Cashless Economy and Efficient Tax Collection: Case Study- Rwanda Revenue Authority and Rwanda Mobile Telephone Network (MTNR)

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Abstract: *The cashless economy is the way of making sales transactions via electronic means. According to BNR, (2018), in its report "Rwanda Payment System Strategy, towards a cashless Rwanda 2018-2024", The Rwanda National Payment System (RNPS) Strategy 2018 – 2024 reaffirms the commitment of the National Bank of Rwanda and the Ministry of Finance and Economic Planning to encourage the use of electronic payments by all residents of Rwanda, to achieve a cashless society. It is for this reason the researcher was interested in finding out the contribution of cashless economy on efficient tax collection by using stratified and purposive sampling technique of sampling. By gathering and analyzing the answers from 180 distributed questionnaires among Rwanda Revenue Authority (RRA) employees and MTNR Mobile Money (MoMo) Pay section employees, the researcher verified the null Hypotheses $H_0 1$: the cashless economy does not play a significant role on tax collection transparency, $H_0 2$: The cashless economy does not play a significant role on the tax declaration., $H_0 3$: the cashless economy does not contribute to quality auditing, $H_0 4$: The cashless economy does not play a significant role on Tax Revenue Increase. The multiple regression analysis method was used for data analysis and the test of hypotheses proves that the cashless economy has a positive impact on efficient tax collection. Therefore, it is recommended to enhance and educate the population the adoption of cashless economy in order to experience an efficient tax collection in Rwanda.*

Keywords: Cashless economy, Efficient tax collection, Tax revenue, Financial transaction records, Quality tax audit

1. Introduction

The cashless economy in Rwanda is becoming a familiar term whereby the Government of Rwanda is encouraging going cashless by 2024. With a booming infrastructure in place, the cashless society is possible and on its trends in Rwanda. According to the central bank of Rwanda, the business community loses up to 6 per cent in non-electric transactions compared to only 2 percent if they used digital payment platforms, hence it is not only cheap but also it would also be key to efficient tax collection. This study is concerned with the contribution of cashless economy on efficient tax collection. The Rwanda Revenue Authority headquarter and MTNR mobile money section are the case of study of the research. The main key variables for this study were efficient tax collection, cashless economy, tax income, quality tax auditing, mobile wallet, point of sales, electronic bank transfer and financial transaction records. This paper includes the background to the study, statement of the problem, objectives of the study, research questions, research hypotheses, the significance of the study, justification of the study, conceptual framework and delimitation.

The introduction of cashless economy in the society revealed many advantages which led researchers; International, Regional and National, to study its effect and its contribution to different areas of the society such as quick service delivery, efficient tax collection, customer satisfaction, its risks and advantages and so many other studies on the same topic. 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. According to world cash report, (2018). In China, they are promoting the concept of cashless economy through "Cashless week" (first week of August, AliPay), "Cashless Day" (August 8th, WeChat Pay) and "Cashless Month" (August, WeChat Pay). Furthermore, recent research shows (among other key findings) that: 52% of Chinese use cash for only 20% or less of their monthly consumption.

Researchers in the region, including Kenya, have also been interested in the countries tax revenue maximization and its contribution , as well as the discussions of the efficient method to be used for tax collection. According to Ndemo (2015), an efficient tax collection system is a system which collects the highest amount of taxes from the existing resources in the fastest possible time duration and with the lowest possible collection costs. From this definition, three facets of tax efficiency arise. The first one being on the revenue raised, with efficient systems raising high revenues. The second facet is on the time spent on paying or collecting revenue . Efficient systems ensure that taxes are paid and collected in the shortest time possible. He concludes that digitization has a positive effect on tax efficiency. It ensures that there is proper keeping and updating of taxpayers ' records , further it boosts transparency which improves tax efficiency.

Harelimana (2018) referred to the report by Rwanda Auditor General 's office (2015), where he said that the failure to collect all potential revenue could be linked to Tax Administration system. He continues to state that it is characterized by lack of proper tracking of registered taxpayers for domestic taxes and gaps in existing databases of taxpayers; failure to register some taxpayers and yet RRA was aware of their existence ; failure to verify majority of declarations and to follow up taxpayers who had not filed their returns or remained inactive since the time of their tax registration and also capacity challenges in tax audits leading to low tax audit coverage and many contested audit results which resulted in reduction in amounts of tax assessed in 145 cases by RRA appeals committee (43% of all contested cases). Lastly , he mentions weak revenue protection system which is highly dependent on informers instead of generating and reviewing exceptional reports from existing systems to provide more preventive revenue protection strategies.

