



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

**Exploring the Consumer Adoption of Mobile
Payment by Older Adults in Nigeria: A
Grounded Qualitative Study**

(Proposed Research Report and Reflective Report)

by

1803762

A Qualitative Research Methodology Coursework of the

**At the University of Wales Trinity Saint David (UWTSD)
Doctor in Business Administration (DBA)**

Part 1: Research Plan or Proposal

Exploring the Consumer Adoption of Mobile Payment by Older Adults in Nigeria: A Grounded Qualitative Study

Proposed Research Abstract

With the largest market in Africa, a rapidly growing population at 2.6% (Provost, 2013) and a growing but low financial inclusion (EFInA, 2012), the significance of understanding mobile payment in Nigeria could not be overemphasized. Having researched many literature, there is paucity of research work in the intricacies surrounding the consumer adoption of mobile payment of older adults in Nigeria. Of course, there are many research work on factors affecting technological adoption (Ackermann & Palmer, 2014; Ajzen & Fishbein, 1980; Akturan, 2012; Ashraf, et al., 2014; McKechnie, et al., 2006; Polatoglu & Ekin, 2001), the situation and the contexts are entirely different from those represented by this research. Though some of the works are premised in qualitative studies (Crann, et al., 2015; Crann, et al., 2015; Mallat, 2007; Wang, 2018) as would be used here, this research however plan to build new knowledge using Charmaz's (2006, 2014) approach of grounded theory research.

Table of Content

Table of Contents

Part 1: Research Plan or Proposal.....	2
Proposed Research Abstract.....	3
Table of Content	4
Section 1: Introduction and Background of the Research	5
1.0 Introduction	5
1.1 Research Problem, Question, Aims and Objectives.....	7
1.1.1 Statement of the Problem	7
1.1.2 Research Question	7
1.1.3 Research Aim and Objectives.....	7
Section 2: Literature Review	8
2.1 Mobile Payment: Definition and the Historical Perspectives	8
2.2 The Need for Mobile Payment in Nigeria	11
2.3. Adoption of Mobile and Electronic Payment System: The Theoretical Underpinnings	12
Section 3: Research Methodology Plan	15
3.1 Plan on Research Philosophy	15
3.2 Plan on Research Approach	17
3.3 Plan on Research Strategy, Choice and Time Horizon	17
3.4 Data Collection and Analysis	18
3.5 Validity, Reliability and Ethical Issues	18
Section 4: Summary	19
Part 2: Personal Reflective Report.....	20
1. Introduction and Overview of the Research Topic	21
2.0 Research Report Review and the Methodological Justifications.....	21
3.0 Summary and Conclusion	24
References	25

Section 1: Introduction and Background of the Research

1.0 Introduction

Sovereignty-eroding and prosperity-creating globalisation has seen to an increasing exchange of good and services between different people and societies. This requires efficient payment systems to support this (Hassan & Kaynak, 2013). Cash as an established payment method for goods and services is well established and remained a popular financial transaction means especially in developing countries. In fact, Jayshree (2013) argued that most economies in developing countries are cash-driven but are nevertheless giving way for a more efficient electronic means in which financial transactions are converted to electronic signals and transferred via data over the network. The need for this is also exacerbated by widespread availability of internet as well as the proliferation of mobile handphones which created new retail channels such as internet and mobile commerce.

Mobile payments have been suggested as an efficient means to facilitate financial transactions and payment in electronic commerce as well as a better alternative to the risky cash at point of sales (POS). As said earlier, this is exacerbated by the widespread adoption of consumer-based and self-service technology (Bolton & Saxena-Iyer, 2009) and the increasing ownership of smart phones (Akturan, 2012) among others which has allowed consumer-oriented technology become an integral part of the present society. The advantage is however enormous. At POS, new payment instruments have the potential to increase convenience as well as lower transaction cost. Yet, the use of mobile payment is significantly hampered (Diniz, et al., 2011). Diniz, et al. (2011) and Zhou & Lu (2011) also argued that despite the convenience and comfort it brought as well as a decade of mobile payment in various countries, mobile payment has not enjoyed widespread adoption yet. This is even worse in developing countries (Drucker, 2011).

Edgar & Company (2007, cited in Mallat, 2007, pg. 415) argued that a recent survey suggests that companies in the mobile company businesses believed that consumer acceptance is the greatest barrier to mobile payment adoption. Concurrent with this are reports from extant literature which also indicate that consumer payment behaviour is premised on pre-purchase psychological decisions which determine consumer needs and desires. These needs and desires influence attitude that leads to intention and adoption (Blackwell, et al., 2006). In contemporary research work, consumer behaviour can be examined with five consumer decision-making phases thus: need or problem recognition, information search, evaluation of alternatives purchase decision and post consumption decision (Zeithaml & Bitner, 2003). In research that involves electronic adoption, this is being influenced by many foundational theories which were often used in the explanation of consumer behaviour in electronic markets. Akturan (2012) and Ashraf, et al. (2014) argued that these are often viewed from two perspectives; the diffusion of innovation and behavioural intention perspectives. The

diffusion of innovation sees to the investigation of the key determinants of information system adoption and its usage which are often look at from three perspectives thus: individual adopter characteristics, innovation characteristics, and the information sources and characteristics. The behavioural intention theories from the other hand entail all the theories that provide the needed foundation in examining behavioural intentions like the technology acceptance model (TAM) (Ashraf, et al., 2014; Davis, 1989), theory of reasoned action (TRA) (Ackermann & Palmer, 2014; Fishbein & Ajzen, 1975), theory of planned behaviour (TPB) (Ajzen, 1985, 1991), the decomposed theory of planned behaviour (DTPB) (Pickett, et al., 2012) and lots more like the relatively new Unified Theory of Acceptance and Use of Technology (UTAUT) (Hossain et al., 2019) which is an amalgamation of some of the aforementioned theories. This makes the UTAUT constructs large and it broadly incorporates the previous ones (Zuiderwijk et al., 2015)

Mobile payment like any other technology would require collaborations among many important stakeholders as well as a complex environment that includes technology infrastructure, consumers, retailers, point of sales and producers among others. Considering that the availability of the aforementioned resources, human and capital, varies across different countries and cultures, it is sane to believe that there are different adoption rates of mobile payment that varies across different countries and cultures. In Japan, for instance, Amoro & Magnier-Watanabe (2012) posited that over 92.9% of consumers are aware of mobile phone's electronic wallet capability while Canadian Imperial Bank of Commerce (2014) also said 20% of Canadian shoppers have adopted and used mobile payments. Chen & Chang (2011) as well as Pope, et al. (2011) also supported this assertion and argued that countries like USA, Canada, UK, Hong Kong, Korea, Japan and Taiwan have adopted the technology with wide acceptability. Despite the good statistics from some countries like Japan and China above, it is generally believed that fast diffusion and widespread adoption throughout the world is still in the distant future. Despite this sad reality of non-availability of wide-spread adoption across the globe, Vocalink (2013) and MasterCard (2012a) both agreed that mobile phone phenomenon – its technology, development and its associated intricacies continue to evolve rapidly over the years with various organisations seeking new and innovative ways to support consumer adoption.

With technologies such as Near Field Communications (NFC), a short-range wireless connection that allows mobile devices to be easily used for financial transaction with a simple touch or wave (Garry, et al., 2014), others like Barcode, ultrasound and intelligent routing among others (Adams, 2011), the increasing embedding of these technologies in mobile phones to allow them do it, the development of mobile payment products by many companies like Apple Pay, Google Pay, PayPal among others, it's imperative to explore why this has not enjoyed much success in developing countries like Nigeria especially by older adults which are the worst hit.

1.1 Research Problem, Question, Aims and Objectives

1.1.1 Statement of the Problem

According to data from the Global System for Mobile Communication Association which is commonly referred to as GSMA, a trade body that represents the interest of mobile operators throughout the world, Sub-Sahara Africa will remain the fastest growing mobile economy region in the world with a compound annual growth rate (CAGR) of 4.6% and an additional 165 million subscribers projections over the years to 2025. This is exacerbated by the rapidly-increasing population growth as well as the diffusion of mobile phone usage among others. Nigeria, the most-populated country in the Africa continent, unsurprisingly has the largest economy and as such a huge market for mobile payment. Putting succinctly, Kolawole (2019) argued that about 56% of Nigerians had access to internet in 2018. This is a figure of over 112 million people with potential to use mobile payment. If the people with internet access at the end of 2018 in Nigeria is an independent country, it would be a joint-eleven biggest country in the world with Japan and would be bigger than the likes of Philippines, Egypt, Vietnam, Germany among others. In fact, it would be like the population of UK and France combined.

