

FACTORS AFFECTING DIASPORA REMITTANCES ON KENYA'S ECONOMIC PERFORMANCE**Nancy Kaura Mwongera**

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ABSTRACT

The objective of this study was to establish the factors that affect Diaspora remittances on economic performance in Kenya, case Dahabshiil International, Lonrho House, Nairobi. The study aimed to establishing the factors affecting Diaspora remittances on a country's economic performance focusing on determination of influence of ICT security systems on economic performance. This study adopted a descriptive research design. The study targeted employees of the Dahabshiil that is ICT systems security officials, cashiers, and computer systems officials. The employees constituted the target population. The population was classified into various strata, that is, departments from which a sample of forty three (43) was drawn using simple random sampling method. The study used both primary data and secondary data. Primary data was collected using questionnaires which were administered using drop and pick method. Secondary data was collected from periodical Central Bank of Kenya annual reports. Data was analysed using both descriptive and inferential statistics. Descriptive statistics included those of the mean and standard deviation while inferential statistics involved use of ANOVA and multivariate regression analysis. The regression output was obtained using Statistical Package for Social Sciences (SPSS version 18). The study found out that ICT security influence financial transactions, Internet Banking via the e-mail posed a great threat to banking and financial transactions due to theft, fraud, hacking of emails, existing consumer protection policies and

regulation on the use of ICT systems and level of customer perception and awareness of ICT security systems had the significant influence on diaspora remittance. ICT systems security significantly influenced economic performance ($r^2= 82.4\%$). In conclusion, the study concludes that the proposed framework of the study was able to demonstrate significant explanatory power and therefore Diaspora remittances on economic performance in Kenya, case Dahabshiil International could be forecasted ICT systems security.

Keywords: *Systems security; Customer Perception; Secure Financial Transactions; Consumer Protection Policies; Communication; Economic Performance*

Introduction

Migrant economic remittances to developing countries form an important and growing source of foreign funds, and have substantially increased over the past decade, both globally and in sub-Saharan Africa (Singh, 2010). The inflows have more than double the official aid received by developing countries (WB, 2010). The World Bank further states that if remittances sent through informal channels are included, total remittances could be as much as 50% higher than the official record. In 2010 for instance, officially recorded remittances to developing countries reached USD 334 billion. The remittances were projected to reach USD 414 billion in 2013, more than three times the size of official development assistance, and USD 540 billion by 2016 (WB, 2013). A number of African countries have been the largest recipients of remittances relative to their GDP, and for a number of these states remittances represent a major source of foreign exchange.

World Bank report (2012) indicates that the top recipients of diaspora remittances are India (\$71 billion), China (\$60 billion), the Philippines (\$26 billion), and Mexico (\$22 billion). Other large recipients included Nigeria, Egypt, Bangladesh, Pakistan, Vietnam and Ukraine. However, as a share of Domestic Gross Product (GDP), remittances were larger in smaller and lower income countries; top recipients relative to GDP were Tajikistan (48%), Kyrgyz Republic (31%), Nepal (25%), Lesotho (25%), and Moldova (24%).

Money transfer/remittance companies and bureaux de change have been used by economic migrants to perform high volume –low- value transfers back to their home country. Formal money remittances companies such as banks, forex bureaux, mobile phone banking system have aided economic growth and development by developing financial services at affordable rates to the Base of the Pyramid (BOP). However in all money transfer services whether through the banks, mobile phones or other forms could be susceptible to fraud where money at times may be used to fund terrorism and money laundering (Peter Finn, 2009). Additionally, evidence from around the globe suggested that recipient households generally had higher levels of consumer spending and lower incidences of extreme poverty than their counterparts who received no remittances. Ratha (2013) argues that remittances could play a key role as a powerful antipoverty force because they tend to increase the incomes of households in the developing world. Stratan (2013) found that remittances contributed to reducing the severity of poverty, where migrants' relatives directly received remittances.

