# Perceptions of Academicians Towards the Reasons of Using Internet Banking: Case of Northern Cyprus

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**Abstract**

*The main aim of this study is to research the reasons of why academicians working in a university of Northern Cyprus use internet banking. According to research findings the most important elements on internet banking usage are "Using at all hours of the day, 7/24 access", "Saving of time", "Speed of transactions", "Not waiting in front of the bank or ATM", "Ease of use compared to branch banks", "The ease of seeing all data about transactions", and "Being satisfied with internet banking transaction system". When elements in the scale are categorised into smaller groups called factors only one factor named as convenience is reported to have explanatory power on internet banking usage.*

**Key words**   Internet banking, perceptions of academicians, satisfaction, Northern Cyprus

## 1. Introduction and literature review

As a result of technological progress, almost all of the banking transactions have been made possible without going to the bank branch. The obvious sign of this is internet banking. Therefore, it is also necessary for commercial banks to have superiority in internet banking in order to get competitive advantage and increase market share. In this framework, it is necessary to determine the reasons of internet banking usage in accordance with the concept of marketing. Literature surveys have reported the following main reasons for using internet banking.

• According to Pala and Kartal (2010) customers' preferences towards internet banking were grouped under seven dimensions: Ease of access and use; ease of learning; variety of transactions; deficiencies in banks' web sites; security; payment and financial transactions; and compatibility with life-style.

• According to Çınar *et. al.,* (2012) the factors affecting the use of internet banking are trust (security), easiness of using the system, individual behaviours and beliefs, quality of service, saving of time, 24 hour service, cheaper cost and the ability to use information technologies. Research also underlines the advantages of internet banking provided to respondents such as saving time, making transactions easily and quickly, instant accessibility and receiving the document of processing readily.

• According to İşler (2015) the most influential factors of using internet services are efficient operation, information security, problem resolution, transaction costs and time saving respectively.

• Ustasüleyman and Eyüboğlu (2010) using Structural Equation Modelling (SEM) determined that perceived ease of use upon perceived usefulness, perceived usefulness upon trust and in addition trust perceived usefulness, perceived ease of use and perceived web security separately upon intention to use have an positive and meaningful effect on individuals' acceptance of internet banking.

• Study of Bayraktaroğlu (2012) revealed that especially security and privacy, then factors such as trust, being innovative, ease of use, awareness, quality of internet connection, the effect of social environment and ability to use computer had impact on the use of internet banking.

• The study of bin Omar *et. al.,* (2011) reveals that mostly customers prefer internet banking (IB) services over branch banking due to reliability, convenience, speed, safety and security, cost effectiveness, user-friendly, and error free system.

• According to Gülmez and Kitapçı (2006) the most important factors in using internet banking are appearance and speed, service quality, solution of the problems and security.

- As a result of the regression analysis, Şiker (2011) reported that perceived usefulness, perceived ease of use, and web site characteristics are main effective factors on adopting internet banking.
- The study of Eriksson *et. al.,* (2005) concludes that the perceived usefulness of internet banking is, for banks, a key construct for promoting customer use of internet banking.
- Research findings of Liao and Cheung (2002) put forward that expectations of accuracy, security, network speed, user-friendliness, user involvement and convenience were the most important quality attributes underlying perceived usefulness of internet banking
- According to Alwan, and Al-Zubi (2016) perceived privacy and security, perceived ease of use, service quality, customer trust, and customer feedback as the independent variables have significant impacts on Internet banking adoption whilst the best predictor of the adoption is accounted for the website quality followed by customer trust.
- The findings of another research (Boateng *et. al.*, 2016) show that websites' social feature, trust, compatibility with lifestyle and online customer services have a significant effect on customers' intentions to adopt Internet banking.
- The results of the study authored by Oruç and Tatar (2017) show that "benefits of internet banking", "communication" and "convenience" significantly influence customers' internet banking use.

After considering the points about internet banking usage, the reasons of why academicians working in a university use internet banking in Northern Cyprus were investigated in this study.

## 2. Methodology of research

As cited above this research is conducted to determine main reasons that academicians use internet banking services. Population of the study consists of all Turkish and Turkish Cypriot academic personnel of European University of Lefke (EUL) in Northern Cyprus. Research is applied to whole population.