Having established the potentials of the market, the comfortability and convenience the solution would bring to the people as well as the consequential need for exploring the consumer adoption of the solution, it is also imperative to note that research literatures also emphasized on the need for understanding consumer adoption. Sadly, most of these research studies tend to focus on established market (Ondrus & Pigneur, 2005; Tea, et al., 2005) leaving emerging countries like Nigeria with a void in research and even the older adults with much bigger void.

1.1.2 Research Question

As such, the main research question would be

MAIN RESEARCH QUESTION: Why do older adults decide to use or not mobile payment in Nigeria?

SUB-RESEARCH QUESTIONS:

1. Why are older adults using mobile payment in Nigeria?
2. What are the factors that could affect the decision to use mobile payment in Nigeria?
3. What are the recommendations that could be made to enhance mobile payment adoption by older adult in Nigeria?

1.1.3 Research Aim and Objectives

RESEARCH AIM: To explore the consumer adoption of mobile payment by older adults in Nigeria

RESEARCH OBJECTIVES:

4. To understand why mobile payments are used by older adults in the country
5. To review the underlying factors affecting adoption of mobile payment by older adults in Nigeria
6. To make recommendation on ways to improve mobile payment adoption by older adult in Nigeria

Section 2: Literature Review

2.1 Mobile Payment: Definition and the Historical Perspectives

While mobile payment is somewhat new, it has enjoyed enormous research in extant literature over the years (Diniz, et al., 2011). However, as with most business concepts, there is no uniformity on the definition with some giving it a very broad scope. For instance, Karnouskos & Fokus (2004) opined that the term mobile payment and mobile banking can be used interchangeably. However, as with most research work in this field, mobile banking can be regarded as a broader concept in relation to mobile payments as the former include all banking-related functions. Skeldon (2010) also supported this assertion but depicts it more as a nebulous term which involves mobile and banking. In addition, Ngugu, et al. (2010) used the term, mobile money banking which they argued is evolving.

Another broader approach and/ or definition of mobile payment was that of Lee & Benbasat (2004, cited in Keramati, et al., 2011) who argued that mobile payment is an integral part of mobile commerce which depends upon the payment solution provided by mobile payment. This was partly supported by Jacob's (2007) description of mobile payment who argued that mobile commerce is made up of two important subsets; mobile payments and mobile banking. Chou, et al. (2004), however, reviewed Lee & Benbasat's (2004) and posited that while a mobile payment can rightly support a mobile commerce transaction, it is not exclusively reserved for mobile payment as mobile commerce can also accept lots of other electronic payments which are not mobile payments.

Zhong (2009), on his own part, described mobile payment as an alternative payment method that allows a mobile device to initiate, authorize and/ or confirm an exchange of financial value for the payment of goods and/ or services. This definition highlights the operational aspects of the payment processes in order to exchange values. It is important to raise that mobile payment is not an exclusivity of mobile phones but for mobile devices (Karnouskos & Vilmos, 2004). Though Karnouskos & Vilmos (2004) also mentioned contactless EMV smart card as one which allowed mobile payment, this device

is regarded as a mobile device in this context. This stance was supported by many researchers too (Chou, et al., 2004; Zhong, 2009).

Of the devices associated with mobile payment, summarily, a good number of payment definitions are based on mobile phone which exclude those done on contactless EMV smart card payments, some include it, and some are not specific with the definition of mobile device. This ambiguity on the scope of mobile devices and mobile payment in general also manifested in the description given by Khan & Craig-Lees' (2009) study which suggests that two forms of mobile payments are available. These are the popular mobile payment smart card and the mobile wallet. While Dahlberg, et al (2006) argued that the mobile payment smart card supports a purchasing operation with the use of electronic messages during the payment processes, a mobile wallet is simply one which allows smart card to be stored electronically on the mobile devices in such a way that it serves as a payment instrument, Flatraaker (2008) posited.

Summarily, while many definitions can be seen in extant literature as the technology develops, there are several dimensions or approaches to the definition. Popular among these is the type of device in use as well as the scope of the transaction which has resulted in inconsistency and lack of uniformity in the definition of the term (Diniz, et al., 2011). More so, while these disparities are well documented as depicted earlier, there is however a uniformity on the fact that it involves financial exchange between two parties on a mobile device and which is conducted over the wireless network.

Admittedly, a quick review of the historical perspectives of mobile payment would make you think, it greatly correlated with globalization. While this is more nuanced, one can however infer that with sovereignty-eroding globalization, there is more trade and an increasing need for faster financial transactions. This, with the general increment in technology and its associated diffusion, mobile phone proliferation, increment in mobile phone capacity (RAM and processing power) and lots more which have all improved tremendously over the years have necessitated the need for mobile payment. The likes of American Express, Apple, Google, PayPal, VISA and VocaLink among others have done a lot, in their various bids to fend off competition, to hasten mobile payment. The success of the mobile payment has however been down to the fact that the problems it's solving is pervasive and general.

Liu, et al. (2015) argued that right from 1950 to 1960s, financial institutions were grappled by fast growing economic-induced problems that drove financial intermediation-related activities significantly. This significantly increased the need for processing high volume of payments as with other financial instruments. Between 1960 and 1970, Liu, et al. (2015) further argued that the automation of the banking products and processes with the aid of computer and networks began.

Since then, the growth has been tremendous. As such, trading and the banking needs have been central to mobile payments. The history is best depicted in the table below thus:

YEAR	LANDMARK	SOURCE
1997	- In Finland, vending machines that allows for SMS payment was introduced - Concurrent with point 1 above is the mobile-phone banking services which was rolled out in Finland in 1997	(Montgomery, 2012)
2001	- Owing to the growth of communication network over the concluding decade, the widespread adoption of online banking began. - Commercial 3G network was also launched in Japan	(Xue, et al., 2011) (Yamada, 2001)
2002	Ebay, the leading online marketplace formally acquired PayPal which processes the platform's payments	(Kane, 2002)
2004	- A forum on Near Field Communication (NFC), a wireless technology that allows money to be transferred via data – either in active or passive mode – was formed. - MobileLime began to offer mobile payment services which was built on this technology	(Buckley, 2006)
2005	NTT DoCoMo launched mobile payment services in Japan. This payment service is based on DCMX	(Nita, 2009)
2006	- The mobile WiMAX, a standard for 4G network, was commercialized in Korea - Amazon started Amazon Web Services (AWS) which is the first commercial cloud computing service offered by the company.	(Whitney, 2010) (Raghupathi, 2011)
2007	- Around 2007, Apple introduced the original iPhone to the market. - M-Pesa, a phone-based money transfer service spread across some countries in Africa.	(Honan, January) (Graebner, 2014)
2008	In 2008, HTC launched the first smartphone into the market. The phone was built on Android technology.	(German, 2011)

2009	• A 4G standard, Long Term Evolution (LTE), first released in Europe.	(Klasson, 2010)
2010	• An application to read credit cards, Square, was introduced on iOS and Android smartphones. • There is also increasing adoption of mobile banking	(Wilhelm, 2014) (Kahn, 2010)
2011	• An NFC-enabled mobile payment was launched by Google in the US. It is called Google Wallet. • Handset vendors released a lot of NFC-enabled smartphones.	(Warren, 2011) (Balaban, 2011)
2012	• PayPal partnered with about 15 retailers for in-store cloud-based payments. • Apple applied and was awarded a patent for its in-store technology innovation • Softcard brought NFC mobile payments to Austin and Salt Lake City in the U.S.	(Perez 2013) (Webster, 2013) (Perez, 2014)
2013	• NFC-enabled payment, card readers and mobile apps enabling money transfer became pervasive • mobile apps	(Romann, 2014)
2014	• Back Virtual credit card and QR-code payments in China was introduced • Apple released iPhone 6 that supports NFC and used Apple Pay for payment services • Apple Pay was made to be compliance with MasterCard, Visa and American Express NFC POS terminals	(Zhao & Xie, 2014) Garside & Hern (2014)

2.2 The Need for Mobile Payment in Nigeria

Nigeria's present population is staggeringly large with over 200 million people making it the largest country in Africa and the 7th largest in the world (Worldometers, 2019). With a rapid growth of 2.6%, one of the highest in the world, the country's population is projected to eclipse that of the United States by 2050 behind only India and China in that order (Provost, 2013). This will invariably make it the third highest population country with huge market size. This invariably make it very promising for many prospective stakeholders like the government, banks and other financial institutions. In fact, its importance to banking alone cannot be over-emphasized as Zaid, et al. (2010) rightly posited that it helps, with the larger electronic payment, to position banking sectors to the fore of profitability.

