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Journal of Retailing and Consumer Services

journal homepage: www.elsevier.com/locate/jretconser

Explaining adoption of mobile banking with the theory of trying, general self-confidence, and cynicism

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ARTICLE INFO

Keywords:

Mobile banking
Theory of trying
Attitudes
General self-confidence
Cynicism

ABSTRACT

Drawing upon the theory of trying, the present study goes a step further by including two important, but rarely addressed factors in the context of new technology adoption: general self-confidence and cynicism. Both of these variables are considered significant precursors of attitudes, particularly in the context of emerging and developing countries. The data were collected from 557 bank customers and then analyzed using Smart PLS. The findings reveal that intention of adopting mobile banking is determined by attitude toward mobile banking, which in turn is determined by attitude toward success, attitude toward failure, and attitude toward learning to use mobile banking. The last three attitudes are significantly influenced by general self-confidence and cynicism.

1. Introduction

The diffusion of mobile devices and wireless Internet has fostered the uptake of mobile applications such as mobile banking (Al-alak, 2014; Hew et al., 2015; Laforet and Li, 2005). For Kim et al. (2009a, p. 283), “mobile banking is an emerging application of mobile commerce that could become an additional revenue source to both banks and telecom service providers. It is a form of service convergence enabled by innovative technologies”. It is a cost effective service which allows users to break free of the constraints of time, place, and queues (Al-Ajam and MdNor, 2015).

Several theories were developed to explain consumers' product and service adoption. Among them, the diffusion of innovations theory (Rogers, 1962), the theory of planned behavior (Ajzen, 1991), the theory of acceptance model (Davis et al., 1989), and the theory of resistance to innovation (Ram and Sheth, 1989) are the most significant ones. They report several adoption enablers and inhibitors that

are mainly related to perceptions of technology attributes (e.g., performance expectancy and perceived ease of use), users'/non-users' characteristics (e.g., innovativeness and technology readiness), social influences (e.g., social norms, mass media, and social media), and environmental/situational factors (e.g., trust and perceived risk) (Al-Ajam and MdNor, 2015; Andrews and Bianchi, 2013; Cruz et al., 2010a, 2010b; Kaushik and Rahman, 2015; Laukkanen and Kiviniemi, 2010; Robertson et al., 2016). Although these theories contribute substantively to the comprehension of technology or new product/service adoption, much remains to be known about the range of attitudes intervening during consumer's decision-making process.

When investigating consumers' adoption of new products and services, and their purchase decisions and intentions, past studies consider attitude as a key antecedent of these behaviors and behavioral intentions. Additionally, attitude is often considered as a unidimensional concept (Curran and Meuter, 2005; Jones et al., 2015; Kaushik and Rahman, 2015), a view that is challenged by some authors (e.g.,

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Bagozzi et al., 1992; Xie et al., 2008). According to them, individuals are likely to form different, even competing, judgements before they make decisions or choices (Bagozzi and Dholakia, 1999; Xie et al., 2008).

Unlike other adoption models, the theory of trying conceptualizes attitude as a multidimensional concept (Bagozzi et al., 1992). It assumes that people's attitude toward technology adoption is a function of three sub-attitudes, namely, attitude toward success, attitude toward failure, and attitude toward learning to use the technology. The conceptualization of attitude as a multidimensional concept seems to better explain consumers' new technology adoption in the context of emerging and developing countries. As reported by several scholars, bank clients in these countries are still reluctant to embrace mobile banking (Akhlaq and Ahmed, 2013; Al-Ajam and MdNor, 2015; Chemingui and Ben Lallouna, 2013) and their adoption of this new service is confronted with internal shortcomings (e.g., strong offline bank habits) as well as external environmental contingencies (e.g., limited wireless Internet infrastructure) (Akhlaq and Ahmed, 2013; Cruz et al., 2010a, 2010b). Bagozzi et al. (1992) and Xie et al. (2008) further argue that individuals in emerging countries would hold different considerations of success, failure, and learning to use mobile banking. Their adoption of mobile banking is "vulnerable to failure and requires effort at goal striving" Xie et al. (2008, p. 113).

In addition, consumers in these countries are ambivalent in their decision to adopt or buy new products and services (Souiden et al., 2011). For these authors (p. 357), "consumers in emerging countries are likely to be torn between their risk aversion and their aspiration to purchase high-tech products". Consumers are likely to predominantly rely on their general self-confidence as a *can-do* attitude which incites them to adopt innovations and "helps counter their natural tendency to quit too easily" when they are confronted with complex and uncertain choices (Benabou and Tirole, 2002, p. 873). Thus, consumers' general self-confidence seems to play a significant role in adopting or rejecting new products/services. Confirming this view, Chuang et al. (2013) and Dodd et al. (2005) argue that individuals with high general self-confidence are likely to develop favorable attitudes toward technology adoption because they prefer taking risks, are convinced that they can exploit new opportunities, and are comfortable in making decisions in unfamiliar situations.

Another factor that may explain consumers' acceptance or rejection of new products/services in emerging and developing countries is cynicism. Although cynicism received significant attention in explaining employees' resistance to organizational changes, it is barely addressed in the realm of consumer behavior (Bommer et al., 2005; Brown et al., 2015). Widespread business and political corruption in many developing and emerging countries has led to the development of cynicism in these societies (Alatas, 1999; Arli and Lasmono, 2010). Individuals in these countries tend to disbelieve companies' sincerity and benevolence in putting consumers' interest in the forefront. Efendioglu and Yip (2004) add that the characteristics of developing and emerging countries' local environments (e.g., underdeveloped infrastructural and socio-economic environments) have made local consumers more cynical and less inclined to adopt new services such as e-commerce. Likewise, Lee (2008) and Wong et al. (1996) report that one of the main reasons hindering the adoption of new products (e.g., green products) in these countries is consumer cynicism about such products. When facing a new challenge, cynic individuals usually show an attitude of suspicion and doubt as a coping strategy (Alnuaimi et al., 2011). This infers that cynicism can explain consumers' unwillingness to adopt innovations such as mobile banking because cynics tend to be suspicious of new products/services (Alnuaimi et al., 2011; Chylinski and Chu, 2010; Darke and Ritchie, 2007) and "distrustful of marketing claims, actively resist marketing actions, and may become hostile in an attempt to prevent further dissatisfaction" (Chylinski and Chu, 2010, pp. 797–798).

Based on the above, the present study considers that general self-

confidence and cynical attitudes toward new products and services are key elements in explaining consumers' behavioral intentions toward the adoption of mobile banking, particularly in the context of emerging and developing countries. Taking the theory of trying as the backbone of this study, the present paper aims at augmenting this theoretical framework by exploring the roles of general self-confidence and cynicism in explaining consumers' adoption of mobile banking. To the best of the authors' knowledge, no attempts have been made to investigate the combined roles of general self-confidence and cynicism in technology adoption at the individual level.

The remainder of the paper is composed of seven major sections. The second section deals with a brief review of the theory of trying, general self-confidence, and cynicism. In this section, the research framework and hypotheses will be presented. The third section of the paper explains the research methodology. Results and discussion are reported in sections four and five, respectively. The paper then presents some theoretical and managerial implications. Finally, it reports the study's limitations and proposes some future research avenues.

2. Literature review and hypotheses

2.1. The theory of trying

Traditional attitudinal theories suggest that attitude is a single component concept. This unidimensional conceptualization matches non-problematic behaviors (i.e., behaviors which are not thwarted by internal and external impediments) toward which individuals form an overall attitude where the likelihood of success is higher than the likelihood of failure (Taylor et al., 2001; Xie et al., 2008). In contrast, the theory of trying, with its multidimensional conceptualization of attitude, was developed by Bagozzi and Warshaw (1990) in order to comprehend the appraisal processes underlying the performance of problematic behaviors. By problematic (difficult in the eyes of a decision-maker), they mean behaviors which are hindered by internal shortcomings and external environmental contingencies (e.g., lack of skills, unconscious habits, and poor quality of Internet connection) (Al-Somali et al., 2009; Lal Dey et al., 2016; Laukkanen and Kiviniemi, 2010; Taylor et al., 2001; Xie et al., 2008).

Several studies strongly support the prevalence of a polythetic structure of attitudes over a monolithic one (Curran and Meuter, 2005, 2007; Kim et al., 2009b; Xie et al., 2008; Wang and Xu, 2015). The use of a multidimensional conceptualization of attitudes is proven in different study areas, such as entrepreneurial behaviors (Carsrud et al., 2009), corporate social responsibility decisions (Sandve and Øgaard, 2013), dieting (Bagozzi et al., 2004), student retention in education (Bay and Daniel, 2003), value co-creation (Xie et al., 2008), self-regulation of body weight and hypertension (Agarwal and Agarwal, 2003; Taylor et al., 2001, 2006), and technology adoption (Ahuja and Thatcher, 2005; Reinders et al., 2008).

