

# **The Effect of Personal Information Security Attitude and Perceived Company Information Security Policy on Mobile Banking Acceptance**

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## **Abstract**

This paper investigates how personal information security attitude or perceived information security policy to company influence to acceptance of the mobile banking service. We access consumer and business with either side, so we analyzed company information security policy in company perspective and personal information security attitude in consumer perspective. Also, this study examines the moderating effect of gender on mobile banking acceptance. In theoretical background, perceived company information security policy, attitude to personal information security, and mobile banking acceptance are discussed, then 4 hypotheses are developed. The result indicates that the higher perceived company information security policy, the higher mobile banking acceptance, and the higher attitude to personal information security, the higher mobile banking

acceptance. Also, we found moderate effect of gender in mobile banking acceptance.

**Keywords:** Company Information Security Policy, Personal Information Security, Mobile Banking Acceptance

## 1 Introduction

Recently, the Bank of Korea announced that more than 90% of the Korean people has been used the internet banking [1]. An interchange of personal banking information by internet is easy, and possibility of personal information leakage rises. Most of consumers have been recognized risk of personal information extrusion using mobile banking, so they have needed for personal information protection. Protecting personal information in mobile banking becomes more and more important to consumer who using mobile banking and company who providing.

In this situation, this study focused on "company factors of information security are more important than personal factors of information security on mobile banking acceptance?", and "Is the difference of information security between male and female on mobile banking acceptance?".

Therefore, in this study, we attempt to investigate how personal information security attitude or perceived information security policy to company influence to acceptance of the mobile banking service. In addition, we try to find moderating effect of gender as the personal characteristics to acceptance of mobile banking services.

## 2 Theoretical Background and Hypothesis

Social costs caused by the infringement of personal information, individual consumers not only, as a social problem, its seriousness is emphasized. Consumer has recognized more and more increased importance for the security of personal information of consumers. In fact, according to the Personal Information Protection Association (2013) about the personal information, the individual consumer is shown in 4.66 in the importance of 5-point scale to recognize subjectively for the protection of personal information. This shows the consumer know that the security of personal information of consumers is very important situation [2]. But activities for personal information security, for the practical behavior provided by general criteria, is a situation where the degree of practice is displayed low. In particular, it has been shown that even aggressive act to violate personal information occurs.

The more consumers to protect personal information will be accepted the new technology to be recognized a utility of new technology [3]. In addition, the more company have better consumer's security policy, the more consumer will be accepted the new technology [4]. But these relationships will be different according

to gender. That is, male accept new information actively, whereas female accept new information passively. Therefore it may be proposed the following hypothesis.

*H1: The personal information security attitude has a positive influence on the mobile banking acceptance.*

*H2: The perceived company information security policy has a positive influence on mobile banking acceptance.*

*H3: A gender has a moderating effect on the relationship of personal information security attitude and the mobile banking acceptance.*

*H4: A gender has a moderating effect on the relationship of perceived company information security policy and the mobile banking acceptance.*

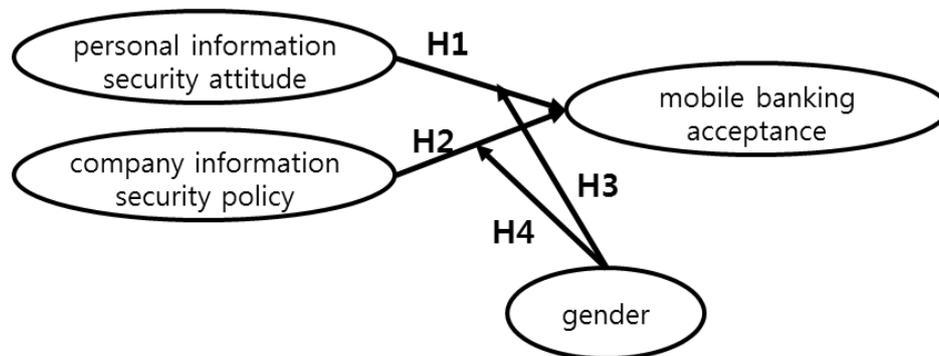


Figure 1. Research Model

### 3 Research Methodology

The Data collection for this study was carried out in the online questionnaire through specialized research institutions in April 2015.

Characteristics of the collected data, 80 people in their 20s in age (23.7%), 160 people in their 30s (47.5 percent), 97 people in their 40s (28.8%), collect the men and women in a similar percentage in the gender did.

In this study, variables used were measured in the following manner. Overall measurement quality is assessed using confirmatory factor [5]. A perceived company information security policy (Cronbach's  $\alpha = 0.84$ ) is use 5 items, the attitude to personal information security is use 4 items of smartphone user's the safety regulations (2015) of the Internet Development Agency (Cronbach's  $\alpha = 0.86$ ). Based on the study of mobile banking acceptance intention of Park [3] and Choi [4], it was composed of 4 items.