Jayshree (2013, p. 19) also buttressed this and posited that electronic banking changed the face of banking, and mobile payment is at the heart of e-banking revolution. As such, he attributed some of the success of e-banking to mobile payment. In an earlier study, Robinson (2000) also argued this and buttressed that mobile payment and the much larger electronic payment helps in various ways. He argued that banks which adopted these very well would see advantages like cost savings, time savings, enhanced customer service and better satisfaction, enhancement of reputation, enhanced efficiency, wider reach and lots more.

As inferred in one of the earlier sentences, the need for consumer adoption of mobile payment by older adults especially is borne from various fronts. From the advantages it poses to the government to other stakeholders like the (potential) consumers, the citizens and banks among other financial institutions and/ or providers alike. According to data from Enhancing Financial Innovation and Access (EFInA) which conducted research on financial inclusion in Nigeria in 2012, it was posited that 34.9 million adults which represented 39.7% of the adult population in the country were unbanked. The organization further posited that only 28.6 million adults which represented a 32.5% of the adult population were banked (EFInA, 2012). They posited that the negative impact of this financial inclusion includes losing opportunities for business growth as well the stifling of the economic growth. From this, it can be further inferred that with mobile payment instead of the too-much entrenchment in using cash for transaction which is still pervasive in the country, benefits for the government include increment in financial inclusion and literacy as well as enhanced economic growth among others. For business organizations, considering the core aim of most, if not all, businesses are to make profit, mobile payment and the wide acceptance by older adults in countries like Nigeria is a potential 'honey pot' considering the huge underlying potential market. For consumers too, the comfortability, convenience, time and cost saving are all enough to adopt it should they get innovative mobile payment products as suggested by EFInA (2012).

2.3. Adoption of Mobile and Electronic Payment System: The Theoretical Underpinnings

While emphasizing the importance of technological considerations to consumer behaviour, Thakur & Srivastava (2014, p. 371) succinctly puts thus: "Consumers of MPs are users of both payment services as well as mobile technology, and thus technology considerations usually take a central role in consumer behaviour towards MPs". This statement underpins the importance of technological considerations to consumer adoption even in technology and subtly emphasized the theoretical underpinnings. That a systemic review of technology adoption studies in both Google Scholar and Scopus have drawn on Davis' (1989) Technology Acceptance Model (TAM) (Chandra, et al., 2010;

Liebana-Cabanillas, et al., 2014; Schierz, et al., 2010; Shaw, 2014; Tan, et al., 2014) also gave credence to the previous theories underpinning research work of this nature. While TAM remains very popular among studies in technology adoption, others that have been used include the likes of Fishbein & Ajzen's (1975) Theory of Reasoned Action (TRA) (Ackermann & Palmer, 2014; Akturan, 2012; Chaudhuri, 1998; Daniel, 1999; Ezzi, 2014; Furusa & Coleman, 2018), Theory of Planned Behaviour (TPB) (Ajzen & Fishbein, 1980; Chaudhuri, 1998; Garavand, et al., 2016; Hossain, et al., 2019; Pickett, et al., 2012; Thakur & Srivastava, 2014), Diffusion of Innovation (DOI) (Akturan, 2012; Mallat, 2007; Pope, et al., 2011), Unified Theory of Acceptance, Use of Theory (UTAUT) (Ashraf, et al., 2014; Chen & Chang, 2011; Venkatesh, et al., 2012) and Technology Organization and Environment (Tornatzky, et al., 1990) which have all been used to fill one void or the other. Though the nuanced from adoption theories' were premises upon which researches which cut across different industries, sectors and contexts were based; say on electronic health adoption (Holden & Karsh, 2010), on electronic banking (Abdekhoda, et al., 2015; Christopher, et al., 2006; Haque, et al., 2009; Heinonen, 2007; Olalekan, 2011) on soil and agriculture (Crann, et al., 2015), on adoption of novelty technology (Lai, 2017) and lots more (Abdekhoda, et al., 2015; Featherman & Pavlou, 2002), their wide applicability and generalization to a lot of industries are few of the core reasons they enjoyed much use in extant literatures.

Fishbein & Ajzen (1975) posited that the Theory of Reasoned Action (TRA) which was developed for sociological and psychological researches suggests that human behaviour is predicted on three cognitive components. These main cognitive components are the attitudes which Taherdoost (2018, p. 961) described as "unfavourableness or favourableness of person's feeling for a behaviour", social norms which is also known as social influence and behavioural intention (individual's decision to adopt or not adopt a technology). A lot of nuances are associated with the TRA: like the boundary factors of intentional stability over time, volitional control as well as the consequential measurement of intention in action, context, timer and specificity among others; and methods like generality, time horizon, action and target which were used to measure associated robustness between behavioural intention and attitude. Many a researcher however posited that lack of addressing the important role of habit, weaknesses of data collection and measurement of research items like cognitive deliberations, attitudes, subjective norms, and intentions through survey and moral factors among other important others make this to be weak. (Ackermann & Palmer, 2014; Hossain, et al., 2019; Taherdoost, 2018). Did the limitations depicted in these studies give justifications as to why qualitative research might be handy here? The TPB, an acronym for the Theory of Planned Behaviour, on the other hand can be regarded as an extension of the TRA described above in that it allows for the addition of perceived behavioural control (PBC) to the original TRA variables. White (2015) argued that

this perceived behavioural control is determined by the availability of the trio of skills, resources and opportunities as well as the significance provided by the aforementioned items. While the summary of TPB postulated that three important factors affecting the behavioural intention are PBC, subjective norm and behavioural attitude, critics however argued that the unavailability of computer system would make TPB irrelevant on the study of attitudes towards technological adoption (Taherdoost, 2018; Taherdoost, et al., 2011)

Technology Acceptance Model (TAM) is also built on the inadequacies of Theory of Reasoned Action (TRA) which is the primary foundational work on the theory of technology adoption. Davis (1989) posited that the perceived usefulness that could be accrued by the user of a technology as well as the perceived ease of use are the two important constructs that ultimately affect the adoption of technology. In other extensions of the theory, other external variables like user training, implementation process nature, system characteristics among others were considered in TAM models (Lin, et al., 2011). While TAM is widely adopted in extant research work, it is also believed to have several flaws too (Ackermann & Palmer, 2014; Chandra, et al., 2010; Chen & Chang, 2011; Holden & Karsh, 2010; Liebana-Cabanillas, et al., 2014; Taherdoost, et al., 2011; Taherdoost, 2018; Vatanasombut, et al., 2008). These flaws include ignoring the social influence on the adoption of technology which make it difficult in applying it beyond the workplace, lack of addressing the intrinsic motivations which make it difficult to adopt in customer task where the aim is not just to measure is not just to achieve task but to measure emotional needs (Taherdoost, 2018). Some of these flaws make birthed other models like Extension of TAM (ETAM) as was described in Maillet, et al. (2015) as well as Igbaria's Model (IM) which emphasized intrinsic and extrinsic motivators as were described by Igbaria, et al.'s (1994) study.

Besides TAM with its extensions like ETAM (Maillet, et al., 2015) as well as IM (Igbaria, et al., 1994), there are other models which have been used to review technology adoption like Technology organization Environment (TOE) (Tornatzky et al., 1990), Theory of International Behaviour (TIB) which mainly focused on complexities used in clarifying human's behaviour which were effected social and emotional factors. These are similar and even premised on the intricacies of the theory of reasoned action (Taherdoost, 2018), Diffusion of Innovation (DOI) (Akturan, 2012; Mallat, 2007; Pope, et al., 2011), Unified Theory of Acceptance, Use of Theory (UTAUT) (Ashraf, et al., 2014; Chen & Chang, 2011; Venkatesh, et al., 2012). While the Diffusion of Innovation (DOI) model examined innovation diffusion and used four factors; time, innovation, channels' communication and social system; to explain the spread of new idea (Akturan, 2012; Mallat, 2007; Pope, et al., 2011), the Unified Theory of Acceptance, Use of Theory (UTAUT) was more like a careful amalgamation of theories or models such as TRA, TPB, TAM and TID. As such, the constructs are encompassing of the distinct constructs from the individual

models or theories which make it up. In fact, Venkatesh, et al. (2012) and Taherdoost (2018) inferred that UTAUT's success in adoption in contemporary extant literatures is in its adoption of eight models thus: Theory of Reasoned Action (TRA), Theory of Planned Behaviour, Technology Acceptance Model (TAM), combined TPB and TAM, Diffusion of Innovation, Motivational Model, Model of PC Utilization, and Social Cognitive Theory.

