



ILLICIT FINANCIAL FLOWS AND ECONOMIC GROWTH IN KENYA

MWAURA Simon Wanjau¹, DR. OLWENY Tobias²

^{1,2} Jomo Kenyatta University of Agriculture and Technology (JKUAT)

Abstract

The overall objective of this study was to establish the effect of illicit financial flows on economic growth in Kenya. Specific objectives were to examine the effect of trade misinvoicing on economic growth in Kenya, to assess the effect of money laundering on economic growth in Kenya and to examine the effect of accounting fraud on economic growth in Kenya. The Kenyan economy is losing billions of shillings annually in illicit financial outflows, crucial resources which could be used to invest in struggling sectors such as healthcare, education, and infrastructure. The monies are lost through tax evasion by individuals and companies, illegal profit expatriation by multinational firms, organized criminal syndicates and also corruption related activities in the public sector. From the empirical literature, it is evident that there is minimal literature on economic crimes in Kenya. Further, the studies were conducted in different countries. This study aimed to fill the contextual and conceptual gaps. The study adopted a descriptive survey research design. The study used mainly secondary data. The data was obtained for the period between 2013 and 2018 on GDP and crime rate reported obtained from Kenya National Bureau of Statistics (KNBS) published reports. Collected data was analyzed using descriptive statistics frequencies, mean, standard deviation and percentage. A correlational analysis was also conducted to determine the relationship between the independent and dependent variables. The study also carried out a regression analysis to determine the level of association of the study variables. The study found that trade misinvoicing had a negative significant influence on economic growth in Kenya; money laundering had a negative significant influence on economic growth in Kenya and accounting fraud had a negative influence on economic growth suggesting that accounting fraud had a negative significant influence on economic growth in Kenya. The study recommends the introduction of electronic systems for invoicing to reduce errors and also with the ability to detect any fraudulent activities. The government should adopt electronic systems with the ability of detecting and preventing money laundering. There is need to develop policies to curb against the practice of money laundering. The study further recommends the government auditors to conduct thorough audit on financial records of organizations to ensure they do not practice fraud.

Key Words: Accounting fraud, Economic Crimes, Economic Growth, Money laundering, Trade misinvoicing.

Introduction

Illicit financial flows (IFFs) are illegal movements of money or capital from one country to another. Global Financial Integrity (GFI) classifies this movement as an illicit flow when funds are illegally earned, transferred, and/or utilized across an international border (Global Financial Integrity, 2014). The rate at which huge sums of money are transferred out of developing countries illegally has become quite alarming. Consequently, cross-border illicit financial flows (Hereafter called IFFs) which serve to conceal illegal activities are no new phenomenon. With the growing globalization of financial markets, the economic and political significance of these illegal activities has grown (GFI, 2013a).

GFI estimates that the value of IFFs into and out of developing countries amounted to on average, over 20 percent of developing country trade with advanced economies over ten years between 2006 and 2015. Additionally, trade misinvoicing is the primary means for illicitly shifting funds between developing and advanced countries, finding that trade misinvoicing may account for upwards of 87 percent of measurable IFFs (GFI, 2013a).

For every dollar that flows illicitly across borders, approximately 20 percent could have been realized as tax revenues on imports or exports and related corporate income taxes. Collectively, for developing countries, this often represents hundreds of millions of dollars in lost or foregone tax revenues that could have otherwise been collected and used for supporting sustainable economic growth, creating jobs, reducing inequality, poverty, and addressing climate change, among other things. With billions of dollars estimated to be illicitly leaving developing countries every year, this drain of public resources undermines the efforts of countries to mobilize more domestic resources in order to meet the internationally-agreed Sustainable Development Goals (SDGs) by the target date of 2030 (GFI, 2013b).

Over 10percent average annual growth rate of IFFs from developing countries considerably surpassed economic growth in the countries concerned. There are regional differences when it comes to the scale and composition of IFFs. As pertains to GDP-weighted IFFs, there is also a clear *intra*regional variance. In the Republic of the Congo, for example, IFFs accounted for over 25 per cent of GDP, in Chad, some 20 per cent, and in Angola just under 10 per cent (UNDP, 2011). Further, revenue losses are widely distributed across jurisdictions, with the highest values in high-income countries but the most intense losses in relation to GDP and especially to tax revenues, in lower-income countries; and that worldwide revenue losses may lie between \$500 billion and \$650billion annually.

