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Effect of Cashless Financial Services on Economic Growth in Kigali, Rwanda.

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Abstract

The research aimed at assessing the effect of cashless financial services on economic Growth in Kigali, Rwanda. The study was conducted in Kigali Rwanda. The time was limited in the period of 2014-2022.Thestudy was guided by the following specific objectives upon which also the following research questions were derived: To evaluate the effect of internet banking on Economic Growth in Kigali, Rwanda. To establish the impact of mobile cards on Economic Growth in Kigali, Rwanda. To assess the effect of mobile wallets on Economic Growth in Kigali, Rwanda. To evaluate the effect on mobile money on Economic Growth in Kigali, Rwanda. The research employed the use of Focus Group as one of interview methods to collect data from respondents. Rwanda still faces less privacy, greater exposure to hacking, technological dependency, magnifying economic inequality, and more. The current study therefore sought to find out the effect of cashless financial services on economic growth in Kigali, Rwanda amidst of the highlighted challenges associated with the cashless society plan. The researcher collected data from employees of MTN Rwanda, Eco bank Rwanda, BK, BNR and beneficiaries of selected institutions. The research design included: questionnaires; interviews and documentation research techniques. The sample size of the study is210 participants from Bank of Kigali, Eco bank, telecommunication companies (MTN) including mobile money agents by means of purposive sampling. The researcher requested the selected institutions to allow their members to participate in the interview and an authority letter for data collection from the University was presented to selected Institutions. Confidentiality and privacy were observed during the interview process. The researcher allowed the respondents to be free when collecting the data, mentioning names was avoided as it could be considered as coercing the respondents. Data collected was analyzed using SPSS.

Introduction

Rwanda's journey towards a cashless economy started in 2008 with its first Vision and Strategy for the payment system of which, much progress has been. Since its inception, Economic growth in Kigali has been facing downsides of going cashless include less privacy, greater exposure to hacking, technological dependency, magnifying economic inequality, and more. Credit and debit cards, electronic payment apps, mobile payment services, and virtual currencies in use today could pave the way to a full cashless society. The Rwanda National Payment System (RNPS) Strategy 2018 – 2024 reaffirms the commitment of the National Bank of Rwanda (BNR) and the Ministry of Finance and Economic Planning's (MINECOFIN) commitment to encourage the use of electronic payments by all residents of Rwanda, to achieve a cashless society. Over the years, Mobile Money Rwanda Ltd has introduced essential services and products such as payments (MoMoPay, Bill & Utility Payment, Taxes, Insurance, Transport, and Bulk Payments). Rwanda vowed to spearhead the growing of Mobile money transactions and make the Economic growth in Kigali cashless at 100% by 2024. Rwandan government has objected to have 100% financial inclusion by 2024. (RURA 2020).

Globally, Cashless economies have existed from the time when human society came into existence, based on barter and other methods of exchange, and cashless transactions have also become possible in modern times using credit cards, debit cards, mobile payments, and digital currencies such as bitcoin. Adesina & Ayo (2021). Such a concept has been discussed widely, particularly because the world is experiencing a rapid and increasing use of digital methods of recording, managing, and exchanging money in commerce, investment and daily life in many parts of the world, and transactions which would historically have been undertaken with cash are often now undertaken electronically (Adeoti and Osotimehin (2012) also found out that some countries now set limits on transactions and transaction values for which non-electronic payment may be legally used.

In Malaysia,(Hock-Han 2020) asserted that; the advancement of information technology has facilitated innovation in electronic payment where goods and services are traded without the use of physical cash. Cash- less payment eliminates the usage of money as a medium of exchange for goods and services by allowing electronic transfer payments or non-electronic payment via che- ques. Adopting cashless payment has numerous advantages. Unlike traditional cash transaction, cashless payments discourage robbery and other cash related crimes (Armey et al. 2014).

In Kenya, Wanjiru (2021) conducted a study on the impact of cashless financial transaction on economic growth and concluded that: When people opt for other alternative modes of payment, they tend to hold less physical cash when they shop. Thus, it eliminates the incentive for robbers to commit cash related crimes. As for vendors, the ease of transaction through various payment modes will increase their revenue; improve operational efficiency and lower operating cost (Alliance 2003). Cashless payments were also regarded as hygienic for food vendors (Paul and Friday 2012).

In Tanzania, Muhammad D. (2021) in his study on cashless economy, he concluded that; Electronic card payments will have a meaningful impact on the world economy. According to Moody's Analytics published by Visa Inc., the greater usage of electronic card payment products added $983 billion in real U.S. dollars to the GDP of 56 countries they studied from 2008 to 2012. Card payment has raised consumption by an average of 0.7 % across the 56 countries. The real global GDP grew by an average of 1.8 % during that time period (Zandi et al. 2013). At present, the electronic payments have substantially replaced payment by cheques but it has not led to a cashless society (Liao and Handa 2010).

In Rwanda, over the past decades, Rwanda has witnessed a large surge in financial transactions and reconciliations. This surge was primarily thanks to the expansion in international trade, favorable investment policy, and so many other factors post genocide period. With the emergence of new technology, several platforms were developed and introduced in financial sector which included but not limited to Mobile Banking, Mobile Payment, Internet Banking, Card payment, ATMs, POSs and so many more (Schich, S. (2020). Due to the convenience, flexibility, efficiency and so many other benefits associated with those platforms, the financial sector has been changed from cash based system to cashless or digital platform based system. Other than that, to respond on the dynamic needs of users of financial products, there was a need for integration either between banks or third party institutions (Sackitey, D. T. (2016).