Summarily however, these models and theories are rooted in different directions but collectively helped in understanding technology adoption in any field. Taherdoost (2018) posited that TRA is rooted in social psychology, TPB and SCT are rooted in psychosocial theories and Diffusion of Innovation, which is also referred to as Innovation Diffusion Theory (IDT), is rooted in sociology. They are mostly usable in different contexts (Abdekhoda, et al., 2015). For instance, while TRA and TPB focuses on the behaviour of individual subjects, DOI and TOE focuses on subjects in which the organization plays an important role in the understanding of group behaviour.

Collectively too, there are considerable argument that despite the likes of TAM, TPB and TRA, providing a somewhat reliable model to researching technological adoption, they have been criticized to presenting a general information on individuals' opinions of novel technologies using deterministic approaches without due consideration for unique differences of individual characterisations (Taherdoost, et al., 2011; Taherdoost, 2018) as would have been necessary when researching older adults consumer adoption of mobile payment in Nigeria.

Section 3: Research Methodology Plan

Considering that the adopted research methodologies goes a long way in determining the validity and reliability of research work, this can not be over-emphasized. As a strong promoter of Saunders' research onion owing to the simple but important ways the research processes were carefully highlighted, this plan item also follow these options and gave various justifications as to why the adopted methodology is best suited to this research. As such, the proposed plans for adoption is slightly modified to suits this research and analysed for brevity thus: research philosophy, research approach, research strategy, research choice, time horizon, data collection and sampling, data analysis and other issues which touched on reliability, validity and ethical considerations among others depicted below.

3.1 Plan on Research Philosophy

Acquaye (2013) posited that it is important to consider the various types of research philosophies and the associated assumptions that underpin them because of the influence they have in determining

the choice of methods. Saunders, et al. (2012) highlighted these assumptions as ontological and epistemological considerations and posited that they affect the research study from the inception to the conclusion stages. Acquaye (2013) further described the ontological assumptions as what may constitute a reality, subjective or objective, in the mind of the research and epistemological considerations as those one associated with getting the most appropriate way an investigation can be conducted to discover knowledge.

With the aforementioned considerations, Bryman & Bell (2007) and Saunders, et al. (2012) argued that there are four main research philosophies namely positivism, realism, interpretivism and pragmatism. While positivistic philosophical stance is rooted in the fact that the cause of an event can be identified using scientific standards of verification, interpretivism is not associated with seeking the scientifically-bounded truth but in understanding patterns of subjective understanding.

More so, while Hatch & Cunliffe (2006) argued that realism posits the existence of real structures which is dependent on the logical deduction that knowledge is socially created and not a human-controlled mechanism, pragmatism, on the other hand, simply evolves from actions, situations and consequences rather than antecedent conditions. As such pragmatism is more suitable for studies which places emphasis on the research questions with recourse for rigid methodology.

In this research, while grounded theory (GT) would be adopted to look at intricacies behind old adult's adoption of mobile payment in Nigeria which is believed to open up new grounds in knowledge, adopting a philosophical stance to meet this is even more nuanced. Three philosophical stances are often used with grounded theory, according to Singh & Estefan (2018) these are the positivist, post-positivist (phenomenological) and constructivist research philosophical stances as depicted in the figure below thus:

Figure 1: Philosophical Considerations for Grounded Theory

Areas of Differences	Glaser	Strauss and Corbin	Charmaz
Philosophical considerations	Positivist perspective implied. Believes in one reality.	Postpositivist perspective implied. Acknowledge implausibility of seeing reality as it "really" is.	Constructivist perspective. Believes in multiple perspectives of reality.
Useful perspective when—	Researcher remains neutral (objectivist) and let data speak for itself (passive approach). Researcher believes in one reality of a phenomenon of interest. Personal biases can contaminate data, remaining uninformed about the phenomena is helpful for the inquiry.	Researcher controls personal influence by using procedures to maximize objectivity. Researcher is hesitant to apprehend reality as "really" is. Personal biases can contaminate data but are unavoidable, however, could be minimized.	Researcher passionately engages in interpretation. Researcher is aware of changing context or competing perspectives of reality. Personal knowledge and experience can aid knowing.

SOURCE: Singh & Estefan (2018)

While understanding that Kathy Charmaz's philosophical understanding might allow for (un)conscious bias, with close to a decade conducting research on adoption factors and consumer behaviour in Nigeria as well as over a decade experience leading digital transformations for governments at all tiers whose first task on these jobs is to evaluate how hindering factors could be mitigated, it is believed that the researcher has knowledge that could be used in shaping the research. The choice of this option is also exacerbated by the facts that there are multiple realities that must be factored to arrive as a real understanding of the phenomenon. More so, the older adult population which are largely uneducated needed someone to guide them without necessarily altering their response.

3.2 Plan on Research Approach

In terms of the proposed research approaches, both inductive and method were raised by Saunders, et al. (2012). While deductive approach emphasizes theory testing, the inductive approach is concerned with the generation of new theory (Bryman & Bell, 2007). Of these approaches, one could easily infer that inductive approaches would be mostly suited to this research. It is imperative to point that this is most suitable for the classical grounded theory approach. In this research which favours the Charmaz's grounded theory approach, both induction and deduction would be carefully used. Like Charmaz (2006) and Charmaz (2014) posited, both induction and deduction approaches should be adopted when and where needed to make sense of the grounded data. To do this, Singh & Estefan (2018, p. 5) succinctly put it as it that there is need to encourage "researchers to engage in a creative process of theory co[-]construction and to use other analytic tools such as abduction". Brusaglioni (2016) described abduction as one which involves using sound intuition and creativity to explain unexpected observations. One way of doing this, according to Charmaz (2014), is to have the theoretical underpinnings at one side while throwing open questions and only bring it to fore if subjects under study (older adults being investigated) mentioned anything similar to the underlying theories.

3.3 Plan on Research Strategy, Choice and Time Horizon

Of the research strategies and as depicted in the earlier, grounded theory was adopted because new previous studies were built on something not meant for the same context. In fact, on adoption factors when the keywords are searched on Google scholar and Scopus, about 50% of this were based on technology acceptance model without real recourse to the suitability. This might be a case like the computer term: GIGO meaning garbage in, garbage out which implies that if you built research on a wrong foundation, no matter how good the process is, it would be bad. More so, and perhaps more

importantly, research studies such as Wang (2018) whose study is similar to this also built from the ground up and adopted grounded theory perhaps also giving methodological justification for the adopted method. While the classical grounded theory approach as discussed in the preceding section was adopted owing to the researcher's little experience, here, a Charmaz grounded theory approach would be adopted.

More importantly, a multimethod research choice of both focus groups and interview would be conducted to provide the needed triangulation platform to quickly arrive at generating new knowledge. Justifications for this would be better explained in the next section.

3.4 Data Collection and Analysis

For data collection as detailed in the preceding section, both focus groups and interview would be used in collecting data from the older adults. It is however imperative to note that with the adopted Charmaz' constructive grounded theory, the emphasis is not necessarily on the adopted data type, but also how often the data is collected and analysed. The plan, as espoused by Charmaz (2006, 2014) is to make the data collection and data analysis an iteration process in such a way that it's stopped when it reaches a saturation point. More also, because of the understanding of the researcher of the associated concepts, there would be intimate connection between the researcher and the participant.

Data analysis here is very nuanced too. However, like most qualitative data, coding would be deployed. Data collected from both interview and FG are thoroughly coded and written memo of researchers note would be greatly encouraged to aid on-going investigation. Constantly, actions like theoretical sampling, coding, comparison and identification of data saturation as emphasized by Charmaz (2006, 2014) as well as Singh & Estefan (2018) would be seen to.

As emphasized by the three approaches to grounded theory; Glaser, Strauss and Corbin, and Charmaz, coding is believed to be an opportunity to randomly pause and ponder on social processes of theory building (Singh & Estefan, 2018) and this would be done as at when due.

3.5 Validity, Reliability and Ethical Issues

Like Leung (2015) posited, the validity of a research work depicts the correctness of a research work and the appropriateness of the adopted research methodology. As such this research work would make sure that at every stage, care is given to the validity, the sampling, the data collection and lots more. With triangulation data collection as well as multi-dimensional analysis which Saunders, et al. (2012) argued help in enhancing research validity among, validity is given the needed importance. More so, the sampling is purposively stratified to take care of the wide different group of people in

the country. The country has 36 states which is divided into six geo-political zones thus: North-East, North-West, North-Central, South-East, South-South and South-West. People from these zones have similar commonalities and a minimum of five interviews would be conducted in each zone to factor in their local unique need as emphasized by Charmaz (2014). At least focus groups would also be conducted in each of these zones.