Common reasons for illicit inflows are tax evasion and for financing the illegal activities of international criminal networks engaged in human trafficking and smuggling of arms, drugs and valuable minerals. Both illicit outflows and inflows result in the same problem: taxes not being paid to governments. Approximately 45% of illicit flows end up in offshore financial centers and 55% in developed countries. Many countries and their institutions actively facilitate and reap enormous profits from the theft of massive amounts of money from developing countries. Developed countries have a responsibility alongside developing countries to curtail the flow of illicit money (GFI, 2013b).

The 2014 Global Financial Integrity (GFI) report entitled illicit financial flows from developing countries: 2003-2012, placed Indonesia in the seventh place of countries in the world with the highest illicit financial flows. The report estimated that total illicit financial flows in Indonesia for 2003-2012 reached \$187,844 million (IDR 1,690 trillion, average exchange rate IDR 9,000/US\$) or reaches \$18,784 million per year. Using the same method, PWYP Indonesia estimates illicit financial flows in Indonesia for 2014 reach IDR 227.7 trillion or equal to 11.7% of revised state budget (APBN-P) for 2014.

In a groundbreaking report, the Global Financial Integrity (GFI, 2010) recognized Nigeria as the leading source of illicit financial outflow from sub-Saharan Africa during the years 2000 to 2009. The report showed that developing countries lost USD 903 billion in illicit outflows in 2009. While this marks a significant decrease from the USD 1.55 trillion they lost in 2008, the global financial crisis accounts for the huge majority of the decrease, rather than improved governance or economic reforms. According to that report, developing countries lost between USD 723 billion and USD 844 billion per annum on average through illicit flows over the decade ending 2009.

Kenya continues to lose millions of dollars annually as officials, individuals, and corporations stash illegally acquired funds in highly secretive foreign banks abroad. This has resulted in over US\$10.6 billion accumulated illicit financial flows since 1970, making Kenya one of the worst, if not the worst offender among Africa's non-resource endowed countries. It is estimated that Kenya has been losing an average of KES 40 billion every year through illicit financial flows since 2011 as government, local firms and multinationals engage in fraudulent schemes to avoid tax payments. Data from the Global Financial Integrity (GFI) show that illicit financial flows from Kenya grew sharply by 255% over the period between 2000-2015. Moreover, the number of major corruption cases increased by 52% between 2005-2015 and is estimated to lead to 3% (or US \$910 million) loss of Gross Domestic Product (GDP) annually.

Statement of the Problem

Kenya GDP averaged 5.45 percent from 2004 until 2019, reaching an all-time high of 11.60 percent in the fourth quarter of 2010 and a record low of 0.20 percent in the fourth quarter of 2008. A report by central organization off trade union in Kenya (2018) observed that the government of Kenya has been losing over 1.88 billion annually through harmful tax incentives while companies in the Export Processing Zones (EPZ) continue to be exempted from corporate income tax for their first ten years of operations. This indicates how the Kenyan economy has been losing billions of shillings annually in illicit financial outflows, crucial resources which could be used to invest in struggling sectors such as healthcare, education, and infrastructure. The monies are mainly lost through tax evasion by individuals and companies, illegal profit expatriation by international companies, organized criminal syndicates and also corruption related activities in the public sector (Guguyu, 2015).

The actual volume of IFFs in Kenya is unknown, it is based on approximations. For instance, it is estimated that between 2002 and 2011 Kenya lost more than KES 160 billion in IFFs (Wafula, 2015). Trade mis-pricing, payments between parent companies and their subsidiaries, and profit-shifting mechanisms designed to hide revenues are some

of the common channels used by the generators of IFFs. IFFs are directed through misinvoicing of trade as exports and imports are booked at different values to avoid taxes or to hide large transfers of money (Amadala, 2017).

The period between 2011 and 2018 witness an increase in losses incurred by Kenya as a result of IFFs. In 2017 for example, Kenya lost KES 240 billion through IFFs as compared to KES 160 billion in 2011. This is part of the evidence showing that IFFs is a serious development constraint in Kenya at the time the country is struggling to meet its revenue targets. Kenya missed its revenue targets in 2018 by KES 54.8 billion and is likely to fall short by a wider margin in the financial year 2019. Real receipts for the period between July 1 and August 31, 2017 reached KES 251 billion, down from KES 291.8 billion recorded over a similar period in the preceding year (Reuters, 2017).