The scale used in this study was created on the basis of theoretical model in Figure 1.

| DEMOGRAPHIC CHARACTERISTICS | REASONS OF USING INTERNET BANKING SERVICES | USING INTERNET BANKING SERVICES |
|---|---|---|

*Source:* (Bayraktaroğlu, 2012, p. 63)

*Figure 1.* Conceptual Model of the Research

Parallel to conceptual model, the scale used in this study was adapted by benefiting from the works of (Cinar *et. al.*, 2012) and (bin Omar *et. al*., 2011). The survey consists of three parts. These are demographic data, effective elements of using Internet banking, and the current state of using internet banking respectively. Demographic characteristics are listed as gender, nationality, age and title. Respondents are asked to state the degree of effective elements by using Likert scale ranging from definitely ineffective (1) to definitely effective (5). Last part of the questionnaire is devoted to current state of using internet banking. Likert scale ranging from strongly disagree (1) to strongly agree (5) is used to determine the respondents' current state of using internet banking. Research using face to face interview method was conducted during the months of April and May of 2015-2016 spring semester. The number of valid responses out of 250 academic personnel interviewed is 157. The statistical methods used in the study are reliability analysis, percentage analysis, one sample t test, factor analysis and multiple regression analysis.

## 3. Findings and analysis

### 3.1. Demographic characteristics of respondents

From a total of 157 respondents 77 persons (49 %) are female while 80 persons (51 %) are male. Nationalities of respondents consists of 36.5 percent Turkish and 63.5 percent Turkish Cypriots. Percentages of academicians ranked as professor, associate professor, assistant professor, doctor,

instructor and research assistant are 5.2, 4.5, 47.1, 3.9, 41.3 and 18.1 respectively. The vast majority of respondents are in the age range of 31-40 and 23-30 as indicated in Table 1.

*Table 1.* Age group of respondents

| Title | Frequency | Percent (%) |
|---|---|---|
| Under 22 | 1 | 6 |
| 23-30 | 41 | 26,1 |
| 31-40 | 66 | 42 |
| 41-50 | 29 | 18,5 |
| 51 + | 20 | 12,7 |
| **Total** | **157** | **100** |

### 3.2. Reasons (effective items) of internet banking usage

As a first step, Cronbach's alpha test was taken as a reference to measure reliability of the scale related to academicians' attitude towards internet banking usage. Cronbach's alpha is the most common measure of internal consistency ("reliability") being the degree to which the items that make up the scale are all measuring the same underlying attribute. A five-point Likert scale was used in order to determine academicians' attitude towards internet banking usage (1=definitely ineffective, 2=ineffective, 3=not sure, 4=effective, 5=definitely effective). The scale consists of 14 elements or statements. The final average score represents overall level of perception or attitude toward the subject matter. Reliability analysis of scale with 14 items in Table 2 shows that item 9 related to "being more reliable and secure than branch banks" should be deleted in order for the scale to be increased to an acceptable level of 0.811. This Cronbach's alpha is over the acceptable value of 0.7 (George and Mallery, 2001). The reliability of the questionnaire can be considered as high since it is superior than 0.8 (Cortina, 1993).

*Table 2.* Reliability statistics

| | | Item-Total Statistics | | | |
|---|---|---|---|---|---|
| | | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
| **Cronbach's Alpha** **,678** | IB1 | 50,2500 | 77,386 | ,412 | ,659 |
| | IB2 | 50,3649 | 77,880 | ,306 | ,664 |
| | IB3 | 50,3041 | 77,274 | ,407 | ,658 |
| | IB4 | 50,4932 | 74,714 | ,490 | ,648 |
| | IB5 | 50,2095 | 77,282 | ,451 | ,657 |
| | IB6 | 50,6824 | 75,892 | ,380 | ,656 |
| | IB7 | 51,0000 | 77,905 | ,263 | ,667 |
| | IB8 | 51,8581 | 73,742 | ,368 | ,653 |
| | IB9 | 51,4189 | 52,694 | ,214 | ,811 |
| | IB10 | 50,8581 | 75,470 | ,354 | ,657 |
| | IB11 | 50,9459 | 72,228 | ,581 | ,636 |
| | IB12 | 51,9189 | 74,306 | ,302 | ,660 |
| | IB13 | 51,6351 | 71,417 | ,514 | ,637 |
| | IB14 | 50,7770 | 73,154 | ,584 | ,639 |