1.1 Statement of Problem

According to RRA Report (2017-2018), during the 2017/18 fiscal year, all the audits conducted on Small and Medium Taxpayer Office (SMTO) in Kigali, were 140, though auditors had planned 180. Among 140 audited taxpayers , 50 complied to requirements and 90 encountered audits case issues. In addition, 3,794 desk audit cases were conducted by SMTO . The initial tax declared by all these cases totaled to Frw 1.9 billion . However , the re-assessed tax (principals only, before appeals) totaled to Frw 43.5 billion , an additional assessment of Frw 41.6 billion. The average tax declared by all audited SMTO taxpayers including desk audit cases amounted to 4.4% of the total re-assessed tax (principals only, before appeals). In fiscal year 2016-2017, the average tax declared by all audited SMTO taxpayers including desk and cross-checking cases amounted to just 25.7% of the total re-assessed tax (principals only, before

appeals). During the 2015/16 fiscal year, the average tax declared by audited SMTO taxpayers amounted to just 43.1% of the total assessed tax (principals only, before appeals). In the three successive fiscal year periods, the percentage of total re-assessed taxes reduced as the implementation of cashless economy was enhanced year by year.

According to RRA (2016-2017), the actions of taxpayers, whether due to ignorance, carelessness, recklessness or deliberate evasion, as well as weaknesses in the tax administration mean that instances of failure to comply with the law are inevitable . In this study , the researcher investigates the contribution of cashless economy on efficient tax collection.

1.2 Objectives of the Study

The general objective of this study was to examine the effect of the use of cashless economy to maximize efficiency of tax collection.

The study was guided by the following specific objectives:

1. To evaluate the effect of cashless economy on transparency in tax collection.
2. To assess the impact of cashless economy on tax declaration.
3. To analyze the contribution of cashless economy on quality auditing.
4. To examine the contribution of cashless economy on tax revenue increase.

1.3 The Research Hypotheses

The research verified the following null hypotheses:

H_01: The cashless economy does not play a significant role on the tax collection transparency.

H_02: The cashless economy does not play a significant role on the tax declaration.

H_03: The cashless economy does not contribute to quality auditing.

H_04: The cashless economy does not play a significant role on tax revenue increase.

1.4 Justification of the Study

Many studies have been conducted on cashless economy and many others on efficient tax collection. However, the reports show that there are still some incompliances in taxation, tax evasion and all these results in negative effects on a country's economic growth. There is an interest in analyzing more on the effects of cashless economy in taxation compliance, tax evasion avoidance,

which have a direct impact on a country's economic growth. Furthermore, the understanding of the contribution of cashless economy in economic growth, will help governments and financial institutions, as well as society in general to speed up the process of implementing the cashless society.

