Knowledge of Security Protocols and Acceptance of E-commerce

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Abstract

This research study investigates if user knowledge of security protocols is a factor in the acceptance of e-commerce. Because payment gateways are an important part of the user experience in e-commerce, this research also looks if user knowledge about security plays a role in online banking. The hypothesis of this work is that more knowledge about internet security protocols enhances subjective feelings of internet safety and that this increases trust and acceptance. An empirical study confirmed that when users perceive their level of knowledge as higher, this contributes to their feelings of safety and this influences their frequency of use and their intention to use ecommerce.

Key Words: Ecommerce, internet banking, trust, ecommerce user feelings of safety, knowledge, security protocols

JEL Classification: M 15, M 30
1. Introduction

This research study investigates if user knowledge of security protocol is a factor in the acceptance of e-commerce. Because payment gateways are an important part of the user experience in e-commerce, this research also looks if user knowledge about security plays a role in online banking. The hypothesis of this work is that more knowledge about internet security protocols enhances subjective feelings of internet safety and that this increases trust and acceptance.

We asked users with a quantitative survey about their awareness, their subjective assessment of understanding, and their adoption of safe practices of the following aspects of the standard security protocols used in e-commerce and internet banking

- The https protocol
- The green lock in the browser address bar
- The green address bar
- Two factor authentication

The goal of this research is to see if users report higher levels of feeling secure and report more adoption of e-commerce (and online banking), if they think they understand better the different dangers, like phishing and malware.

2. Literature Review

The importance of knowledge about the connection between internet security and online transactions was mentioned in (Miyazaki & Fernandez, 2001). The acceptance of online banking and e-commerce services has been rapid in different parts of the world. However, privacy and security are the major concerns of the users while dealing with the online purchasing and transaction world (Miyazaki, Anthony & Fernandez, 2001). The public lack of confidence in online transactions is not merely about security, but also about trust in the transactional process (Hoffman, Novak & Peralta, 1999). The implication is that the successful organizations will be those who expend their resources and efforts to ensure that user concerns are adequately addressed (Godwin, 2001).

It is not amazing that the public is wary of risks in ecommerce. For instance, in 2014, 7% of the population of over 16 years of age in the USA was a victim of identity theft, per the National Criminal Justice Reference Service (n.d.)

Trust for new technology is influenced by the user knowledge of the security measures adopted by that new technology (Knowledge-Based Trust) (Lin, 2011).

The formal research question of this work is therefore: Is there any relationship between more knowledge about the Internet Security and subjective feelings of Internet safety, and does this lead to more use of e-commerce and what factors play a role in this?
The presence of computer and information technology in today’s organizations has expanded dramatically (Venkatesh et al., 2003). The Technology Acceptance Model (TAM) can be used to determine the understanding of the user acceptance of a technology (Davis, 1985). Online purchase intention (ecommerce) is explained by TAM model (Davis 1989; Davis et al. 1989).

The TAM model is an offshoot of the theory of planned behavior (Ajzen, 1985). Per TAM, the intention to adopt new technology depends on:

(1) The perceived usefulness of using the new technology (PU) (Davis, 1989). This was defined by Davis as “the degree to which a person believes that using a particular system would enhance his or her job performance” (Davis et al. 1989).

(2) The perceived ease of use of the new technology (PEOU) (Davis, 1989). This was defined by Davis as “the degree to which a person believes that using a particular system would be free from effort” (Davis et al. 1989).

Basically, the TAM model says that the most important determinants of accepting a new technology by users is if the technology is useful to people and if people find it easy to use. Usually, but not always, the PEOU takes a back-seat to the PU. If the new technology is useful, people will start using it even if the PEOU is relatively low.

In addition to the TAM model that is used in this research, the subjective feeling of safety is a mediator between a predictor variable “Knowledge” and the variable “PEOU”. The addition of this new predictor variable “Knowledge” is not part of the original TAM model. This work researches what role it plays and its influence as a predictor for the intention to use ecommerce and online banking.