Unlike other adoption models, the theory of trying contends that the coexistence of distinct attitudes in a hierarchical way (Bagozzi, 2007) is useful in addressing various "problematic" behaviors. Indeed and in contrast to traditional attitudinal theories, the theory of trying addresses the case where individuals may try a specific technology, but fail to adopt it (Bagozzi et al., 1992). Learning how to use the technology is a barrier for many persons and the likelihood of failure outweighs the likelihood of success in many cases (Bagozzi et al., 1992; Xie et al., 2008). This may lead them to develop a negative attitude toward new technology adoption (Bagozzi et al., 1992).

The theory of trying proposes a three-dimensional conceptualization of attitude, which is akin to the three possible responses to the potential outputs of behavioral enactment which are trying and succeeding, trying but failing, and learning to use the technology (Bagozzi et al., 1992). Thus, the attitude toward new technology adoption results from the combined effects of: i) attitude toward trying and succeeding, ii) attitude toward trying but failing, and iii) attitude

toward learning to use the technology (Bagozzi, 1993; Bagozzi et al., 1992; Hinsz and Ployhart, 1998; Xie et al., 2008).

In the context of emerging and developing countries, previous studies report inconclusive findings with respect to the explanatory power of the technology acceptance model when compared with other competing models (Chuttur, 2009; Ahmed and Ward, 2016; Riffai et al., 2012; Oye et al., 2014; Faqih and Jaradat, 2015; Ahuja and Thatcher, 2005; Bagozzi et al., 1992; Premkumar and Bhattacharjee, 2008; Taylor and Todd, 1995). For instance, Ahmed and Ward (2016) find that Chinese students' acceptance of electronic portfolios is better predicted using the decomposed theory of planned behavior than the technology acceptance model. In addition, a plethora of studies in these countries either exclude attitude as a determinant of consumers' purchase intentions (e.g., Abou-Shouk et al., 2016; Premkumar and Bhattacharjee, 2008; Yousafzai et al., 2007a, 2007b) or report its weak and insignificant impact on intention (Yousafzai et al., 2007a, 2007b). However, Kim et al. (2009b) argue that the role of attitude is important in determining intentions of new technology adoption. They add that its exclusion would certainly undermine the prediction of intention. Thus, the main question that remains is not whether to include or exclude attitude, but how to conceptualize it (i.e., unidimensional vs. multidimensional).

Another noteworthy point is that the technology acceptance model assumes that 'perceptions of usefulness' and 'ease of use' generate favorable attitudes and then high intentions. However, this dominant assumption does not hold true in the context of emerging and developing countries (Faqih, 2016; Faqih and Jaradat, 2015). Several meta-analyses find that such utilitarian considerations have weaker and even insignificant effects on attitude or intention in developing countries when compared to developed ones (Schepers and Wetzels, 2007; Yousafzai et al., 2007a, 2007b; Zhang et al., 2012).

The disagreement on the nature of the relationship between attitude and intention, and the insignificant impacts of perceived usefulness and ease of use are mainly attributed to the differences between most and least technologically advanced countries. In fact, several developing countries present unfavorable environmental factors such as poor telecommunication infrastructure, poor Internet coverage, slowness and unreliability of mobile network technology, and high cost of Internet usage aside from the political and economic instability (Abou-Shouk et al., 2016; Laukkanen and Cruz, 2009; Cruz et al., 2010a, 2010b; Faqih, 2016; Faqih and Jaradat, 2015). These deterring barriers would, for instance, create a haze around people's receptivity to the utility (e.g., accessibility, mobility, better management of persons' finance, and cost efficiency) of mobile banking. As reported by Lee and Wan (2010) and Lu et al. (2008), mobile banking in these countries is perceived as prone to vulnerabilities and fallibilities that may lead consumers to develop a less favorable attitude and purchase intention.

Also, in many low and middle income countries, the majority of offline bank clients are less enthusiastic about accepting mobile banking as an alternative banking delivery channel (Akhlaq and Ahmed, 2013; Chemingui and Ben Lallouna, 2013). For non-adopters, the presence of internal and external barriers leads them to believe that mobile banking is a *problematic* behavior (Laukkanen and Kiviniemi, 2010). This fact further justifies the utility of the theory of trying in the context of developing and emerging countries since it is conceived to address 'problematic' behaviors. Hence, and in line with the theory of trying, consumers are more likely to form an overall attitude toward mobile banking adoption based on their attitude toward success (trying and succeeding), attitude toward failure (trying but failing), and attitude toward learning to use mobile banking.

We assume that when individuals form positive appraisals of success, they are likely to form a positive overall evaluation of mobile banking adoption. However, when they form a positive attitude toward failure, they are likely to form a negative overall evaluation of mobile banking adoption. In addition, when they form a positive attitude

toward learning to use mobile banking, they are likely to form a positive overall evaluation of mobile banking adoption. Favorable evaluations of the outcomes regarding the adoption of mobile banking would prompt high intentions, in line with previous research (Agarwal et al., 2009; Badrinarayanan et al., 2014; Davis et al., 1989; Wagner et al., 2016). Therefore, it is hypothesized that:

H1. Attitude toward success has a positive impact on attitude toward mobile banking adoption.

H2. Attitude toward failure has a negative impact on attitude toward mobile banking adoption.

H3. Attitude toward learning to use mobile banking has a positive impact on attitude toward mobile banking adoption.

H4. Attitude toward mobile banking adoption has a positive impact on intention of adopting mobile banking.

As mentioned earlier, this study argues that general self-confidence and cynicism might determine individuals' attitude toward mobile banking adoption. The next sections discuss the effects of general self-confidence and cynicism on attitude toward success, attitude toward failure, and attitude toward learning.

2.2. General self-confidence

The literature reports that self-confidence is related to uncertainty and risk preference (Chuang et al., 2013). For Bearden et al. (2001), when individuals are confronted with intricate situations, self-confidence plays a significant role in backing their decisions. Self-confidence is reported to determine the attitude of individuals (Benabou and Tirole, 2002).

There are two types of self-confidence: general self-confidence and specific self-confidence (Bearden et al., 2001). The present study focuses on the former. The rationale behind this is that specific self-confidence implies that consumers have ample information and knowledge that make them confident about handling a specific question or problem (Bearden et al., 2001; Chuang et al., 2013). In other words, specific self-confidence is gained and boosted by the cumulative history of successful use or progressive trials. However, in the context of new technology or new product/service adoption, consumers, particularly non-adopters, often lack information about and familiarity with the task.

General self-confidence is defined as a "positive or negative attitude toward a particular object, namely, the self" (Rosenberg, 1965, p. 30). Bearden et al. (2001) contend that general self-confidence is associated with the person's decisions and behaviors in general. Tan and Tan (2007, p. 63) add that it is "the consumer's belief regarding his/her ability to make sound judgments". For this reason, general self-confidence is more appropriate with non-users: those who have not yet experienced or tried the product or the service (Agarwal et al., 2000).

Individuals with high general self-confidence exhibit high self-esteem and enhanced self-image and self-worth (Chuang et al., 2013; Dodd et al., 2005). They are accustomed to making new decisions, prefer taking risks, are convinced that they can exploit new opportunities, are comfortable about their choices, and can overcome anxiety and frustration in uncertain and risky environments (Chuang et al., 2013; Dodd et al., 2005). Thus, self-confident individuals are assured that they can successfully manipulate mobile banking applications (Barber et al., 2006).

By contrast, those with low general self-confidence think that they are insignificant, deficient, vulnerable, and risk averse, always see their fallibilities and imperfections, are uncomfortable when making new decisions, on the alert against any change, and are certain that any choice would end in failure (Chuang et al., 2013; Dodd et al., 2005). These individuals are likely to be uncertain that they can successfully manipulate mobile banking (Barber et al., 2006).

Consequently, self-confident persons will assign higher values to success and attach lower values to failure. Thus, they are likely to be interested in evaluating the consequences of adopting than the consequences of not adopting mobile banking. In addition, they would deem learning to use mobile banking to be attractive, pleasant, and relevant. Based on the above, we propose the following hypotheses:

H5a. General self-confidence has a positive impact on attitude toward success.

H5b. General self-confidence has a negative impact on attitude toward failure.

H5c. General self-confidence has a positive impact on attitude toward learning to use mobile banking.

2.3. Cynicism

While few scholars consider it as a personality trait (e.g., [Kanter and Wortzel, 1985](#)), the majority of recent studies view cynicism as an attitude ([Bashir and Nasir, 2013](#); [Dean et al., 1998](#)). [Guastello et al. \(1992\)](#) argue that cynicism is not correlated with basic personality traits and [Dean et al. \(1998, p. 341\)](#) define it as “an attitude composed of beliefs, affect and behavioral tendencies”. The present study supports the latter view.

It is essential to distinguish cynicism from related concepts such as skepticism and resistance to change. Skepticism is about individuals who “doubt the likelihood of success, but are still reasonably hopeful that positive change will occur” ([Reichers et al., 1997, p. 48](#)). Resistance to change, for its part, derives from “self-interest, misunderstanding, and inherent limited tolerance for change” ([Reichers et al., 1997, p. 48](#)). Cynicism, however, refers to “a lack of belief in the sincerity or goodness of human motives and actions and is manifested in feelings ranging from ‘distrustfulness [and] doubt to contemptuous and mocking disbelief” ([Regoli, 1976, p. 341](#))” (cited in [Gerber and Ward, 2011, p. 424](#)).