In 2008, only 21% of Rwandans were formally financially included. In 2012, 42% were formally included and this had risen to 68% in 2016. This is attributable to an uptake of digital finance, which accelerated after the government set out efforts to enable a cashless economy. By helping those outside the formal banking system to access formal financial services, the digital transformation promotes financial inclusion, which as a result stimulates economic activity. For example, in 2011 there was only RwFr700m ($789,000)-worth of mobile money transactions in Rwanda, and by 2017 this had increased seventeen fold to RwFr1200bn, testament to the important role played by digital transformation in boosting economic activity as well as growth in financial inclusion.(Dr. Thomas Kigabo 2019). Our target is to increase the value of electronic payments as a percentage of gross domestic products to 80% by 2024, from the current level of 26.9% as of 2019. (BNR 2022).

As of December 2016, the National Bank of Rwanda recorded 1,448 and 59,952 bank and mobile money agents respectively (805 Agents per 100,000 adults). Debit cards increased from 41,377 to 746,458; Credit cards increased from 172 to 3,668 as of December 2016 (around 33% of bank accounts).

In 2009, Mobile Financial Services were introduced with mobile money and mobile banking products providing different services such as Cash-in, Cash-out from an account, Cash-out at an ATM, Person-to-person payment (P2P), Business to person (B2P) payment, Payment to merchant, Bill payment, Airtime top-up, taxes payment; cross border mobile transfers/ remittances and payment of water bills, fuel purchase at petrol stations, school fees, saving scheme. And with this the number of mobile money accounts increased from 639,673 in 2011 to 9,735,694 by December 2016. The number of mobile banking subscribers increased from 248,689 in June 2011 to 980,671 by December 2016. There also is the Internet Banking Service which was mainly boosted by the adoption of e-tax payments. Seven banks are currently offering internet based tax payment services and the number of subscribers has increased from 6,237 in June 2011 to 43,047 as of December 2016 (BNR Report 2017).

MTN Mobile Money (MoMo) Rwanda is a fast and simple, convenient, secure and affordable way of transferring money, making payments and doing other transactions using a mobile phone. The service is available all the time. You can use MTN Mobile Money (MoMo) to send and receive Money, top-up MTN airtime, pay bills, purchase electricity, pay postpaid accounts, pay school fees, buy and pay for insurance, pay for airline tickets and other goods and services. The 2016 Monetary Policy and Financial Stability Statement estimated the number of point of sale (POS) terminals at 1,707 as of June 2016, 27% higher than 1,339 registered as of June the previous year (BNR, 2016). As a result, the value and volume of POS transactions grew by 84% and 39%, respectively. The use of credit and debit cards is also on a positive trajectory, albeit being limited to higher-end users. The proliferation of mobile money is particularly interesting; the proportion of adults using the product increased from 5.9% in 2011 to 44% in 2016 (FinScope, 2016). Addressing the prevailing challenges including costly and unreliable internet and mobile network especially in rural areas, low levels of awareness and financial literacy, geographical dispersion of service points, among others, present numerous opportunities to further scale up cashless payments in the country.

Rwanda like many other countries have seen digital finance as a key enabler of financial inclusion. Over the past decade, considerable progress has been registered in promoting the use of digital financial services in the country. Indeed, the use of technology in the financial sector has brought a wide range of financial products and services that are accessible via mobile phones, internet banking and other digital channels which, in return, promote access to and usage of financial services.In order to track progress in the uptake of digital financial services, Access to Finance Rwanda (AFR) in collaboration with Key stakeholders conducted the 2020 Finscope survey and produced a Digital Financial Services (DFS) thematic report that assesses the status of access and use of DFS in Rwanda and identifies specific barriers and constraints. The Finscope 20202 digital financial inclusion thematic report also proposes policy recommendations and potential interventions to address the identified constraints.

In other key metrics, MTN increased mobile subscribers by 5.9% YoY to 6.8 million, active data subscribers rose 9.0% YoY to 2.3 million, MoMo subscribers surged by 16.3% YoY to 4.3 million. MTN service revenue for the year increased by 19.9% to Rwf 221.7 billion, while Earnings before interest, tax, depreciation, and amortization (EBITDA) grew by 20.8% to Rwf 108.4 billion. EBITDA is the measure used to determine business value as it places the focus on the financial outcome of operating decisions and in the reporting period, MTN's EBITDA margin increased by 0.6 percentage points to 48.3%. The active data user base registered a 9.0% YoY growth in 2022, with 191,000 new active data customers added to the network. This increased smartphone penetration by 3.4pp to 22.8%, with more than 308,000 new Smartphone users on the MTN network. "In terms of our strategy to build the largest platforms, the active MoMo subscriber base grew by 16.3% to 4.3 million users, coupled with a strong increase in MoMo Pay merchants of 192.6% YoY to close the period with 141,222 active merchants from 47, 678 in 2021.