In the statistics of the variables, it were a perceived company information security policy (M=2.81, STD = 0.73), the attitude to personal information security (M=3.92, STD = 0.66), mobile banking acceptance intention ((M=3.34, STD = 0.95).

Items	Factor Loadings		
	1	2	3
mobile banking acceptance intention 1	<b>.935</b>	.123	.110
mobile banking acceptance intention 2	<b>.934</b>	.111	.128
mobile banking acceptance intention 3	<b>.898</b>	.015	.188
mobile banking acceptance intention 4	<b>.837</b>	.029	.268
attitude to personal information security 1	.015	<b>.850</b>	-.074
attitude to personal information security 2	.021	<b>.844</b>	-.013
attitude to personal information security 3	.020	<b>.824</b>	-.097
attitude to personal information security 4	.045	<b>.789</b>	-.006
attitude to personal information security 5	.148	<b>.770</b>	.022
perceived company information security policy 1	.190	-.110	<b>.833</b>
perceived company information security policy 2	.081	.057	<b>.831</b>
perceived company information security policy 3	.103	-.010	<b>.810</b>
perceived company information security policy 4	.383	-.136	<b>.712</b>

Table 1. Factor Analysis Result

#### 4 Structural Model Analysis and Result

We analyze the effect of the personal information security attitude and perceived company security policy on mobile banking acceptance intention. As shown in Table 2, the results showed that the personal information security attitude and perceived company security policy influence on mobile banking acceptance intention positively (hypothesis 1 and 2 supported). One interesting fact was that the perceived company information security policy (Path coefficient = 0.409) have greater impact on mobile banking acceptance than the personal information security attitude (Path coefficient = 0.192).

Hypothesis 3 and 4 investigate the moderating effect of gender with respect to the relationship of the personal information security attitude and mobile banking acceptance intention (Hypothesis 3), the perceived company security policy and mobile banking acceptance intention (Hypothesis 4). As shown in Table 3, the results showed the moderating effect of gender. That is, male (Path coefficient = 0.220) have greater impact on mobile banking acceptance than female (Path coefficient = 0.120) on the personal information security attitude (t value = 8.08). Male (Path coefficient = 0.386) have greater impact on mobile banking acceptance than female (Path coefficient = 0.296) on the perceived company security policy (t value = 6.71). Therefore, hypothesis 3 and 4 supported.

Path(Hypothesis)	$\beta$ value	t-value	p value
Personal IS Attitude → Mobile Banking Acceptance (H1)	0.192	3.445***	.000
Company IS Policy → Mobile Banking Acceptance (H2)	0.409	6.955***	.000
Model Fit	$\chi^2=97.418$ , $\chi^2/df=2.376$ , $p=.000$ GFI=.950, CFI=.976		
Note : *** $p<0.01$	RMR=.045, NFI=.959, IFI=.976		

Table 2 Results of Hypothesis 1 and 2 Test

Path(Hypothesis)	Male		Female		Difference of t- value
	$\beta$ value	t-value	$\beta$ value	t-value	
Personal IS Attitude → Mobile Banking Acceptance (H3)	0.220	2.786***	0.120	1.512	8.08***
Company IS Policy → Mobile Banking Acceptance (H4)	0.386	4.227***	0.296	3.568***	6.71***
Model Fit	$\chi^2=91.48$ , $\chi^2/df=1.386$ , $p=.021$ GFI=.949, CFI=.988				
Note : *** $p<0.01$	RMR=.042, NFI=.958, IFI=.988				

Table 3 Moderating Effect Analysis Results

## 5 Conclusions

We have investigated the effect of the perceived company information security policy and the personal information security attitude on mobile banking acceptance intention. Also, we have investigated a gender as moderating variable influence on the acceptance of mobile banking services.

The results of this study are as follows. First, the personal information security attitude influence on mobile banking acceptance intention positively. Second, the perceived company security policy influence on mobile banking acceptance intention positively. Third, moderating effect analysis results showed that male have greater impact on mobile banking acceptance than female on the personal information security attitude. Forth, moderating effect analysis results showed that male have greater impact on mobile banking acceptance than female on the perceived company security policy.

The proposed results finds effective information security method on mobile banking acceptance. That is, because the perceived company security policy is more important than the personal information security attitude on mobile banking acceptance, information security officer should emphasize the company's information security policy activities. Because male have greater impact on mobile banking acceptance than female on the perceived company security policy, information security officer should emphasize the company's information security policy activities focused on male.

In this study, despite the implications, personal information data not reflect the individual users of the different characteristics in the mobile banking and we have not sufficient experimental data to guarantee the generalization of the proposed model. As the next phase, it is necessary to reflect various personal characteristics, such as Social characteristics and cultural characteristics of the users and to collect the different data.

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