1.5 Conceptual Framework

The conceptual framework elaborated in the figure below, shows the independent and dependent variables which were considered to guide this study, in analyzing whether the independent variable has a positive or negative impact on the dependent variable in regard to taxpayers' obligations to RRA.
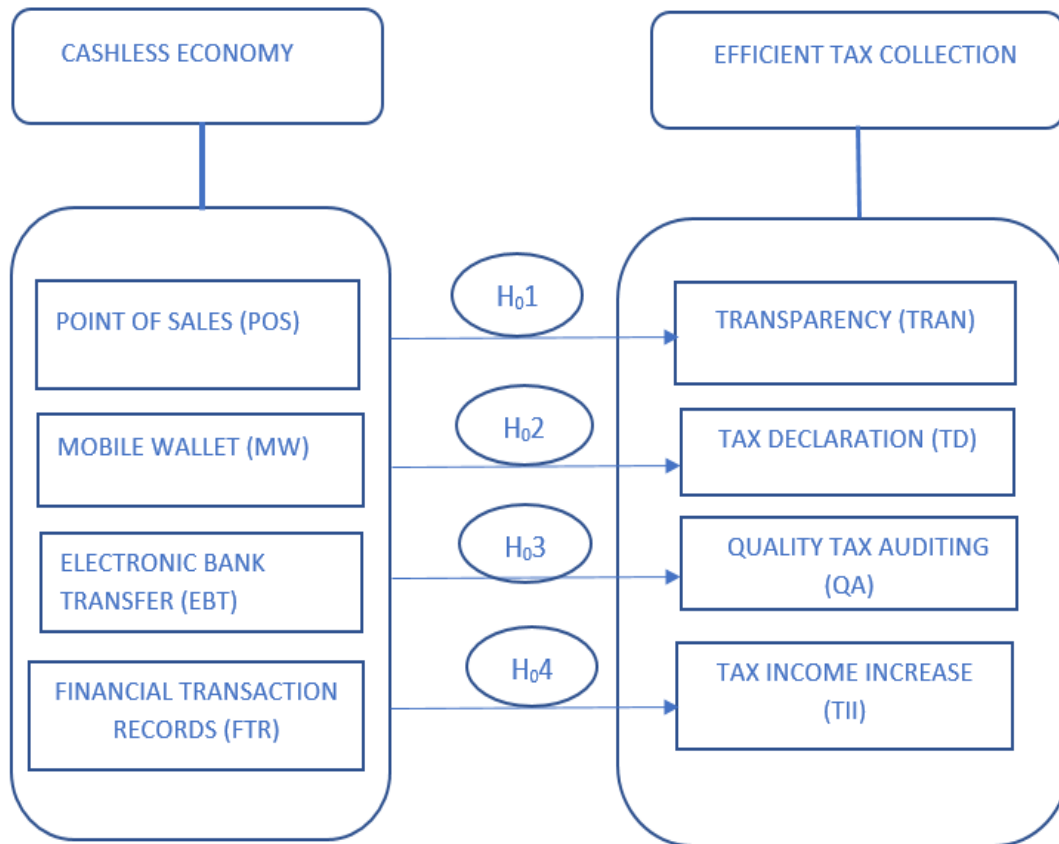

Figure 1: Conceptual Framework

1.6 Delimitation of the Study

This study aims to show the contribution of the cashless economy on efficient tax collection. It neither goes in deep of electronic payments functionality nor explaining the taxation rules and process of Taxation. The targeted respondents were RRA staff, Tax advisor employees as well as MTNR staff Mobile Money pay section, in Kigali, who in their daily life are concerned with taxes, avoidance of tax evasion and mobile money payments respectively. This study was conducted in the year 2019 during which data was collected from the field, analyzed and presented

2. Literature Review

This section examines the contribution of cashless economy on efficient tax collection. It reviews how cashless economy and efficiency of tax collection have evolved over time. It entails a conceptual, theoretical and empirical review.

2.1 Cashless economy

In the final report on Rwanda Financial Sector Strategy, the major issue going forward is to expand the use of electronic payments; for instance credit and debit cards, Automated Teller Machines, and point of sale terminals. Furthermore, the linkage of the Rwandan real time gross settlement system and securities depository with the other EAC countries (MINECOFIN, 2018). Nuwagawa (2014), after his study, concluded that a cashless society is

achievable, and this can happen well especially when a country takes a phased approach by eliminating its use in some sectors of the economy at once and then later to another one and this approach is taken until a country achieves a dream of having a cashless economy.

2.2 Point of Sales

According to Ordu & Anyanwaokoro (2016), Point of Sale (POS)/Point of Purchase (POP) terminals: POS or POP is the location where a transaction occurs. A terminal or POS or POP is generally referred to the hardware and software used for check out, the equivalent of an electronic cash register. A POS manages the selling process by a salesperson accessible interface. The system allows the creation and printing of receipts.

2.3 Mobile Wallet

Alka and Punit (2018) defined a mobile wallet as a way to carry cash in digital format. The credit card or debit card information in mobile device can be linked to mobile wallet application or you can transfer money online to mobile wallet. Instead of using your physical plastic card to make purchases, you can pay with your smartphone, tablet, or smart watch. An individual's account is required to be linked to the digital wallet to load money in it. Most banks have their e-wallets and some private companies too.

