

**DECISION SCIENCES INSTITUTE**  
Mobile Banking Resistance in Ivory Coast

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**ABSTRACT**

This research in-progress aims to investigate the attitudinal and technological factors impacting resistance to mobile banking in Ivory Coast. No research on resistance of mobile banking has been done in Africa in general and specifically in Ivory Coast, which is a country that has a high potential in technological innovations. By conducting this study, we hope to contribute to both practice and academia. We present our set of hypotheses that we aim to test after data collection.

**KEYWORDS:** Mobile Banking, Ivory Coast, Africa, Technology Resistance, and E-Wallet.

**INTRODUCTION**

Mobile banking refers to the use of Information Systems (IS) empowering customers to perform a range of financial transactions through Information and Communication Technologies (ICTs) (Anderson, 2010). Financial transactions vary from transfer of money and balance inquiries, to deposits, etc. Generally, mobile banking introduces smarter techniques of doing banking that benefit both the client and the bank. Over the last few years, banks and financial institutions have started to develop and maintain online banking and brokerage to bridge the gap between them and customers. Until now, not all customers are using the mobile banking systems. Customers are still resisting to adopt these systems. This research in progress examines factors impacting mobile banking resistance in Ivory Coast.

Despite the fast growing of electronic market and online banking, mobile banking is still having a hard time grasping the broad users of cellphones. Indeed, this issue is happening in Ivory Coast where we assume that there might be cultural and technological factors that affect mobile banking resistance and adoption. In fact, we claim that the lack of understanding of outcomes, risk, trust, security issues, and the use of another similar method of banking are the main components that challenge mobile banking adoption in Ivory Coast.

Mobile banking in Ivory Coast is characterized mostly by the use of mobile phones associated with a number acting as e-wallet. Ivoirians use mobile banking to perform mostly limited financial transactions such as sending money to someone else and bill pay. This limited use of mobile banking can be caused by many cultural and economical implications that the country is still trying to resolve. Within the last few years, the country demonstrated outstanding growth and success rate in mobile adoption and place itself in the highest world rank. Data from the World Bank showed that Ivory Coast was the fifth country in mobile adoption (World Bank, n. d.). Coupled with these achievements, Ivory Coast is on the road to be an emerging by 2020 and so looking ahead to flourishing sectors capable to boost its economy accordingly according to the Prime minister. However, Ivoirians still resist to use the mobile banking systems that citizens of other countries are using.

## **LITERATURE REVIEW**

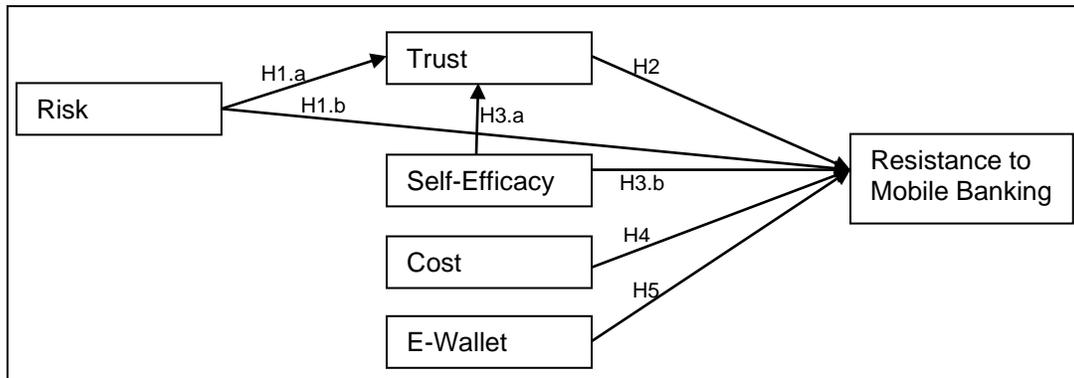
Several studies focused on showing factors and advantages of adopting mobile banking as a smarter approach to financial services. Anderson (2010) investigated the creation of consumer value in developing markets through mobile banking. The study revealed that mobile banking is able to accommodate primary banking and electronic transactions services to unbanked consumers in developing markets. Other studies have shown that it drives a technological innovation by allowing customers to do their banking operations with disregard to time or place and in an easy way (Laukkanen, 2007). Using mobile banking facilitates payments and helps to avoid lines and physical presence in a financial institution (Mallat, 2007). In fact, it has the power to harness higher productivity for banks while making user's lives much easier (Malaquias and Hwang, 2015).

Laforet and Li (2005) studied mobile banking in the Chinese market and investigate its capabilities to develop a large-scale Internet economy and found that most online banking users are males (53%) and younger consumers (57%) showed more emphasis in adopting mobile banking rather than elders. Furthermore, the lack of knowledge and perception of outcomes were one the main obstacles to mobile banking adoption in the Chinese market (Laforet and Li, 2005). Luarn and Lin (2005) investigated the factors that drives users' acceptance of mobile banking. By adding three more factors (perceived credibility, perceived financial cost and perceived self-efficacy) to the standard technology acceptance model (TAM) from previous studies, the new model depicted a stronger capability to analyze users' intention to use an information system (Luarn and Lin, 2005). Tan et al (2009) investigated innovative characteristics, benefits and barriers influencing ICT adoption and found that Internet-based ICT adoption provides a low cost yet effective communication tool for customers. However, security continues to be a major barrier. Poon (2008) found that convenience of usage, accessibility, features availability, band management and image, security, privacy, design, content, speed, and fees and charges have a significant impact on e-banking adoption and resistance in Malaysia. Unfortunately and to our best knowledge there is no study that examined the resistance of mobile banking in any country in Africa.