A rise in the volume of cash remitted by Kenyans working or living outside the country attracted the attention of both local and international banks, mobile phone companies and cash transfer firms. The Central Bank of Kenya report, (April 2013) on Diaspora showed that remittances from Kenyans living abroad was up 36 per cent in the 9 months ended September 2012 compared to the same period previous year (2012). The inflows rose from Sh54.7 billion (\$643,772m) to Sh74.4 billion (\$876,306m) which was attributed to reduced remittance costs, better data collection methods and improved data collection techniques due to proper use of technology and infrastructure. Stratan et al. (2013) argued that even in the case of Moldova, where remittances varied from 14 per cent to 19.1 per cent of GDP between 2006 and 2011, the correlation between remittance incomes and gross national product was ambiguous. While Barajas et al. (2012) argued that the volume of remittances may vary depending on the economic downturns in sending countries, Giuliano and Ruiz-Arranz (2005) found that remittances impact positively on GDP growth when the financial markets were relatively underdeveloped. Chami and Fullenkamp (2013) indicated that the broader net economic impacts of remittances on national growth would strongly rely, on the one hand, on government policies to enhance their potentials and, on the other hand (and even more importantly), on how recipients use them. This study will fill in on this gap.

Information, Communication and Technological (ICT) Systems Security

Organizations should put in place measures to ensure security of information and data crucial in all information systems that protect practices, procedures and technology to safeguard data from modification or accidental change (integrity), unauthorized access (confidentiality), thus readily available to authorized users on request (Worku, 2010). Hughes (2007) argued that growth in access to mobile banking in developing markets created the possibility of delivering new financial services by leveraging secure, low-cost mobile networks and platforms. However, a number of banks that adopted internet banking had problem of updating their software and hardware regularly to ensure compatibility and increase knowledge of security systems that enabled reduction of security risks and serious flaws in the system of online banking operations thus allowed customers access account detail of other clients (Morgan, 2004). Safaricom, Airtel Kenya and Dahaabshiil (Munford, 2010), that provided the necessary platform for expansion into mobile banking, SMS banking and internet banking, have had negative aspects of being infiltrated by criminals and terrorists to siphon money from unsuspecting customers.

Economic Performance

Sharma (2010) described economic performance as factors that have an effect on the working of a business, both internal and external conditions such as political, government systems, policies, nature of an economy, trade cycles, technology, infrastructure, economic resources, level of income, wealth distribution, etc. Bad country politics, economic uncertainty, corruption, nature of the Constitution and risk factors such as high inflation rates, money laundering, high foreign exchange costs, fraud, security, high interest rates, etc., would generally tend to diminish interest of immigrants in the Diaspora to invest in home countries and also reduce the value of financial savings proposition for customers thus discouraging investment.

Statement of the Problem

Weaknesses in the information security policy compromise the security of the Computer, internet and mobile applications and the supporting information communication and technology assets, creating vulnerabilities in financial institutions, businesses and that potentially harm customers”(Worku, 2010). The study also found out that technological infrastructure weaknesses such as systems failure, processing errors, software defects, network and electricity outages, operating mistakes and inadequate recover capabilities; weak systems security that govern access to network elements and information assets by employees, agents or external people could greatly compromise the security of money transfers and diaspora remittances and posed challenges to smooth operations of money transfer services and significantly affect money transfers. (Munford, 2010) feels that although Dahabshiil has provided Somalis and other Kenyans with the necessary platform for expansion into mobile banking, SMS banking and internet banking, not much has been written about its reliability in a country like Somalia where militias such as Al Shabaab rule the country. Several studies have been carried out on the area of diaspora remittances that include (Kagochi and Chen, 2013) on “Are Remittances to Sub-Saharan Africa Altruistic or for Self-Interest”, Kiiru (2010) on Remittances and poverty in Kenya, etc. This has shown that limited attention has been paid to the diaspora remittances-Kenyan economic performance relationship model.

THEORETICAL REVIEW**Introduction**

Theoretical review refers to the in-depth examination of theory or theories that have accumulated in regard to an issue, concept, theory, or phenomena. The theoretical literature review helps establish what theories already exist, their relationship, to what degree the existing theories have been studied and to develop new hypotheses to be tested. Often, this form is used to help establish a lack of appropriate theories or reveal that current theories are inadequate for explaining new or emerging research problems. The unit of analysis can focus on a theoretical concept or a whole theory or framework (Fink 2005).