Cynicism is considered one of the main factors that trigger consumers’ decisions to adopt a new product or service ([Chylinski and Chu, 2010](#); [Darke and Ritchie, 2007](#); [Tan and Tan, 2007](#)). For a long time, a dominant and traditional marketing point of view described the relationship between the consumer and the market as cooperative and mutually beneficial ([Dobscha, 1998](#)). However, an emerging and diverging stream of research assumes that consumers tend to generalize their suspicion of any product/service as a defensive strategy, specifically when they are unfamiliar with the product/service in question ([Chylinski and Chu, 2010](#); [Darke and Ritchie, 2007](#)). Thus, in the context of this study, cynical individuals infer that they might be fooled by mobile banking ([Chylinski and Chu, 2010](#); [Dean et al., 1998](#); [Dobscha, 1998](#)). They perceive banks’ claims about the reliability and usefulness of mobile banking services as misleading. Also, their suspicions are extended to the company’s marketing practices such as its consumer-oriented culture, claims focusing on the primacy of consumers’ interests, as well as the integrity of the banking industry in general ([Dobscha, 1998](#)). They think that banks are driven by hidden motivations for the implementation of mobile banking as an alternative channel and expect to experience disillusionment instead of honesty and sincerity ([Dean et al., 1998](#)). Therefore, cynical consumers will be more concerned with the outcomes of not adopting than the consequences of adopting mobile banking, and their judgements regarding failure will outweigh their judgements regarding success. They feel that trying but failing is more likely to occur than trying and succeeding. In addition, they would deem learning to use mobile banking to be useless and even noxious. Hence the following hypotheses:

H6a. Cynicism has a negative impact on attitude toward success.

H6b. Cynicism has a positive impact on attitude toward failure.

H6c. Cynicism has a negative impact on attitude toward learning to

use mobile banking.

3. Methodology

The study was conducted in Tunisia where banks have introduced mobile banking since 2010. Tunisian bank customers are still reluctant to embrace this new service despite the fact that Tunisia is one of the leading African countries in terms of mobile telephony, and information and communications technologies ([International Telecommunication Union, 2013](#); [Ministry of Communication Technologies and Digital Economy, 2015](#)). Thus, Tunisia could be considered as an interesting context to study mobile banking adoption in emerging countries.

3.1. The questionnaire

The questionnaire includes eight sections. The first seven sections measure the study’s latent constructs. All measurements are derived from previous studies. General self-confidence, cynicism, and intention of adopting mobile banking are respectively adapted from [Bell \(1967\)](#), [Tan and Tan \(2007\)](#), and [Chemingui and Ben Lallouna \(2013\)](#), and measured with seven-point Likert scales ranging from totally disagree (1) to totally agree (7). Attitude toward success, attitude toward failure, attitude toward learning to use mobile banking, and attitude toward mobile banking adoption are adapted from [Taylor et al. \(2001\)](#) and measured with three seven-point semantic differential items anchored by very unpleasant/very pleasant, very bad/very good, and very unhappy/very happy. [Table 2](#) provides details on the items used to measure the study’s constructs and their corresponding psychometric characteristics. The last section of the questionnaire covers some sociodemographic variables such as age, gender, income, education, and occupation. Also, respondents had to report their mobile Internet experience (i.e., for how long they have been using mobile Internet) and their daily usage frequency. More details about respondents’ sociodemographic characteristics are provided in [Table 1](#).

3.2. The sample

The data was collected by a Tunisian online survey panel company. The online link was sent via e-mail to 1,350 bank customers who previously participated in another survey conducted by the authors. Respondents had to be at least 18 years of age, non-users of mobile banking, and own at least one bank account. After one week, follow-up e-mails were sent to non-respondents. A total of 557 valid questionnaires were obtained, resulting in a satisfactory response rate of 42.74% ([Jones et al., 2015](#)).

[Table 1](#) summarizes the sample characteristics. Almost 49% of the respondents were male, 39.5% were in the 18–29 age group, and 41.3% were between 30 and 39 years old. Of the sample, 44.2% had an undergraduate degree and 33.4% had a postgraduate degree. The majority of respondents were employees of the private sector (57.6%), while those employed by the public sector represented 30.4%. Of the sample, almost 83% have been using mobile Internet for at least one year and 42% have been using it for at least 3 h a day.

4. Results

The data were analyzed with SmartPLS 3 ([Ringle et al., 2015](#)). This software allows the use of a variance-based structural equation modeling instead of a covariance-based SEM method. It is less restrictive than other software (e.g., LISREL) in terms of sample size, distributional assumption, and model complexity ([Hair et al., 2013](#)). Its use is expanding in marketing ([Madupalli and Poddar, 2014](#); [Rodríguez-Pinto et al., 2011](#); [Sattler et al., 2010](#)) and information system research ([Lin et al., 2014](#); [Martins et al., 2014](#)).

Table 1
Sample characteristics.

Items	Percentage (%)	Items	Percentage (%)
Gender		Education attainment	
Male	48.8	Primary school	1.4
Female	52.2	High school	6.5
Age		Diploma	14.5
18–29	39.5	Undergraduate degree	44.2
30–39	41.3	Postgraduate	33.4
40–49	9.7	Mobile Internet experience	
50–59	6.8	Less than 1 year	17.1
60+	2.7	Between 1 and 3 years	38.2
Occupation		More than 3 years	44.7
Public sector	30.4	Usage frequency of Mobile Internet (daily)	
Private sector	57.6	Less than 1 h	27.1
Students	12	Between 1 and 3 h	31.1
Monthly income*		More than 3 h	41.8
Less than TD 499	26.2		
Between TD500-TD999	51.7		
Between TD1000-TD1499	15.6		
Above TD1500	6.5		

Note: (*)=TD (Tunisian Dinar) TD 1=US\$ 0.50 as of 2016.

4.1. Measurement model

The quality of the measurement model was firstly assessed. As shown in Table 2, all indicator loadings were above the threshold of 0.7 and statistically significant, suggesting internal consistency (Martins et al., 2014). Cronbach's alphas as well as composite reliabilities were greater than the recommended value of 0.7 reflecting reliability (Hair et al., 2013). For each construct, the average variance extracted ranged from 0.73 to 0.94 and therefore exceeded the threshold of 0.5, ensuring convergent validity (Bagozzi and Yi, 1988). In addition, the results showed support for discriminant validity because for each construct, the square root of the average variance extracted was greater than its correlations with the other constructs (Fornell and Larcker, 1981).

Due to the high correlations between variables, a multicollinearity test using the value inflation factor (VIF) was conducted. The results showed that all the VIF values ranged from 1.334 to 2.846 and were thus well below the cut-off of 5 (Hair et al., 2013; Lin et al., 2014). Consequently, no multicollinearity problem was found. The next step is to assess the structural model.

4.2. Structural model

The hypotheses were assessed by inspecting the variance explained (R^2) as well as the path coefficients and their significance. In addition, the Stone-Geisser's Q^2 values (Stone, 1974; Geisser, 1974, 1975), q^2 (effect size for the predictive relevance), and f^2 (effect size) were calculated (Table 3). Q^2 is a criterion of the model's predictive relevance while q^2 is a relative measure of an exogenous variable's predictive relevance on a specific endogenous variable (Hair et al., 2013). Q^2 is calculated using the blindfolding procedure and then selecting the cross-validated redundancy approach (Tenenhaus et al., 2005). The f^2 examines whether an exogenous variable has a substantive contribution on the explained variance of the endogenous variable(s) to which it is directly linked (Hair et al., 2013).

When Q^2 values are above (below) zero, the model has (lacks) predictive relevance (Püschel et al., 2010). As for f^2 and q^2 , values of 0.02, 0.15 and 0.35 indicate that an exogenous variable has respectively a small, medium, and large effect on and a small, medium, and large predictive relevance for a specific endogenous variable (Hair et al., 2013).

Fig. 1 illustrates the path coefficients with R^2 s. The model explains 47% of the variance in intention and 51.4% of the variance in attitude toward mobile banking adoption. Both general self-confidence and cynicism explain 76.2% of the variance in attitude toward success,

71.1% of the variance in attitude toward failure, and 31.4% of the variance in attitude toward learning to use mobile banking. All R^2 s are above the critical criterion of 10% as suggested by Falk and Miller (1992). Also, all Q^2 values are considerably greater than zero. Therefore, the research framework has predictive relevance and valuable interpretations of the results can be made.

With respect to path coefficients and their significance, Table 3 shows that general self-confidence exerts positive influences on attitude toward success and attitude toward learning to use mobile banking ($\beta=0.589$, $p < 0.001$; $\beta=0.270$, $p < 0.01$, respectively), and a negative influence on attitude toward failure ($\beta=-0.581$, $p < 0.001$). In contrast to the effect of general self-confidence, cynicism is found to have negative impacts on attitude toward success and attitude toward learning to use mobile banking ($\beta=-0.334$, $p < 0.001$; $\beta=-0.325$, $p < 0.01$, respectively), and a positive effect on attitude toward failure ($\beta=0.310$, $p < 0.001$). The latter has a negative impact on attitude toward mobile banking adoption ($\beta=-0.298$, $p < 0.001$), while the two former have positive impacts on it ($\beta=0.339$, $p < 0.001$; $\beta=0.197$, $p < 0.001$, respectively). Finally, attitude toward mobile banking adoption positively impacts consumers' intention to adopt mobile banking ($\beta=0.686$, $p < 0.001$). All the research hypotheses are accepted.