We can construct the research model as below:

![Diagram showing the research model](image)

This model is based on the Technology Acceptance Model of (Davis, Bagozzi, & Warshaw, 1989) but with new variable “Knowledge”. The feeling of safety is influenced by knowledge.
As the TAM model is closely related to the Theory of Planned Behavior (Ajzen, 1985), it is also possible to construct a knowledge-based model on this theory. In the Theory of Planned Behavior, a planned behavior, like in this case using ecommerce technology or internet banking theory, is influenced by three factors: the attitude towards the behavior, the subjective norm, and self-efficacy. In this model, trust and feelings of safety are an attitude. Just like in the previous model, it is influenced by the subjective assessment of one’s knowledge. Self-efficacy is the self-assessment if one can carry out the behavior (in this case an online purchase) in a good way (Bandura, 1986). Self-efficacy is generally used instead of the Perceived Behavioral Control of the Ajzen model (Ajzen, 1985). In this model, Knowledge about security protocols can also be positively related to self-efficacy.

**Figure 2**

Based on these models, the following hypotheses are developed:

Presumably, if people are having a proper knowledge of internet security protocols, then they have more faith in the efficacy of internet security and hence they will feel safer while dealing with online banking and ecommerce. Consistent with the Theory of Planned Behavior (Ajzen, 1985), if people sense a feeling of safety for the online security based on their perceived knowledge regarding the security protocol tools, people will engage themselves more with online transactions. Therefore,

**Hypothesis 1**: There is a positive significant association between user knowledge about internet security and protocols and subjective feelings of safety of users.

Only an ecommerce site that carries out the desired transaction without fraud or other problems will be perceived as useful by the customer. Only in that case they will consider ecommerce and online banking for their purchases and transactions and only in that case they will start to engage themselves with ecommerce and online banking transactions. Therefore, the following hypothesis is posited, consistent with the two models considered above:

**Hypothesis 2**: There is a positive significant association between feelings of safety and the perception of usefulness of ecommerce and online banking.
The standard TAM model posits an association between PEOU and acceptance. As it is assumed in this work that feelings of safety influence PEOU, this TAM hypothesis is also tested in this work.

**Hypothesis 3**: There is positive significant association between perceived usefulness and actual acceptance of ecommerce and of online banking systems.

If we consider the Technology Acceptance Model (TAM), people will start to engage themselves more with online transactions if they perceive that the ecommerce and online banking is easy to use and more user friendly. Security measures like 2-factor authentication are often seen as not user-friendly. Therefore, it is important for those theoretical reasons to see up to what degree perceived user-friendliness is influencing acceptance.

**Hypothesis 4**: There is a positive significant association between perceived ease of use and actual acceptance of the existing ecommerce and online banking system.

### 3. Methodology

#### 3.1 Research Question

As discussed before, this work investigates if knowledge about security protocols is significantly influencing feelings of safety, perceived usefulness, attitudes and self-efficacy. The research question is therefore, as discussed above in the Literature Review section: Is there any relationship between more knowledge about the Internet Security and subjective feelings of Internet safety, and does this lead to more use of e-commerce and what factors play a role in this?

#### 3.2 Questionnaire Design

A quantitative structured survey was used to operationalize the constructs of the discussed models. The survey was newly developed, but for the questions relating to the theory of planned behavior the example survey of Ajzen was followed (Ajzen, n.d). Most questions are of the Likert type, with four forced options. There was no neutral option to prevent “weaseling”. The survey can be obtained by emailing the first author (S.S.). The survey was in English.

The questionnaire first asked for informed consent. The user could only proceed if that was given. After that, demographic data and data about internet, ecommerce and online frequency of use and intention to use in the next six months was collected. Then questions related to the discussed models followed. Some self-assessment of knowledge about security issues followed. It was asked how often they engaged in certain unsafe transactions. Not part of the model, a question was presented how often they engage in risky behavior, to measure risk as a personality trait. Also, it was asked if users thought that using a mobile phone is riskier.
3.3 Data Collection

The survey was distributed via emails and through social media like Facebook and instant messenger like WhatsApp. The sample was a convenience sample. The respondents were mainly younger people with higher education. The original number of respondents was 152. Data from 130 respondents was used in the final analysis. The respondents were mostly from two Asian Countries – India and Thailand, and from European countries, mostly from Greece. About an equal number of respondents was from Asia and from Europe.

4. Analysis, Results and Discussion

In this section a quantitative analysis of the collected data is carried out with SPSS.