Cashless economy is an economy where maximum transactions are done without using the physical cash but through digital means like credit cards, debit cards, e-wallets and electronic fund transfer. In India, the ratio of cash to gross domestic product is one of the highest in the world. India faces many challenges in setting up a cashless economy like lack of digital and banking infrastructure, cyber security and financial literacy, high cash dependency (Pavneet Kaur 2022). The Japanese government is preparing to introduce a system for companies to pay salaries digitally – without going through bank accounts by December 2023. By promoting this system, which allows companies to transfer salaries to workers using smartphone payment apps, the government hopes to solve the complex issues facing foreign workers in Japan, expand the financial services market and deregulation, and promote growth. However, 247 companies conducted by Works Human Intelligence, a leading developer of integrated HR systems for corporate clients, less than

30% of companies are considering or will consider implementing digital salary payment. Japanese still fear to embrace cashless financial transactions due to lack of digital and banking infrastructure, cyber security and financial literacy (Bátiz-Lazo, B. 2022). Tanzania as a country in our region, the move to a cashless financial service is challenged by: increased theft of mobile handsets and ATMs cards, poor network coverage, lack or low knowledge of mobile banking systems users, large amount charged on mobile money transactions, irregular standards of mobile money payments, lack of enough float, ATMs breakdown and there are several challenges encountered by traders in doing online business using e-payment system in Tanzania. The findings show that the main challenges include poor communication (31%), shortage of funds (14%) and delays in receiving the item (11%) (Shukuru J 2020). In Uganda, Internet banking and mobile banking transfers increased by 82% and 146% respectively in 2021. Regarding the card transactions, the number of active debit cards increased by 12.4% from 2.59m in March 2021 to 2.91m in March 2022, Debit card transaction volumes increased by 28.01% from 4.4 million transactions in March 2021 to 5.68 million in March 2022, while credit card transaction volumes increased by 62% from 142,350 to 230,910 transactions over the same period. (Mukasa & Atingi-Ego 2022). However, Rwanda still faces less privacy, greater exposure to hacking, technological dependency, magnifying economic inequality, and more.Despite the progressive increase rates in cashless economy, the Rwandan still faces: Gaps in network/IT infrastructure: limited network coverage especially in rural areas which reduces the number of places where customers can utilize POS; Low penetration of smart phones which limit the usage of innovative channels; High Cost of payment transactions: The vast majority of costs are fixed, with high costs related to managing and maintaining their channels and core banking system costs. High Fees of card payment transaction: card-based POS transactions cost merchants between 2.5% and 3.4% of transaction value compared to 0.5% fee on transactions above Frw 4,000 charged by Mobile Money Operators. Fraud cases: Fraud Cases continued to increase along with the use of electronic payments; continuous increase in frauds cases mainly observed in Mobile payment. Low levels of financial literacy: The observed fraud cases were mainly caused by low level of financial and digital literacy. Most of cases were due to but not limited to PIN exposure, social engineering on mobile money (phishing, Pin exposure, ID Theft, etc).

The general objective of this study was to assess the effect of cashless financial services on economic Growth in Kigali, Rwanda. The study was guided by the following specific objectives:

i. To evaluate the extent to which internet banking affects the Economic Growth in Kigali, Rwanda.
ii. To establish the extent to which mobile cards impact the Economic Growth in Kigali, Rwanda.
iii. To assess the significance of mobile wallets on Economic growth.
iv. To evaluate the influence of mobile money on Economic growth.

Literature

Diffusion of Innovation Theory (DOI).

The effect of cashless payment on an economy can be analyzed by the Diffusion of Innovation Theory (DOI). The concept was first introduced by Roger in 1962 where he explained how innovation is diffused to members of a social system over time (Rogers, 1995). Diffusion of innovations is a theory that seeks to explain how, why, and at what rate new ideas and technology spread. Everett Rogers, a professor of communication studies, popularized the theory in his book Diffusion of Innovations; the book was first published in 1962, and is now in its fifth edition (2003). Rogers argues that diffusion is the process by which an innovation is communicated over time among the participants in a social system. The origins of the diffusion of innovations theory are varied and span multiple disciplines. Rogers proposes that five main elements influence the spread of a new idea: the innovation itself, adopters, communication channels, time, and a social system. This process relies heavily on social capital. The innovation must be widely adopted in order to self-sustain. Within the rate of adoption, there is a point at which an innovation reaches critical mass. The theory therefore is influential and useful to this study because it talks about how, why, and at what rate new ideas and technology spread over time. Technology is very key in making any economy to go cashless by use of technological peripherals.

Technology Acceptance Model (TAM) Theory.

The Technology Acceptance Model theory was postulated by Davis (1989) and states that Perceived Usefulness and Perceived Ease of Use are the main drivers of technology and determines an individual's intention to adopt a technology. This theory supports how cash handling practices influence financial economic developement According to Bátiz-Lazo (2018), the intention to use serves as mediator of the actual adoption of technology. According to TAM, the decision to adopt a technology follows the four stages, explained as follows according to Bátiz-Lazo (2018). Stage one is where the external variables such as individual user beliefs or differences with Information Technology. Their evaluation is reflected in Perceived Usefulness (PU) and Perceived Ease of Use (PeU). Whereas perceived usefulness is a user perception that using the new system would increase his/her economic developement in the organization and perceived ease of use is the extent to which using the new system would require minimal effort on a user's behalf (Tilakaratna, 2016).