According to the National Treasury (2018), Kenya's tax revenue to GDP stands at approximately 19.2 percent. There have been cases of firms operating in the country reporting losses for several years on end whilst hiding their profits in administrative fees and asset transfers. Local companies have also been said to have joined the bandwagon using loopholes in the financial reporting laws and corrupt tax agents to circumvent the taxman. This denies Kenyans billions of shillings worth of services and developmental infrastructure. Empirical studies include; Ngwenya (2014) did a review on illicit financial flows and their developmental impacts. Ogonnaya and Ogechuckwu (2017) impact of illicit financial flow on economic growth and development: evidence from Nigeria. Nerea (2018) did a study on the impact of illicit financial flow on economic growth of Ethiopia. There is minimal literature on illicit financial flow on economic growth. Moreover, most of the studies were not conducted in Kenya. The current study sought to establish the impact of economic crimes on gross domestic product in Kenya.

Objectives

The overall objective of this study was to establish the effects of illicit financial flows on economic growth in Kenya.

The study was guided by the following objectives;

- i. To examine the effect of trade misinvoicing on economic growth in Kenya
- ii. To assess the effect of money laundering on economic growth in Kenya
- iii. To examine the effect of accounting fraud on economic growth in Kenya

Theoretical Review

The study was based on the Classical Growth Theory and The Neoclassical Theory of Illicit Financial Flows. This theory was initiated by Solow (1956). In formulating the theory, classical economists sought to provide an account of the broad forces that influenced economic growth and of the mechanisms underlying the growth process. The proponents of this theory postulate that the way income is distributed among classes in the society determines whether growth occurs or how growth proceeds. It also defines the saving behavior of classes in the society which is critical for growth. Therefore, growth flows from the distribution of income. High level of corruption distorts the allocation of public resources and leads to a more uneven distribution of income (Swan, 1985). Gupta, Davoodi, & Alonso-

Terme (2002) in a study on corruption, inequality and poverty observed that high levels of economic crimes produce a more unjust distribution of income under some conditions, but the method can be complex—operating through lower investments in education and lower per capita incomes.

The Neoclassical Theory of Illicit Financial Flows. This theory was developed by Solow and Swan (1956). The neoclassical theory views illicit financial flows (capital flight) to be a result of portfolio choice decisions by utility optimizing agents. From this free market-based premise, capital flight is seen as a response to changes in an individual's portfolio bundle, arising from the standard risk diversification motive of domestic investors or economic agents. Two other important incentives are included as explanations: Relative risk incentives and return differentials (Sheets 1996; Collier, Hoeffler & Pattillo, 2001).

Conceptual Framework

Figure 2.1 shows the connection between the dependent and independent variables. The study hypothesizes that the variables on the left hand side impact the variation of the dependent variable. Other than the indicators of economic crimes, the study embraces macroeconomic variables as control variables. These variables have been already documented by prior studies as critical in explaining variation in GDP. Therefore, to avoid underspecifying the model, the study takes account of these variables.