4.1 Descriptives

The ages of the respondents and their education were distributed as in the following histograms:

From the respondents were 79 (52%) male and 73 (48%) were female. Data from 130 respondents were used in the multivariate analyses. Most considered their income as average or slightly above average (compared with their peers).
4.2 Factor Analysis

The following four survey questions were combined into a new variable named “Self-Efficacy” because a factor analysis showed that one factor could be extracted:

Q20 - I am confident that I can do online banking well / Q21 - I am confident that I can do ecommerce well / Q22 - I am confident that I can do online banking in a safe way / Q23 - I am confident that I can do ecommerce in a safe way. 76.6% of the variation was captured that way.

Similarly, 82.28% of the variation was captured by extracting one variable “Subjective Norm” from the following survey questions:

Q24 - Most people who are important to me think that I should do online banking / Q25 - Most people who are important to me think that I should do ecommerce / Q26 Most people who are important to me think that I should do online banking in a safe way / Q27 - Most people who are important to me think that I should do ecommerce in a safe way.

Also, 69.0% of the variation was captured by extracting one variable “Knowledge” from the following survey questions:

Q19 - How much do you know about online security? / Q33 - How much do you know about the green address bar on the browser? / Q38 - How much do you know about phishing? / Q40 - How much do you know about computer viruses? / Q42 - How much do you know about the lock on the address bar on the browser? / Q44 - How much do you know about the “https” on the address bar on the browser? / Q46 - How much do you know about the 2-factor authentication (the extra step with the SMS / text verification)?

It is important to note that respondents assessed their knowledge in all those areas of similar degree. They either feel that they know little, or know more, but statistically speaking there is not a large spread in the answers of each respondent. From a business point of view, this means that it is not sufficient to educate people in one area. They need to get enough broad knowledge before they assess themselves as more knowledgeable. As will be demonstrated below, it is this broad knowledge about all security areas that leads to higher feelings of safety.

Lastly, 71.9% of the variation was captured by extracting one variable “Risk Behavior” from the following survey questions:

Q45 - How often do you complete an online transaction when there is no “https” on the address bar on the browser? / Q43 - How often do you complete an online transaction when there is no lock on the address bar on the browser? / Q36 - How often do you complete an online transaction when there is no green address bar on the browser?

So, risky behavior in one area is often accompanied by risky behavior in other areas.
4.3 Correlations and Hypotheses Testing

**Hypothesis 1:** There is a positive significant association between knowledge about Internet security and feelings of safety.

The correlation between the Knowledge variable as found in the Factor Analysis and two questions about feeling of safety were:

- I feel secure while doing online banking. \( r = 0.230, p = 0.015, N = 111 \)
- I feel secure while doing ecommerce. \( r = 0.298, p=0.002, N=107 \)

Therefore, Hypothesis 1 is supported. This also supports the extended TAM model discussed in the Literature Review, in which there is an arrow from the Knowledge construct to the Feelings of Safety construct.

**Hypothesis 2:** There is a positive significant association between feelings of safety and the perception of usefulness of ecommerce and online banking.

The correlation between the Feeling of Safety variables that were mentioned in Hypothesis 1 and two questions about perception of usefulness of ecommerce and online banking are:

- For me online banking is useful. \( r = 0.727, p = 0.001, N = 120 \).
- For me ecommerce is useful. \( r = 0.580, p = 0.001, N = 115 \).

Note that those correlations are quite high. Therefore, Hypothesis 2 is supported. This supports the next step in the extended TAM model discussed in the Literature Review, in which there is an arrow from the Feeling of Safety construct to the PU construct.

**Hypothesis 3:** There is positive significant association between perceived usefulness and actual acceptance of the existing ecommerce and online banking system.

The correlation between the PU variables that were mentioned in Hypothesis 2 and two questions about acceptance of ecommerce and online banking are:

- I intend to use online banking in the next 6 months. \( r = 0.659, p = 0.001, N=121 \).
- I intend to use ecommerce in next 6 months. \( r = 0.643, p = 0.001, N=116 \).

Also, here the correlations are quite high. Therefore, Hypothesis 3 is supported. This result confirms the TAM model (Davis, 1989)

**Hypothesis 4:** There is a positive significant association between perceived ease of use and actual acceptance of the existing ecommerce and online banking system.