Additional analyses reveal that general self-confidence has a large effect size and predictive relevance on attitude toward success ($f^2=0.5924$, $q^2=0.3604$) and attitude toward failure ($f^2=0.4775$, $q^2=0.2150$), but a weak effect size and predictive relevance on attitude toward learning to use mobile banking ($f^2=0.0451$, $q^2=0.0305$). Similarly, cynicism has a large effect size and predictive relevance on attitude toward success ($f^2=0.3290$, $q^2=0.1856$) and attitude toward failure ($f^2=0.3445$, $q^2=0.1521$), and a weak effect size and predictive relevance on attitude toward learning ($f^2=0.0583$, $q^2=0.0482$). Attitude toward success, attitude toward failure, and attitude toward learning to use mobile banking all have a moderate effect size and predictive relevance on attitude toward mobile banking adoption ($f^2=0.2902$, $q^2=0.1775$; $f^2=0.2820$, $q^2=0.1696$; $f^2=0.1891$, $q^2=0.1526$; respectively).

To further ensure the validity of the conceptual model, the present study examines two alternative models where general self-confidence (GSC) and cynicism (CYN) are introduced one at a time as moderators of the relationships between attitudes toward success, failure and learning, and attitude toward mobile banking adoption, as well as moderators of the relationship between attitude toward mobile banking adoption and intention to adopt mobile banking. To do so, the whole sample is split at the median, resulting in two subsamples: a first subsample classifying respondents in terms of their general self-

Table 2

Loadings, *t*-statistics (*t*-stat), correlations, Cronbach's alphas (CA), composite reliability (CR), and average variance extracted (AVE).

Constructs/Items	Loadings	<i>t</i> -stat	Correlations						CA	CR	AVE	
			CYN	AS	AL	AF	AM	IA				
General self-confidence (Bell, 1967)												
GSC1: I feel capable of handling myself in most social situations.	0.87	44.86	-0.671	0.746	0.421	-0.720	0.599	0.728	0.95	0.95	0.79	
GSC2: I seldom fear my actions will cause others to have a low opinion of me.	0.89	58.89										
GSC3: It does not bother me to have to enter a room where other people have already gathered and are talking.	0.87	50.67										
GSC4: In group discussions, I usually feel that my opinions are inferior.*	0.85	37.41										
GSC5: I don't make a very favorable first impression on people.*	0.87	41.10										
GSC6: When confronted by a group of strangers, my first reaction is always one of shyness and inferiority.*	0.87	42.53										
GSC7: It is extremely uncomfortable to accidentally go to a formal party in street clothes.*	0.84	33.53										
GSC8: I don't spend much time worrying about what people think of me.	0.75	25.56										
GSC9: When in a group, I very rarely express an opinion for fear of being thought ridiculous.*	0.72	20.04										
GSC10: I am never at a loss for words when I am introduced to someone.	0.74	21.12										
Cynicism (Tan and Tan, 2007)												
CYN1: People will tell a lie if they can gain by it.	0.78	29.45	-0.688	-0.433	0.658	-0.509	-0.725		0.89	0.91	0.73	
CYN2: People claim to have ethical standards regarding honesty and morality, but few stick to them when money is at stake.	0.84	39.37										
CYN3: People pretend to care more about one another than they really do.	0.74	20.19										
CYN4: It's pathetic to see an unselfish person in today's world because so many people take advantage of him or her.	0.75	18.45										
CYN5: Most people are just out for themselves.	0.70	18.18										
CYN6: Most people inwardly dislike putting themselves out to help other people.	0.79	27.96										
CYN7: Most people are not really honest by nature.	0.79	27.85										
Attitude toward success (adapted from Taylor et al. (2001)): my trying and succeeding at adopting mobile banking would make me feel:												
AS1: very unpleasant/very pleasant	0.91	57.34			0.408	-0.679	0.571	0.743	0.92	0.95	0.87	
AS2: very bad/very good	0.92	55.99										
AS3: very unhappy/very happy	0.95	137.3										
Attitude toward process (adapted from Taylor et al. (2001)): learning to use mobile banking would make me feel:												
AP1: very unpleasant/very pleasant	0.91	80.37			-0.292	0.386	0.393		0.88	0.93	0.81	
AP2: very bad/very good	0.93	73.62										
AP3: very unhappy/very happy	0.85	24.23										
Attitude toward failure (adapted from Taylor et al. (2001)): my trying but failing at adopting mobile banking would make me feel:												
AF1: very unpleasant/very pleasant	0.93	86.19						-0.539	-0.742	0.84	0.90	0.76
AF2: very bad/very good	0.92	91.76										
AF3: very unhappy/very happy	0.74	18.15										
Attitude toward mobile banking (adapted from Taylor et al. (2001)): adopting mobile banking would make me feel:												
AM1: very unpleasant/very pleasant	0.94	97.99						0.585	0.95	0.97	0.91	
AM2: very bad/very good	0.97	209.34										
AM3: very unhappy/very happy	0.95	74.06										
Intention to adopt online banking (Chemingui and Ben Lallouna, 2013)												
IA1: I plan to adopt mobile banking in the future.	0.97	182.1							0.97	0.98	0.94	
IA2: I will most likely adopt mobile banking in the future.	0.97	149.14										
IA3: I think it is better for me to adopt mobile banking.	0.97	260.29										

Notes: (*) Reversed items, GSC=general self-confidence, CYN=cynicism, AS=attitude toward success, AF=attitude toward failure, AL=attitude toward learning to use mobile banking, AM=attitude toward mobile banking adoption, IA=intention to adopt mobile banking.

confidence (i.e., high vs. low GSC) and a second subsample classifying them in terms of their cynicism (i.e., high vs. low CYN). Souiden and Jabeur (2015) argue that medians are robust measures of central tendency, resist to extreme scores, and draw a better comparison between two groups.

Respondents who score low on GSC represent 51.7% (i.e., 288 respondents) and those who score high 48.3% (i.e., 269 respondents), while those who score low on CYN represent 52.6% (i.e., 293 respondents) and those who score high 47.4% (i.e., 264 respondents). Before conducting any group comparisons, rigorous pretests are needed to assess the measurement invariance of composite models (MICOM) and confirm that the changes in coefficients are explained by

group difference (not by measurement error) (Dabholkar and Bagozzi, 2002).

MICOM follows three steps, namely, configural invariance (step 1), compositional invariance (step 2), and the equality of composite mean values and variances (step 3) (Henseler et al., 2015). SmartPLS 3 automatically establishes configural invariance (step 1) “by using exactly the same set-up for each group-specific model estimation. Subsequently, the permutation algorithm of the SmartPLS 3 software facilitates an assessment of MICOM’s second and third steps” (Schubring et al., 2016, p. 4606). The results of the permutation algorithm establish full measurement invariance for steps 2 and 3, and as such, a moderating effect of general self-confidence and cynicism

Table 3
Summary of hypotheses testing results.

Hypothesis	Relationship	Path coefficient	Significance	f ² effect size	q ² effect size
H ₁	AS → AM	0.339	p < 0.001	0.2902	0.1775
H ₂	AF → AM	-0.298	p < 0.001	0.2820	0.1696
H ₃	AL → AM	0.197	p < 0.001	0.1696	0.1595
H ₄	AM → IA	0.686	p < 0.001		
H _{5a}	GSC → AS	0.589	p < 0.001	0.5924	0.3604
H _{5b}	GSC → AF	-0.581	p < 0.001	0.4775	0.2150
H _{5c}	GSC → AL	0.270	p < 0.01	0.0451	0.0305
H _{6a}	CYN → AS	-0.334	p < 0.001	0.1890	0.1156
H _{6b}	CYN → AF	0.310	p < 0.001	0.3445	0.1521
H _{6c}	CYN → AL	-0.325	p < 0.01	0.0583	0.0482

Notes: GSC=general self-confidence, CYN=cynicism, AS=attitude toward success, AF=attitude toward failure, AL=attitude toward learning to use mobile banking, AM=attitude toward mobile banking adoption, IA=intention to adopt mobile banking.

could be assessed (see Tables 4 and 5).

Despite some significant differences in the group-specific path coefficients (see Table 6), the values of R² of the endogenous variables (i.e., attitude toward using mobile banking and intention to adopt mobile banking) and Q² (the model's predictive relevance) are substantially lower than those of the conceptual model with the overall sample (i.e., without moderators). Thus, the conceptualization of general self-confidence and cynicism as moderators generates a drop in both R² and Q² (a loss of information). Thus, general self-confidence and cynicism are better thought of as antecedents of attitudes toward success, failure, and learning rather than moderators of the relationships between these attitudes and the attitude toward mobile banking adoption. We conclude that the conceptual model is better than the alternative ones.