"The one-sample t-test" was applied to measure academicians' attitude towards the reasons of internet banking usage. The aim was to detect whether or not the averages calculated according to the Likert scale of 1–5 were statistically different from indecisive (3). As seen in Table 3, all variables have a weighted average 3 or above. This means that except last 3 items remaining 10 items had been found as effective on internet banking usage. Respondents are undecided about last 3 items. Accordingly, the most effective items on internet banking usage are "Using at all hours of the day, 7/24 access (4.59)", "Saving of time (4.56)", "Speed of transactions (4.50)", "Not waiting in front of the bank or ATM (4.45)", "Ease of use compared to branch banks (4.31)", "The ease of seeing all data about transactions (4.13)", and "Being satisfied with internet banking transaction system (4.06)".

*Table 3*. "The One-Sample T-Test" (Test Value=3) for Academicians' Attitude towards the Reasons of Internet Banking Usage

| S.NO | VARIABLE | AVERAGE |
|---|---|---|
| 1 | Using at all hours of the day, 7/24 access | 4,59 |
| 2 | Saving of time | 4,56 |
| 3 | Speed of transactions | 4,50 |
| 4 | Not waiting in front of the bank or ATM | 4,45 |
| 5 | Ease of use compared to branch banks | 4,31 |
| 6 | The ease of seeing all data about transactions | 4,13 |
| 7 | Being satisfied with internet banking transaction system | 4,06 |
| 8 | The possibility of meeting cash needs after the closure of banks | 3,96 |
| 9 | User friendly characteristic of Internet banking | 3,86 |
| 10 | Less transaction cost | 3,80 |
| 11 | The belief that there is no mistake in internet banking | 3,19* |
| 12 | Dissatisfaction with bank staff | 2,96* |
| 13 | Using internet banking as a symbol of social status | 2,89* |

Scale: (1=definitely ineffective, 2=ineffective, 3=not sure, 4=effective, 5=definitely effective)

*It is statistically equal to 3 since *p* is greater than 0.05.

### 3.3. Effective factors on internet banking usage

Effective items on internet banking usage above can be categories into small number of factors with common features in order to determine their relative importance in explaining academicians' internet banking usage. Two tests were applied before factor analysis: the Kaiser–Meyer–Olkin (KMO) test to measure sample sufficiency for the factor analysis (measure of sampling adequacy: KMO, 0.811>0.5) and Bartlett's Test of Sphericity to obtain reasonable factors from the study data (677,397 and *p*: .000<.05). These show that the data used for the study were appropriate for factor analysis. After related pre-conditions were met, a varimax rotation principal component analysis was applied to the thirteen variants measuring attitudes on internet banking usage (Saruhan and Özdemirci, 2005, pp. 151–56). After factor analysis, three factors with eigenvalues greater than 1 were acquired (Table 4). These three factors explain 59.86% of total variance. In this respect, the degree of explanation of each and every factor shows the relative importance of the related factor in measuring academicians' internet banking usage. These three factors relating to attitudes to internet banking usage in Northern Cyprus were named, as shown in Table 4, as 1) Convenience 2) Trust and security and 3) Transaction effectiveness.

*Table 4*. Factor Analysis Results of Thirteen Variables out of Three Factors

| Factors and Variables | Eigenvalue | Factor Load | Variance Percent |
|---|---|---|---|
| *Factor 1: Convenience* | *4,35* | | *25,9* |
| Saving of time | | ,827 | |
| Speed of transactions | | ,785 | |
| Not waiting in front of the bank or ATM | | ,732 | |
| Ease of use compared to branch banks | | ,678 | |
| Using at all hours of the day, 7/24 access | | ,671 | |
| *Factor 2: Trust and Security* | *2,04* | | *20,9* |
| The belief that there is no mistake in internet banking | | ,847 | |
| Using internet banking as a symbol of social status | | ,776 | |
| Being satisfied with internet banking transaction system | | ,627 | |
| User friendly characteristic of Internet banking | | ,611 | |
| The possibility of meeting cash needs after the closure of banks | | ,552 | |
| *Factor 3: Transaction effectiveness* | *1,29* | | *13,0* |
| Less transaction cost | | ,780 | |
| Dissatisfaction with bank staff | | ,653 | |
| The ease of seeing all data about transactions | | ,561 | |