2.4 Electronic Bank Transfer

According to Federal Trade Commission (2012), electronic banking also known as electronic fund transfer (EFT), uses computer and electronic technology in place of checks and other paper transactions. EFTs are initiated through devices like cards or codes that let you, or those you authorize, access your account. Many financial institutions use ATM or debit cards and Personal Identification Numbers (PINs) for this purpose. Some use other types of debit cards that require your signature or a scan. For example, some use radio frequency identification (RFID) or other forms of "contactless" technology that scan your information without direct contact with you. The federal Electronic Fund Transfer Act (EFT Act) covers some electronic consumer transactions.

2.5 Transparency of Tax Declaration

Alka and Punit (2018), state that taxation with lesser availability of hard cash at homes and more in banks, there is lesser scope of hiding income and evading taxation and when there are more taxpayers it ultimately leads to a lesser rate of taxation for the whole country. Transparency and accountability; it becomes a lot easier to track the flow of money with every transaction being recorded with the buyer, seller as well as regulatory bodies, making the system much more transparent and compliant. In the long term it leads to better business and investment prospects for the economy as a whole. According to E&Y report (2016), reducing the Shadow Economy through Electronic Payments, it states that the shadow economy includes all market-based legal production of goods and services that are deliberately concealed from public authorities for any of the following reasons: To avoid payment of income, value added or other taxes, to avoid payment of social security contributions, to avoid having to meet certain legal labor market standards, such as minimum wages maximum working hours, safety standards, etc.; and to avoid complying with certain administrative procedures, such as completing statistical questionnaires or administrative forms.

2.6 Quality Tax Auditing

According to OECD (2016), a tax audit is an examination of whether a taxpayer has correctly assessed and reported their tax liability and fulfilled other obligations. Tax audits are often more detailed and extensive than other types of examination, such as general desk checks, compliance visits/ reviews or document matching programs. There are, of course, exceptions to this rule. Conditions and approaches vary from country to country. They continue saying that all audit activities rely on the books and records kept by taxpayers. Throughout the OECD the legal requirements for record keeping only vary regarding the level of detail required. This may also depend on the type or size of the business being audited. Okoye & Avwokeni (2014), state that the probability that a taxpayer will be caught in the act of tax evasion depends on the quality of the tax audit function, which is conducted by tax inspectors or consultants. It has been shown that tax evasion decreases with increases in tax audit exercise.

2.7 Financial Transaction Records

According to Ken *et al.* (2015), machine-sensible records must: be retained so long as their contents may become material in the administration of any internal revenue law; reconcile with the taxpayer's books and return; contain enough transaction-level detail so that the information and the source documents underlying the machine-sensible records can be identified; Be made available to the service upon request and be capable of being processed. According to the Perryman Group (2015), electronic payments create more transparency, as they create an audit trail. As a result, tracking payments to recreate and analyze spending patterns and assure proper tax compliance is facilitated.

2.8 Both taxpayers and tax authorities can benefit from digital technology

According to World Bank Group (2018), both taxpayers and tax authorities can benefit from digital technology. Crucially, modern technology allows public administrations to interact with their citizens in new ways, allowing governments to be more effective and efficient. The most visible of the many benefits of digital technology in tax administrations that are captured in Doing Business is the electronic filing of tax returns and the electronic payments of taxes. These electronic systems have reduced the cost of compliance for both taxpayers and governments. For taxpayers, electronic filing saves time by reducing calculation errors in tax returns and making it easier to prepare, file and pay taxes. it also creates a more predictable tax environment as all the information that taxpayers need can be made available online. For tax authorities, electronic filing lightens the workload and reduces operational costs – such as the costs of processing, storing and handling tax returns. According to USAID (2016), in their report Domestic Resource Mobilization. Case study of Rwanda, several system improvements also promoted higher revenue collection. By 2004 the RRA had implemented the Standardized Integrated Government Tax Administration System (SIGTAS), which supported data management for taxpayers and facilitated tax returns processing, enforcement, and audit. SIGTAS implementation eventually paved the way for automation of RRA frontline taxpayer services, such as e-filing and e-payment. RRA also required most businesses to start using electronic billing machines (EBM), which include a certified invoicing system and a sales data controller. EBMs reduce underreporting of sales, facilitate VAT payment and reduce the tax collection cost to the RRA. The USAID report again states that a study in 2014 showed that firms that had purchased and were using the 3 EBMs by the first quarter of 2014 were paying 6.5 percent more VAT than they otherwise would have.