5. Discussion and theoretical implications

The adoption of mobile banking is considered a problematic behavior in developing and emerging markets due to the presence of internal and external environmental impediments. Therefore, the use of the theory of trying is deemed the more suitable one for this context. When facing a situation where they have to decide on adopting or rejecting new products or services, individuals in these countries tend to consider both the failure and success of their decisions (Xie et al., 2008). Moreover, because of their unfamiliarity with new technologies, their learning process about the new product or service could act as a barrier for many of them (Bagozzi et al., 1992).

The results of the empirical study confirm the conceptual model and the research hypotheses. The findings reveal that intention to adopt mobile banking is positively and significantly influenced by attitude toward mobile banking adoption. Also, results show that

attitude toward mobile banking is positively determined by attitude toward success and attitude toward learning to use mobile banking, and negatively determined by attitude toward failure. More than a half of the attitude toward mobile banking adoption (51.4%) is explained by the three attitude dimensions. Based on Bagozzi (1992, 1993) and Bagozzi et al. (1992), attitude is better understood if it is decomposed into the three investigated sub-attitudes. Taken together, these three dimensions of attitude deeply explain consumers' technology adoption.

The study shows strong evidence of the multidimensional conceptualization of attitudes, in line with the contention of the theory of trying. This multidimensional approach seems to provide a more comprehensive conception of attitude in comparison with other attitudinal theories that support the one-dimensionality of attitude (Curran and Meuter, 2005; Jones et al., 2015; Kaushik and Rahman, 2015). The monolithic attitude structure, traditionally used in the literature, "is limited in focus" and is less appropriate for behaviors under internal and external impediments (Xie et al., 2008, p. 113).

The analyses reveal another noteworthy result. Compared to the other two attitudes, attitude toward learning to use mobile banking was found to have the weakest impact on attitude toward mobile banking adoption. This can be justified by the relatively high level of respondents' education and past experience with mobile Internet. Indeed, the majority of respondents are highly familiar with mobile Internet (83% use mobile Internet and 42% are daily users) and well-educated (77.6% of the respondents have a university degree). Thus, learning how to pay bills online and how to use mobile banking might not be of primary concern to respondents. They do not perceive it as a more challenging task than learning how to use other mobile applications.

Drawing upon the theory of trying, the present study goes a step further by including two important, but rarely addressed factors in the context of new technology and product/service adoption: general self-

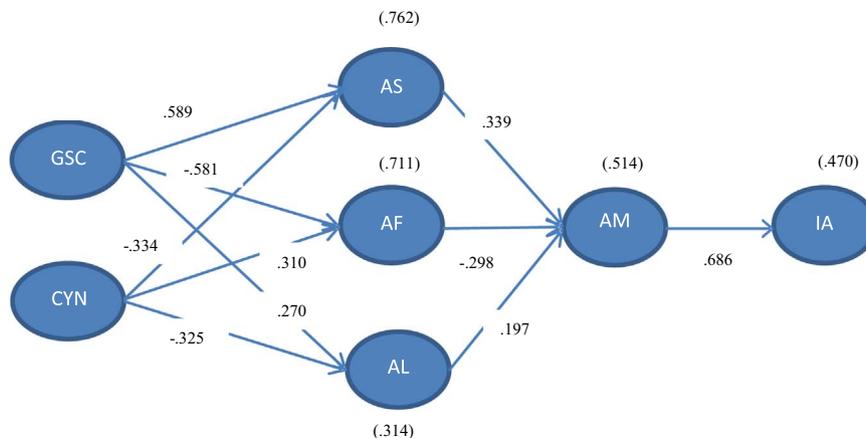


Fig. 1. The model's path coefficients and R²s. **Notes:** R²s are between parentheses, GSC=general self-confidence, CYN=cynicism, AS=attitude toward success, AF=attitude toward failure, AL=attitude toward learning to use mobile banking, AM=attitude toward mobile banking adoption, IA=intention to adopt mobile banking.

Table 4
MICOM results for general self-confidence as a moderator.

Step 2: Compositional invariance			
Composite	c value (=1)	95% CI	Compositional invariance?
AS	1.000	[0.999; 1.000]	Yes
AF	0.999	[0.998; 1.000]	Yes
AL	0.999	[0.998; 1.000]	Yes
AM	1.000	[1.000; 1.000]	Yes
IA	1.000	[1.000; 1.000]	Yes
Step 3a: Equality of composite mean values			
Composite	Difference in the composite's mean value (=0)	95% CI	Equal mean values?
AS	0.001	[-0.162; 0.163]	Yes
AF	-0.002	[-0.166; 0.162]	Yes
AL	-0.001	[-0.163; 0.167]	Yes
AM	-0.002	[-0.174; 0.167]	Yes
IA	0.002	[-0.162; 0.167]	Yes
Step 3b: Equality of variances			
Composite	Logarithm of the composite's variances ratio (=0)	95% CI	Equal variances?
AS	0.001	[-0.199; 0.204]	Yes
AF	-0.001	[-0.184; 0.183]	Yes
AL	0.004	[-0.184; 0.193]	Yes
AM	0.001	[-0.144; 0.146]	Yes
IA	0.001	[-0.192; 0.191]	Yes

Notes: AS=attitude toward success, AF=attitude toward failure, AL=attitude toward learning to use mobile banking, AM=attitude toward mobile banking adoption, IA=intention to adopt mobile banking, CI=confidence interval.

Table 5
MICOM results for cynicism as a moderator.

Step 2: Compositional invariance			
Composite	c value (=1)	95% CI	Compositional invariance?
AS	1.000	[1.000; 1.000]	Yes
AF	0.999	[0.998; 1.000]	Yes
AL	0.999	[0.998; 1.000]	Yes
AM	1.000	[1.000; 1.000]	Yes
IA	1.000	[1.000; 1.000]	Yes
Step 3a: Equality of composite mean values			
Composite	Difference in the composite's mean value (=0)	95% CI	Equal mean values?
AS	0.002	[-0.167; 0.169]	Yes
AF	-0.001	[-0.172; 0.169]	Yes
AL	0.001	[-0.163; 0.170]	Yes
AM	0.001	[-0.174; 0.167]	Yes
IA	0.002	[-0.164; 0.166]	Yes
Step 3b: Equality of variances			
Composite	Logarithm of the composite's variances ratio (=0)	95% CI	Equal variances?
AS	-0.001	[-0.205; 0.187]	Yes
AF	0.000	[-0.184; 0.187]	Yes
AL	0.001	[-0.190; 0.184]	Yes
AM	-0.001	[-0.143; 0.143]	Yes
IA	-0.002	[-0.195; 0.192]	Yes

Notes: AS=attitude toward success, AF=attitude toward failure, AL=attitude toward learning to use mobile banking, AM=attitude toward mobile banking adoption, IA=intention to adopt mobile banking, CI=confidence interval.

confidence and cynicism. In the context of emerging and developing countries, they are considered significant precursors of attitudes and adoption of new technology/products/services. Both attitude toward success and attitude toward learning to use mobile banking are found to be positively influenced by general self-confidence and negatively influenced by cynicism, while attitude toward failure is found to be negatively affected by general self-confidence and positively affected by cynicism. However, the effect size and predictive relevance of general self-confidence and cynicism on attitude toward learning to use mobile banking was weak.

Previous studies report that new technology adoption depends on consumers' risk perception (Tabak and Nguyen, 2013). The adoption of mobile banking falls under the same conditions. Because new products and services imply changes, their acceptance or rejection would heavily depend on consumers' perception of these changes and the risk associated with their adoption/purchase decision (Tabak and Nguyen, 2013). In a risk-decision situation, as is the case with mobile banking, general self-confidence seems to play a key role in the adoption of new products or services (Bearden et al., 2001; Olsen

et al., 2003). Previous studies demonstrate that confident consumers display low risk aversion (Lin et al., 2012; Rifon et al., 2005), have good ability in processing information (Lee and Ma, 2012), and have good ability in assessing gains and losses when evaluating alternative products (Hankuk and Aggarwal, 2003). In the present study, general self-confidence is found to boost both attitude toward success and attitude toward learning to use mobile banking. On the other hand, it lessens attitude toward failure. Thus, general self-confidence is revealed to be a key antecedent in explaining consumers' attitudes and intention of adopting mobile banking.

The second factor in this study that is found to significantly influence attitudes and intention to adopt mobile banking is consumers' cynicism. Among other studies in the business and marketing context, cynicism is reported to have a considerable negative impact on SMS advertising skepticism (Azizi, 2013), to increase employees' resistance to the implementation of information technology (Selander and Henfridsson, 2012), and to be related to negative perceptions of prosocial and altruistic actions (e.g., doing good and recycling actions) (Chowdhury and Fernando, 2014). In the present study, cynicism is

Table 6
PLS-SEM multi-group analysis results.