### 3.4. Research model

The descriptive research model shown in Figure 2 was developed based on the factor analysis results. According to this model, factors affecting internet banking usage (independent or explanatory variable) are effective on internet banking usage (dependent variable).
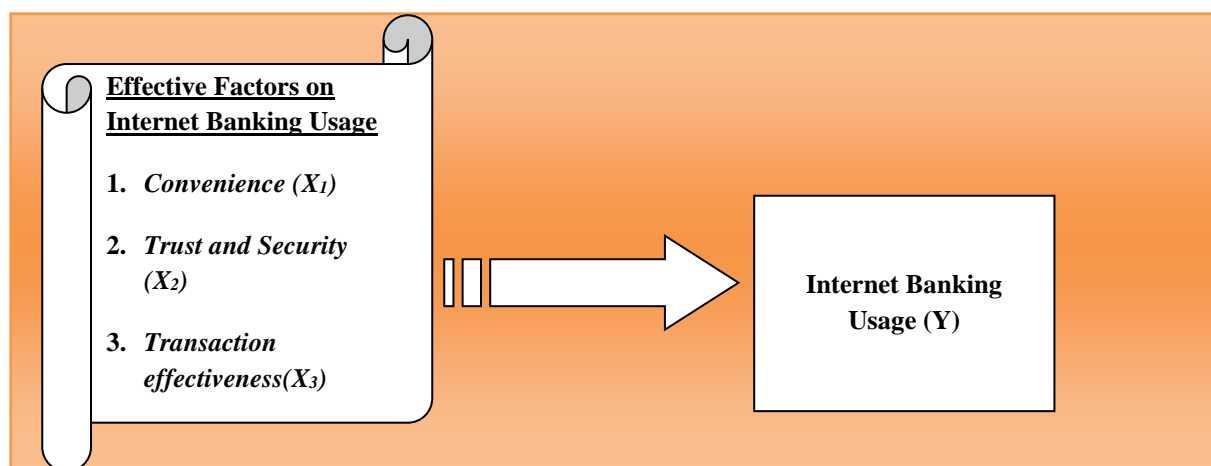


**Effective Factors on Internet Banking Usage**

1. *Convenience ($X_1$)*

2. *Trust and Security ($X_2$)*

3. *Transaction effectiveness($X_3$)*

**Internet Banking Usage (Y)**

*Figure 2.* Internet Banking Usage Model Developed According to Factor Analysis Results

### 3.5. Explanatory power of effective factors on internet banking usage

Multiple regression analysis was conducted to find the relationship between independent or explanatory variables and the dependent variable modeled in figure 2. The results of this analysis are shown in Table 5. According to the *F*-test results, this research model is reasonable and significant ($F$=29,676, $R^2$=0.384, $p$=.000<.01). Multiple coefficient of determination (R Square) indicates that independent variables can only explain 38.4% of the dependent variable. Only one factor is found out to be effective on internet banking usage. Such that, there is a statistical significant ($p$<0.01) relationship between "Convenience (X1) and internet banking usage (Y).

*Table 5.* Multiple Regression Analysis Results for "Internet Banking Usage" and "Factors Explaining Internet Banking Usage"

| | Standardized Coefficients | | |
|---|---|---|---|
| **a) Factors Related To Internet Banking Usage (Explanatory Variables)** | Beta | *t* | Sig. |
| (Constant)                                    0,171 | | | |
| Convenience ($X_1$) | 0,574 | 7,952 | 0,000* |
| Trust and Security ($X_2$) | 0,124 | 1,676 | 0,096 |
| Transaction effectiveness (X3) | -0,031 | -,424 | 0,672 |
| *Multiple coefficient of determination (R Square): 0.384* <br> *F-Test: 29,676          Signif. F: 0.000\** <br> **b) Dependent Variable : Internet Banking Usage (Y)** <br> *(\*)There is a statistical significant relationship between $X_1$ and Y (p<0.01)* | | | |

Factor analysis and regression results were used to formulate the following equation: **Y= 0,171 + 0.574$X_1$.** According to this equation, 1 unit of positive progress in attitude to "Convenience (X1)" causes 0.574 units of positive progress on internet banking usage.