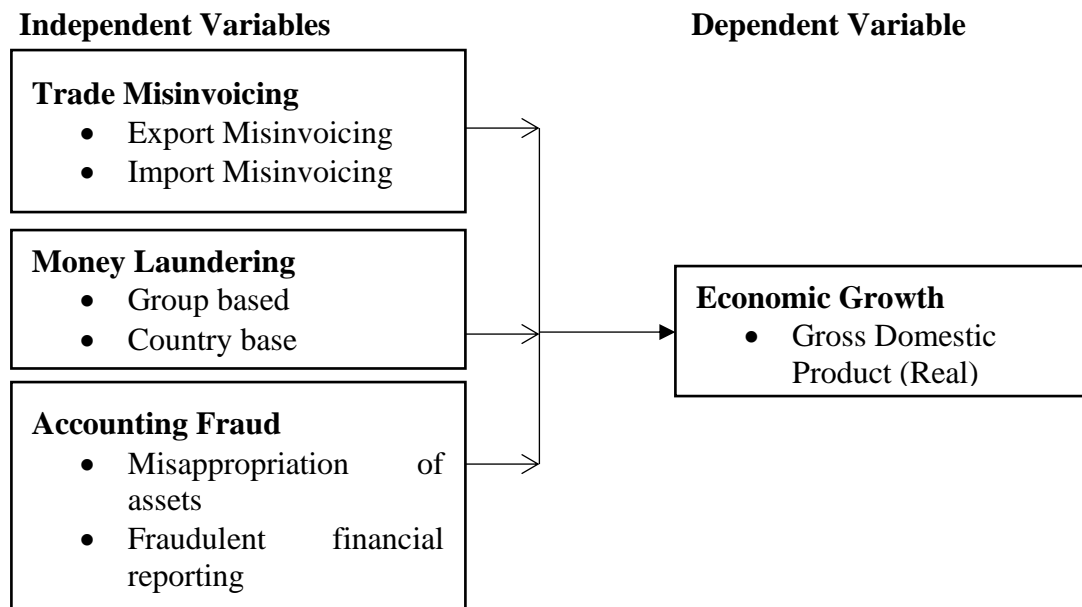


Figure 1: Conceptual Framework

Trade misinvoicing is a method for moving money illicitly across borders which involves the deliberate falsification of the value, volume, and/or type of commodity in an international commercial transaction of goods or services by at least one party to the transaction. By fraudulently manipulating the price, quantity, or quality of a good or

service on an invoice submitted to customs, criminals can easily and quickly shift substantial sums of money across international borders (Jha & Truong, 2014).

Money Laundering is the proceeds of an “unlawful activity”, unlawful activity can be any activity which is related, directly or indirectly to any crime or illegal activity. Launderers utilize arms transportation, smuggling, human trafficking, embezzlement, tax fraud, bribery, drug trafficking and prostitution for generating huge amount of funds. After the generation of illegal money, con artists requires concealing the sources, converting the form and transfer of money to different jurisdiction and regions where it is less likely to attract attention of the authorities (Klein, 2015).

Accounting fraud is intentional manipulation of financial statements to create a facade of a company's financial health. It involves an employee, account or the organization itself and is misleading to investors and shareholders. A company can falsify its financial statements by overstating its revenue or assets, not recording expenses and under-recording liabilities. Accounting fraud leads to inefficient pricing of debt and equity because it generates unrealistic expectations (Huang, 2012).

Research Methodology

The study adopted a descriptive and longitudinal research design. Descriptive research design was applied in obtaining information describing what is already in existence. It may employ quantitative and qualitative methods, so it is amenable to mixed-methods approach (Cooper & Schindler, 2013). Longitudinal design assists in tracking changes over a span of time and relating them to the variables in order to clarify the reasons why the changes occurred while addressing the study objectives (Creswell, 2014). Descriptive and longitudinal research design were appropriate in determining the effects of trade misinvoicing, money laundering and accounting fraud on economic growth in Kenya.

The study collected data for the period between 2013-2018. This is a period of 6 years. The study focused on this period because it provided the most recent information about illicit financial flows in Kenya. According to Reuters (2018) Kenya experienced a rise in IFFs between 2013 and 2018. In 2013, the total amount of recorded IFFs was Ksh 200 billion which increased to 255 billion in 2018. In 2018, the National Treasury Cabinet Secretary acknowledged that the government lost a significant amount of tax revenues through IFFs (Leite, 2012; Xinhua, 2018). This is because companies tend to over-invoice imports and under-invoice exports to reduce their tax liabilities.

The study collected secondary data on trade misinvoicing. The data on export misinvoicing was derived from Global Financial Integrity (GFI). The researcher collected data from online published information by GFI (<https://gfintegrity.org/issue/trade-misinvoicing>). The data on import misinvoicing was derived from Global Financial Integrity (GFI). The researcher collected data from online published information by GFI (at <https://gfintegrity.org/issue/trade-misinvoicing>). The panel data estimation technique was employed in the estimation of effects of misinvoicing on economic growth.

The study collected secondary data on money laundering. The data on group based money laundering was derived from Global Financial Integrity (GFI) and Kenya National Bureau of Statistics (KNBS) published reports. The researcher collected data from the published reports

available online ([https://gfintegrity.org/issue/money laundering](https://gfintegrity.org/issue/money_laundering); [www.knbs.or.ke/ money laundering](http://www.knbs.or.ke/money_laundering)). The data on country-based money laundering was derived from Global Financial Integrity (GFI) and Kenya National Bureau of Statistics (KNBS) published reports. The researcher collected data from the published reports available online ([https://gfintegrity.org/issue/money laundering](https://gfintegrity.org/issue/money_laundering); [www.knbs.or.ke/ money laundering](http://www.knbs.or.ke/money_laundering)). The panel data estimation technique was employed in the estimation of effects of money laundering on economic growth.