	G₁	G₂	G₁–G₂	95% Confidence interval	Significant difference (p < 0.05)?
AS→AM	0.387	0.377	0.010	[-0.212; 0.196]	No
AF→AM	-0.396	-0.122	-0.274	[-0.200; 0.195]	Yes
AL→AM	0.115	0.346	-0.231	[-0.136; 0.135]	Yes
AM→IA	0.212	0.602	-0.390	[-0.102; 0.096]	Yes
	G_a	G_b	G_a–G_b	95% Confidence interval	Significant difference (p < 0.05)?
AS→AM	0.414	0.135	0.279	[-0.198; 0.204]	Yes
AF→AM	-0.263	-0.280	0.017	[-0.193; 0.192]	No
AL→AM	0.032	0.376	-0.344	[-0.133; 0.133]	Yes
AM→IA	0.614	0.425	0.189	[-0.099; 0.099]	Yes
	R²		Q²		
	AM	IA	AM	IA	
Overall sample (557)	0.519	0.470	0.475	0.445	
G ₁ (288)	0.301	0.045	0.252	0.029	
G ₂ (269)	0.461	0.362	0.396	0.332	
G _a (293)	0.401	0.378	0.363	0.356	
G _b (264)	0.330	0.180	0.284	0.141	

Notes: AS=attitude toward success, AF=attitude toward failure, AL=attitude toward learning to use mobile banking, AM=attitude toward mobile banking adoption, IA=intention to adopt mobile banking, G₁=low general self-confidence, G₂=high general self-confidence, G_a=low cynicism, G_b=high cynicism.

found to curtail both attitude toward success and attitude toward learning to use mobile banking. Furthermore, it is found to foster attitude toward failure. Thus, cynicism emerges as a defensive strategy that impedes the adoption of mobile banking through attitudes.

6. Managerial implications

From a practical perspective, banks promoting mobile banking services should adjust their strategies by taking into account general self-confidence and cynicism, two key determinants of consumers' adoption or rejection of new products and services. In emerging and developing countries, bank managers should focus their efforts on reinforcing clients' self-confidence and lowering their cynicism. They can propose demonstrations and tutorials at the bank branches in order to show that the manipulation of mobile banking is an easy task. They can also propose mobile banking on a trial basis or provide them with mobile banking simulations (rather than using their real bank accounts). This allows customers to become familiar with the mobile application and thereby decreases their suspicion toward it. In addition, bank managers can encourage clients to send their feedbacks and comments regarding the design of the mobile application (e.g., esthetic appearance and features). This may stimulate consumers' involvement and participation, and thus lessen their cynicism.

7. Limitations and future directions

The present research is conducted in one country, Tunisia. This limitation compromises the generalization of the findings to the country itself and to other countries with a similar business context. Thus, future research should consider replicating this study in other emerging and developing countries. The omission of actual behavior is another limit because the use of intention as a proxy for adoption behavior is, for some scholars, controversial. Indeed, some researchers presume that the causal relationship between intention and behavior is inconsistent (Venkatesh et al., 2006). Thus, further research should include actual use and consider a cross group comparison between adopters and non-adopters of mobile banking.

As attitudes are dynamic rather than static (Judd et al., 1991), future studies should broaden the scope of the present research by exploring the change that may occur over time with respect to attitude components.

Another limit pertains to the study's sample composition. The high level of education, and more importantly respondents' familiarity with mobile Internet, could partially affect the results, particularly with

respect to the variable attitude toward learning to use mobile banking. Future studies should consider a more representative sample to better reflect the target population or control for the variables of respondents' past experience with mobile Internet and their experience with mobile banking.

The study's additional analyses of two alternative models find that introducing general self-confidence and cynicism as moderating variables do neither enhance the explained variance of the endogenous constructs (i.e., attitude toward mobile banking adoption and intention to adopt mobile banking) nor improve the model's predictive relevance. Future studies are encouraged to further investigate the potential role of these two variables in explaining consumers' decision-making for technology adoption. For instance, segmenting markets on the bases of consumers' high vs. low general self-confidence and/or high vs. low cynicism might contribute to fine-tune the marketing strategies of many firms.

Finally, this study does not make control for the effect of past experience on the validity of the results. As past experience may influence the attitude toward adoption of mobile banking and also enhance the effect of attitudes on adoption intention, future studies are encouraged to consider respondents' experience with internet banking and mobile applications.

Acknowledgments

The authors acknowledge helpful comments and inputs by the reviewers and the editor. They also show gratitude to Christian Marc Ringle (Hamburg University of Technology and University of Newcastle) and Jan-Michael Becker (University of Cologne) for their useful help.

References

Abou-Shouk, M.A., Lim, W.M., Megicks, P., 2016. Using competing models to evaluate the role of environmental pressures in ecommerce adoption by small and medium sized travel agents in a developing country. *Tour. Manag.* 52, 327–339.

Agarwal, N., Agarwal, M., 2003. Theory of trying – implications for marketing new-concept products. *IIMB Manag. Rev.* 15 (4), 15–23.

Agarwal, R., Sambamurthy, V., Stair, R.M., 2000. Research report: the evolving relationship between general and specific computer self-efficacy—an empirical assessment. *Inf. Syst. Res.* 11 (4), 418–430.

Agarwal, R., Rastogi, S., Mehrotra, A., 2009. Customers' perspectives regarding e-banking in an emerging economy. *J. Retail. Consum. Serv.* 16 (5), 340–351.

Ahmed, E., Ward, R., 2016. A comparison of competing technology acceptance models to explore personal, academic and professional portfolio acceptance behaviour. *J. Comput. Educ.* 3 (2), 169–191.

Ahuja, M.K., Thatcher, J.B., 2005. Moving beyond intentions and toward the theory of