On ethics, enormous considerations would be given to this especially that Charmaz grounded theory approach would be adopted to make sure that enormous bias which would eventually affect both the reliability and validity are not entrenched by following guiding policy documents. More so, all interviews and participants of focus groups are informed of the voluntariness of their participation while maintaining absolute confidentiality. More so, considering that this method still allows the use of guiding foundational theories, this would be use intelligently as Charmaz (2014) by only bringing it to the participants after they have mentioned.

Section 4: Summary

With this research, there would be a paradigm shift in that factors are not just itemized and reviewed to see if they affect older adults in Nigeria, the research would be done ground-up using Charmaz approach to grounded theory. Of course, this is nuance and would be tasking, but the requirement is ripe for this method as opined by Singh & Estefan (2018) who cited the conditions below thus: need to build new knowledge – a justification for adopting grounded theory; need to acknowledge researcher's influence, knowledge and skills of the subject matter; and approaches to use the phenomenon in the local context among others. With the financial inclusion data submitted by EFINA (2012) showing that more percentages of older adults in Nigeria are not financially included and not using mobile payment, it is high time to researched using a different but appropriate approach instead of numerous ones which undertook research without recourse for methodological correctness.

|

Part 2: Personal Reflective Report

Reflective Report of the Qualitative Research plan

1. Introduction and Overview of the Research Topic

The master in the art of living makes little distinction between his work and his play, his labor and his leisure, his mind and his body, his education and his recreation, his love and his religion. He hardly knows which is which. He simply pursues his vision of excellence at whatever he does, leaving others to decide whether he is working or playing. To him he is always doing both.

Jack, Lawrence Pearsall, Education through Recreation (1932)

If any quote can be used in explaining another quote, it would be the quote attributed to Jack above used in making meaning to one of Brian's Tracy's thought "Do what you love doing and you will never work another day in your life". A quote from his best-selling book titled "21 success secrets of self-made millionaires". These two quotes epitomized the very reason behind this topic and one I intended to imbibe for the much-larger research part of the doctoral journey. So the rationale behind this is not just to fulfil an academic requirement but one which is in line with career projections and perhaps more importantly, one with great interest.

As someone with extensive education and experience in information technology and business administration, my research interest is in the intersection of IT and business and specifically so, in the ways of leveraging IT benefits for various sectors in Nigeria as with other emerging economies. In the course of exploring this research these both in academic research and practical experience, I have come to the realization that often times, customizing solutions or technologies that were crafted for developed countries and using those for emerging countries often end in failures. Similarly, and as with practices in academia, many research studies were premised on refined factors or items from established theoretical models whose original context have no similar bearing to the original intent. Linking this to the case of the study, a research gap was established, a topic of interest was highlighted and with the significance to both theory and practice, a sound rationale was born.

2.0 Research Report Review and the Methodological Justifications

As depicted in the earlier section, the research was not just of interest, there is established paucity in extant literatures. Having known the research field, I began to search so profoundly in journal databases. This include in such databases like ABI/ INFORM, ProQuest Database, ScienceDirect and Oxford University repository among others which were embedded in the catalogue portal whose access was provided for us by the University. More so, I also looked at independent journal with high

reputation like the Institute of Electrical and Electronic Engineer (IEEE) Xplore whose access I got not because I am a doctoral student in UWTSD but because I am a professional member. Reading all these as with those sourced from Google Scholar and Scopus further broaden my horizon. Reviewing the journal articles, which I mostly used, were however done using a systemic review by filtering search requirements based on many criteria so as to reduce the unbelievable numbers that initially gave with the keyword search terms. Filtering was done on date, search terms, resource type and filtered to those with full access so as to be able to use them. Having itemized those research articles, I read extensively and came to realization that that even contemporary research work tends to just review the factors affecting technology adoption by itemizing factors in previous research and ‘ask’ the researcher if those factors affect them too. In certain regard, one can even infer that those questions are leading questions and as such pose a methodological flaw to researching the concept. This is even further exacerbated by the fact that none of the foundational theories used exactly the same contexts as this and while the generalizability of the theories is well documented (Ackermann & Palmer, 2014), applying it to all contexts and situations have been described as methodological flaw and flagged (Wang, 2018). As a promoter of Saunders’ research onion, the review of the research methodologies planned for adoption are highlighted in the table below thus:

S/NO	RESEARCH METHOD AND OPTIONS	PROPOSED ADOPTED METHOD	JUSTIFICATION
1	Research Philosophy - positivism - interpretivism - realism - pragmatism - post positivism - constructivism	constructivism	While lots of philosophical underpinnings like constructivism, post-positivism and interpretivism could be adopted, constructivism was adopted owing to many things which collectively help in catering for the epistemological and ontological considerations. More importantly, it is best suited to situation where there is new knowledge building (grounded theory) in which - The experience of the researcher could be very handy (Charmaz, 2014). In this regard, considering the researcher have close to a decade experience on technology adoption and have over a decade experience building technological solution for business needs across Nigeria having consulted for all tiers of governments in the country) - Useful when researcher is aware of changing context which is applicable here too.
2	Research Approach - inductive approach - deductive approach	Inductive and deductive approach	Both induction and deduction are mostly used in what is subtly referred to as abduction which Bruscaglioni (2016) depicts as intelligent use of

			both theory-building of inductive approach and theory testing of deductive approach. Charmaz (2006, 2014) as well as Bruscaglioni (2016) posited that it involves using sound intuition and creativity to explain unexpected observations.
3	Research Strategy - Case study - Action research - Grounded theory - Experiment - Survey - Archival research	Grounded theory	Of the research strategies, it is easy to pick one which would allow us build new knowledge and grounded theory do that (Bryman & Bell, 2007; Charmaz, 2014; Saunders, et al., 2012; Saunders, 2009) While grounded theory was adopted, the adopted approach was not the classical grounded approach but the Charmaz approach grounded theory with the justification given under the Research Philosophy section and table.
4	Research Choice - Mono method - Mixed method - Multi-method	Multimethod	Multimethod of both focus group and interview to allow for triangulation
5	Research Time Horizon - Cross-sectional - Longitudinal	Cross-sectional but nuanced	While it can be regarded as cross-sectional, practically, it is in-between cross-sectional and longitudinal approach because Charmaz approach emphasize the re-collection till the theory-building process finishes and research is saturated (Charmaz, 2014)
6	Data Collection Methods - Qualitative - Focus groups; - Interview - Quantitative - Online survey - Questionnaire - And lots more	Qualitative – Interview, Focus go	Qualitative data collection which allows one to answer questions like why these factors are important in the given context. Semi-structured interview data allowed us to get nuanced data with more insights and was used in similar research studies (Crann, et al., 2015; Crann, et al., 2015; Mallat, 2007; Wang, 2018) More so, focus groups was also used in similar research work (Mallat, 2007; Wang, 2018) and was argued that it allow one to get more data (Bryman & Bell, 2007; Saunders, et al., 2012; Saunders, 2009)
7	Data Analysis and Methods Procedure	- Coding - Generation of themes - Theory building	Coding and generation of themes as was used in similar research work (Crann, et al., 2015; Crann, et al., 2015; Mallat, 2007; Wang, 2018) Theory building as was used in similar research work (Wang, 2018)

3.0 Summary and Conclusion

Is qualitative method difficult or to put in proper context, is it difficult than quantitative method?

The answer is may be. But what stands as fact is it is way more nuanced and more care should be taken to make sure conscious and unconscious bias do not creep into the research especially considering that Charmaz's approach to grounded theory would be adopted. More so, in direct comparison with quantitative research methodology, conducting the research would be more tasking as a single interview last for about 30 minutes to 1 hour and with the plan to conduct 30 interviews from people across different regions of the country, this even becomes more difficult.