2.9 Tax Revenue Increase

Okiro (2015), in his study the effect of e-payment system on revenue collection by the Nairobi city county Government, found that the e-payment system would significantly influence revenue collection performance by the Nairobi City County Government positively, such that increased adoption of e-payment system increases revenue collection performance. However, reduced adoption of e-payment system negatively influenced revenue 41 collection performance, where it reduced the compliance to budget hence poor financial performance of Nairobi City County Government.

3. Methodology

3.1 Research Design

This study was a case study which employed both qualitative and quantitative designs.

3.2 Population

The population of the study comprised of 180 employees, at RRA headquarters, Nyarugenge branch staff and tax advisors' offices in Kigali. The study also considered MTNR staff in the MoMo pay section.

3.3 Sampling Techniques

In this study stratified and purposive sampling was adopted. In this study, a sample of 180 employees responded to the same questionnaires. 113 respondents were from RRA offices, tax advisors' offices and 56 respondents were from MTNR mobile money pay section. The targeted areas were RRA headquarters and Nyarugenge branch, the tax advisors in Kigali City and MTNR headquarters.

3.4 Research Instruments

In order to attain sufficient, appropriate and reliable information, questionnaires were used. The research distributed 180 Questionnaires prepared in English language. The questionnaire had three parts: Part one was the background information of respondents (profile of respondents), part two was the opinions of respondents on both independent and depended variables.

3.5 Data Gathering Procedures

For data gathering procedures, the researcher submitted a letter requesting for data collection in RRA offices and Kigali Tax advisors, as well as in MTNR headquarters office. After 5 days, researcher distributed questionnaires to the accessible customers in the two organizations. Questionnaires were responded and collected after a week. Data was analyzed using SPSS version 20.0: This process took a period of a month. Not only primary data was used, secondary data also was helpful in this research. Whereby the data collected from reports and statistics from known institution, such as BNR, RRA.

3.6 Multiple Regressions

Multiple Regressions Analysis refers to a set of techniques for studying the straight-line relationships among two or more variables. Multiple regression estimates the β's in the equation. Y is the dependent variable.

$$Y = \beta_0 + \beta_1 POS + \beta_2 MW + \beta_3 EBT + \beta_4 FTR + \mu$$

In this research the dependent and independent variables are defined as follows: Independent variables are POS, MW, EBT, FTR and the dependent variables are TRAN, TD, QA, INT. The functional relationship is developed based on the research objectives using primary data.

TRAN = F(POS, MW, EBT, FTR)
TD = F (POS, MW, EBT, FTR)
QA = F (POS, MW, EBT, FTR)
TRI = F (POS, MW, EBT, FTR)

Therefore, based on the specification of variables, the following models have been specified in relationship with the research hypotheses and was used to test hypotheses based on primary data:

TRAN $= \beta_0 + \beta_1 POS + \beta_2 MW + \beta_3 EBT + \beta_4 FTR + \mu$ model 1

TD $= \beta_0 + \beta_1 POS + \beta_2 MW + \beta_3 EBT + \beta_4 FTR + \mu$ model 2

QA $= \beta_0 + \beta_1 POS + \beta_2 MW + \beta_3 EBT + \beta_4 FTR + \mu$ model 3

TRI $= \beta_0 + \beta_1 POS + \beta_2 MW + \beta_3 EBT + \beta_4 FTR + \mu$ (D)   model 4

4. Results and Discussion

This section presents the data, the analysis and interpretation of the data. It contains their perceptions on each of the sub variables as well as the regression model analysis for the hypotheses testing.

4.1 Testing Hypotheses

This section tested the five hypotheses which are: H_01: the cashless economy does not play a significant role on the tax collection transparency, H_02: The cashless economy does not play a significant role on the tax declaration., H_03: the cashless economy does not contribute on quality auditing, H_04: The cashless economy does not play a significant role on tax revenue increase and H_1: The cashless economy plays a significant role on the efficient tax collection.

Testing Hypothesis H01

Ho1: The cashless economy does not play a significant role on the tax collection transparency.