Gefen, Karahanna and Straub (2003) studied a separate and distinct interaction of both the actual e- vendor and with its IT Web site interface is at the heart of online shopping. Previous research has established, accordingly, that online purchase intentions are the product of both consumer assessments of the IT itself-specifically its perceived usefulness and ease-of-use (TAM)-and trust in the e-vendor (Nithin & Baiju, 2018). The research showed that consumer trust is as important to online commerce as the widely accepted TAM use-antecedents, perceived usefulness and perceived ease of use. Thus these variable sets explain a considerable proportion of variance in intended behavior. The study also provided evidence that online trust is built through the belief that the vendor has nothing to gain by cheating, the belief that there are safety mechanisms built into the Web site, and lastly by having a typical interface that is easy to use. Technology is related to the topic because Financial cashless is simply the usage of Technology not paper works.

Transactions Cost Economics Theory

The Transaction cost economics theory was postulated by Williamson (1981) and states that transaction costs arise every time a product or service is being transferred from one stage to another, where new sets of technological capabilities are needed to make the product or service.

It further states that the transaction costs related to the exchange of resources with the external environment could be reflected by environmental uncertainty, opportunism, mobile cards, bounded rationality, core company assets. These factors above will all potentially increase the external transaction costs, where it may become rather expensive for a company to control these factors. Therefore, it may very well be more economical to maintain the activity in-house, so that the company will not use resources on e.g. contracts with suppliers, meetings and supervision. Therefore, if companies see the environmental uncertainty as high, they might choose to not outsource or exchange resources with the environment. This theory supports the influence transaction costs on the financial economic GROWTH.

Firms intending to adopt cashless payments must choose between two options that is to purchase a cashless payment system from the vendors or to build its own cashless payment system to reduce its operational costs. The first option is considered as "a market based" mechanism in which organizations try to find the best product in the market to suit their needs. This option shows that the transaction costs include the costs of finding information on cost and acceptability of best payment system for the firm. The second option can be called "vertical integration" in that all costs of building the payment platform press on the organization through hierarchical means (Williamson, 1993). Therefore, the theory serves as a basis for this study simply because it talks about transaction costs incurred in the process of making the economy cashless. Transaction cost is one of the challenges faced by people who uses cashless transaction in Rwanda which again makes people resist to go cashless.

The Theory of Economic Growth

The theory of economic growth was developed by Adam Smith in 1978, it pertains to the conceptualization of growth in and of itself. Theories of economic GROWTH look at the above-mentioned definition of increased availability of goods and services. The increased availability is naturally tied to rising productivity that can be attributed to a wide range of factors like technological GROWTH, a strong labor market, and/or proper accessibility to capital and resources. Theory further examines things like surging income in growing economies against the backdrop of rising inflation and the consequent involvement of government. Economic growth captures how output increases proportionately to input. The theory relates to the topic since it illustrates how cashless payments are economic propellers which enables transfers via mobile phones, has spurred growth and boosted financial inclusion in Rwanda.

Empirical Review

A recent study from Forex business finds that the majority of their payments were made using cashless means at 57% of transactions it has shown that cashless payments are the future and demonstrated that with the introduction of cashless policy there has been increase in sales by 20%. Worldwide, non-cash transactions reached 433 billion in 2015, a growth of 11.2% (Zandi M, 2013) studied whether the long term shift to credit and debit cards simulates economic growth of 56 countries worldwide. Moreover, the adoption of electronic transaction is essential for transparency, accountability and reduction of cash related fraud, the fundamental elements of economic growth and GROWTH (Mieseigha, 2013).

According to National bank of Rwanda (NBR Report, 2012) there was a challenge of conducting financial transactions very fast, delay in payment of checks between banks; time wasted in banks as people line in queue waiting for service, errors as a result of manual work and fraud related cases was common. As a result, some clients complain of the above, the government of Rwanda initiated several strategies including: National Payment Systems Strategy (2018-2024) was developed to promote a cashless economy and approved by cabinet in 2018.RIPPS (Rwanda Integrated Payments Processing System) was upgraded to allow on time settlement of transfers. Country wide e-payment campaigns since 2017 which is still ongoing by public and private organizations. Exemption of Import duty on smart cards, PoS machines and ATMs to Increase footprint of e-transaction infrastructure. National Payments Committee (NPC) in place to address payment systems issues. Digitization of Government payment through Irembo to reduce the cost of collecting, processing and tracking payments. During covid-19 pandemic the industry was also engaged to remove fees on certain payments such as Mobile transfers and contactless payment for 90 days. Directive on cyber security Regulation in place. U-SACCOs automation project is ongoing to promote a cashless economy. Government policy on payment of official missions; Subsidy on the cost of interbank transaction Removed charges of push and pull transaction. Awareness Campaign started in 2017.A Financial Consumer protection law was published in 2021 promote transparency, honest and fair treatment of customers within financial sector.

Therefore, that is why the researcher would like to examine the contribution of cashless system towards commercial banks financial economic developement because researcher believes the changes from cash based to cashless system will ease banking transactions and people will no longer need to carry wads of cash or even queue up for ATM withdrawals. When we look at the ratio of electronic payments transactions to GDP, it has increased from 0.3%in 2011 to 16.1% as of September 2016 and government expect it to increase at 55% by 2020.regadless of the importance of cashless system in explaining banking economic GROWTH the impact of cashless policy on banks economic GROWTH is still misunderstood because there are those who are still optimistic about the policy but this study agrees with the submissions of (Laoye, 2011) (Akhalumeh.P.B and Ohiokha, 2012) (Okey, 2012) that if the cashless system is successfully implemented the following benefits will be attained, where a shift towards cashless system will reduce high operational cost incurred in cash based economy. Such costs emanate from cash management and movement, currency sorting and printing.