Cobit Approach

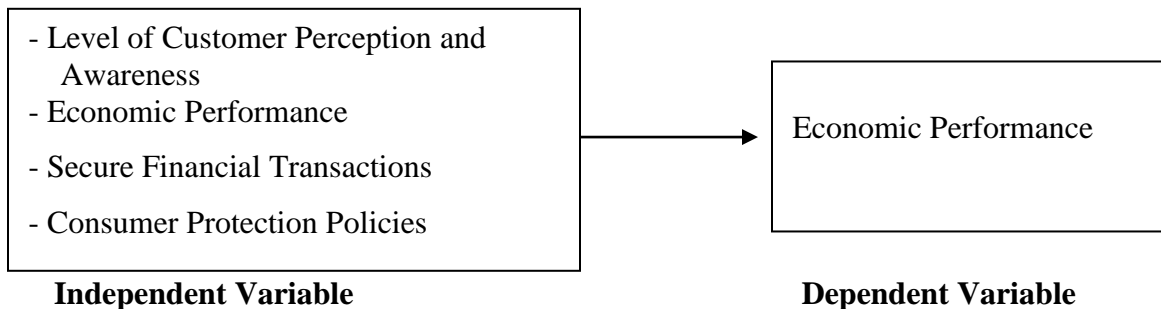
Control Objectives for Information and related Technology (COBIT) is another approach which has been developed by the Information Technology (IT) Governance Institute of Information Systems Audit and Control Association (ISACA). COBIT is a generally applicable and accepted standard for good Information Technology (IT), security and control practices that provide a reference framework for management, users, and IT audit, control and security practitioners (ISACA, 2005). COBIT defines control as “the policies, procedures, practices and organizational structures designed to provide reasonable assurance that business objectives would be achieved and that undesired events would be prevented or detected and corrected” (ISACA, 2005)

Conceptual Framework

Conceptual framework will therefore be used in analyzing the relationship between the independent variables such as cost of sending money, economic environment, technological infrastructure and security of financial transaction and transmission systems used by money transfer companies, bureau de change and commercial banks that have an effect on Diaspora remittances and economic performance as the dependent variable.

Figure 1: Conceptual Framework

ICT SYSTEMS SECURITY



EMPIRICAL REVIEW

An empirical review is the overview of information and theories that are currently available concerning the topic and the historical background of the topic by demonstrating thorough understanding of the field/topic in which the research study is being conducted. This is an indication that the problem being studied has not been done before or has not been done before in the way proposed by the writer.

Information, Communication and Technological Security

Security has been widely recognized as one of the obstacles to the adoption of electronic banking and has been considered a major challenge facing internet banking adoption (Feinman et al., 1999). The Security of Information and data crucial in all information systems, information security practices, procedures and technology should be given importance ensure that information is safeguarded from modification or accidental change (integrity), unauthorized access (confidentiality), and is readily available to authorized users on request (Worku, 2010). It is imperative for banks and money transfer companies to understand and address security concerns in order to leverage the potential of ICTs in delivering e-banking applications (Worku, 2010). The advances in Internet security and the advent of relevant protocols such as OFX, SET, etc. has put money transfer companies and banks in perspective as financial intermediaries and facilitators of complete commercial transactions via electronic networks and especially via the Internet Stamoulis, (2000).

Weaknesses in the information security policy that govern access to network elements and information assets by employees, agents or external people could greatly compromise the security of the mobile applications and the supporting information, communication and technology (ICT) assets. Banks that use Internet banking need to constantly update their software and hardware to ensure that compatibility issues and increased knowledge of security systems within and outside

the banking industry does not increase their security risks such as those risks associated with the loss of bank account or credit account numbers, passwords, consumers' personal information (Gerrard and Cunningham, 2003), resulting to loss of money.

RESEARCH METHODOLOGY

Research Design

Descriptive design was used to describe facts as they are in the field by administering questionnaires to the respondents for accurate information. Qualitative, multiple regression and analytical survey methods were also used to determine and report situations as they were on the ground in relation to factors that effected Diaspora remittances on Kenya's economic performance, with Dahabshiil International situated at Lonrho House, Standard Street, Nairobi as the case study, thus enabling the researcher to analyze the level of costs of money remittances, economic environment, technological infrastructure, ICT systems security, etc affects diaspora remittances and the role played by Dahabshiil International.

Target Population

Mugenda and Mugenda (2003) define population as an entire group of individuals, events or objects having common observable characteristics. According to Bryman and Bell, (2003) a population is a well-defined or set of people, service, elements, events, group of things or households that are being studied. Target population in statistics is the specific population about which information is desired. Questionnaires were distributed to sample group of Dahabshiil International located at Lonrho House, Standard Street, Nairobi consisting of 6 Mobile banking officials, 11 internet banking officials, 9 ICT systems security officials, 7 cashiers and 10 computer systems officials to give a fair reflection of the population having access to money remittance services.