References

- Abbott, J., 2003. The information technology evolution. *Qualitative Market Research: An International Journal*, 6(4), pp. 273-278.
- Abdekhoda, M., Ahmadi, M., Gohari, M. & Noruzi, A., 2015. The effects of organizational contextual factors on physicians' attitude toward adoption of Electronic Medical Records. *Journal of Biomedical Informatics*, 53(1), pp. 174 - 179.
- Ackermann, C. & Palmer, A., 2014. The contribution of implicit cognition to the Theory of Reasoned Action Model: a study of food preferences. *Journal Of Marketing Management*, 30(5/6), pp. 529-550.
- Acquaye, D., 2013. *Does the use of project finance enhance shareholder value upon announcement of international joint ventures (IJVs)?*, United Kingdom: Thesis Submitted to the Cardiff Metropolitan University in Partial Fulfillment for the Awar of Doctor of Philosophy.
- Adams, J., 2011. Technologies Behind Mobile Payments. *Bank Technology News*, 24(8).
- Adriana, C., 2006. *Forms of electronic banking*. [Online]
Available at: http://www.nbs.sk/_img/Documents/BIATEC/BIA06_06/22_25.pdf
[Accessed 16th January 2015].
- Ajzen, I. & Fishbein, M., 1980. *Understanding Attitudes and Predicting Social Behaviour*. 1st ed. Upper Saddle River, New Jersey: Prentice Hall.
- Akpan, I., 2009. Cross Channel Integration and Optimization in Nigerian Banks. *Telnet Press* , 20(1), pp. 1-4.
- Akturan, U. & T. N., 2012. Mobile banking adoption of the youth market: perceptions and intentions. *Marketing Intelligence & Planning*, 30(4), pp. 444-459.
- Alsajjan, B. & Dennis, C., 2010. Internet banking acceptance model: Cross-market examinations. *Journal of Business Research*, 63(1), pp. 957-963.
- Ashraf, A. R., Narongsak, T. & Seigyoung, A., 2014. The Application of the Technology Acceptance Model Under Different Cultural Contexts: The Case of Online Shopping Adoption. *Journal Of International Marketing*, 22(3), pp. 68-93.
- Balaban, D. 2., 2011. *NFC phone shipments for 2011 expected to come in below projections*. [Online]
Available at: nfctimes.com
[Accessed 12 August 2019].
- Bojan, D., Mutu, S. & Dragus, P., 2010. Electronic Banking - Advantages for Financial Services Delivery. *Annals of the Faculty of Economics from the University of Oradea*, 1(2), pp. 672-677.
- Bolton, R. & Saxena-Iyer, S., 2009. Interactive Services: A Framework, Synthesis and Research Directions. *Journal of Interactive Marketing*, 23(1), pp. 91-104.
- Bruscaglioni, L., 2016. Theorizing in grounded theory and creative abduction. *Journal of Quality and Quantity*, 50(1), pp. 2009-2024.
- Bryman, A. & Bell, E., 2007. *Business Research Methods*. 2nd ed. Oxford: Oxford University Press.

Buckley, R. 2., 2006. *Mobile Lime scores \$10 million. One question – why?*. [Online]
Available at: Mobhappy.com
[Accessed 25 August 2018].

Cameran, S., 2005. *Cameran, S (2005) The MBA Handbook: Skills for Mastering Management*. . 5th ed. England: Prentice Hall.

Carcary, M., 2009. The research audit trail – Enhancing trustworthiness in qualitative inquiry. *Electronic Journal of Business Research Methods*, 7(1), pp. 11-24.

Chandra, S., Srivastava, S. & Theng, Y. L., 2010. Evaluating the role of trust in consumer adoption of mobile payment systems: An empirical analysis. *Communications of the Association for Information Systems*, Volume 27, p. 561–588.

Charmaz, K., 2006. *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage.

Charmaz, K., 2014. *Constructing grounded theory (2nd ed.)*. 2nd ed. Thousand Oaks, CA: Sage.

Chaudhuri, A., 1998. Product Class Effects on Perceived Risk: The Role of Emotion. *International Journal of Research in Marketing*, 15(2), p. 157–168.

Chen, K. Y. & Chang, M. L., 2011. User acceptance of NFC mobile phone service: an investigation based on the UTAUT model.. *The Service Industries Journal*, 2011(1), pp. 1-15.

Chief, S., 2013. *Referencing*. 4th ed. United Kingdom: Mac Millian.

Chou, Y., Lee, C. & Chung, J., 2004. Understanding m-commerce payment systems through the analytic hierarchy process. *Journal of Business Research*, 57(12), pp. 1423-1430.

Christopher, G., Mike, C., Visit, L. & Amy, W., 2006. A Logit Analysis of ELctronic Banking in New Zealand. *International Journal of Bank Marketing*, 24(3), pp. 360-383.

Collis, J. & Hussey, R., 2003. *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*. 2nd ed. Basingstok: Palgrave Macmillan.

Crann, S. E. et al., 2015. Soils, Microbes, and Forest Health: A Qualitative Analysis of Social and Institutional Factors Affecting Genomic Technology Adoption. *Technology in Society*, Volume 43, pp. 1-9.

Curran, J. M., Meuter, M. L. & Suprenant, C. F., 2003. Intentions to use self-service technologies: a confluence of multiple attitudes. *Journal of service research*, 5(3), pp. 209-224.

Curwin, J. & Slater, R., 2008. *Quantitative Methods for Business Decisions*., 6th ed. London: Thompson Learning.

Daniel, E., 1999. Provision of electronic banking in the UK and the Republic of Ireland. *International Journal of Bank Marketing*, 17(2), pp. 72-82.

Davis, F. D., 1989. Perceived usefulness, perceived ease of use and user acceptance of information technology. *Management Information System (MIS) Quarterly*, 13(3), pp. 318-340.

De Barnier, V., Rodina, I. & Valette-Florence, 2006. *Which Luxury Perceptions Affect Most Consumer Purchase Behaviour? A Cross Cultural Exploratory Study in France, the United Kingdom and Russia*. Paris, International marketing Trends Publishers.

- Diniz, E. H., de Albuquerque, J. P. & Cernev, A. K., 2011. *Mobile Money and Payment: a literature review based on academic and practitioner-oriented publications*. s.l., Proceedings of SIG GlobDev Fourth Annual Workshop..
- Drucker, P. F., 2011. *Technology, management, and society*. Boston, MA: Harvard.
- Easterby-Smith, M., Thorpe, R. & Jackson, P., 2008. *Management research*,. 3rd ed. London: SAGE Publications Ltd.
- Edeji, C. C., 2014. *Cybercrime in Nigeri*. [Online]
Available at: http://www.academia.edu/4818858/Cyber_Crime_in_Nigeria
[Accessed 19th January 2015].
- EFInA, 2012. *Financial Inclusion in Nigeria*. [Online]
Available at: <https://www.efina.org.ng/about/financial-inclusion/#targetText=Financial%20Inclusion%20in%20Nigeria&targetText=The%20results%20of%20the%20EFInA,32.5%25%20of%20the%20adult%20population.>
[Accessed 15 September 2019].
- Engel, J. F., Blackwell, R. D. & Miniard, P. W., 2004. *Consumer Behaviour*. 11th ed. Forth Worth: The Dryden Press.
- Ezzi, S. W., 2014. A theoretical Model for Internet banking: beyond perceived usefulness and ease of use. *Archives of Business Research*, 2(2), pp. 31-46.
- Featherman, M. S. & Pavlou, P. A., 2002. Predicting E-services Adoption: A Perceived Risk facets Perspective. *Eighth Americas Conference on Information Systems*, 20(2), pp. 1034-1046.
- Finfgeld-Connett, D., 2010. Generalizability and transferability of meta-synthesis research findings.. *Journal of Advanced Nursing*, 66(2), pp. 246-254.
- Fishbein, M. & Ajzen, I., 1975. *Belief, attitude, intention and behaviour: An introduction to theory and research*. Reading: Addison-Wesley.
- Flavián, C., Guinalíu, M. & Torres, E., 2006. How bricks-and-mortar attributes affect online banking adoption. *International Journal of Bank Marketing*, 24(6), pp. 406-423.
- Furusa, S. S. & Coleman, A., 2018. Factors influencing e-health implementation by medical doctors in public hospitals in Zimbabwe. *South African Journal of Information Management*, 20(1), pp. 1 - 9.
- Gagnon, M. P. et al., 2012. Using a modified technology acceptance model to evaluate healthcare professionals' adoption of a new telemonitoring system. *Telemedicine journal and e-health: the official journal of the American Telemedicine Association*, 18(1), pp. 54 - 59.
- Garavand, A. et al., 2016. Factors influencing the adoption of health information technologies: a systematic review. *Electronic Physician*, 8(8), pp. 2713 - 2718.
- Garry, W.-H. T., Keng-Boon, O. b., Siong-Choy, C. & Teck-Soon, H., 2014. NFC mobile credit card: The next frontier of mobile payment?. *Telematics and Informatics*, 31(1), p. 292–307.
- German, K., 2011. *A brief history of Android phones*, s.l.: CNET.
- Gill & Johnson, P., 2002. *Research Methods for Managers*. 3rd ed. London: Sage.
- Graebner, C., 2014. *Ten days in Kenya with no cash, only a phone*. Bloomberg, s.l.: Bloomberg.