The National Bank of Rwanda (BNR 2020) has released its annual report that shows the banking sector having had a successful year, despite the economy slowing down due to the new coronavirus pandemic outbreak in March. The 2019/2020 report shows that despite the COVID-19 crisis, the Bank continued to meet its mission of ensuring price stability and a sound financial system. For instance, the Banking Sector profitability increased from Rwf26.2 billion (2019 First Half -H1) (End June, 2019) to Rwf33billion in same period in 2020. Liquidity Ratios for both banks and micro finance institutions (MFIs) increased from 180 to 253% and 108.8% to 110.1% respectively.

The e-Payment to GDP also witnessed an increase from 34.6% as of end June, 2019 to 54% in the same period in 2020, which directly impacted on the percentage of counterfeiting bank notes per denomination to drop from 0.001% to 0.00001%. To mitigate the impact of COVID-19 on the economy, BNR also took several measures including; maintaining a more accommodative monetary policy stance by; lowering the repo rate from 5 percent to 4.5 percent in April 2020, reduction of the reserve requirement ratio from 5 percent to 4 percent, introducing a Rwf50 billion lending facility to banks at the Central Bank Rate (CBR), and revised the Treasury Bonds rediscounting window mechanism. The Bank further provided regulatory relief to financial institutions to enable them to continue supporting the economy- implemented along with several other measures by the government, including the establishment of a Rwf200billion Economic Recovery Fund (ERF) to cushion businesses affected by Covid-19.

Porter (2014) find that the Mobile cardsof fraud/theft related to bill paying activities has a significant negative impact on card usage. In the context of online payment systems, a potential exists for intercepting credit/debit card information such as transacting business over an unsecured wireless network. Consumers may hesitate to use online payment systems because of privacy concerns. The more customers are concerned about security of a cashless payment system, the greater the Mobile cardsand less trustworthiness they would perceive in using the cashless payments and the less their intention to adopt the system. Invasion of privacy in e-commerce includes the unauthorized collection, disclosure or other use of personal information such as selling it to another e-vendor (Wang & Lee, 2010) and safeguarding privacy would typically cause an added cost to the consumers. This is like Pavlou's (2003) environmental uncertainty involving perceived Mobile cards associated with exposure of personal information.

Nuwagawa (2014), stated that Economies that are developing should be keen to move from cash-based economies to cashless society since it is cheap, safe and convenient for customers especially those that are information technology proficient.

Munjeyi et el (2017) researched with the aim of finding out the factors that were considered in choosing and using the payment instruments in Zimbabwe. He used unique and new set of micro data that had both transaction information and survey data on the payment behavior of the Zimbabwean persons, the results showed that usage of cash was compatible with the rational decision making.

Juariah (2015) highlighted various benefits of financial innovations in payments. The first advantage is having a faster transaction. Making queues at the point of sales terminal and vending machines has greatly been reduced as there can be direct transactions even at the comfort of one's home, therefore, increasing the speed of services and reducing the staff level at off peak times. The cashless payment has lent to increase of sales as it can be operated 24 hours by use of the card which operates 24 hours and 7 days in a week, thus increasing the time available for commercial activities and this add to increased sales and having better relationships. Also it has made cash collection simple as no much time is spent calculating and sorting cash cost money.

Therefore, the researcher has critically reviewed all the above empirical studies and has considered them important for this current study. However, the researcher identified some gaps of which it is hoped to be the reason and need for the current research.

Forex burns did not consider the fact that there are many people who are doing business and do transfer of cash by not using e-payments. Not every person that can access internet and e-payment system.

However much the government of Rwanda embarks on using e-payment and go cashless, we still have people in cities and villages who have not welcomed the philosophy of going cashless and still serves as barrier to the idea of making Economic growth in Kigali cashless because they prefer seeing cash in their hands and also consider cashless expensive.