## **RESEARCH MODEL**

To our best knowledge, no research has investigated the resistance of mobile banking in Ivory Coast yet. Thus, in this study we hope to contribute to the body of knowledge by presenting a

set of factors that impact the resistance of mobile banking by Ivoirians. Figure 1 presents the mobile banking resistance model. We now present the factors:



**Figure 1.** Mobile Banking Resistance Model

### Perceived risk

Perceived risk related to security and privacy concerns is associated with using technology in banking. Fraud issues are common in online transactions; users tend to worry about how secure using mobile banking might be the safest way to do their financial transactions. There are also privacy risks and people worry about whether their information are being securely held by the bank or possibly sold to other companies. When someone put his/her information online, he/she can never really know where it goes. Another concept in risk is related to reliability. Reliability expresses the user's trust in the technology to perform accurately the financial transactions. Since an important part of the population in Ivory Coast is so not familiar with the technology, they do not trust it at all. Therefore, we hypothesize that:

H 1.a. Perceived risk negatively impacts trust

H 1.b. Perceived risk positively impacts the resistance of mobile banking

### Trust

Trust is the basis for any relationship in the world. In business, trust is very crucial to sustain the liaison between businesses and customers. Studies have shown that trust is one of the key factors that impacts adoption of mobile services (Kim et al., 2009; Koenig-Lewis et al., 2010). Alongside with perceived risk, trust is an important decision making factor for users. Ivoirians do not believe in technology because of their uncertainty about the usefulness, and also how to use it. They have never been exposed to a high-tech environment where everyone sees the input of technology in the growth of the country and also at the personal level. Moreover, only 45% of the population is literate and even within those 45%, a large percentage is not familiar with technology use on a daily basis (National Institute of Statistics). In addition, the urbanization rate is about 50%, which means that half of the population does not live in cities where technology is really helpful and can be fully utilized (National Institute of Statistics). Moreover, the high rate of electronic fraud and cybercrimes in the country has increased the fear of relying on technology for transactions especially financial transactions. Thus, we hypothesize that:

H 2. Trust negatively affects the resistance of mobile banking.

### **Self-efficacy**

Self-efficacy describes the user's self-esteem to use the system or technology (Luarn and Lin, 2005; Merhi, 2016). People are sometimes uncertain or afraid about a new technology; they don't want to feel stupid in front of that technology. Very often, people prefer to avoid embarrassing situations when they feel uncomfortable. . Rather, believing that you can use mobile banking or any new ICT is a big step in the adoption and resistance of that technology. Self-efficacy is simply how an individual believes in herself, how she can master the technology to do tasks. It is expected that higher the perceived self-efficacy leads individuals to trust and not resist using mobile banking. For this reason, we hypothesize:

H 3.a. Self-efficacy positively affects trust.

H 3.b. Self-efficacy negatively affects the resistance of mobile banking.

### **Cost of Use**

Mobile banking usage involves several costs such as device and data. Users are facing a spectrum of unknown cost that generally affects their decision making on adopting mobile banking (Hung et al., 2003; Wu and Wang, 2005). People that are using it need a smartphone with a platform that accepts apps and has a good connectivity to Internet services. In developing countries like Ivory Coast, purchasing a smartphone is not a given for everyone. Indeed, technology devices are not accessible to all of the population. One of the reasons for this is that more than 42% of the population lives below the national poverty line (The World Bank). Moreover, due to high taxes on the retail of technology devices, smartphone are very pricy and retailers do not offer financing options. For this reason, it appears that the cost of use and mobile banking are asymmetrically related (Hanafizadeh et al, 2012). Therefore, we hypothesize that:

H 4. Cost of use positively impacts the resistance of mobile banking.

### **E-wallet**

E-wallet describes the use of mobile phones to perform a certain range of financial transactions such as bill pay or sending money to someone. People use their mobile phone number, which serves as an account to fulfill a task. Credit is put on that account, and people can send money to a family in another city, a friend in a country where the phone carrier is implemented, pay their electric and water bill etc. It is very spread out in the country, and people are doing most of their transactions through this mean. By doing this, they are saving time and do not need services of a bank to manage their day-to-day transactions. In this case, bank accounts seem useless to them and so mobile banking. People prefer to keep their money in cash with them, and whenever they need to do a transaction; they just add credit to their phone number and perform the operation. This procedure constitutes daily routines of several Ivoirians. Banks are totally affected by this factor. Thus, we hypothesize that:

H 5. E-wallet positively impacts the resistance of mobile banking.

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## PROPOSED METHODOLOGY

### Research Method and Measures

The survey methodology is used to assess and investigate the mobile banking resistance model. The population for this study will be Ivoirians. The instrument used for this study will be based on previously validated measures. The majority of the scale items are adopted from the previous literature but adapted to the mobile banking context.

### Proposed Analysis Methods

The data collected from the survey instrument will be subjected to various statistical tests. The first analysis tests the data for outliers and normality. After this, construct validity, convergent validity, and discriminant validity will be checked. After confirming the validity of the instrument, Structural Equation Modeling (SEM) will be used to assess and investigate the hypothesized causal paths among the constructs by performing a simultaneous test. This helps to determine if the presented conceptual model had provided an acceptable fit to the empirical data gathered or not.

## CONCLUSION

Mobile banking is one of the smartest innovations of our era. The last decades have demonstrated outstanding results and effectiveness in remodeling financial services, and improving people's life. The great benefits of mobile banking cannot be achieved without people adoption to this technology. This research in progress presents a model showing the factors that leads to resistance of mobile banking in Ivory Coast. No study has explored the factors impacting the resistance of mobile banking in Ivory Coast. This study is the first to do so. Studies that examined mobile banking in Africa are scarce. Therefore, we feel that our contribution bridges a significant gap in the literature.

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