Attributes of innovation and adoption of mobile banking in Egypt

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\textbf{ABSTRACT}

While studying the adoption of mobile banking, its antecedents must be considered to have a better understanding and complete picture of the factors affecting the adoption of mobile banking. There is a scarcity of studies about the effect of the (Rogers, 1995, 2003) five attributes of innovation on the adoption of mobile banking. So, this paper examined the effect of relative advantage, compatibility, complexity, trialability, and observability on the adoption of mobile banking in Egypt. The study hypotheses were tested using primary data collected online. The results show that relative advantage, compatibility, and observability have a significant positive impact on the adoption of mobile banking. On the other hand, the effect of complexity and trialability on the adoption of mobile banking was negative but nonsignificant.

\textbf{INTRODUCTION}

Mobile banking, as a new fintech channel, can provide reasonable financial solutions that make financial services more available and increase their accessibility to individuals all over the country, especially in places where traditional financial services do not reach or are insufficient (Bongomin \& Ntayi, 2020). Also, According to Ozili (2018), digital finance- which means providing financial services via mobile phones or Computers or digital cards linked to a digital payment system- can affect financial inclusion in developing and Developed countries.

Hence, mobile banking can be considered a digital channel that provides better coverage and more cost-effective services to unbanked people (Deb \& Agrawal, 2017). Consequently, the individuals’ intention to adopt mobile banking can affect the level of FI in any country as a form of desirable financial behavior. It can be seen as an antecedent for achieving FI. However, only a few researchers studied the effect of mobile banking adoption on FI in different countries (Etim, 2014; Kemal, 2016; Lashitew et al., 2019; Bongomin \& Ntayi, 2020).

According to Demirg"{u}c-Kunt et al. (2022), the COVID-19 pandemic accelerated the adoption of mobile banking, which transformed access to finance, and in developing countries, more than 30\% of adults paid bills from an account for the first time after the COVID-19 pandemic which can be an evidence of the pandemic's impact on digital adoption.

So, an issue has arisen regarding the adoption of mobile banking (AMB): while studying AMB, its antecedents must be considered to have a better understanding and complete picture of the factors affecting AMB. The antecedents or factors differ according to the theories adopted in this context. According to Rogers (1995, 2003), the attributes of innovation are one crucial explanation for the...
adopter rate of any innovation as most of the variance in the rate of adoption of innovations, from 49 to 87 percent, is explained by
five attributes: relative advantage, compatibility, complexity, trialability, and observability.

However, there was a scarcity of studies about the effect of the (Rogers, 1995, 2003) five attributes of innovation on the AMB, as
there was only one study that examined the effect of those five attributes of innovation on the AMB in Saudi Arabia but added one
more factor which was perceived risk. The other studies did not examine the effect of all five attributes, as one studied the effect of
only one attribute: compatibility (Hanafizadeh et al., 2014). Another study examined the effect of four of them on the AMB:
trialability, compatibility, complexity, and relative advantage (Khraim et al., 2011). So, this study will examine the effect of the five
attributes of innovation on AMB to have a better understanding and a complete picture of the factors affecting AMB and its effect
on FI.

So, this study contributes to existing knowledge by examining the effect of the five attributes of innovation on AMB. Also, this study
contributes to developing a valid scale to measure the adoption of mobile banking, and the predictor variable used attributes of
innovation.

This study is organized into five sections. Section 1 is the introduction. Section 2 reviews the current literature about study variables
and shows the development of the study hypotheses. Section 3 presents the methodology part. Section 4 shows the results of statistical
analysis and hypothesis testing. Section 5 outlines the discussion part, which consists of four subsections: main results, theoretical
contributions, managerial implications, and finally, limitations and future research directions.

**Literature Review**

**Theoretical and Conceptual Background**

According to Diffusion of Innovation Theory (DIT), an individual deals with a specific innovation through several stages. The first
stage is **knowledge**, which occurs when the individual is exposed to a specific innovation and tries to understand how it works. The
second stage is **persuasion**, which occurs when the individual forms a positive or negative attitude towards this innovation, and this
is affected by five essential characteristics of innovation: relative advantage, compatibility, complexity, trialability, and observability.
The third stage is the **decision**, in which the individual decides whether to adopt or reject the innovation. The fourth stage is
**implementation**, in which the individual uses the innovation. The final stage is **confirmation**, in which either the individual continues
to adopt or makes a reverse decision if exposed to a negative experience, where he may reject the innovation he has adopted (Rogers,

Since mobile banking in Egypt is considered relatively recent and did not spread widely, according to the statements of the President
of the Central Bank of Egypt, except with the emergence of the Covid-19 pandemic at the beginning of 2020, it can be said that
individuals in Egypt according to innovation-decision process (Rogers, 2003) are considered to be in the stages three and four
(decision and implementation). So, this study will examine adoption as the behavioral intention to use or reuse the innovation.