Table 1: Model Summary for H_01

Predictors: (Constant), FTR, EBT, MW, POS

Model	R Square	Adjusted R Square	Std. Error of the Estimate
1	.912[a]	.832	.828	.24880

The result in table 1 indicates that the adjusted R Square is 0.828 representing 82.8%. which means that the independent variables jointly affect the transparency at 82.8%. This means that 17.2 % changes in transparency are due to other factors not included in this study.

Table 2: ANOVA for H_01

a. Dependent Variable: TRAN
b. Predictors: (Constant), FTR, EBT, MW, POS

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50.141	4	12.535	202.503	.000[b]
	Residual	10.152	164	.062		
	Total	**60.293**	**168**			

The fact that in table 2 the F-test is positive and the fact that it is significant at 5%, because its significance level is 0.000. Therefore, based on the results on this test, the null hypothesis H_01 stating that "the cashless economy does not play a significant role on the tax collection transparency" is not accepted, because the Anova table above shows that there is a positive and significant effect of cashless economy on transparency.

Table 3: Coefficient for H₀1

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
a. Dependent Variable: TRAN						
		B	Std. Error	Beta		
1	(Constant)	.228	.186		1.225	.222
	POS	.002	.068	.002	.036	.972
	MW	.043	.032	.055	1.353	.178
	EBT	-.402	.037	-.422	-10.774	.000
	FTR	1.298	.069	1.011	18.774	.000

The coefficients table 3 shows that POS has a positive and but non-significant effect on transparency. $\beta1=0.002$, $t=0.036$, p-value>0.05. This means 1% change in POS usage leads at least to 0.002% change in transparency. The coefficients table shows again that MW has a positive and a non-significant effect on transparency, where $\beta2=0.055$, $t=1.353$, p-value>0.05. It means that 1% change in MW usage leads to change at .05% increase in transparency. The coefficient table again shows that EBT has a negative effect on transparency. And it is significant as $\beta3=-0.422$, $t=-10,774$, p-value<0.05. This means that 1% change in EBT leads to 0.42% decrease in transparency and is significant. Lastly, the coefficient table shows that FTR, has a positive and significant effects on transparency at $\beta4=1.011$, $t=18.77$, p-value<0.05. It means that 1% change in FTR leads to 1.011% change in transparency. The model of the study on transparency is as below:

TRAN = $\beta0+\beta1POS+ \beta2MW+ \beta3EBT + \beta4FTR+\mu$ model 1

Therefore, based on the results of the coefficients table we have

TRAN = 0.228 +0.002 POS+0.055 MW- 0.422EBT + 1.011 FTR+ 0.186

Testing Hypothesis H₀2

H₀2: The cashless economy does not play a significant role on the tax declaration.

Table 4: Model Summary for H₀2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
a. Predictors: (Constant), FTR, EBT, MW, POS				
1	.888[a]	0.789	0.784	.39223

The result in table 4 indicates that the adjusted R Square is 0.784 representing a 78.4%, which means that the independent variables jointly affect the tax declaration at 78.4%. This means that 21.6 % changes in tax declaration are due to other factors not included in this study.

Table 5:ANOVAa for H₀2

Model		Sum of Squares	df	Mean Square	F	Sig.
a. Dependent Variable: TD						
b. Predictors: (Constant), FTR, EBT, MW, POS						
1	Regression	94.554	4	23.639	153.655	.000[b]
	Residual	25.230	164	.154		
	Total	119.784	168			

The fact that the F-test is positive and significant at 5%, means its significance level is 0.000. Therefore, based on the results on this test, the null hypothesis H_02 stating that "The cashless economy does not play a significant role on the tax declaration" is not accepted, because the Anova information above shows that there is a positive and significant effect of cashless economy on Tax Declaration.

Table 6: Coefficient for H_02

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.661	.294		-5.654	.000
	POS	.362	.108	.193	3.364	.001
	MW	-.232	.051	-.209	-4.582	.000
	EBT	-.644	.059	-.481	-10.963	.000
	FTR	1.832	.109	1.012	16.803	.000

a. Dependent Variable: TD

The coefficients table 6 shows that POS has a positive and significant effect on tax declaration. $\beta1=0.193$, $t=0.364$, p-value<0.05. This means 1% change in POS usage leads to 0.193% change in tax declaration.