The correlation between the PEOU variables and the two questions about acceptance of ecommerce and online banking mentioned in Hypothesis 3 are:

- Online banking is easy to use. \( r = 0.603, p = 0.001, N=123 \).
- Ecommerce is easy to use. \( r = 0.572, p = 0.001, N=117 \).
Also, here the correlations are quite high. Therefore, Hypothesis 4 is supported. This result also confirms the TAM model (Davis, 1989). Altogether, those correlation data support the Extended TAM model as given in Section 2, Literature Review.

4.4 Regression and Path Analysis

In this work a Backward Regression analysis makes is used to trace the influence of independent variables. Backward regression leaves out those independent variables that are not necessary. In this research, the regression analysis is used to find out factors that are influencing the actual use of online banking and e-commerce. By doing Backward Regression factors are removed that are not significant, i.e. those factors which having a significance level more than 0.05 (p > 0.05), or for which the contribution to $R^2$ is not important enough to retain.

Overall, four regression equations are analyzed. Further the Hayes PROCESS macro (Hayes, 2012) is used for a Path Analysis of the Knowledge variable in the Extended TAM model.

4.4.1 Dependent: Use of Online Banking in a Month

In the first regression equation, the variable “How often do you use online banking in a month?” was chosen as dependent and other variables like Self Efficacy, Risk Behaviour, feeling of safety etc. as independents.

For the final model after removals, $R^2 = 0.361$, which means that about 36% of the variance in the dependent is explained by the variation in the independent variables. Also, the overall ANOVA test for the hypothesis that not all variables are zero, was $p < 0.0005$, which means that the regression model is valid.

The coefficient chart is shown below.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 (Constant)</td>
<td>-1.262</td>
<td>.707</td>
<td>-1.786</td>
<td>.078</td>
</tr>
<tr>
<td>Q14 - For me internet banking is (Extremely difficult … Extremely easy)</td>
<td>.322</td>
<td>.111</td>
<td>.368</td>
<td>2.903</td>
</tr>
<tr>
<td>Q16 - For me dealing with online transactions safely is (Extremely difficult … Extremely easy)</td>
<td>-.225</td>
<td>.114</td>
<td>-.252</td>
<td>-1.973</td>
</tr>
<tr>
<td>Q17 - Online banking is easy to use (Totally disagree … Totally agree)</td>
<td>.598</td>
<td>.240</td>
<td>.290</td>
<td>2.496</td>
</tr>
<tr>
<td>Q32 - I tend to take some risks in my daily life (Totally disagree … Totally agree)</td>
<td>.615</td>
<td>.205</td>
<td>.294</td>
<td>3.003</td>
</tr>
</tbody>
</table>
Therefore, the data suggests that how often people use online banking is influenced by their perceptions how easy it is to use internet banking, their self-efficacy, and further it is influenced by their willingness to take some risk in their daily life. Also, it is influenced by how important feelings of safety are for them. For the variables that have p > 0.05, “there is some evidence for the hypothesis that the coefficient has a non-zero value” (Lind, Marchal & Wathen, 2016). The feeling of safety is very close to the level of significance of 0.05. This means that with a larger sample size its p-value probably would drop below 0.05.

**4.4.2 Dependent: Intention to Use Online Banking in Next 6 Months**

In the second regression equation, variable “I intend to use online banking in next 6 months” is the dependent variable and other variables like Subjective Norm, Age, Self-Efficacy etc. are independent variables. Again, backward Removal was applied.

For the final model, $R^2 = 0.561$, which means that about 56% of the variance in the dependent is explained by the variation in the independent variables. Also, ANOVA was $p < 0.0005$, which means that the regression model is valid.

The coefficient chart is shown below.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.002</td>
<td>.398</td>
<td>.005</td>
<td>.996</td>
</tr>
<tr>
<td>Q52 – Age</td>
<td>-.082</td>
<td>.043</td>
<td>-.143</td>
<td>-1.906</td>
</tr>
<tr>
<td>SubjectiveNorm</td>
<td>.263</td>
<td>.136</td>
<td>.194</td>
<td>1.944</td>
</tr>
<tr>
<td>Q14 - For me internet banking is (Extremely difficult … Extremely easy)</td>
<td>.116</td>
<td>.058</td>
<td>.205</td>
<td>2.008</td>
</tr>
<tr>
<td>Q17 - Online banking is easy to use (Totally disagree … Totally agree)</td>
<td>.258</td>
<td>.141</td>
<td>.193</td>
<td>1.834</td>
</tr>
<tr>
<td>Q28 - For me online banking is useful (Totally disagree … Totally agree)</td>
<td>.355</td>
<td>.147</td>
<td>.281</td>
<td>2.413</td>
</tr>
</tbody>
</table>