The adoption rate is the relative speed by which people adopt any innovation. It is generally measured by the number of individuals
who adopt the new idea in a specified period, such as a year. So, the adoption rate is an indicator of the adoption of any innovation.
The attributes of innovation are a critical explanation for the adoption rate of any innovation. Most of the variance in the rate of
adoption of innovations, from 49 to 87 percent, is explained by five attributes: relative advantage, compatibility, complexity,
trialability, and observability (Rogers, 1995, 2003).

**Empirical Review and Hypothesis Development**

Previous research referred to mobile banking by many terms like pocket banking, branchless banking, m-finance, and m-payment.
However, mobile banking, as a vital component of electronic banking, usually represents one of the alternative channels for various
financial and non-financial transactions, such as opening sub-accounts, knowing the locations of ATMs, knowing the balance of
accounts, financial transfers, and other transactions (Shaikh & Karjaluoto, 2015). So, Mobile Banking (MB) can also be defined as
banking transactions conducted through mobile devices such as mobile phones, tablets, or PDAs (Siddik et al., 2014).

Retail banks and microfinance institutions typically provide several alternatives for accessing banking services through a mobile
phone: applications that can be installed on a mobile smartphone, applications that can be installed on tablets, an SMS service that
provides notifications about account and credit card information, and websites for internet banking that can be browsed via Internet
browsers installed on mobile phones (Shaikh & Karjaluoto, 2015).

Previous work in the field of information systems thought that mobile banking could be seen as one of the vital technological
innovations. Even though mobile banking has many new features (e.g., mobility, flexibility, and ubiquity) compared to old banking
channels (e.g., non-mobile internet banking, ATM, and phone banking), the effect of the features of innovation on the AMB is not
fully understood until now. (Lin, 2011), especially in the Egyptian context, where most researchers ignored this effect and focused
on studying the impact of perceived ease of use and perceived benefit on mobile banking services.

Various theories emerged while seeking to explain the individuals’ adoption of any new technology, the most important of which are
the theory of diffusion of innovation, the technology acceptance model theory, the resistance to innovation theory, and the planned
behavior theory. Despite these theories contributing to comprehending the adoption of any technology or new product/service, many aspects need to be known (Chaouali et al., 2017).

Adoption is an individual's decision to fully use innovation as the best alternative to deal with innovation, while the opposite alternative in that stage is rejecting the innovation (Rogers, 2003). So, according to the study purpose and considering what was presented in the theoretical background part, the adoption of mobile banking (AMB) means that individuals adopt mobile gates such as mobile phones to access banking services, including payment, account inquiries, transferring money (Yuan et al., 2014).

Additionally, the adoption rate is the relative speed at which people adopt any innovation. Moreover, it is generally measured by the number of individuals who adopt the new idea in a specified period, such as a year. So, the adoption rate indicates the adoption of any innovation. The attributes of innovation are one crucial explanation for the adoption rate of any innovation. Most of the variance in the rate of adoption of innovations, from 49 to 87 percent, is explained by five attributes: relative advantage, compatibility, complexity, trialability, and observability (Rogers, 1995, 2003). So, according to (DIT) and the previews, the study can hypothesize that:

H1: Relative advantage has a significant positive effect on the AMB.
H2: Compatibility has a significant positive effect on the AMB.
H3: Complexity has a significant adverse effect on the AMB.
H4: Trialability has a significant positive effect on the AMB.
H5: Observability has a significant positive effect on the AMB.

Based on the hypotheses mentioned above, the conceptual framework is Figure (1) shown below:

![Proposed Conceptual Framework](image)

**Figure 1:** Proposed Conceptual Framework; *Source:* Adopted by author

**Research and Methodology**

**Research Philosophy**

According to Saunders et al. (2016), the research process "onion" this study belongs to the "positivism" philosophy, which assumes that the researcher is independent of the subject being investigated. It objectively views the social world with a value-free approach. The deductive approach tests the hypotheses developed based on the literature review.

A survey method is used to collect data. Accordingly, this study depends on cross-sectional data since the measurement is conducted for a single point of time, and each sampling unit is measured only once (Collis & Hussey, 2014).