- Gücina, N. Ö. & Berka, Ö. S., 2015. Technology acceptance in health care: An integrative review of predictive factors and intervention programs. *Procedia - Social and Behavioural Science*, 195(2015), p. 1698 – 1704.
- Hanzaee, K. & Taghipourian M, J., 2012. The Effect of Brand Credibility and Prestige on Consumers Purchase Intention in Low and High Product Involvement. *Journal of Basic and Applied*, 2(2), pp. 1281-1291.
- Haque, A., Ismail, A. Z. H. & Daraz, A. H., 2009. Issues of E – Banking transaction: An Empirical Investigation on Malaysian Customers Perception. *Journal of Applied Sciences*, 9(10), pp. 1870-1879.
- Hassan, S. S. & Kaynak, E., 2013. *Globalization of consumer markets: Structures and Strategies*. New York: Routledge.
- Hatch, M. J. & Cunliffe, A. L., 2006. *Organisation theory*. 2nd ed. Oxford: Oxford University Press.
- Heinonen, K., 2007. Conceptualizing online banking service value. *Journal of Financial Services Marketing*, 12(1), pp. 39-52.
- Holden, R. J. & Karsh, B., 2010. The technology acceptance model: It's past and its future in healthcare. *Journal of Biomedical Informatics*, 43(1), pp. 159 - 172.
- Honan, M., January. *Apple unveils iPhone.*, s.l.: Macworld.
- Hossain, A., Quaresma, R. & Rahman, H., 2019. Investigating factors influencing the physicians' adoption of electronic health record (EHR) in healthcare system of Bangladesh: An empirical study. *International Journal of Information Management*, 44(2), pp. 76 - 87.
- Igbaria, M., Schiffman, S. J. & Wieckowski, T. J., 1994. The respective roles of perceived usefulness and perceived fun in the acceptance of microcomputer technology. *Behaviour and Information Technology*, 13(1), p. 349–361.
- Ilham, S., Bambang, B. S., Chee, W. M. & Nik, K. N. M., 2012. A Structural Equation Modeling of Internet Banking Usage in Malaysia. *Journal of Arts, Science & Commerce*, 3(1), pp. 75-86.
- Jansen, H., 2010. The logic of qualitative survey research and its position in the field of social research methods. *Forum of Qualitative Social Research*, 11(2).
- Jayshree, C., 2013. Internet banking - benefits and challenges in an emerging economy. *International journal of research in business management (IJRBM)*, 1(1), pp. 16-26.
- Jayshree, C., 2013. Internet Banking - Benefits and Challenges in an Emerging Economy. *International Journa of Research in Business Management*, 1(1), pp. 19-26.
- Jenni, R. & Sharo, B., 2003. Measuring Brand Perceptions: Testing Quantity and Quality. *Journal of Targeting, Measurement and Analysis for Marketing*, 11(3), pp. 218-229.
- Johnson, 2005. Overview of Electronic Payment Systems in Nigeria: Strategic and Technical Issues. *Central Bank of Nigeria*, 29(2), pp. 68-71.
- Kahn, E., 2010. *Forrester Research mobile banking forecast, 2010 to 2015 (US).*, Cambridge: Forrester Research.
- Kane, M., 2002. *eBay picks up PayPal for \$1.5 billion.*, s.l.: CNET News.
- Kapferer, J.-N., 2008. *The New Strategic Brand Management*. 4th ed. London: Kogan Page.

- Karnouskos, S., 2004. Mobile payment: a journey through existing procedures and standardization initiatives. *IEEE Communications Surveys & Tutorials*, 6(4), pp. 44-66.
- Karnouskos, S., Hondroudaki, A., Vilmos, A. & Csik, B., 2004. *Security, trust and privacy*. New York, International Conference on Mobile Business,.
- Keller, K. L., 2003. *Strategic Brand Management: Building, Measuring and Managing Brand Equity*. 2nd ed. New Jersey: Pearson Education, Inc.
- Keramati, A., Taeb, R., Larijani, A. M. & Mojir, N., 2012. A combinative model of behavioural and technical factors affecting M-payment services adoption: an empirical study. *The Service Industries Journal*, 2(1), pp. 1-16.
- Klasson, L., 2010. *TeliaSonera builds Europe's first multi city LTE/4G network*. , Finland: Unit Magazine 7, Nokia Siemens Networks, Espo,.
- Kolawole, O., 2019. *Nigeria Mobile Report 2019: Key Nigerian Facts*. [Online] Available at: <https://www.jumia.com.ng/mobile-report/#targetText=Overall%2C%20the%20mobile%20telecommunications%20sub,compared%20to%205.5%25%20in%202017.&targetText=Nigeria's%20mobile%20broadband%20penetration%20is,ha ving%20access%20to%204G%20networks>. [Accessed 1 September 2019].
- Kolodinsky, J. M., Hogarth, J. M. & Shue, J. F., 2000. "Bricks or Clicks? Consumers' Adoption of Electronic Banking Technologies". *Consumer Interests Annual*, Volume 26, pp. 1-6.
- Kothari, C., 2004. *Research Methodology*.. 2nd ed. s.l.:The New Age Publisher.
- Lai, P. C., 2017. The literature review of technology adoption models and theories for the novelty technology. *Journal of Information Systems and Technology Management*, 14(1), pp. 21-38.
- Lam, M. K. et al., 2016. Preparedness for eHealth: Health sciences students; knowledge skills, and confidence. *Journal of Information Technology Education*, 15(1), pp. 305 - 334.
- Leung, L., 2015. Validity, Reliability, and generalizability in Qualitative Research. *Journal of Family Medicine and Primary Care*, 4(3), pp. 324-327.
- Liebana-Cabanillas, F., Sanchez-Fernandez, J. & Munoz-Leiva, F., 2014. The moderating effect of experience in the adoption of mobile payments tool in Virtual Social Networks: The m-payment acceptance model in virtual social networks. *International Journal of Information Management*, Volume 34, pp. 151-166.
- Lin, F., Fofanah, S. S. & Liang, D., 2011. Assessing citizen adoption of e-Government initiatives in Gambia: A validation of the technology acceptance model in information systems success. *Government Information Quarterly*, Volume 28, pp. 271-279.
- Liu, J., Kauffman, R. J. & Ma, D., 2015. Competition, cooperation, and regulation: Understanding the evolution of the mobile payments technology ecosystem. *Electronic Commerce Research and Applications*, Volume 14, pp. 372-391.
- Maillet, E., Mathieu, L. & Sicotte, C., 2015. Modeling factors explaining the acceptance, actual use and satisfaction of nurses using an Electronic Patient. *International Journal of Medical Informatics*, 84(1), pp. 36-47.

Mallat, N., 2007. Exploring consumer adoption of mobile payments – A qualitative study. *The Journal of Strategic Information Systems*, 16(4), pp. 413-432.

McKechnie, S., Winklhofer, H. & Ennew, C., 2006. Applying the Technology Acceptance Model to the Online Retailing of Financial Services. *International Journal of retail and Distribution Management*, 34(4/5), pp. 388-410.

Montgomery, K. C., 2012. *Testimony on developing the framework for safe and*, Washington, DC: U.S. Senate Hearing.

Nita, I., 2009. *NTT DoCoMo launches PayPal-like service for mobile phones*. [Online]
Available at: Unwiredview.com
[Accessed 26 August 2019].

Olalekan, A., 2011. E-banking Patronage in Nigeria: An Exploratory Study of Gender Difference. *Business Intelligence Journal*, 4(2), pp. 243-252.

Orr, B., 2001. E-banking what next. *ABA Banking Journal*, 93(12), pp. 40-46.

Osunyomi, B. D. & Grobbelaar, S., 2013. Integrating eHealth in HIV/AIDS intervention programmes in South Africa. *South African Journal of Information Management*, 17(1), pp. 1 - 10.

Owoseye, O., 2019. *It's Official: Nigeria gravely lacks doctors to address citizens' health needs*. [Online]
Available at: <https://www.premiumtimesng.com/health/health-investigations/309633-its-official-nigeria-gravely-lacks-doctors-to-address-citizens-health-needs.html>
[Accessed 25 April 2019].

Ozuru, H. N., Chikwe, J. E. & Uduma, I., 2010. *The use of Traditional Payments and Electronic Payments in Nigeria: A discourse*. Nigeria, Proceedings of the 11th Annual Conference of International Academy of African Business and Development.

Perez, S., 2013. *PayPal partners with point-of-sale and hardware maker NCR to expand its retail footprint*. [Online]
Available at: techCrunch.com
[Accessed 23 July 2013].

