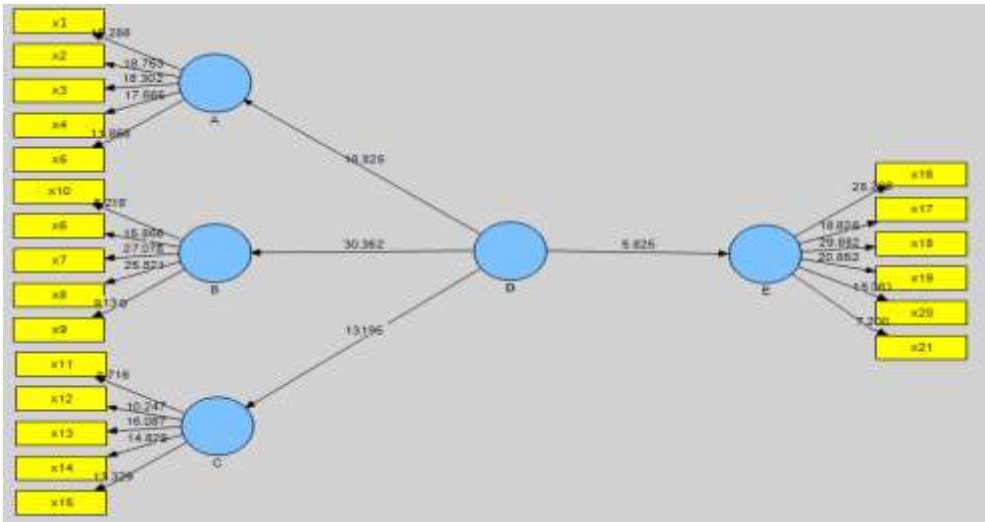


**Figure 1.** The value of the statistic (t) of the main hypothesis model

* A= (Business Literacy and Savings) B=( cost and borrowing) C=(Insurance and Retirement literacy) D=(Financial knowledge) E=(Using Electronic Banking)

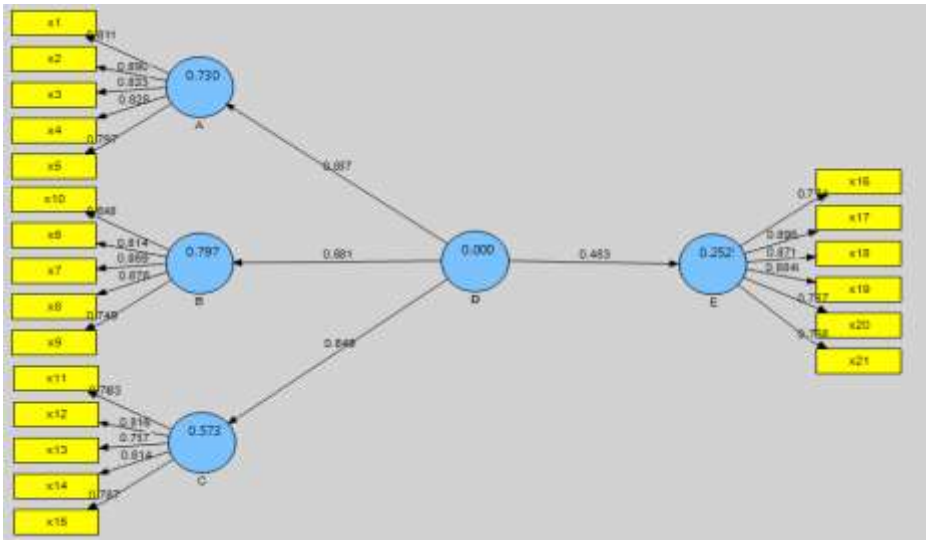


**Figure 2.** The value of the beta coefficient of the main hypothesis model





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* A= (Business Literacy and Savings) B=( cost and borrowing) C=(Insurance and Retirement literacy) D=(Financial knowledge) E=(Using Electronic Banking)

## Discussion

Electronic banking is the provision of banking services through a public computer network, resulting in precision, speed, cost cutting and reduction of redundant administrative operations. The importance and rapid expansion of electronic banking and the exchange of banking between countries have led to the creation of worldwide financial inter-bank transactions. In examining the effect of the impact of the financial literacy of bank customers on the use of electronic banking, the results indicated that the issue of financial literacy and the necessity of learning about its implications are compounded by the complexity and development of financial markets and the increase in variety of services provided by credit institutions. These results are in line with Taghavi and Nejati research, and Copler and Jove (4, 15-17).