The study collected secondary data on accounting fraud. The data on misappropriation of assets was derived from Global Financial Integrity (GFI) and Kenya National Bureau of Statistics (KNBS) published reports. The researcher collected data from the published reports available online (<https://gfintegrity.org/issue/accountingfraud>; [www.knbs.or.ke/accounting fraud](http://www.knbs.or.ke/accounting_fraud)). The data on fraudulent financial reporting was derived from Global Financial Integrity (GFI) and Kenya National Bureau of Statistics (KNBS) published reports. The researcher collected data from the published reports available online. (https://gfintegrity.org/issue/accounting_fraud; [www.knbs.or.ke/accounting fraud](http://www.knbs.or.ke/accounting_fraud)). The panel data estimation technique was employed in the estimation of effects of accounting fraud on economic growth.

The study collected secondary data on gross domestic product. Data on GDP was obtained for the period between 2013-2018. The data on GDP was derived from Kenya National Bureau of Statistics (KNBS) published reports. The researcher collected data from the published reports available online (www.knbs.or.ke/gross-domestic-product-gdp).

The procedure of collecting data encompassed downloads of various variables' data from the respective databases. The relevant data objects were then picked and recorded in the excel template to obtain time series.

Data analysis was carried out using SPSS and STATA. Collected data was analyzed using descriptive statistics frequencies, mean, standard deviation and percentage. A correlational analysis was also conducted to determine the relationship between the independent and dependent variables. Presentation of the data was done by the use of tables to facilitate easy understanding. The study also carried out a regression analysis to determine the level of association of the study variables. The regression model was as follows;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \dots\dots\dots i$$

X_1 (EM IM)..... ii

X_2 (GB CB)iii

X_3 (MoA FFR).....iv

Where:

Y Gross domestic Product

β_0 is the regression constant, β_1 , β_2 , β_3 and β_4 are the coefficients of independent variables (trade misinvoicing, money laundering and accounting fraud)

X_1 Trade Misinvoicing, X_2 Money Laundering, X_3 Accounting Fraud

EM Export Misinvoicing, IM Import Misinvoicing, GB Group based, CB Country base

MoA Misappropriation of assets, FFR Fraudulent financial reporting

In the model, β_0 = is the constant term while the coefficients, ϵ is the error

Several tests that ensures the results of the multiple regression analysis are reliable were conducted. These ensured the results are unbiased, consistent and efficient. Tests are concerned about violation of the basic assumptions relating to normality, linearity, multicollinearity and heteroscedasticity.

Results and Findings

Descriptive Statistics

In this section, the study presented the research finding on the descriptive statistics in the data collected. The findings are as presented in Table 1.

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
TradeMisin~g	24	204155.2	14918.57	178892.1	239308.3
MoneyLaund~g	24	186000.9	43183.77	145897.3	273011.5
Accounting~d	24	43036.83	7866.375	31656.26	53124.74
EconomicGr~h	24	14.12917	.4522592	13.45	14.86

From the findings, the mean for trade misinvoicing over the six years under consideration (2013-2018) was 204155.2 with the minimum value recorded being 178892.1 and the maximum being 239308.3. The standard deviation value was also very large (14918.57) an indication that there was a great variation in the values of trade misinvoicing recorded each year, from 2013 to 2018. The great fluctuation observed can be attributed to changes in the economic environment.

The findings also show that money laundering between 2013 and 2018 had a mean value of 186000.9 with minimum value recorded being 145897.3 and the maximum value being 273011.5. This suggests that the level of money laundering is very high. The standard deviation value was also very large (43183.77) an indication that between 2013 and 2018, there was a high level of fluctuation in recorded money laundering. High levels of money laundering impairs the development of private and public sector through the supply of products priced below production cost, making it therefore difficult for legitimate activities to compete.