Sample and Sampling Technique

The elements in the population were selected due to their international stature, variety of services offered, small size nature, convenient accessibility and proximity to the researcher. The research study method used was both purposeful and convenience sampling techniques and stratified method. Purposeful sampling techniques are non-probability sampling techniques where subjects are selected based on the researcher's judgment and were considered appropriate because the population of interest was homogenous. Stratification is the process of dividing members of the population into homogeneous subgroups that are mutually exclusive, before sampling, and ever. Every element in the population was assigned to a particular stratum before sampling.

The research study targeted a selected population using stratified method, of the Dahabshiil International, a Forex Bureau in Nairobi, as shown on Table 1 below. Dahabshiil International was chosen due to its international outlook, its ability to handle both big and small amounts of money remittances locally and internationally, its small sample size and close proximity to the researcher which made accessibility and mobility easy.

Table 1: Sample Size and Technique

Item	Number of employees in each category	Employee Sample Size
Mobile banking officials	8	6
Internet Banking Officers	15	11
ICT systems Security Officials	12	9
Cashiers	10	7
Computer systems Officials	15	10
Total	60	43

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Sampling Frame

To achieve the objectives of the study, both primary and secondary data was collected from the target population at Dahabshiil International, Nairobi. Questionnaires were administered to the target population who were given a period of two (2) weeks to respond to the questions. The secondary data was obtained from archived sources such as published material, journals, internet resources, while primary data was collected by use of questionnaires. Questionnaires will be analyzed using descriptive and multiple regression statistics.

Sampling Technique

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homogeneous subgroups that are mutually exclusive, before sampling, and ever. Every element in the population was assigned to a particular stratum before sampling.

Research Instrument

The study used a set of structured questionnaires which were self-designed to collect data from the sampled respondents. According to Mugenda and Mugenda (2009), questionnaires are the most appropriate tools for collecting primary data in survey studies due to the relatively large number of respondents who are also dispersed. The questionnaires were organized in such a way that they facilitated collection of data that were in tandem with the study objectives.

Data Collection Instruments

Data collection instruments are techniques used to collect data from the respondents. The researcher used both primary and secondary methods. Primary data was collected using questionnaires administered to the respondents. Secondary data sources include journals and internet searches and formed the source of data that were analyzed to enable the researcher make conclusions on the research study.

Data collection Procedure

The questionnaire was administered by the researcher. Primary data was obtained using self-administered questionnaires to collect data to answer related questions. Each questionnaire was coded with the researcher being the only one having knowledge as to which person responded. The “Drop and Pick” method was used to obtain feedback alongside personal and telephone calls especially where information clarification and guidance in filling of the questionnaires was necessary. Ethical considerations were given attention by exercising caution to ensure that respondents were treated with respect, through employment of professionalism by concealing the identity of the respondent, keeping data confidential and private and respect the views and beliefs of the respondents (Mugenda and Mugenda, 2008).

Pilot Test

Shuttleworth Martin (2010) defines a pilot study as a standard scientific tool that allows researchers to conduct a preliminary analysis before committing to a full blown research study or experiment. To ensure validity of the research instrument when collecting data, the researcher submitted questionnaires to the supervisor to check for validity and assess the relevance of the questions and content to the study. Reliability according to Mugenda and Mugenda (2003) is the degree to which a research instrument can yield consistent results after repeated trials. Reliability of the questionnaire was tested through a pilot study in which the questionnaire was pre-tested to a sample group similar to the actual sample. The Researcher engaged Top Gear money Transfer Company at Comm. Tanyilel Shopping Centre in Langata area for a pilot testing study. This was important in establishing any deficiencies in the questionnaire and rectifying them before the actual questionnaire was issued out. The Director of the company was fully briefed on the use of the questionnaires to avoid any misunderstanding. Once the questionnaires had been completed, they were handed over to the supervisor to assess and confirm that they conformed to the research study requirements

Validity of the Research Instrument

A valid instrument is said to measure what it purports to measure (Kimberlin & Winterstein, 2008). The research instrument was subjected to both content and construct validity tests. Content validity was determined through consultation with study supervisors who were deemed to be experts in both research and finance fields. On the other hand, construct validity was tested using Principal Axis Factoring (PAF) method where the validity threshold was Eigen value greater than 1.0. The factors under each study construct were ensured that they returned Eigen values greater than 1.