Therefore, the data suggests that user’s intention to use online banking in the six coming months is influenced by their perception of usefulness. Further, it is influenced by the Subjective Norm i.e. what other people think, does have an impact on the decision of individual’s intention to use online banking in the coming months. The Subjective Norm is
very close to the level of significance of 0.05. This means that with a larger sample size its p-value probably would drop below 0.05.

### 4.4.3 Analysis with the Hayes PROCESS Macro

It is possible to analyze the influence of knowledge on the Intention to use online banking in the next six months via the sophisticated SPSS add-on of the PROCESS macro by Dr. F. Hayes (Hayes, 2012)

In this PROCESS analysis, we are only looking at the influence of knowledge. None of the other factors that influence the intention are included. PROCESS makes it possible to analyze the full paths, including the ones that are not included in the regression analysis.

The model is Knowledge → Feeling of Safety → perception of usefulness → Intention to use online banking in the next six months. This diagram shows the strength of the paths. Covariates are not included. In this network diagram, all paths from Knowledge to Intention contribute to the overall influence of knowledge on the outcome variable intention to use.

The diagram shows the various coefficients of all possible relationships.

**Figure 5**

The relative importance of the different paths is listed in the following table:

**Table 3**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total:</td>
<td>.1309</td>
</tr>
<tr>
<td>Ind1:</td>
<td>.0295</td>
</tr>
<tr>
<td>Ind2:</td>
<td>.0536</td>
</tr>
<tr>
<td>Ind3:</td>
<td>.0478</td>
</tr>
</tbody>
</table>

**Indirect effect key**

<table>
<thead>
<tr>
<th>Ind1</th>
<th>Knowledge -&gt; Q30If</th>
<th>Q12I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ind2</td>
<td>Knowledge -&gt; Q30If</td>
<td>Q28F</td>
</tr>
<tr>
<td>Ind3</td>
<td>Knowledge -&gt; Q28F</td>
<td>Q12I</td>
</tr>
</tbody>
</table>

Note:
The total effect is 0.2317 with a p-value of 0.0017, significant. It consists of a direct effect of 0.1008, which is not significant (p = 0.0954), and a significant part of 0.1309, via a more complicated path.

This shows that Knowledge about security protocols is a factor in the intention to use online banking in the next six months but it is influencing this via several paths. For a business, this means that all those paths should be considered in educational efforts to the public.

4.4.4 Dependent: Use of Ecommerce in a Month

In the third regression equation, the variable “How often do you use ecommerce in a month?” is the dependent and the other variables like Self Efficacy, Feeling of Safety, ease of use etc. are independent variables.

For the final model, R² is 0.320 which means that about 32% of the variance in the dependent is explained by the variation in the independent variables. Also, ANOVA was p < 0.0005, which means that the regression model is valid.

The coefficient chart is shown below.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>21</td>
<td>(Constant)</td>
<td>-.736</td>
</tr>
<tr>
<td></td>
<td>Q15 - For me ecommerce is (Extremely difficult … Extremely easy)</td>
<td>.179</td>
</tr>
<tr>
<td></td>
<td>Q31 - I feel secure while doing ecommerce (Totally disagree … Totally agree)</td>
<td>.968</td>
</tr>
</tbody>
</table>

Therefore, the data suggests that how often people use ecommerce is influenced by their perceptions of feeling of safety and the perceived ease of use while engaging in ecommerce.
4.4.5 Dependent: Intention to Use Ecommerce in Next 6 Months

In the last regression equation, variable “I intend to use ecommerce in next 6 months” is the dependent variable and other variables like Self Efficacy, Risk Behaviour, perceived ease of use, perceived usefulness etc. are independent variables.