**Sample size**

According to (Pallant, 2005), the sample size should be more than five times the indicator number. Since the current study has six variables and the indicator number is six, the sample size must be more than 60 (6 x 5 = 30).

Furthermore, (Costello & Osborne, 2005) opinion is that the sample size should be at least 20 subjects per variable, so the sample size must be more than 120 (20 x 6 = 120). In addition, (Pallant, 2011) suggests that the sample size must be 200 in total at least.

Accordingly, comparing the results of the two rules mentioned above, the minimum sample size must be more than 200 subjects to get more reliable results. Consequently, this study's sample size (n=310) (higher than the recommended value of 200 respondents) is considered suitable for getting reliable results.

**Sampling Technique**

The population of this study consists of all mobile phone adult users in Egypt. So, the suitable sample type for this research is the online snowball nonprobability sample because there is no homogeneity in the population of interest, and the sampling frame is inaccessible. To be eligible for the study, participants have to be a) seventeen years old or over, b) Egyptian citizens, and c) have a Smartphone. The sample is represented in gender, age, education level, income, and residence place.
A quantitative research methodology using an online survey technique is employed to collect the data from respondents. Online data collection techniques are increasingly employed by academics and practitioners from various disciplines (Ilieva et al., 2002). Online surveys have many advantages, including prompt access to a broad audience, wider geographic reach, and short response times. Data collection through the Internet also allows cost savings since the printing and mailing of survey instruments are eliminated (Cobanoglu et al., 2001) and allows messages to be delivered to the recipients immediately, regardless of geographical location. Such advantages make the online survey technique suitable for cross-sectional studies. The designed survey sample was created on Google Forms, and the questionnaire link was used to access the survey on social media (e.g., Facebook and WhatsApp groups).

**Measurement Model:**

To evaluate the reliability and validity of the proposed measurement model, a confirmatory factor analysis (CFA) and construct reliability test using Cronbach's alphas test were conducted using data collected from 100 adult Egyptians. Based on this data analysis, 47 of 57 items were retained for further processing, in detail: attributes of innovation (17) and adoption of Mobile Banking (5) were retained with lesser indicator items, and the details are shown in Table (1) as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Items</th>
<th>Loadings</th>
<th>RMR</th>
<th>GFI</th>
<th>CFI</th>
<th>Construct reliability (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributes of Innovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative Advantage</td>
<td>RA1</td>
<td>0.868</td>
<td></td>
<td>0.969</td>
<td></td>
<td>0.859</td>
</tr>
<tr>
<td></td>
<td>RA2</td>
<td>0.888</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RA3</td>
<td>0.683</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatibility</td>
<td>COM1</td>
<td>0.833</td>
<td></td>
<td>0.896</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COM4</td>
<td>0.857</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COM5</td>
<td>0.893</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complexity</td>
<td>COMPLEX1</td>
<td>0.884</td>
<td></td>
<td>0.740</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMPLEX2</td>
<td>0.578</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMPLEX3</td>
<td>0.574</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trialability</td>
<td>TRIAL1</td>
<td>0.657</td>
<td></td>
<td>0.841</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRIAL2</td>
<td>0.578</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRIAL3</td>
<td>0.783</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRIAL4</td>
<td>0.881</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observability</td>
<td>OBSERV1</td>
<td>0.815</td>
<td></td>
<td>0.842</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OBSERV2</td>
<td>0.622</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OBSERV3</td>
<td>0.821</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OBSERV4</td>
<td>0.792</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adoption of Mobile Banking</td>
<td>AMB1</td>
<td>0.953</td>
<td></td>
<td>0.988</td>
<td>0.996</td>
<td>0.929</td>
</tr>
<tr>
<td></td>
<td>AMB2</td>
<td>0.957</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AMB3</td>
<td>0.757</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AMB4</td>
<td>0.794</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AMB5</td>
<td>0.733</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Adopted by Author

**Attributes of Innovation (AoI):** the five attributes of innovation were tested as a second-order latent variable in the proposed research model. The scale items were adopted from (Moore & Benbasat, 1991; Al-Jabri & Sohail, 2012) with some modifications according to the study purpose. To statistically validate the structure, a first-order CFA was done. Based on first-order CFA findings, seventeen items were retained for further analysis (three items of relative advantage, three items of compatibility, three items of complexity, four items of trialability, and four items of observability) while dropping two items due to poor loadings (less than 0.5). Also, the construct reliability was acceptable as Cronbach's alphas = 0.859, 0.896, 0.740, 0.841, and 0.842 for relative advantage, compatibility, complexity, trialability, and observability, respectively.