Data Processing and Analysis

Mugenda & Mugenda (2003) defines data processing as bringing order, structure and meaning of the mass of data collected. This section comprises of data analysis, presentation and interpretation of the findings. The data included response rate, background information of the respondents and presentation of findings against each individual. Respondents were required to indicate the number of customers who have been affected by the remittance costs, in view of the Dahabshill International, how availability, usage and effects of technological infrastructure development, ICT security system affected money remittances, the effects of economic environment on investment and employment opportunity in Kenya. Raw data collected from the field was sorted and summarized in tables and graphs. The process of data analysis involves several stages. Completed questionnaires were edited for completeness and consistency. The data was then coded and checked for any errors and omissions (Kaewsonth and Harding, 1992). The data was analyzed using procedures within the Statistical package for Social Sciences (SPSS), PC version 18. Questionnaires will be analysed using descriptive and multiple regression statistics.

Multiple Regression Statistical Model

Multiple regression is statistical models that have just one dependent and two or more independent (exploratory) variables. The variable whose value is to be predicted is known as the dependent variable and the ones whose known values are used for prediction are known independent (exploratory) variables. Multiple regression analysis to predict the value of Y for given values of $X_1, X_2 \dots X_k$.

In general, the multiple regression equation of Y on X_1, X_2, \dots, X_k is given by:

$$Y = b_0 + b_1 X_1 + b_2 X_2 + \dots + b_k X_k$$

Where: $y = a + bx$

y = Represents dependent variables (economic environment, Remittance costs, Technological Infrastructure and ICT Systems security)

X = Dependent Variable (economic performance)

a = the value of y when X is equal to zero, which is also called the intercept

b = the change in y for each increment in change in x

X^1 = X score on the first independent variable for which prediction of value of Y is based.

X^2 = an X score on second independent variable for which prediction of y value is based

Where: Y = A predicted value of y the dependent variable (economic performance)

a = the value of y when x (one of the independent variables (economic environment, remittances costs, technological infrastructure and ICT systems security) is equal to zero

b_1 = the change in y (economic performance) when there is an increment of x_1 independent variable (economic environment)

b_2 = The change in any additional independent variable (remittances costs, technological infrastructure, ICT Systems security).

RESEARCH FINDINGS AND DISCUSSIONS

Response Rate

A total of 43 questionnaires were distributed and 35 were received with responses, an equivalent of 81.4% response rate. According to Saunders et. al (2009), a 50% response rate is adequate, 60% much and above 70% rated very much, the response rate in this case of 81.4 % was very much that enabled the researcher make significant conclusions and was therefore considered adequate in providing sufficient information for analysis of meaningful conclusions of the study as presented in Table 2.

Table 2: Response Rate

Response	Frequency	Percentage
Returned questionnaires	35	81.4
Not returned questionnaires	8	18.6
Total	43	100.0

Reliability Test

A co-efficient of 0.70 or more implies that there is a high reliability of data (Saunders, Lewis & Thornhill, 2009) therefore the study accepted values more than 0.70 to be reliable. As shown in table 2, 35 items in the instrument in overall resulted in $\alpha = 0.781$ while the individual variables each had a coefficient more than 0.70 hence the questionnaire was very reliable.

Demographic Information

This chapter represents the results of the data collected from the field, taking into account the gender and age of respondents, length of service which was presented, analyzed and interpreted by the researcher to give a clear picture of the findings after the fieldwork research was carried out at Dahabshiil International in Nairobi.

Distribution of Respondents by Gender

This study sought to find out how the respondents were distributed on gender basis. This was thought to be an important indicator towards the diversity of the respondents. The findings were as shown in Table 3.