### 6. Conclusions

Today's global and highly technologic character inevitably re-shapes competitiveness in banking sector. Especially internet baking changed the way of providing banking services. In some respects, internet banking services were found be superior to traditional banking services. However, effective items on internet banking usage can differ depending on the social context. Therefore, managerial approach should be concentrated on determining the perceptions of target segments towards internet banking usage for the relevant context. In this study, context is shaped by the academicians' attitudes towards internet banking

usage in Northern Cyprus. According to research findings the most effective elements on internet banking usage are ranked as "Using at all hours of the day, 7/24 access", "Saving of time", "Speed of transactions", "Not waiting in front of the bank or ATM", "Ease of use compared to branch banks", "The ease of seeing all data about transactions", and "Being satisfied with internet banking transaction system". As a result of factor analysis and multiple regression analysis only one factor named as convenience is reported to have explanatory power on internet banking usage. As conclusive remarks, research findings reveal that main elements and factor being effective on internet banking usage should be considered in order to take rational managerial and marketing decisions.

### References

1. Alwan, H.A., and Al-Zubi, A.I. (2016). "Determinants of Internet Banking Adoption among Customers of Commercial Banks: An Empirical Study in the Jordanian Banking Sector", *International Journal of Business and Management*, 11(3) 95-104.

2. Bayrakdaroğlu, A. (2012). "A Field Study for Factors Effecting Individuals' Usage of Internet Banking*", Business and Economics Research Journal*, 3 (4): 57-75. (In Turkish)

3. Boateng, H., Adam, D. R., Okoe, A. F., and Anning-Dorson, T. (2016). "Assessing the determinants of internet banking adoption intentions: A social cognitive theory perspective". *Computers in Human Behavior*, 65: 468-478.

4. Cortina, J.M. (1993). "What is coefficient alpha? An examination of theory and ap-plications", *Journal of Applied Psychology* 78: 98–104.

5. Çınar, O., S. Yavuz, and İ. Aslan (2012). "The Attitudes, Behaviours And Views of Academicians About Internet Banking: The Case Of Erzincan University, Turkey*, SU FEAS Journal of Social and Economic Research,* Issue 23, pp. 102-124. (In Turkish)

6. Eriksson, K., Kerem, K., and Nilsson, D. (2005). "Customer acceptance of internet banking in Estoni", *International Journal of Bank Marketing*, 23(2):200-216.

7. George, D. and Mallery, P. (2001) *SPSS for windows*. Third Edition, Allyn & Bacon/Pearson Education Company, USA.

8. Gülmez, M. and Kitapçı, O. (2006). "İnternet Bankacılığı Ve Müşteri Davranışları: Cumhuriyet Üniversitesi Akademik Ve İdari Personeline Yönelik Bir Uygulama", *C.Ü. İktisadi ve İdari Bilimler Dergisi,* 7, (2): 83-100.

9. İşler, A.U. (2015). "Users Evaluations About E-Service Quality Of Internet Banking:Kuveyt Turk Sample", *Business & Management Studies: An International Journal*, 3 (2): 220-233.

10. Liao, Z., and Cheung, M.T. (2002), "Internet-based e-banking and consumer attitudes: an empirical study", I*nformation & Management*, 39(4):283-295.

11. Omar, Abdullah Bin and Sultan, Naveed and Zaman, Khalid and Bibi, Nazish and Wajid, Abdul and Khan, Khalid (2011).Customer Perception Towards Online Banking Services: Empirical Evidence from Pakistan (August 1, 2011). *Journal of Internet Banking and Commerce,* 16 (2): 1-24, August 2011.

12. Oruç, Ö. E., and Tatar, Ç. (2017). "An investigation of factors that affect internet banking usage based on structural equation modeling", *Computers in Human Behavior*, 66: 232-235

13. Pala, E. and B. Kartal (2010). "An Empirical Study of the Attitudes of Turkish Bank Customers Regarding Internet Banking", Celal Bayar Üniversitesi İ.İ.B.F. *YÖNETİM VE EKONOMİ* , Cilt:17 (2): 43-61.

14. Saruhan, Ş. C. and Özdemirci, A. (2005), *Science, Philosophy and Methodology*. Alkım Publisher. (In Turkish)

15. Şiker, P. (2011). "An exploratory research on consumer adoption of internet banking", *İnternet Uygulamaları ve Yönetimi Dergisi* (*IUYD*), 2(2): 35-50.

16. Ustasuleyman, T., and Eyuboglu, K. (2010). Determination Factors of Affecting Individuals' Acceptance of Internet Banking with Structural Equation Model. *Journal of BRSA Banking and Financial Markets*, 4(2):11-38.