Regarding accounting fraud, the mean value over the six years was 43036.83 and the minimum value recorded over the same period being 31656.26 and the maximum value being 53124.74. These findings suggest that there were huge amounts of accounting fraud recorded between 2013 and 2018. Accounting fraud mainly occurs when a company falsifies its financial statements by overstating its revenue or assets, not recording expenses and under-recording liabilities. In the long run, it leads to inefficient pricing of debt and equity because it generates unrealistic expectations. This agrees with Okoye and Gbegi (2013) that fraud and related financial crime have significant effect on the economy while fraud and financial crime have no significant effect on inflation.

The findings further showed that the economic growth of Kenya between 2013 and 2018 was 14.12917 on average with the maximum growth rate being 14.86 and the minimum rate being 13.45. Between 2013 and 2018, the rate of economic growth was slow, but it did not fluctuate much as shown by low standard deviation value of .4522592. The findings above showed that there was high levels of trade misinvoicing, money laundering and accounting fraud recorded over the same period. This could explain the slow rate of economic growth.

Diagnostic Tests for Regression

Before computing regression analysis, the study tested the data collected to determine whether it met multiple regression assumptions. The study tested for Autocorrelation, Heteroscedasticity, Multicollinearity, and Normality Assumption.

Serial autocorrelation was tested using Breusch Godfrey test and the findings were as presented in Table 2.

Table 2: Breusch-Godfrey Langrage Multiplier Autocorrelation test

Breusch-Godfrey LM test for autocorrelation

lags (p)	chi2	df	Prob > chi2
1	10.014	1	0.0016

H0: no serial correlation

Durbin-Watson d test was used to check for autocorrelation where the value of d lies between 0 and 4. If the value is 2 then we conclude that no autocorrelation, when its 4 or close to 4 then there is negative autocorrelation if it's close to 1 and 0 then there is positive autocorrelation. From the findings, the p-value (0.0016), is less than the significance level (0.05), and hence we accept the null hypothesis that there is no serial correlation among the variables.

The study tested multicollinearity using Variance inflation factors (VIF) and the findings obtained were as presented in Table 3.

Table 3: Test for Multicollinearity

Variable	VIF	1/VIF
MoneyLaund~g	1.88	0.530585
Accounting~d	1.75	0.570017
TradeMisin~g	1.11	0.901153
Mean VIF	1.58	

If the value of VIF is more than 10, we can say that the model is suffering from multicollinearity. Tolerance level formula is calculated as 1 divided by VIF. Variance inflation factor (VIF) quantifies how much the variance is inflated. The findings indicate that the VIF values ranged between 1.11 and 1.88 indicating that the variance of the variables was inflated moderately. The analysis exhibits signs of multicollinearity though low levels. The results indicate that the overall VIF is 1.58 which is less than 10 implying that the study data did not exhibit multicollinearity problem as recommended by (Field, 2018). Thus, all the variables based on the VIF indicators have no severe multicollinearity problem.

The study used Shapiro- Wilsk test to establish normality of the error term. The findings of the test were as presented in Table 4.

Table 4: Normality Test

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
TradeMisin~g	28	0.96231	1.198	0.374	0.35438
MoneyLaund~g	28	0.93945	1.925	1.354	0.08792
Accounting~d	28	0.86833	4.185	2.96	0.05154
EconomicGr~h	28	0.93671	2.012	1.445	0.07421

The null-hypothesis of this test is that the population is normally distributed. Thus if the p-value is less than the chosen alpha level, then the null hypothesis is rejected and there is evidence that the data tested are not from a normally distributed population. In other words, the data are not normal. On the contrary, if the p-value is greater than the chosen alpha level, then the null hypothesis that the data came from a normally distributed is accepted. From the findings, the p values for each variable were as follows; trade misinvoicing (p-value=0.35438), money laundering (p-value=0.08792), accounting fraud (p-value=0.05154) and economic growth (p-value=0.07421). This shows that all variable were normally distributed and hence the data meets the regression analysis assumption of normality of data. The study tested for heteroscedasticity using Breusch-Pagan test and the findings were as presented in Table 5.

Table 5: Breusch-Pagan/Cook-Weisberg Test for Heteroscedasticity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of EconomicGrowth

chi2(1) = 0.44

Prob > chi2 = 0.5090

Heteroscedasticity (the violation of homoscedasticity) is present when the size of the error term differs across values of an independent variable. The impact of violating the assumption of homoscedasticity is a matter of degree, increasing as heteroscedasticity increases. If the test statistic has a p-value below selected threshold ($p < 0.05$) then the null hypothesis of homoskedasticity is rejected and heteroskedasticity assumed. From the finding it was revealed that the p-value of 0.5090 was greater than 0.05 implying that the study accepts the null hypothesis of homoscedasticity.