- trying: effects of work environment and gender on post-adoption information technology use. *MIS Q.* 29 (3), 427–459.
- Ajzen, I., 1991. The theory of planned behavior. *Organ. Behav. Hum. Decis. Process.* 50 (2), 179–211.
- Akhlaq, A., Ahmed, E., 2013. The effect of motivation on trust in the acceptance of internet banking in a low income country. *Int. J. Bank. Mark.* 31 (2), 115–125.
- Al-Ajam, A.S., MdNor, K., 2015. Challenges of adoption of internet banking service in Yemen. *Int. J. Bank. Mark.* 33 (2), 178–194.
- Al-alak, B.A., 2014. Impact of marketing activities on relationship quality in the Malaysian banking sector. *J. Retail. Consum. Serv.* 21 (3), 347–356.
- Alatas, S.H., 1999. *Corruption and the Destiny of Asia*. Prentice Hall, Malaysia.
- Alnuaimi, O.A., Cronan, T.P., Douglas, D.E., Limayem, M., 2011. Healthcare professionals' reactions to health enterprise system implementations: a theory of cynicism perspective. In: *Proceedings of the Annual Hawaii International Conference on System Sciences*, 2011. Kauai, Hawaii, pp. 1–10.
- Al-Somali, S.A., Gholami, R., Clegg, B., 2009. An investigation into the acceptance of online banking in Saudi Arabia. *Technovation* 29 (2), 130–141.
- Andrews, L., Bianchi, C., 2013. Consumer internet purchasing behavior in Chile. *J. Bus. Res.* 66 (10), 1791–1799.
- Arlı, D.I., Lasmono, H.K., 2010. Consumers' perception of corporate social responsibility in a developing country. *Int. J. Consum. Stud.* 34 (1), 46–51.
- Azizi, S., 2013. A model for short message service advertising avoidance determinants – an Iranian experience. *Manag. Mark. Chall. Knowl. Soc.* 8 (4), 655–668.
- Badrinarayanan, V., Becerra, E.P., Madhavaram, S., 2014. Influence of congruity in store-attribute dimensions and self-image on purchase intentions in online stores of multichannel retailers. *J. Retail. Consum. Serv.* 21 (6), 1013–1020.
- Bagozzi, R.P., 1992. The self-regulation of attitudes, intentions, and behavior. *Soc. Psychol. Q.* 55 (2), 178–204.
- Bagozzi, R.P., 1993. On the neglect of volition in consumer research: a critique and proposal. *Psychol. Mark.* 10 (3), 215–237.
- Bagozzi, R.P., 2007. The legacy of the technology acceptance model and a proposal for a paradigm shift. *J. Assoc. Inf. Syst.* 8, 244–254.
- Bagozzi, R.P., Yi, Y., 1988. On the evaluation of structural equation models. *J. Acad. Mark. Sci.* 16 (1), 74–94.
- Bagozzi, R.P., Warshaw, P.R., 1990. Trying to consume. *J. Consum. Res.* 17 (2), 127–140.
- Bagozzi, R.P., Dholakia, U., 1999. Goal setting and goal striving in consumer behavior. *J. Mark.* 63, 19–32.
- Bagozzi, R.P., Davis, F.D., Warshaw, P.R., 1992. Development and test of a theory of technological learning and usage. *Hum. Relat.* 45 (7), 659–686.
- Bagozzi, R.P., Moore, D.J., Leone, L., 2004. Self-control and the self-regulation of dieting decisions: the role of prefulcral attitudes, subjective norms, and resistance to temptation. *Basic Appl. Soc. Psychol.* 26 (2–3), 199–213.
- Barber, N., Almanza, B.A., Donovan, J.R., 2006. Motivational factors of gender, income and age on selecting a bottle of wine. *Int. J. Wine Mark.* 18 (3), 218–232.
- Bashir, S., Nasir, M., 2013. Breach of psychological contract, organizational cynicism and union commitment: a study of hospitality industry in Pakistan. *Int. J. Hosp. Manag.* 34, 1–65.
- Bay, D., Daniel, H., 2003. The theory of trying and goal-directed behavior: the effect of moving up the hierarchy of goals. *Psychol. Mark.* 20 (8), 669–684.
- Bearden, W.O., Hardesty, D.M., Rose, R.L., 2001. Consumer self-confidence: refinements in conceptualization and measurement. *J. Consum. Res.* 28 (1), 121–134.
- Bell, G.D., 1967. Self-confidence and persuasion in car buying. *J. Mark. Res.* 4 (1), 46–52.
- Benabou, R., Tirole, J., 2002. Self-confidence and personal motivation. *Q. J. Econ.* 117 (3), 871–915.
- Bommer, W.H., Rich, G.A., Rubin, R.S., 2005. Changing attitudes about change: longitudinal effects of transformational leader behavior on employee cynicism about organizational change. *J. Organ. Behav.* 26 (7), 733–753.
- Brown, M., Kulik, C.T., Cregan, C., Metz, I., 2015. Understanding the change-cynicism cycle: the role of HR. *Hum. Resour. Manag.* <http://dx.doi.org/10.1002/hrm.21708>.
- Carsrud, A., Brännback, M., Elfving, J., Brandt, K., 2009. Motivations: the entrepreneurial mind and behavior. In: *Carsrud, A., Brännback, M. (Eds.), Understanding The Entrepreneurial Mind*. Springer, New York, 141–165.
- Chemingui, H., Ben Lalloua, H., 2013. Resistance, motivations, trust and intention to use mobile financial services. *Int. J. Bank. Mark.* 31 (7), 574–592.
- Chowdhury, R.M.M.I., Fernando, M., 2014. The relationships of empathy, moral identity and cynicism with consumers' ethical beliefs: the mediating role of moral disengagement. *J. Bus. Ethics* 124 (4), 677–694.
- Chuang, S.-C., Cheng, Y.-H., Chang, C.-J., Chiang, Y.-T., 2013. The impact of self-confidence on the compromise effect. *Int. J. Psychol.* 48 (4), 660–675.
- Chuttur, M., 2009. Overview of the technology acceptance model: origins, developments and future directions. *Sprout: Work. Pap. Inf. Syst.* 9 (37), 1–21.
- Chylinski, M., Chu, A., 2010. Consumer cynicism: antecedents and consequences. *Eur. J. Mark.* 44 (6), 796–837.
- Cruz, P., Neto, L.B.F., Muñoz-Gallego, P., Laukkanen, T., 2010a. Mobile banking rollout in emerging markets: evidence from Brazil. *Int. J. Bank. Mark.* 28 (5), 342–371.
- Cruz, P., Salo, J., Muñoz-Gallego, P., Laukkanen, T., 2010b. Heavy users of e-banking and customer experience management: evidences on intrinsic motivation. *Int. J. Electron. Bus.* 8 (2), 187–209.
- Curran, J.M., Meuter, M.L., 2005. Self-service technology adoption: comparing three technologies. *J. Serv. Mark.* 19 (2), 103–113.
- Curran, J.M., Meuter, M.L., 2007. Encouraging existing customers to switch to self-service technologies: put a little fun in their lives. *J. Mark. Theory Pract.* 15 (4), 283–298.
- Dabholkar, P.A., Bagozzi, R.P., 2002. An attitudinal model of technology-based self-service: moderating effects of consumer traits and situational factors. *J. Acad. Mark. Sci.* 30 (3), 184–201.
- Darke, P.R., Ritchie, R.J.B., 2007. The defensive consumer: advertising deception, defensive processing, and distrust. *J. Mark. Res.* 44 (1), 114–127.
- Davis, F., Bagozzi, R.P., Warshaw, P., 1989. User acceptance of computer technology: a comparison of two theoretical models. *Manag. Sci.* 35 (8), 982–1003.
- Dean, J.W., Brandes, P., Dharwadkar, R., 1998. Organizational cynicism. *Acad. Manag. Rev.* 23 (2), 341–352.
- Dobscha, S., 1998. The lived experience of consumer rebellion against marketing. In: *Alba, J.W., Hutchinson, J.W. (Eds.), NA—Advances Consumers Research 25*. Association for Consumer Research, Provo, UT, 91–97.
- Dodd, T.H., Laverie, D.A., Wilcox, J.F., Duhan, D.F., 2005. Differential effects of experience, subjective knowledge, and objective knowledge on sources of information used in consumer wine purchasing. *J. Hosp. Tour. Res.* 29 (1), 3–19.
- Efendioglu, A.M., Yip, V.F., 2004. Chinese culture and e-commerce: an exploratory study. *Interact. Comput.* 16 (1), 45–62.
- Falk, R.F., Miller, N.B., 1992. *A Primer for Soft Modeling*. University of Akron Press, Akron, Ohio, OH.
- Faqih, K.M.S., 2016. An empirical analysis of factors predicting the behavioral intention to adopt Internet shopping technology among non-shoppers in a developing country context: does gender matter? *J. Retail. Consum. Serv.* 30, 140–164.
- Faqih, K.M.S., Jaradat, M.-I.R.M., 2015. Assessing the moderating effect of gender differences and individualism-collectivism at individual-level on the adoption of mobile commerce technology: TAM3 perspective. *J. Retail. Consum. Serv.* 22, 37–52.
- Fornell, C., Larcker, D.F., 1981. Evaluating structural equation models with unobservable variables and measurement error. *J. Mark. Res.* 18 (1), 39–50.
- Geisser, S., 1974. A predictive approach to the random effect model. *Biometrika* 61 (1), 101–107.
- Geisser, S., 1975. The predictive sample reuse method with applications. *J. Am. Stat. Assoc.* 70 (350), 320–328.
- Gerber, G.L., Ward, K.C., 2011. Police personality: theoretical issues and research. In: *Kitaeff, J. (Ed.), Handbook of Police Psychology*. Routledge, New York, NY, 421–437.
- Guastello, S.J., Rieke, M.L., Guastello, D.D., Billings, S.W., 1992. A study of cynicism, personality, and work values. *J. Psychol.* 126 (1), 37–48.
- Hair, J.F., Jr, Hult, G.T.M., Ringle, C., Sarstedt, M., 2013. *A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM)*. Sage Publications, Thousand Oaks, California, CA.
- Hankuk, T.C., Aggarwal, P., 2003. When gains exceed losses: attribute trade-offs and prospect theory. *Adv. Consum. Res.* 30 (1), 118–124.
- Henseler, J., Ringle, C.M., Sarstedt, M., 2015. Testing measurement invariance of composites using partial least squares. *Int. Mark. Rev.* 33 (3), 405–431.
- Hew, J.-J., Lee, V.-H., Ooi, K.-B., Wei, J., 2015. What catalyses mobile apps usage intention: an empirical analysis. *Ind. Manag. Data Syst.* 115 (7), 1269–1291.
- Hinsz, V.B., Ployhart, R.E., 1998. Trying, intentions, and the processes by which goals influence performance: an empirical test of the theory of goal pursuit. *J. Appl. Soc. Psychol.* 28 (12), 1051–1066.
- International Telecommunication Union, 2013. *Tunisia Profile*. file:///C:/Users/user/Downloads/Country_Profile2013.pdf (accessed 12.01.16).
- Jones, M.A., Reynolds, K.E., Arnold, M.J., Gabler, C.B., Gillison, S.T., Landers, V.M., 2015. Exploring consumers' attitude towards relationship marketing. *J. Serv. Mark.* 29 (3), 188–199.
- Judd, C.M., Drake, R.A., Downing, J.W., Krosnick, J.A., 1991. Some dynamic properties of attitude structures: context-induced response facilitation and polarization. *J. Pers. Soc. Psychol.* 60 (2), 193–202.
- Kanter, D.L., Wortzel, L.H., 1985. Cynicism and alienation as marketing considerations: some new ways to approach the female consumer. *J. Consum. Mark.* 2 (1), 5–15.
- Kaushik, A.K., Rahman, Z., 2015. An alternative model of self-service retail technology adoption. *J. Serv. Mark.* 29 (5), 406–420.
- Kim, G., Shin, B., Lee, H.G., 2009a. Understanding dynamics between initial trust and usage intentions of mobile banking. *Inf. Syst. J.* 19 (3), 283–311.
- Kim, Y.J., Chun, J.U., Song, J., 2009b. Investigating the role of attitude in technology acceptance from an attitude strength perspective. *Int. J. Inf. Manag.* 29 (1), 67–77.
- Laforet, S., Li, X., 2005. Consumers' attitudes towards online and mobile banking in China. *Int. J. Bank. Mark.* 23 (5), 362–380.
- Lal Dey, B., Pandit, A., Saren, M., Bhowmick, S., Woodruffe-Burton, H., 2016. Co-creation of value at the bottom of the pyramid: analysing Bangladeshi farmers' use of mobile telephony. *J. Retail. Consum. Serv.* 29, 40–48.
- Laukkanen, T., Cruz, P., 2009. Comparing consumer resistance to mobile banking in Finland and Portugal. In: *Kim, T., Fang, W.C. (Eds.), e-Business and Telecommunications, Communications in Computer and Information Science 48*. Springer-Verlag, Berlin Heidelberg, 89–98.
- Laukkanen, T., Kiviniemi, V., 2010. The role of information in mobile banking resistance. *Int. J. Bank. Mark.* 28 (5), 372–388.
- Lee, C.B.P., Wan, G., 2010. Including subjective norm and technology trust in the Technology acceptance model: a case of e-ticketing in China. *Database Adv. Inf. Syst.* 41 (4), 40–51.
- Lee, H.-H., Ma, Y.J., 2012. Consumer perceptions of online consumer product and service reviews: focusing on information processing confidence and susceptibility to peer influence. *J. Res. Interact. Mark.* 6 (2), 110–132.
- Lee, K., 2008. Opportunities for green marketing: young consumers. *Mark. Intell. Plan* 26 (6), 573–586.
- Lin, C.-H., Hung, H.-H., Li, Y.-H., 2012. How confidence and uncertainty affect consumers' enjoyment of gambling. *Soc. Behav. Personal.: Int. J.* 40 (3), 425–432.
- Lin, H., Fan, W., Chau, P.Y.K., 2014. Determinants of users' continuance of social