For the final model, $R^2 = 0.537$ which means that about 53% of the variance in the dependent is explained by the variation in the independent variables. Also, ANOVA was $p < 0.0005$, which means that the regression model is valid. The coefficient chart is shown below

Table 5

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.542</td>
<td>.355</td>
<td>1.527</td>
<td>.131</td>
</tr>
<tr>
<td>Q15 - For me ecommerce is</td>
<td>.161</td>
<td>.046</td>
<td>.354</td>
<td>3.527</td>
</tr>
<tr>
<td>Q29 - For me ecommerce is useful</td>
<td>.458</td>
<td>.124</td>
<td>.383</td>
<td>3.707</td>
</tr>
<tr>
<td>Q31 - I feel secure while doing ecommerce</td>
<td>.205</td>
<td>.118</td>
<td>.173</td>
<td>1.733</td>
</tr>
<tr>
<td>Q32 - I tend to take some risks in my daily life</td>
<td>-.174</td>
<td>.102</td>
<td>-.143</td>
<td>-1.708</td>
</tr>
</tbody>
</table>

Therefore, the data suggests that, user’s intention to use ecommerce in coming months is influenced by their perceptions of its usefulness and further it is influenced by their perceptions how easy it is to use ecommerce and how secure they feel relative to how much risk they want to take.

In this case risk behavior and feeling of safety has a somewhat higher $p$-value which is still <0.10. This means that it is unsure if there is any influence within the population from its contributions. A larger sample size can improve on those bounds.

4.4.6 Analysis with the Hayes PROCESS Macro

Just like for internet banking, the Hayes PROCESS macro was used also for the intention to do ecommerce in the next six month.

The model is Knowledge $\rightarrow$ Feeling of Safety $\rightarrow$ perception of usefulness $\rightarrow$ Intention to use ecommerce in the next six months. This diagram shows the strength of the paths. In this network diagram, all paths from Knowledge to Intention contribute to the overall influence of knowledge on the outcome variable intention to use. Covariates were not used. The diagram shows the various coefficients of all possible relationships.
The relative importance of the different paths is listed in the following table:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<tbody>
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<td></td>
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<td></td>
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</table>

Table 6

<table>
<thead>
<tr>
<th>Effect</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total:</td>
<td>0.1561</td>
<td></td>
</tr>
<tr>
<td>Ind1 :</td>
<td>0.0454</td>
<td></td>
</tr>
<tr>
<td>Ind2 :</td>
<td>0.0462</td>
<td></td>
</tr>
<tr>
<td>Ind3 :</td>
<td>0.0645</td>
<td></td>
</tr>
</tbody>
</table>

Indirect effect key

Ind1 : Knowledge -> Q31Ifeel -> Q14Inte
Ind2 : Knowledge -> Q31Ifeel -> Q29Forme -> Q14Inte
Ind3 : Knowledge -> Q29Forme -> Q14Inte

Note:

<table>
<thead>
<tr>
<th>Key</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q31Ifeel</td>
<td>I feel secure while doing ecommerce</td>
</tr>
<tr>
<td>Q14Inte</td>
<td>I intend to use ecommerce in next 6 months</td>
</tr>
<tr>
<td>Q29Forme</td>
<td>For me ecommerce is useful</td>
</tr>
</tbody>
</table>

The total effect is 0.2058 with a p-value of 0.0017, significant. It consists of a direct effect of 0.0497, which is not significant (p = 0.3661) and a significant part of 0.1561.

This shows that Knowledge about security protocols is a factor in the intention to use ecommerce in the next six months but it is influencing the intention via several paths. For a business, this means that all those paths should be considered.

5. Conclusions and Recommendations

The Intention to do online banking and ecommerce in the future was better explained in this work than actual behavior in the past. It is of course not known how intention about future behavior will translate into actual behavior. Perception of Usefulness plays a role in the intention to use online banking and ecommerce, in accordance with the TAM model. The
frequency of use of both online banking and e-commerce is influenced by the Perception of Ease of Use. This shows that ease of use should be of paramount importance to designers of applications in this area. The findings support strongly that subjective feelings of knowing enough about security, security protocols and issues like phishing and other threats influence the user perception about feeling of safety during online transactions, and that is an important factor in the actual acceptance of the ecommerce and online banking. Therefore, all parties involved in online banking and e-commerce should put in extra effort in making the public feel sufficiently knowledgeable in those areas. Different from what one maybe expect, it is not the case that there is one area that influences those feelings of safety during online transactions. The more generalized perception that one is sufficiently knowledgeable leads to the feeling of safety.

References