**Adoption of Mobile Banking (AMB):** AMB was tested as a second-order latent variable in the proposed research model. The scale items were adopted from (Lin, 2011; Hanafizadeh et al., 2014; Chaouali et al., 2017; Bongomin & Ntayi, 2020) with some modifications according to the study purpose. To statistically validate the structure, a first-order CFA was done. Based on first-order
CFA findings, all five items were retained for further analysis. Also, the construct reliability was acceptable as Cronbach’s alphas = 0.929.

**Estimation methods**

This study assessed descriptive correlations using SPSS 22. Also, this study tested the relationships between study variables by SEM using IBM SPSS AMOS 22.

**Findings and Discussions**

**Findings**

**Descriptive statistics**

Table (2) presents the sample characteristics, showing that the sample comprised 54.5% females and 45.5% males. The most significant number of respondents was from 17 to less than 39 years old (81.9%). At the same time, the most significant number of respondents were postgraduates (48.4%). Finally, regarding the sample income, the most significant respondents were in the low-income category (less than 5000 EGP) (45.5%).

**Table 2: Sample Characteristics (N=341)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>% (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>45.5 (141)</td>
</tr>
<tr>
<td>Female</td>
<td>54.5 (169)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>From 17 to less than 22</td>
<td>11.6 (36)</td>
</tr>
<tr>
<td>From 22 to less than 28</td>
<td>32.9 (102)</td>
</tr>
<tr>
<td>From 28 to less than 34</td>
<td>20.3 (63)</td>
</tr>
<tr>
<td>From 34 to less than 39</td>
<td>17.1 (53)</td>
</tr>
<tr>
<td>From 39 to less than 45</td>
<td>7.4 (23)</td>
</tr>
<tr>
<td>From 45 to less than 51</td>
<td>2.9 (9)</td>
</tr>
<tr>
<td>From 51 to less than 57</td>
<td>1.9 (6)</td>
</tr>
<tr>
<td>57 and older</td>
<td>5.8 (18)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Undergraduate Student</td>
<td>12.9 (41)</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>38.7 (120)</td>
</tr>
<tr>
<td>Postgraduate degree</td>
<td>48.4 (150)</td>
</tr>
<tr>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>less than 5000 (Low-Income)</td>
<td>45.5 (141)</td>
</tr>
<tr>
<td>From 5000 to less than 10000 (Average income)</td>
<td>41 (127)</td>
</tr>
<tr>
<td>More than 10000 (High-Income)</td>
<td>13.5 (42)</td>
</tr>
</tbody>
</table>

**Source:** Adopted by Author

Table (3) presents the descriptive statistics and correlations among the study variables. The correlations between relative advantage, compatibility, observability, and AMB were significant at the p<0.01 level.

**Table 3: Descriptive Statistics and Correlations**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Relative Advantage</td>
<td>3.895</td>
<td>1.024</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Compatibility</td>
<td>3.840</td>
<td>1.043</td>
<td>0.776***</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Complexity</td>
<td>2.979</td>
<td>1.010</td>
<td>-0.033</td>
<td>-0.033</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Trialability</td>
<td>3.702</td>
<td>0.882</td>
<td>0.643***</td>
<td>0.648***</td>
<td>0.199***</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Observability</td>
<td>3.918</td>
<td>0.970</td>
<td>0.715***</td>
<td>0.658***</td>
<td>0.041</td>
<td>0.585***</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6. AMB</td>
<td>4.340</td>
<td>0.866</td>
<td>0.572***</td>
<td>0.601***</td>
<td>-0.046</td>
<td>0.418***</td>
<td>0.510***</td>
<td>1</td>
</tr>
</tbody>
</table>

*** p<0.01; **p<0.05; *p<0.1.

**Note.** AMB = Adoption of Mobile Banking, SD = Standard Deviation

**Source:** Adopted by Author

**SEM and Regression Analysis Results**

Table (4) and Figure (2) show the findings of the test of the hypotheses from H1 to H6. Path coefficient (β) and P-values were reported in statistical hypothesis testing to decide whether the hypotheses were accepted. According to the statistical analysis results
shown in Table (4) and Figure (2) relative advantage ($\beta= 0.204, P< 0.01$), compatibility ($\beta= 0.367, P< 0.01$), and observability ($\beta= 0.139, P< 0.01$) have a significant positive impact on AMB, which supports the H1, H2, and H5. On the other hand, the effect of complexity ($\beta= -0.028, P> 0.1$) and trialability ($\beta= -0.026, P> 0.1$) on AMB is negative but nonsignificant. That result means that when relative advantage, computability, and observability increase by one unit, AMB will increase by 0.204 units, 0.367 units, and 0.139, respectively.