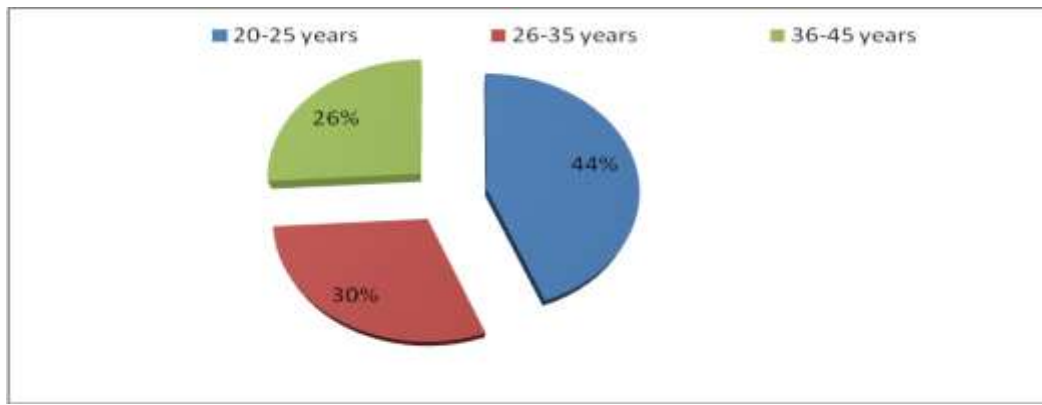
Table 3: Gender Distribution

	Frequency	Percentage
Male	14	40.0
Female	21	60.0
Total	35	100

As indicated in Table 3, the respondents were made up of 42.5% male and 57.5% female. In general there was significant difference of the respondents in terms of gender. This further shows that women formed the majority users of money transfer services as opposed to the men. The study showed that women were more willing to take risks in terms working in an economic environment that might be unfavourably, work in areas where technological infrastructure is not developed or not fully developed, operate in situations where there were challenges of ICT systems by taking risks even though this would mean loss of financial transactions and also were able or willing to withstand the costs of remittances challenges.

Distribution of Respondents on Age Bracket

The respondents were asked to indicate their ages. The results are shown in Figure 2 below

**Figure 2: Age Bracket Distribution**

The result in Figure 2 shows that the respondents' ages varied from 20 years to 45 years. Specifically 26% of the respondents were of age 36 to 45 years, 30% were of age 26 to 35 years and majority of 44% were of age 20-25 years. This shows that young people of age between 20 to 25 years were more likely to use money transfer services offered by companies and banks than the older people of between the ages of 36 to 45 years.

Period of Relationship with the Organization

The respondents were asked to indicate their number of years of relationship with the organization. The results are as shown in Table 4.

Table 4: Period of Relationship with the Organization

Experience Level	Frequency	Percentage
1-5 year	21	60.0
6-10 years	9	25.7

More than 10 years	5	14.3
Total	35	100

The findings indicated that majority (60.0%) of the respondents had done business with the organization for a period of 1 year to 5 years, followed by a period of 6-10 years at 25.7% and 14.3% for a period of more than 10 years respectively.

ICT Systems Security Risks

The respondents were asked to state the effects of ICT Systems Security Risks on diaspora remittance in Kenya. The findings are shown in Table 4.

Table 5: Rating of Variables relating to ICT Systems Security Risks

	mean	Std. Error	Std. Dev
What is the level of customer perception and awareness of ICT security systems	3.2143	.16588	.98134
To what extent does ICT security influence financial transactions	3.4286	.21018	1.24347
What is the effect of existing consumer protection policies and regulation on the use of ICT systems	3.2857	.17667	1.04520
To what extent does systems failure affect money transfers	3.8286	.15055	.89066
To what extent has the Forex bureau sector gone to update its ICT systems to curb ICT systems insecurity	2.2286	.17910	1.05957
How secure are online banking services in money transmission services	2.9143	.14991	.88688
To what extent have Forex bureau gone in marketing internet banking services	2.1714	.18555	1.09774
How structured are internet banking data services?	1.8286	.12626	.74698

The respondents' rating on ICT systems security risks was between a mean score of 3.8286 and 1.8286. More specific; systems failure affected money transfers (mean of 3.8286), ICT security influenced financial transactions (mean of 3.4286), existing consumer protection policies and regulation on the use of ICT systems (mean of 3.2857) and level of customer perception and awareness of ICT security systems (mean of 3.2143) had the significant influence on diaspora remittance. These findings conform to those of Ernst and Young (1999), which acknowledged that information security was a major concern for both businesses and consumers.

Regression and Correlation Analysis

This section covers statistical inference used to test on the influence of economic environment, remittances costs, technological infrastructure and ICT systems security on economic performance. Correlation analysis was used to check on the strength and magnitude of the relationship while regression analysis was used to express the relationship.

Descriptive Statistics

Table 4.10 shows that effects on diaspora remittances by economic environment had the highest mean of 3.2286, followed by Remittances costs (mean of 3.0571), Technological infrastructure

(mean of 3.0000) and ICT systems security (mean of 2.7429) respectively. This indicates that all independent variables are related to economic performance.