The coefficients table shows again that MW has a negative and significant effect on tax declaration, where $\beta2=-.209$, $t=-4.582$, p-value<0.05. It means that 1% change in MW usage decrease at 0.209% in tax declaration. The coefficient table again shows that EBT has a negative effect on tax declaration. This is significant as $\beta3=-0.481$, $t=-10,963$, p-value<0.05, meaning that 1% change in EBT leads at 0.42% decrease in tax declaration. Lastly, the coefficient table shows that FTR, has a positive and significant effects on tax declaration as $\beta4=1.012$, $t=16.803$, p-value<0.05. it means that 1% change in FTR leads to 1.012% change in tax declaration. The model of the study on Tax Declaration is as below:

$TD = \beta0+\beta1POS+ \beta2MW+ \beta3EBT + \beta4FTR+\mu$ model 2

Therefore, based on the results of the coefficients table we have

$TD = -1.661 +0.193POS-0.209MW -0.481EBT +1.012FTR+0.294$

The testing of H_02 has confirmed the USAID report of 2016whereby it shows that the usage of electronic billing machine increases the amount of transactions declared by taxpayers. As per all transactions done through POS, MW, EBT or FTR must be again declared in EMB, the EBM may also be added as of one of tax declaration important tool.

Testing Hypothesis H_03
H_03: the cashless economy does not contribute to quality auditing.

Table 7: Model Summary for H_03

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.889[a]	.790	.784	.29642

a. Predictors: (Constant), FTR, EBT, MW, POS

The result in table 7 indicates that the adjusted R Square is 0.784 representing a 78.4%. Which means that the independent variables jointly affect the quality of auditing at 78.4%. This means that 21.6 % changes in in quality of auditing are due to other factors not included in this study.

Table 8: ANOVA for H_03

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	54.077	4	13.519	153.862	.000[b]
	Residual	14.410	164	.088		
	Total	68.487	168			

a. Dependent Variable: QA
b. Predictors: (Constant), FTR, EBT, MW, POS

In the table 8 the F-test is positive and significant at 5% because its significance level equals 0.000, meaning that based on the results on this test, the null hypothesis H_03 stating that "the cashless economy does not contribute on quality auditing" is not accepted, because the Anova table above shows that there is a positive and significant effect of cashless economy on quality auditing.

Table 9: Coefficient for H_03

a. Dependent Variable: QA						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.800	.222		-3.602	.000
	POS	-.296	.081	-.208	-3.631	.000
	MW	.037	.038	.044	.972	.333
	EBT	.108	.044	.106	2.421	.017
	FTR	1.304	.082	.953	15.827	.000

The coefficients table 9, shows that POS has a negative and significant effect on quality auditing. $\beta 1=-0.208$, $t=-3.631$, p-value<0.05. this means 1% change in POS usage leads to 0.208% decrease in quality auditing. The coefficients table shows again that MW has a positive and insignificant effect on tax declaration, where $\beta 2=0.044$; $t=0.972$, p-value>0.05. it means that 1% change in MW usage change at least 0.209% in quality auditing. The coefficient table again shows that EBT has a positive effect on quality auditing. And it is significant as $\beta 3=0.106$, $t=2.421$, p-value<0.05. this means that 1% change in EBT leads at 0.106% increase in quality auditing. Lastly, the coefficient table shows that FTR, has a positive and significant effects on quality auditing as $\beta 4=0.953$; $t=15.827$, p-value<0.05. it means that 1% change in FTR leads to 0.953% change in tax declaration. The model of the study on quality tax auditing is as below:

$QA = \beta 0+\beta 1POS+ \beta 2MW+ \beta 3EBT + \beta 4FTR+\mu$ model 3
Therefore, based on the results of the coefficients table we have
$QA = -0.800$ -208 $POS+0.044MW+0.106EBT +0.953FTR+0.222$

Testing Null H_03 has confirmed what Okoye & Avwokeni (2015) stated. They stated that the probability that a taxpayer will be caught in the act of tax evasion depends on the quality of the tax audit function, which is conducted by tax inspectors or consultants. It has been shown that tax evasion decreases with increases in tax audit exercise. This test has proven that the cashless economy has impact on quality tax audit.