Iran has not been excluded from this category, as in recent years, the emergence of such issues as the development of electronic banking, and the development of markets and financial institutions has led to a dramatic increase in the participation of capital market participants. Under the new conditions, financial welfare and lifelong comfort cannot be achieved without mastering the concepts of financial literacy. Financial literacy is a combination of the knowledge, awareness, skills, attitudes, and behaviors necessary for financial decision-making that ultimately leads to use of electronic banking, which provides the customer with facilities that can access banking services without the need for physical presence in the bank and using secure intermediaries (18).

The effect of business literacy and savings of bank customers on their use of electronic banking was tested. The results of the hypothesis test showed the positive impact of business literacy and bank customers' savings on their use of electronic banking. The results indicated a positive impact of business literacy and savings of bank customers on their use of electronic banking, so it is suggested to banks and branch managers to inform their customers about different investment situations, and also the profit of investments. Given the changes and progress of the banking system, the issuance of credit cards by some banks and financial institutions, which facilitates the purchase and, in some cases, excessive spending of money by people without financial knowledge, and many similar cases, increase the increasing importance of understanding of financial concepts by all segments of society (19).

In examining the effect of cost literacy and borrowing by customers on their use of electronic banking, the results indicated a positive impact of cost literacy and borrowing by customers on their use of electronic banking. The results indicating a positive impact of insurance and retirement education on their use of electronic banking is recommended to banks and branch managers to increase the efficiency and speed of banking activities of programs related to insurance and retirement for their customers (20). The results suggested that the rapid growth of private institutions and financial institutions and their enduring endeavor to increase market share led to the offering of seductive loans with heavy compensatory balances to individuals, and this causes the bearing of high rates of bank profits by borrowers and ultimately causes a reduction in their financial welfare. Therefore financial literacy can help customers make the right decisions (21).

On the effect of insurance and retirement literacy of customers on their use of electronic banking, the results indicated the positive impact of insurance and retirement literacy of customers on their use of electronic banking. The results indicated a positive impact of spending and borrowing literacy on customers' use of electronic banking. Therefore, it is necessary for banks to provide sufficient information in terms of the loans, payment terms, calculating the cost of interest on loans to customers, and also a contract of the loan will be made by the customer after the complete consideration of the contract, and a copy of the contract will be given to customers (22).

In this study, the findings showed that the higher the financial literacy of individuals, the better their





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status in their economic and social factors. And, when the individuals are economically in a better condition, they feel healthier as it is shown in the studies by Mehregan and Firooz Bakhte and Fiji (9,23, 24). Electronic banking has reduced the need for people to visit banks, and as result they get rid of traffic problems, and the lack of need for face-to-face visits and the speed of action in many financial operations reduce stress and the road accidents that they have already been involved. These results are consistent with the results of Divandari's study on the expectations of electronic banking (25).

## Conclusion

Considering the role that the establishment and increase of electronic banking can develop the financial literacy of individuals and consequently financial literacy increases the knowledge and awareness of people about their economic and social factors this has a great effect on the health of individuals (11), and there is objective evidence that electronic banking is used to reduce urban traffic and accidents. It is necessary to take into account the plans of the health outlook on the 1404 horizon for increasing the health of the community and reducing the risk factors for health, such as road accidents and traffic. Therefore, a program has been accepted by the authorities in order to increase the awareness of the people about the electronic banking.

Considering the results of financial literacy and sub-financial literacy among electronic banking users, it is better to use literacy strategies at the level of Yazd province on the agenda and design and implement educational programs to promote financial literacy. It is also suggested that the educational organizations help organizations and institutions develop and implement educational programs by developing fundamentals of financial literacy training programs. Also, given the importance of innovation and evolution of banking systems for the development of electronic banking, it is suggested that incentive systems and ranking of managers be designed in such a way that managers focus on the transformation and development of day technology in the electronic banking system.

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## Conflict of Interest

This research has no conflicts of interest.