Inferential Statistics

The study computed Spearman correlation analysis to establish the strength and the direction of the relationship between the dependent and the independent variables.

Table 6: Correlation Analysis

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. pwcorr EconomicGrowth TradeMisinvoicing MoneyLaundering AccountingFraud, ob
> s sig star(5)
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	Econom~h	TradeM~g	MoneyL~g	Accoun~d
EconomicGr~h	1.0000			
	.24			
TradeMisin~g	-.4867*	1.0000		
	.0159			
	.24	.24		
MoneyLaund~g	-.7322*	0.3118	1.0000	
	0.0000	0.1381		
	.24	.24	.24	
Accounting~d	-.7093*	0.1735	0.6549*	1.0000
	0.0001	0.4175	0.0005	
	.24	.24	.24	.24

From the findings on correlation analysis, the study found there was a moderate negative and significant correlation between trade misinvoicing and economic growth as shown by correlation factor of -0.4867, $p=0.0159$. The relationship was considered significant since the p-value (0.0159) was less than the selected level of significance (0.05).

The study also found a strong negative and significant relationship between money laundering and economic growth as shown by correlation coefficient of -0.7322 and p-value of 0.0000. Since the p-value (0.000) was less than the selected level of significance (0.05) the relationship was considered significant. The relationship being negative suggests that money laundering causes a decline in economic growth. From the descriptive findings, there were high levels of money laundering recorded. In Kenya, there has been an increase in number of

Country based money laundering where repatriation of funds is allowed between countries with no questions asked.

The study further found a strong negative significant relationship between accounting fraud and economic growth as shown by correlation coefficient of -0.7093 and p-value of 0.0001. This means that accounting fraud causes a decline in growth of the economy. This supports the findings from descriptive statistics whereby it was observed that accounting fraud recorded was high and the rate of economic growth was low.

Table 7: Model Summary and Anova

Source	SS	df	MS	
Model	3.3396204	3	1.1132068	Number of obs = 24
Residual	1.36476293	20	.068238146	F(3, 20) = 16.31
Total	4.70438333	23	.204538406	Prob > F = 0.0000
				R-squared = 0.7099
				Adj R-squared = 0.6664
				Root MSE = .26122

From the model summary statistics, the study established the regression model had a significance level of 0.000 which is an indication that there was a significant relationship between the variables. The calculated F value, from table 4.7 (16.31) was greater than the F critical value, obtained from the f-distributions tables (3.098) an indication that there was a significant relationship between trade misinvoicing, money laundering and accounting fraud and the dependent variable economic growth in Kenya. The p value which was less than 0.05 suggest that the model is significant and that the variables trade misinvoicing, money laundering and accounting fraud can be used to predict economic growth in Kenya. As the GFI report (2015) and others, under-score, IFFs are a growing global problem impacting countries in the global south and north, and both poor and rich countries, but with disproportionate impact on developing and emerging economies.

From the findings, the value of adjusted R squared was 0.6664, an indication that 66.64% variation of economic growth in Kenya can be explained by changes trade misinvoicing, money laundering and accounting fraud at 95% confidence interval. According to African Economic Outlook (2012), the ratio of domestic investment to GDP in Africa would have increased from 19% to 30% if the capital stock leaving Africa remained available for investment within the Continent. This means that if illicit financial flows would be avoided, then economic growth would increase. The remaining 33.36% suggest that the variables included in the model did not explain variation in economic growth in Kenya conclusively; there are other factors that were not discussed in this study that can be used to explain changes in economic growth in Kenya other than trade misinvoicing, money laundering and accounting fraud.