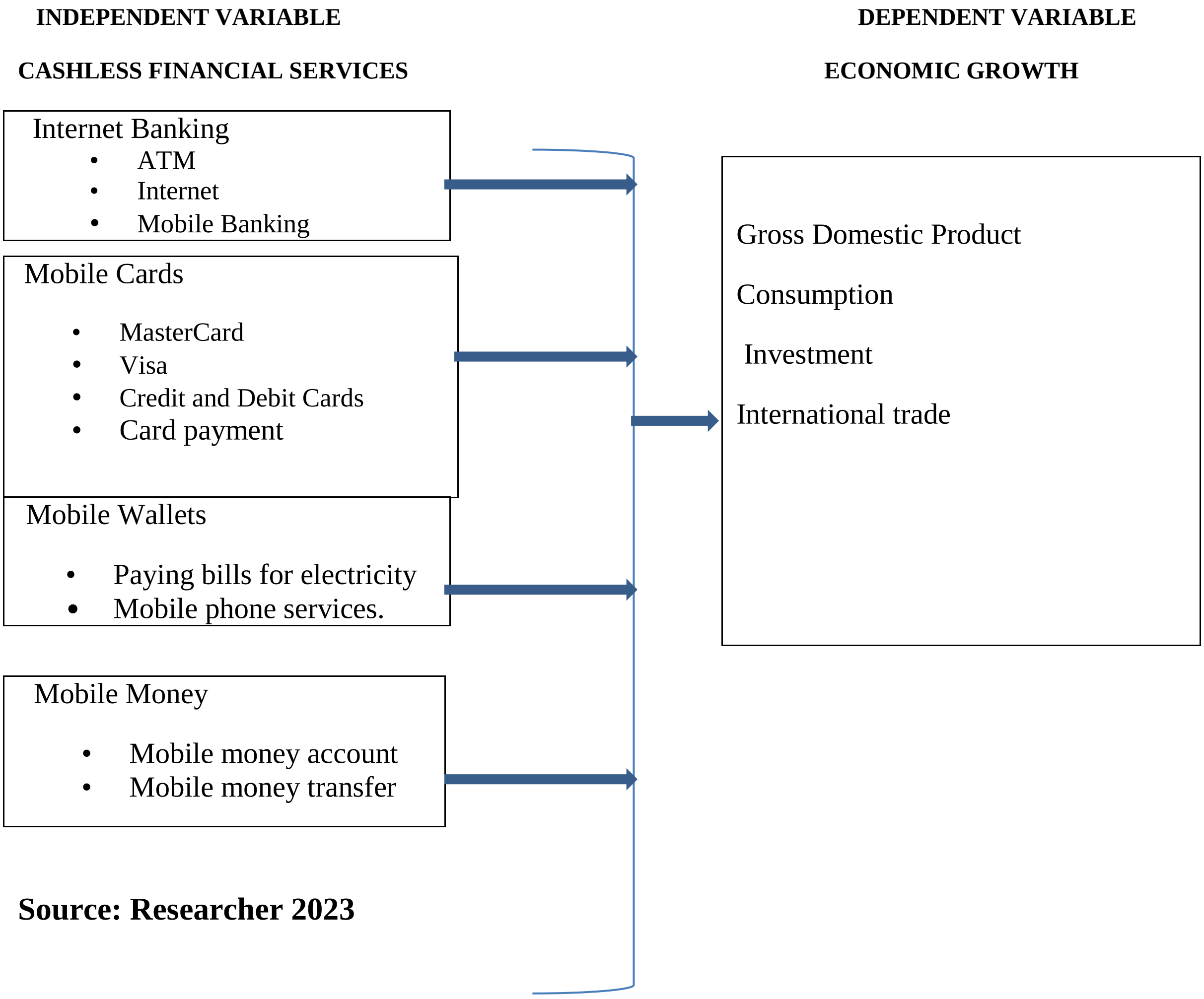
Porters' article ignored advantages associated with cashless economy including: Reduce the costs of handling cash, reduce crime, corruption and illegal transaction, reduce tax avoidance and can revolutionize the tax payment system, Reduce the impact of counterfeit money and Deepen financial inclusion.

Nuwagaba considered it cheap in terms of time consuming but did not consider how expensive it is to have cashless transactions because every time you make a transaction a cost is incurred.

Munjeyi did not specify the uniqueness rational decisions and the impact of technology (Cashless) on economic growth of the country.

Juariah did not consider challenges associated to the cashless economy such as: Gaps in network/IT infrastructure: limited network coverage especially in rural areas which reduces the number of places where customers can utilize POS; Low penetration of smart phones which limit the usage of innovative channels; High Cost of payment transactions: The vast majority of costs are fixed, with high costs related to managing and maintaining their channels and core banking system costs.

Conceptual framework



Source: Researcher 2023

Figure 1 Conceptual Frame work.

Independent Variable (Cashless Financial Services) is a factor that determines the dependent variable (economy GROWTH). The independent variable is made up of several sub variables that when combined together determines or influences the Economy of Rwanda. The sub variables include: Internet Banking, Banking Cards, Mobile Wallets and Mobile Money. The combination of variables under the Independent variable determines the rate of Gross Domestic Product, Consumption, Investment and International trade within an Economy. Basically the Economy depends on Cashless Financial Services in Rwanda. Factors such as Internet Banking, mobile Cards, Mobile Wallets and Mobile Money may have an effect on the Economic growth. The reviewed literatures are significant to this study because they address all the variables of this current research and show the significant impact of cashless financial services on the Economic growth.

Methodology

Research design

A focus group is a research method that brings together a small group of people to answer questions in a moderated setting. The group is chosen due to predefined demographic traits, and the questions are designed to shed light on a topic of interest. The current study therefore used Focus Group as one of interview methods to collect data from respondents. The research data will be collected using a longitudinal approach where by the research period was strictly observed 2014-2022.

Target population

The entire population of the study who are supposed to provide the information data related to the objectives of the research (study) was the employees of MTN and Mobile Money dealers, Bank of Kigali, and Eco bank. The number of who to respond to interviews will be determined by the researcher since the study were driven by a Focus Group Method because are considered to be the users and beneficiaries of cashless transaction therefore having rich information about the study.

Sample size and Sampling Procedures

Sampling is the process of selecting a group of subjects for a study in such a way that the individuals represent a larger group from which they were selected (Gay, 2009). A sample of 210 respondents selected and the researcher will interview and share questionnaires to them all.