Testing Hypothesis H_04
H_04: The cashless economy does not play a significant role on Tax Revenue Increase.

Table 10: Model Summary for H_04

a. Predictors: (Constant), FTR, EBT, MW, POS				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000[a]	1.000	1.000	.00000

The result in table 10 indicates that the adjusted R Square is 1, representing 100%, which means that the independent variables jointly affect the Tax Revenue Increase at 100%.

Table 11: ANOVA for H_04

a. Predictors: (Constant), FTR, EBT, MW, POS						
b. Dependent Variable: TII						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	35.033	4	8.758	.	.[b]
	Residual	.000	164	.000		
	Total	35.033	168			

The fact that model summary table 11, shows that there is a very strong relationship between independent and dependent variables at 100%, F-test have no value as well as the level of significance. Which means that the statement, H_04, "The cashless economy does not play a significant role on Tax Revenue Increase", is not accepted.

Table 12: Coefficient for H₀4

a. Dependent Variable: TII					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.663E-015	.000		.000	1.000
POS	.250	.000	.246	171503958.965	.000
MW	.250	.000	.417	365165496.937	.000
EBT	.250	.000	.345	314301522.065	.000
FTR	.250	.000	.255	169467617.439	.000

The coefficient table 12 shows that POS has a positive and significant effect on tax revenue increase as $\beta1=0.246$, t=171503958.965, p-value<0.05. This means 1% change in POS usage leads to 0.246% change in Tax Revenue Increase. The coefficients table shows again that MW has a positive and significant effects on tax revenue increase, where $\beta2=0.417$, t=365165496.937, p-value<0.05. It means that 1% change in MW usage change at 0.209% in Tax Revenue Increase. The coefficient table again shows that EBT has a positive effect on tax revenue increase. And it is significant as $\beta3=0.345$, t=314301522.065, p-value<0.05. This means that 1% change in EBT leads at 0.345% increase in Tax Revenue Increase. Lastly, the coefficient table shows that FTR, has a positive and significant effects tax revenue increase as $\beta4=0.255$, t=169467617.439, p-value<0.05. It means that 1% change in FTR leads to 0.255% change in Tax Revenue Increase.

5. Conclusion and Recommendations

5.1 Conclusion

Based on this study and the findings, the study concludes that the cashless economy which is characterized by the Point of Sales; Mobile Wallet; Electronic Bank Transfer and Financial Transaction Records has a positive and a significant effect on Efficient Tax Collection which is also characterized by Transparency; Tax Declaration; Quality Tax Auditing and the Tax Income Increase. This means that the Government's target of turning the country into cashless based economy environment will have a positive impact on efficient tax collection which results in country's economic growth as it boosts tax revenue increase.

The model of the study on Tax Revenue Increase is as below:

$$TRI = \beta0+\beta1POS+ \beta2MW+ \beta3EBT + \beta4FTR+\mu \quad \text{model 4}$$

Therefore, based on the results of the coefficients table we have

TRI = 4.663E-015 +0.246 POS+0.417 MW+0.345 EBT +0.255FTR+0 They H₀4 has been fully agreed by respondents. This means that the cashless economy contributes remarkably on Tax Revenue Increase. After the test of the hypotheses we have concluded that the cashless economy has a significant impact on efficient tax collection.

5.2 Recommendations

Based on this study and the findings, the following are recommendations to the concerned institutions such as RRA, Telecommunication company, MINECOFIN, BNR and all others financial institutions and all Rwandans in general:

1. RRA; MINECOFIN AND BNR should continuously educate and improve the usage and adoption of cashless based payment devices and systems all over the country.
2. All Rwandans in general should understand and support the adoption of cashless economy in a bid to boost the country's economic growth.
3. All sorts of financial institutions and telecommunication should fasten and simplify the access to cashless oriented payments means.

4. Government needs to ensure that the cost of telecommunications, hardware and software is affordable.

5. The emergence of electronic payment systems raises a whole range of both legal and regulatory issues that need to be taken care of.

6. There is need for banks and telecommunication companies to educate consumers about all of their cash-less system options.

7. Government should also provide the necessary social facilities, infrastructure and constant supply of electricity.

8. BNR, telecommunication companies and other commercial banks to take the security of their customer transaction seriously.

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