The regression coefficients were used to fit the regression model and to answer the study's research questions. Assuming a linear relationship between the independent and the dependent variable and guided by OLS estimation methods, the relationship between the

independent and dependent variables as presented by the regression model was tested. The multiple regression model was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Table 8: Regression Co-efficient

Economic Growth	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Trade Misinvoicing	-0.0000911	0.385	-2.37	0.028	-0.0000171	-0.0001637
Money Laundering	-0.0000382	0.0747	-2.2	0.039	-0.0000243	-0.0000492
Accounting Fraud	-0.0000241	0.0386	-2.62	0.016	-0.0000603	-0.0000984
_cons	0.734	0.0463	22.75	0.000	3.883254	5.788269

From the data in Table 8 the established regression equation was;

$$Y = 0.734 - 0.0000911X_1 - 0.0000382X_2 - 0.0000241X_3 + \varepsilon$$

Where Y Gross domestic Product; X_1 Trade Misinvoicing; X_2 Money Laundering; and X_3 Accounting Fraud and ε is the error

From the above regression equation, it was revealed that holding trade misinvoicing, money laundering and accounting fraud to a constant zero, economic growth in Kenya would be at a constant value of 17.73409.

The findings further showed that trade misinvoicing had a significant influence on economic growth in Kenya (p -value=0.028<0.05). This is because the p -value (0.028) was less than the selected level of significance (0.05). The findings also show that the influence of trade misinvoicing was negative (β =-0.0000911). This suggests that trade misinvoicing had a negative significant influence on economic growth in Kenya. Therefore, a unit increase in trade misinvoicing will cause economic growth in Kenya to decrease by 0.0000911 units.

On money laundering, the study found that it had a significant influence on economic growth in Kenya (p -value=0.039<0.05). This is because the p -value (0.039) was less than the selected level of significance (0.05). The findings also show that money laundering had negative influence on economic growth in Kenya (β =-0.0000382). This suggests that money laundering had a negative significant influence on economic growth in Kenya. Therefore, a unit increase in money laundering will cause economic growth in Kenya to decrease by 0.0000382 units.

The findings further found that accounting fraud had a significant influence on economic growth in Kenya (p -value=0.000<0.05). The findings further showed that accounting fraud had a negative influence on economic growth in Kenya (β =-0.0000241). This suggests that accounting fraud had a negative significant influence on economic growth in Kenya. Therefore, a unit increase in accounting fraud will result to a decrease in economic growth in Kenya by 0.0000241 units.

Conclusions

The study established that trade misinvoicing had a significant influence on economic growth in Kenya. The findings also showed that the influence of trade misinvoicing was negative. This suggested that trade misinvoicing had a negative significant influence on economic growth in Kenya. Based on these study findings, the study concluded that a unit increase in trade misinvoicing will cause economic growth in Kenya to decrease.

Regarding the effect of money laundering on economic growth in Kenya the study found that money laundering had a significant influence on economic growth in Kenya. The study also established that money laundering had a negative significant influence on economic growth in Kenya. From these findings, the study concluded that a unit increase in money laundering will cause economic growth in Kenya to decrease.

Finally on accounting fraud, the study established that accounting fraud had a significant influence on economic growth in Kenya. The study also established that accounting fraud had a negative influence on economic growth suggesting that accounting fraud had a negative significant influence on economic growth in Kenya. From these findings, the study concluded that a unit increase in accounting fraud will result to a decrease in economic growth in Kenya.

Recommendations

Trade misinvoicing was seen to have a negative effect on economic growth. The study recommends the introduction of electronic systems for invoicing to reduce errors and also with the ability to detect any fraudulent activities. There is need for the government to develop strengthen policies to protect itself from such practices.

Money laundering was found to affect economic growth negatively. The study recommends the government to adopt electronic systems with the ability of detecting and preventing money laundering. There is need to develop policies to curb against the practice of money laundering. For those found practicing money laundering, there is need to have penalties and fines they can be charged.

Accounting Fraud negatively affected economic growth. The study recommends the government to develop policies to curb against this practice and discourage people from taking part in this practice. The study also recommends government auditors to conduct thorough audit on financial records of organizations to ensure they do not practice fraud. There is also need to develop punishment procedures for those who are found practicing accounting fraud to act as lesson for other who might be thinking of taking part in the same.

Suggestions for Further Studies

The study mainly focused on the effects of IFF on economic growth in Kenya, other studies should be conducted in other developing countries to facilitate comparison and

generalization of research findings. Other studies can be conducted in developed countries to facilitate comparison and to examine the strategies that have been used these countries to deal with the challenge of IFF. The study covered a period of six years; a study should be conducted over a longer period of time to provide more comprehensive results. A study should be conducted on strategies taken by the government to mitigate the issue of Illicit Financial Flows in the Country since the study found that it has significant effect of economic growth of the country.

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