## References

1. Moradi J, Izadi M. An investigation into the effects of investors' financial literacy on securities investment decisions. Journal of Managament System. 2015; 4(13): 127-150.
2. Dianati Dilami Z, Hanifezadeh M. Financial literacy level of tehran households and its determinant factors. Financial Knowledge of Securities Analysis. 2015; 8(26): 115-139.
3. Klapper P. Student perceptions of financial literacy: relevance to practice. Journal of Social Service Research. 2014; 36(5): 470-481.
4. Taghavifard MT, Zahedi Adib M, Torabi M. Effective factors on the use of internet banking services by customers (Case: Mellat Bank). Journal of Information Processing and Management. 2012; 27(3): 539-559.
5. Ahmad MS, Rashid S, Masood MT, et al. E-banking: a case study of askari commercial bank Pakistan. Management & Marketing Journal. 2011; 9(2).
6. Alsajjan B, Dennis C. Internet banking acceptance model: cross-market examination. Journal of Business Research. 2010; 63(9-10): 957-963.
7. Rastgar A, Aghamohamadi Z. The investigation of effective factors in acceptance of electronic banking (Mellat Bank Case Study). Journal of Business Management. 2012; 3 (10): 93-114
8. DilMuqani S, GhulamHossein Zadeh k, Asiabi M. The effect of electronic banking deployment on customer satisfaction in agricultural bank branches in West Azarbaijan Province. New Research in Humanities. 2016; 3(9): 296-322.





[ DOI: 10.18502/jchr.v8i1.561 ]

9. Mehregan N, Ghasemifar S, Sohrabivafa H, et al. The impact of economic and social conditions on mental health in Yazd Province (2009-2012). Quarterly of Parliament and Strategy. 2016; 23(85): 85-106.
10. Tabrizi A, Navabakhsh M. Investigating the social health of Tehran citizens and its effective factors. Journal of Iranian Social Development Studies. 2016; 8(4):111-128.
11. Parsay S, Kolahi AA. Community based health assessment syllabus. Tehran: Shahid Beheshti University; 2007.
12. Araqi E, Vahedian M. Study on susceptible and damages from motorcycle accidents in Mashhad in 2005. Quarterly of Horizon of Medical Sciences. 2007; 13(1): 34-39.
13. Rangraz Jeddi F, Farzandipour M. Epidemiology of trauma in patients hospitalized in Naghavi Hospital, Kashan, 2000. Feyz Journal of Kashan University of Medical Sciences. 2002; 6(2): 88-93.
14. Ziari K, Karimi Ghotbabadi F, Ghasemi F. The pattern of spatial traffic accidents in the city of Shiraz. Journal of Spatial Planning. 2013; 3(4): 117-132.
15. Nejati F, Ahmadi M, Lali M, et al. Effect of financial literacy on retirement planning and family wealth. International conference on economics, accounting, management and social sciences; Poland; 2014.
16. Kindle PA. Student perceptions of financial literacy: relevance to practice. Journal of Social Service Research. 2010; 36(5): 470-481.
17. Yeow B J, Loo H. Financial illiteracy: an american study on the effectiveness of web-based financial literacy technology training on african high school students in Pittsburgh. Pensylvanian: Robert Morris University; 2015.
18. Abbaszadeh MR, Koohi H, Dastjerdi H, et al. Evaluation of electronic banking in Iranian banks by using data envelopment analysis model and principal component analysis. 11th National Accounting Conference of Iran; Tehran; 2013.
19. Imami L, Mahdavi K. The factors affecting the growth of electronic banking (case study: National Bank branches in Ilam). Ilam Culture. 2017;17(52.53): 82-97.
20. Godarzi A, Zobaidi H. The effects of e-banking on commercial banks profitability: the case of Iran. Economic Research. 2008; 11(35): 111-140.
21. Babaei A, Nejad FR, AbolFattahi E. The relationship between financial literacy of school administrators and demographic characteristics (case study: schools administrators of Abdanan City). Economic Studies, Financial Management and Accounting. 2016; 2(2): 45-58.
22. Sadeghi T. Indicators of electronic banking in Iran (with a glance on the experiences of other countries. Journal of Monetary and Banking Research. 2011; 3(8): 243-277.
23. Firouzbakht M, Tirgar A. Workplace social capital and employee health: a systematic review study. Journal of Ergonomics. 2017; 5(1): 18-25.
24. Fujino Y, Kubo T, Kunimoto M, et al. A cross-sectional study of workplace social capital and blood pressure: a multilevel analysis at Japanese manufacturing compa-nies. BMJ Open. 2013; 3(2).
25. Divandari A. Outlook for e-banking. Journal of International Market. 2010; 2(9): 50-53.



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