Nevertheless, it is worth remembering that the path coefficient might not be quantified and evaluated until the predictive value is determined. The statistical analyses indicate that the R-Square value for AMB is 0.398, so the model reveals around 39.8% of the AMB variation. Also, the model fit Summary indicates that (RMR = 0.000; CFI = 1.00; GFI = 1.00), which means good model fitting.

Table 4: SEM Path Analysis for Study Relationships

<table>
<thead>
<tr>
<th>Paths</th>
<th>$R^2$</th>
<th>$\beta$</th>
<th>SE.</th>
<th>CR.</th>
<th>P</th>
<th>Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Advantage $\rightarrow$ AMB: H1</td>
<td>0.398***</td>
<td>0.204**</td>
<td>0.067</td>
<td>2.569</td>
<td>0.010</td>
<td>Yes</td>
</tr>
<tr>
<td>Compatibility $\rightarrow$ AMB: H2</td>
<td>0.367***</td>
<td></td>
<td>0.062</td>
<td>4.883</td>
<td>0.000</td>
<td>Yes</td>
</tr>
<tr>
<td>Complexity $\rightarrow$ AMB: H3</td>
<td>-0.028</td>
<td></td>
<td>0.040</td>
<td>-0.603</td>
<td>0.546</td>
<td>No</td>
</tr>
<tr>
<td>Trialability $\rightarrow$ AMB: H4</td>
<td>-0.026</td>
<td></td>
<td>0.063</td>
<td>-0.405</td>
<td>0.685</td>
<td>No</td>
</tr>
<tr>
<td>Observability $\rightarrow$ AMB: H5</td>
<td>0.139***</td>
<td></td>
<td>0.059</td>
<td>2.099</td>
<td>0.036</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*** p<0.01; **p<0.05; *p<0.1.

Note: Standardized coefficients reported. Model Fit: RMR= 0.099, GFI=0.965, and CFI= 0.968.

Source: Adopted by Author

Figure 2: Path Analysis Diagram; Source: Adopted by Author

Discussions

This study examines some relationships using primary data collected through an online questionnaire. This study finds that relative advantage has a significant positive impact on AMB (H1), which needs the banks to announce and make their customers and all the adults in Egypt more aware of the advantages that their mobile banking applications can offer to them, which may lead in increasing in the mobile banking adoption between the Egyptian adults.

Also, this study finds that compatibility has a significant positive impact on AMB (H2), which requires the banks to make their mobile banking applications more compatible with the individuals needing to increase their mobile banking applications' adoption rate. Furthermore, this study found that observability has a significant positive impact on AMB (H3).

The banks need to make the results of using the mobile banking apps visible to everyone so that individuals can know what results they will benefit from when they use and adopt the applications, which may lead to an increase in the adoption rate.

On the other hand, the complexity had a negative nonsignificant effect on AMB. At the same time, mobile banking in Egypt is complex but still a new phenomenon for most individuals. Hence, the banks need to made there apps more straightforward, as when individuals get familiar with that new technology, the complexity may affect the adoption rate negatively. This effect can become
significant in the future. Also, trialability had a negative nonsignificant effect on AMB, and that could be because the only way to try the app is after subscribing to the mobile banking service, so it is not available for trial in advance.

Then, we can conclude that the banks can improve the adoption rate of their mobile banking applications by focusing on making the results of using the apps evident to everyone through promotional activities like advertising and also by making their mobile banking apps have more advantages relatively compared to the traditional banking services and also to the other bank’s apps. Also, banks can improve the adoption rate of their mobile banking applications by making these apps more compatible with individuals' needs.

Our study suffers from some limitations; one of the limitations of this study is that it did not address some essential other variables that may affect the adoption rate of mobile banking, such as perceived ease of use and perceived usefulness. Also, this study focused on only one country, Egypt, as if it were conducted in more than one country. Also, the study was limited only to surveys through the Internet, which the researchers tried to avoid by conducting personal interviews after collecting and analyzing the data. These limitations point the way to further studies in this area. A comparative study can be conducted between Egypt and China regarding the study variables, and it is also possible to search for more moderating variables that may strengthen the relationship between the study variables.

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References


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