Sample Size Table

SN	CATEGORY	TARGET POPULATION	TOOL TO BE USED
01	MTN	42	Likert survey question
02	Mobile Money dealers	62	Interview
03	Bank of Kigali	40	Likert survey question
04	BNR	16	Likert survey question
05	Eco bank	50	Likert survey question
Total		**210**	

Source: Researcher 2023

Data collection methods

Therefore, this section is aiming to show the data collection techniques of the study such as interview and documentation research techniques, as follows:

Desk review

This is important because it reviews the literature and tries to locate global perspectives; therefore, the researcher used this documentary technique in order to conduct and get secondary data.

Focus group discussion guide

Focus group discussion was frequently used as a qualitative approach to gain an in depth understanding of social issues. The method is aiming to obtain data from a purposely selected group of individuals rather than from a statistically representative sample of a broader population.

Presentation, Analysis and Interpretation of Findings

The aim of the study was to examine the effects of cashless financial services on economic Growth in Rwanda. This chapter deals with the analysis, presentation and interpretation of data gathered during this study. The researcher analysed data considering the relationship of research problem and research questions. Questionnaires collected from employees' interviews made with the employee and various reports collected from different stakeholders were analysed and compared with research questions/objectives to find out if there is any effect of cashless financial services on the economic in Rwanda. During the research, a sample of 210 respondents was chosen from employees of MTN, BNR, Mobile Money dealers, Bank of Kigali, and Eco bank from the period ranging between 2014 to 2022. It is worth mentioning, however, that 190 questionnaires were returned as mentioned here below. To start with, the findings are presented in percentage tables. The study was guided by the following objectives:

i. To evaluate the extent to which internet banking affects the Economic growth.
ii. To establish the extent to which mobile cards impact the Economic growth

iii. To assess the significance of mobile wallets on Economic growth.
iv. To evaluate the influence of mobile money on Economic growth.

The first objective was to evaluate the extent to which internet banking affects the Economic growth.
From the above findings, 128 (67.4%) of respondents agreed that the People face challenges while using internet banking in Rwanda, 36 (18.9%) agreed to the statement, 21 (11.1%) disagreed, while 5 (2.6%) were neutral to the statement. Based on the above statistics, majority of respondents agreed with the statement that People face challenges while using internet banking in Rwanda. This is due to the factor that not in every place and at very time internet is made available in the country. From the above research findings, 84 respondents with (44.2 %) agreed that Internet banking influences the Economic growth. 74(38.9%) strongly agreed, 23(12.1%) disagreed with the statement while 9 (4.7%) respondents were in position to strongly disagree with the statement. Therefore, majority of respondents responded by confirming that Internet banking influences the Economic growth. From the above research findings74 (38.9%) agreed with the statement that Mobile Banking affects the Economic growth, 68(35.8%) Strongly agreed with the statement, 26 (13.7%) disagreed while 20 (10 %) respondents were in position to strongly disagree with the statement. Therefore, from the above presentations, majority of respondents responded by confirming that Mobile Banking affects the Economic growth. The research has found out that, the big number of respondents 79 (41.6%) strongly agreed with the statement. 52 (27.4%) agreed to the statement, 2 (1.1) respondents were undecided, 38 (20.0%) disagreed with the statement while 19 (10.0%) strongly disagreed to the statement. Therefore, from the above presentation of findings, the big numbers of respondents were in position to confirm that ATM usage in Rwanda has influence on Economic growth in Kigali. This confirmation results from the factor that the big number of respondent was using ATM to make digital transactions. From the above findings, 103 (54.2%) of respondents agreed that the government of Rwanda monitors strictly online payment, 42(22.1%) agreed to the statement, 35 (18.4%) disagreed, while 10 (5.3%) strongly disagreed to the statement. Based on the above statistics, majority of respondents agreed with the statement that the government of Rwanda monitors strictly online payment. This is due to the factor that respondents are dealing with National Bank of Rwanda (BNR) as a government institution that monitors and regulates all cashless financial transaction in the country.

The second objective was to establish the extent to which mobile cards impact the Economic growth
Results from table 12, researcher asked the respondents to give their level of agreement to the statements related to whether MasterCard usage improves economic growth in Kigali and the findings shows that 114 (60.0%) agreed with the statement that MasterCard usage improves economic growth, 18 (9.5%) strongly agreed to the statement, 47 (24.7%) disagreed to the statement that MasterCard usage improves economic growth, while 5 (2.6%) when asked about their perceptions on the statement they decided to be natural. In a view of the statement on whether Visa card impacts economic growth in Kigali, 108 (56.8%) their perception was that Visa card impacts economic growth. 64 (33.7%) strongly agreed to the statement. 18 (9.5) disagreed and none was undecided with the statement that Visa card impacts economic growth. In a view on the statement that; Clients face challenges while using mobile cards 141 (74.2%) as the big number agreed to the statement, 28 (14.7%) strongly agreed to the statement, 11(5.8%) disagreed while 9(4.7%) when asked if Clients face challenges while using mobile cards they were neutral to the statement. Therefore, from the above findings it very clear that majority of respondents agreed that Clients face challenges while using mobile cards. In relation from the statement that; Every Rwandan easily access internet to financially transact, 167 (87.9%) agreed to the statement, 18 (9.5%) disagreed while 5(2.6%) were undecided to the statement. From the above, the research finding shows that majority of respondents were in position to agree to the statement that Every Rwandan easily access internet to financially transact.
It can be concluded that most of respondents agree with the statement relate to Mobile cards of Gross Domestic Product affects the Gross Domestic Product in Employees of MTN and Mobile Money dealers, Bank of Kigali, and Eco bank in Rwanda with a focus on the Employees of MTN and Mobile Money dealers, Bank of Kigali, and Eco bank and this is supported by the fact that all means of their responses are at very high range which indicate Mobile cards of Gross Domestic Product affects the Gross Domestic Product in Employees of MTN and Mobile Money dealers, Bank of Kigali, and Eco bank in Rwanda with a focus on the Employees of MTN and Mobile Money dealers, Bank of Kigali, and Eco bank.