- networking sites: a self-regulation perspective. *Inf. Manag.* 51 (5), 595–603.
- Lu, J., Liu, C., Yu, C.-S., Wang, K., 2008. Determinants of accepting wireless mobile data services in China. *Inf. Manag.* 45 (1), 52–64.
- Madupalli, R.K., Poddar, A., 2014. Problematic customers and customer service employee retaliation. *J. Serv. Mark.* 28 (3), 244–255.
- Martins, C., Oliveira, T., Popović, A., 2014. Understanding the internet banking adoption: a unified theory of acceptance and use of technology and perceived risk application. *Int. J. Inf. Manag.* 34 (1), 1–13.
- Ministry of Communication Technologies and Digital Economy, 2015. ICT Statistics. available at: (<http://www.mincom.tn/index.php?Id=portailduministredestechnol0andL=2>) (accessed 26.12.15).
- Olsen, J.E., Thompson, K.J., Clarke, T.K., 2003. Consumer self-confidence in wine purchases. *Int. J. Wine Mark.* 15 (3), 40–51.
- Oye, N.D., Iahad, N.A., Rahim, N.A., 2014. The history of UTAUT model and its impact on ICT acceptance and usage by academicians. *Educ. Inf. Technol.* 19 (1), 251–270.
- Prem kumar, G., Bhattacharjee, A., 2008. Explaining information technology usage: a test of competing models. *Omega* 36 (1), 64–75.
- Püschel, J., Mazzon, J.A., Hernandez, J.M.C., 2010. Mobile banking: proposition of an integrated adoption intention framework. *Int. J. Bank. Mark.* 28 (5), 389–409.
- Ram, S., Sheth, J.N., 1989. Consumer resistance to innovations: the marketing problem and its solutions. *J. Consum. Mark.* 6 (2), 5–14.
- Regoli, R.M., 1976. The effects of college education on the maintenance of police cynicism. *J. Police Sci. Adm.* 4, 340–345.
- Reichers, A.E., Wanous, J.P., Austin, J.T., 1997. Understanding and managing cynicism about organizational change. *Acad. Manag. Exec.* 11 (1), 48–59.
- Reinders, M.J., Dabholkar, P.A., Frambach, R.T., 2008. Consequences of forcing consumers to use technology-based self-service. *J. Serv. Res.* 11 (2), 107–123.
- Riffai, M.M.M.A., Grant, K., Edgar, D., 2012. Big TAM in Oman: exploring the promise of on-line banking, its adoption by customers and the challenges of banking in Oman. *Int. J. Inf. Manag.* 32 (3), 239–250.
- Rifon, N.J., LaRose, R., Choi, S.M., 2005. Your privacy is sealed: effects of web privacy seals on trust and personal disclosures. *J. Consum. Aff.* 39 (1), 339–362.
- Ringle, C.M., Wende, S., Becker, J.-M., 2015. SmartPLS 3. Bönningstedt: SmartPLS. available at: (<https://www.smartpls.com>) (accessed 12.03.16).
- Robertson, N., McDonald, H., Leckie, C., McQuilken, L., 2016. Examining customer evaluations across different self-service technologies. *J. Serv. Mark.* 30 (1), 88–102.
- Rodríguez-Pinto, J., Carbonell, P., Rodríguez-Escudero, A.I., 2011. Speed or quality? How the order of market entry influences the relationship between market orientation and new product performance. *Int. J. Res. Mark.* 28 (2), 145–154.
- Rogers, E.M., 1962. *Diffusion of Innovations*. Free Press, London.
- Rosenberg, M., 1965. *Society and the Adolescent Self-image*. Princeton University Press, Princeton, New Jersey, NJ.
- Sandve, A., Øgaard, T., 2013. Understanding corporate social responsibility decisions: testing a modified version of the theory of trying. *Scand. J. Hosp. Tour.* 13 (3), 242–256.
- Sattler, H., Völckner, F., Riediger, C., Ringle, C.M., 2010. The impact of brand extension success drivers on brand extension price premiums. *Int. J. Res. Mark.* 27 (4), 319–328.
- Schepers, J., Wetzels, M., 2007. A meta-analysis of the technology acceptance model: investigating subjective norm and moderation effects. *Inf. Manag.* 44 (1), 90–103.
- Schubring, S., Lorscheid, I., Meyer, M., Ringle, C.M., 2016. The PLS agent: predictive modeling with PLS-SEM and agent-based simulation. *J. Bus. Res.* 69 (10), 4604–4612.
- Selander, L., Henfridsson, O., 2012. Cynicism as user resistance in IT implementation. *Inf. Syst. J.* 22 (4), 289–312.
- Souiden, N., Jabeur, Y., 2015. The impact of Islamic beliefs on consumers' attitudes and purchase intentions of life insurance. *Int. J. Bank. Mark.* 33 (4), 423–441.
- Souiden, N., Pons, F., Mayrand, M.E., 2011. Marketing high-tech products in emerging markets: the differential impacts of country image and country-of-origin's image. *J. Prod. Brand Manag.* 20 (5), 356–367.
- Stone, M., 1974. Cross-validated choice and assessment of statistical predictions. *J. R. Stat. Soc.* 36 (2), 111–147.
- Tabak, F., Nguyen, N.T., 2013. Technology acceptance and performance in online learning environments: impact of self-regulation. *MERLOT J. Online Learn. Teach.* 9 (1), 116–130.
- Tan, S.J., Tan, K., 2007. Antecedents and consequences of skepticism toward health claims: an empirical investigation of Singaporean consumers. *J. Mark. Commun.* 13 (1), 59–82.
- Taylor, S., Todd, P.A., 1995. Understanding information technology usage: a test of competing models. *Inf. Syst. Res.* 6 (2), 144–176.
- Taylor, S.D., Bagozzi, R.P., Gaiher, C.A., 2001. Gender differences in the self-regulation of hypertension. *J. Behav. Med.* 24 (5), 469–487.
- Taylor, S.D., Bagozzi, R.P., Gaiher, C.A., Jamerson, K.A., 2006. The bases of goal setting in the self-regulation of hypertension. *J. Health Psychol.* 11 (1), 142–162.
- Tenenhaus, M., Vinzi, V.E., Chatelin, Y.M., Lauro, C., 2005. PLS path modeling. *Comput. Stat. Data Anal.* 48 (1), 159–205.
- Venkatesh, V., Maruping, L.M., Brown, S.A., 2006. Role of time in self-prediction of behavior. *Organ. Behav. Hum. Decis. Process.* 100 (2), 160–176.
- Wagner, G., Schramm-Klein, H., Steinmann, S., 2016. Consumers' attitudes and intentions toward Internet-enabled TV shopping. *J. Retail. Consum. Serv.* <http://dx.doi.org/10.1016/j.jretconser.2016.01.010>.
- Wang, S., Xu, H., 2015. Influence of place-based senses of distinctiveness, continuity, self-esteem and self-efficacy on residents' attitudes toward tourism. *Tour. Manag.* 47, 241–250.
- Wong, V., Turner, W., Stoneman, P., 1996. Marketing strategies and market prospects for environmentally-friendly consumer products. *Br. J. Manag.* 7 (3), 263–281.
- Xie, C., Bagozzi, R.P., Troye, S.V., 2008. Trying to prosume: toward a theory of consumers as co-creators of value. *J. Acad. Mark. Sci.* 36 (1), 109–122.
- Yousafzai, S.Y., Foxall, G.R., Pallister, J.G., 2007a. Technology acceptance: a meta-analysis of the TAM: Part 1. *J. Model. Manag.* 2 (3), 251–280.
- Yousafzai, S.Y., Foxall, G.R., Pallister, J.G., 2007b. Technology acceptance: a meta-analysis of the TAM: Part 2. *J. Model. Manag.* 2 (3), 281–304.
- Zhang, L., Zhu, J., Liu, Q., 2012. A meta-analysis of mobile commerce adoption and the moderating effect of culture. *Comput. Hum. Behav.* 28 (5), 1902–1911.