Pettinger, T., 2011. *Different Types of Goods – Inferior, Normal, Luxury*. [Online]
Available at: <http://www.economicshelp.org/>
[Accessed 29 November 2013].

Pickett, L. et al., 2012. Ajzen's Theory of Planned Behavior as it Relates to Eating Disorders and Body Satisfaction. *North American Journal Of Psychology*, 14(2), pp. 339-354.

Polatoglu, V. & Ekin, S., 2001. An empirical investigation of the Turkish consumers' acceptance on internet banking service. *The International Journal of Bank Marketing*, 19(4), pp. 156-166.

Pope, M. et al., 2011. Mobile payments: the reality on the ground in selected Asian countries and the United States. *International Journal of Mobile Marketing*, 6(2), p. 88–104.

Provost, C., 2013. *Nigeria expected to have larger population than US by 2050*. [Online]
Available at: <https://www.theguardian.com/global-development/2013/jun/13/nigeria-larger-population-us-2050>
[Accessed 25 April 2019].

- Raghupathi, K., 2011. *5 key events in the history of cloud computing*. , s.l.: DZone.
- Ravi, V., Carr, M. & Sagar, N. V., 2007. Profiling of Internet banking Users in India using Intelligent Techniques. *Journal of Services Research*, 7(1), pp. 61-73.
- Robinson, T., 2000. Internet banking stills not a perfect marriage. *Information Week*,. *Information Week*, 17(4), pp. 104-106.
- Roseline, O. M.-Ò., 2012. Cyber Capacity without Cyber Security: A Case Study of Nigeria's National Policy for Information Technology (NPFIT). *The Journal of Philosophy, Science & Law*, 12(2), pp. 1-14.
- Saunders, e. a., 2009. *Research methods for Business Students*. 5th Edition ed. New York: Prentice Hall.
- Saunders, M., Lewis, P. & Thornill, A., 2009. *Research methods for Business Students*. 5th Edition ed. Harlow: Prentice Hall.
- Saunders, M., Thornhill, A. & Lewis, P., 2012. *Research Methods for Business Students*. 6th ed. Essex: Financial Times/ Prentice Hall.
- Schierz, O., Schilke, O. & Wirtz, B., 2010. Understanding consumer acceptance of mobile payment services: An empirical analysis. *Electronic Commerce Research & Applications*, Volume 9, pp. 209-216.
- Shaw, N., 2014. The mediating influence of trust in the adoption of mobile wallet. *Journal of Retailing & Consumer Services*, Volume 21, p. 449–459.
- Shin, D. H., 2010. Modelling the interaction of users and mobile payment system: Conceptual framework. *International Journal of Human-Computer Interaction*, Volume 26, pp. 917-940.
- Singhal, D. & Padhmanabhan, V., 2008. A Study on Customer Perception Towards Internet Banking: Identifying Major Contributing Factors. *The Journal of Nepalese Business Studies*, 5(1), pp. 101-111.
- Singh, S. & Estefan, A., 2018. Selecting a Grounded Theory Approach for Nursing Research. *Global Qualitative Nursing Research*, 5(1), pp. 1-9.
- Skeldon, P., 2010. *Mobile banking: The Branch of the Future in Banking Technology?*. [Online] Available at: www.bankingtech.com/bankingtech/article.do;jsessionid=B67BC83C5193DA2190 [Accessed 25 August 2019].
- Solomon, M. R., Bamossy, G., Askegaard, S. & Hogg, M. K., 2010. *Consumer Behaviour: A European Perspective*. 4th ed. Harlow, England: Prentice Hall.
- Srivastava, R., 2007. Customers' perception on usage of Internet banking. *Journal of Innovative Marketing*, 3(4), pp. 66-75.
- Suki, N. & Suki, N., 2011. Suki, N. & Suki, N. (2011). Exploring the relationship between perceived usefulness, perceived ease of use, perceived enjoyment, attitude and subscribers' intention towards using 3G mobile services.. *Journal of Information Technology Management*, 22(1), pp. 1-7.
- Taherdoost, H., 2018. A review of technology acceptance and adoption models and theories. *Procedia Manufacturing*, 6 October, Volume 22, pp. 960-967.
- Taherdoost, H., Sahibuddin, S. & Jalaliyoon, N., 2011. Smart Card Security; Technology and Adoption. *International Journal of Security*, 5(2), pp. 74-84.

- Tan, G., Ooi, K. B., Chong, S. C. & Hew, S. C., 2014. NFC mobile credit card: The next frontier of mobile payment?. *Telematics and Informatics*, Volume 31, pp. 292-307.
- Thakur, R. & Srivastava, M., 2014. Adoption readiness, personal innovativeness, perceived risk and usage intention across customer groups for mobile payment services in India. *Internet Research*, Volume 24, pp. 369-392.
- Tornatzky, L. G., Fleischer, M. & Chakrabarti, A. K., 1990. *The processes of technological innovation*. Vol, 273 ed. Lexington: Lexington Books.
- Trochim & William M.K, 2006. *Research Methods Knowledge Base*. International ed. New York: s.n.
- Vatanasombut, B., Lgbaria, M., Stylianou, A. & Rodgers, W., 2008. Information System Continuance intention of web Based Applications Customers: the Case of Online banking. *Information and Management*, 45(7), pp. 419-428.
- Venkatesh, V., Thong, J. Y. & Xu, X., 2012. Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quaterly*, 36(1), pp. 157 - 178.
- Wang, K. H., 2018. Understanding technology adoption behaviour by older adults. *Social Behavior and Personality: An International Journal*, 46(5), pp. 801-814.
- Warren, C., 2011. *Google reveals mobile payment system: Google Wallet*. , s.l.: Mashable.
- White, e. a., 2015. Using a theory of planned behaviour framework to explore hand hygiene beliefs at the '5 critical moments' among Australian hospital-based nurses. *BMC Health Services Research*, 15(1), pp. 59-63.
- Whitney, L., 2010. *South Korea to be the first with nationwide WiMax*, s.l.: CNET.
- Wilhelm, A., 2014. *Putting Square's \$5B valuation into context*, s.l.: TechCrunch.
- World Health Organisation, 2016. *Atlas of eHealth country profiles 2015: The use of eHealth in support of universal health coverage*. [Online]
Available at: https://www.who.int/goe/publications/atlas_2015/en/
[Accessed 25 April 2019].
- Worldometers, 2019. *Nigeria Population*. [Online]
Available at: <http://www.worldometers.info/world-population/nigeria-population/>
[Accessed 25 April 2019].
- Xue, M., Hitt, L. M. & Chen, P., 2011. Determinants and outcomes of Internet banking adoption. *Management Science*, 57(2), pp. 291-307.
- Yamada, M., 2001. *DoCoMo delays full launch of 3G service*, s.l.: Computerworld.
- Yusoff, Y., Muhammad, Z., Pasah & Robert, E., 2009. Individual Differences, Perceived Ease of Use, and Perceived usefulness in the E-Library Usage. *Computer and Information Science*, 2(1), pp. 76-83.
- Zaid, A.-B., S, A. M. R. & Halima, S. R., 2010. *Do we really need to adopt electronic banking?*. Singapore, IACSIT Press .

Zayyad, M. A. & Toycan, M., 2018. Factors affecting sustainable adoption of e-health technology in developing countries: an exploratory survey of Nigerian hospitals from the perspective of healthcare professionals. *PeerJ*, 6(4), pp. 1 - 15.

Zeithaml, V. & Bitner, M., 2003. *Services Marketing: Integrating Customer Focus Across The Firm*. 3rd ed. Boston, MA: McGraw-Hill Irwin.

Zhong, J., 2009. A Comparison of Mobile Payment Procedures in Finnish and Chinese Markets. *Proceedings of the 22nd Bled eConference on Facilitating an Open*, 17 June, pp. 79-86.

Zhou, T. & Lu, Y., 2011. Examining Post-adoption Usage of Mobile Services from a Dual Perspective of Enablers and Inhibitors. *International Journal of Human Computer Interaction*, 27(2), pp. 1177-1191.

Zhu, D. S., Lee, Z. C., O'Neal, G. S. & Chen, Y. H., 2011. Mr Risk: Please trust me: Trust Antecedents that Increase Online Consumer Purchase Intention. *Journal of Internet Banking and Commerce*, 16(3).

Zuiderwijk, A., Janssen, M. & Dwivedi, Y., 2015. Acceptance and use predictors of open data technologies: Drawing upon the unified theory of acceptance and use of technology. *Government Information Quarterly*, 32(4), p. 429–440.