The third objective was to assess the significance of mobile wallets on Economic growth.

In line with the statement that paying bills for electricity online (Cashless) affects Economic growth in Kigali, majority of respondents equivalent to 155 (81.6%) agreed to the statement. 32(16.8%) strongly agreed that Paying bills for electricity online (Cashless) affects Economic growth in Kigali while 3 (1.6%) disagreed with the statement. In view of the above, the majority of respondents agreed to the statement. In line with the statement that; Mobile phone services (Cashless) affects Economic growth in Kigali, I69 (88.9%) strongly agreed with statement, 2 (1.1%) agreed, 11 (5.8%) disagreed with the statement, 7 (3.7) of respondents were neutral to the statement and 1 (0.5%) when asked their perception on whether Mobile phone services (Cashless) affects Economic growth in Kigali they strongly agreed to the statement. From the above presentation, the big number of respondents agreed that Mobile phone services (Cashless) affects Economic growth in Kigali. In the view of whether Mobile wallet users face challenges of payments bouncing, all the respondents agreed to the statement 190 (100.0%). The response rate on this statement was a 100% which means that without any doubt Mobile wallet users face challenges of payments bouncing.

The fourth objective was to evaluate the influence of mobile money on Economic growth.

In the view of whether Mobile money transactions generally improve on economic growth, all the respondents agreed to the statement 190 (100.0%). The response rate on this statement was a 100% which means that without any doubt Mobile money transactions generally improve Economic growth in Kigali. In line with the statement that; every person in Rwanda use mobile money to make payments, 182 (95.8% agreed with the statement, 8 (4.2%) of the respondents disagreed. Therefore, from the above, it is clearly indicated that every person in Rwanda use mobile money to make payments because the biggest number of respondents agreed to the statement. From the above table, the research has clearly indicated that 169 (88.9%) of respondents agreed to the statement that Mobile money incurs too many costs. 11(5.8%) disagreed with the statement and 10 (5.3%) were neutral to the statement. Therefore, from the above presentations, it clearly indicated the big number of respondents agreed that Mobile money incurs too many costs. Respondents were asked to give their views on the statement that Mobile phones are very cheap to be owned by every Rwandan. From the research findings, 94 (49.5%) agreed with the statement, 31(16.3%) disagreed with the statement, 2(1.1%) strongly agreed, 63(33.2%) strongly disagreed. From the findings presented above, therefore, it was clearly stated that Mobile phones are not very cheap to be owned by every Rwandan because the biggest number of respondents disagreed with the statement.

Conclusion

Based on the findings of the research, researcher concluded that there is a need to create an avenue of investing hugely in cashless Financial services basing on that fact that the big number of respondents agreed with the statements relate to cashless financial services affect economic growth and it is indicated also by the factor that hypothesis of this research was confirmed. Rwanda .More to that, most of respondents agreed with the statement relate to that fact cashless financial services effects economic growth in Kigali, Rwanda with much emphasis on internet banking since it has a direct effect on the economic growth in Kigali. Is also important to note that most of respondents agreed with the statement relate to Mobile cards of cashless financial services affects the Gross Domestic Product in Kigali, Rwanda . This is supported by the fact that all means of their responses are at very high range which indicate Mobile cards usage affects the Gross Domestic Product in Kigali, in Rwanda with and recommend to put in place measures and ensure implementation of cashless financial services since it has a huge effect on Gross Domestic Product , affecting the economic growth in Kigali, Rwanda. Lastly since most of respondents agree with the statement related to the fact that institutions adjusts cashless financial services as per market requirement and this is supported by the fact that all means of their responses suggest that the Mobile money services should be adjusted as per market requirement.

Suggestions to Institutions

Basing from the shortcomings of the research, it is suggested to provide a clear view more on the factors that facilitate the chances of improving cashless financial services. As a researcher, there is a need to continue with educating people on the importance of using cashless financial services and encourage financial service providers to gradually invest in using cashless financial services to boost economic growth. Basing on the results in the study, many agreed that the cashless financial services make economic growth smooth.

Suggestion on Further Research

A review of literature indicated that there has been limited amount of research on economic growth in financial institutions. Thus, the findings of this study serve as a basis for future studies on factors influencing economic growth considering the fact that cashless financial services, had not been widely studied which presented gaps in African and Rwandan contexts. The study has therefore contributed to knowledge by establishing that cashless financial services affect economic growth needs further research to be completed.

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