Table 6: Descriptive Statistics of the Variables

	Mean	Std. Deviation
Economic performance	2.2286	.80753
ICT systems security	2.7429	.91853

Multicollinearity Test

A Multicollinearity Test was conducted to carry out a research study on the influence of independent variables on each other. The test of MLR assumption found expected patterns for non-violation of the assumptions (coefficients <0.5) and this result supports the use of MLR as an appropriate statistical analysis for the study.

Table 7: Pearson Correlation

	Remittances costs	Economic environment	Technological infrastructure	ICT systems security
Remittances costs	1.000			
Technological infrastructure	-.196	.313	1.000	
ICT systems security	-.085	.134	.200	1.000

Goodness of Fit of the Model

Table 8 is the Model Summary table. This table provides the R , R^2 , adjusted R^2 , and the standard error of the estimate, which can be used to determine how well a regression model fits the data:

Table 8 Model Summary

Model	R			Std. Error of the Estimate	Change Statistics				
	R	R Square	Adjusted R Square		Square Change	F	df1	df2	Sig.
1	.908	.824	.809	.81317	.824	3.883	4	30	.004

a. Predictors: (Constant), ICT systems security, remittances costs, economic environment, technological infrastructure

The coefficient of determination of 0.824 indicates a strong level of prediction, that is, 81.4% of the variation in economic performance could be accounted for by the changes in ICT systems security, remittances costs, economic environment, technological infrastructure leaving 18.6% unexplained (error term).

Statistical Significance

The *F*-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data. The results of *F*-test; shows that $F(4, 30) = 3.883 > 2.84$, thus the independent variables statistically significantly predict the dependent variable. It therefore means that a four predictor model could be used in forecasting.

Table 9: ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.271	4	2.567	3.883	.004
	Residual	19.837	30	.661		
	Total	30.108	34			

a. Predictors: (Constant), ICT systems security,

b. Dependent Variable: economic performance

Estimated Model Coefficients

Based on the results in Table 4.14 the established model was;

Economic Performance = 0.333 - 0.583 Remittances Costs + 0.451 Economic Environment + 0.402 Technological infrastructure + 0.327 ICT Systems Security

Table 10: Coefficients

	Un-standardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
(Constant)	.333	.693			1.922	.064
Remittances costs	-.583	.236	.534		-2.470	.001
Economic environment	.451	.202	.396		2.233	.004
Technological infrastructure	.402	.152	.374		2.644	.005
ICT systems security	.327	.156	.312		2.096	.002

b. Dependent Variable: Economic Performance**Elasticity of the Model Parameters**

$\beta_4 = 0.327$; this shows that for every one unit decrease in ICT systems security, economic performance decrease by 0.327 units other factors held constant. The ICT systems security

independent variable was linearly related to the dependent variable which was economic performance ($P=.002<.05$).

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Summary of Findings

Majority of respondents were of the view that economic performance was affected by factors such as employment opportunities, investment opportunities, inflation and infrastructure development. At the same time prevailing political climate that include a country's Constitution, democratic election, inter-regional and international trading blocks and Gross Domestic Product (GDP) were factors that affected diaspora remittances that would enhance economic performance. Based on the responses, the study found out that key economic performances such as Gross Domestic Product had major effects with a mean rate of 3.9714 following by technological infrastructure development with mean of 3.7000; political climate with mean 3.5714.

ICT Systems Security

The study found out that weaknesses in information, communication and technological systems security that govern access to network elements and information assets by employees, agents or external people could greatly compromise the security of money transfers and diaspora remittances and significantly affect money transfers. ICT systems security influence financial transactions, Internet Banking via the e-mail posed a great threat to banking and financial transactions due to theft, fraud, hacking of emails, existing consumer protection policies and regulation on the use of ICT systems and level of customer perception and awareness of ICT security systems had the significant influence on diaspora remittance. A mean rate of 3.8286 indicated that majority of respondents were of the view that systems failure had the highest effect on money transfers and diaspora remittances, followed by security of financial transactions with mean rate of 3.4286, existing consumer protection policies and regulations mean rate of 3.2857 and level of customer perception on ICT systems security at 3.2143).

Forecasting Model

Regression and correlation analysis indicated that remittances costs, economic environment, technological infrastructure and ICT systems security strongly influenced economic performance ($r = 0.908$). 81.4% of the variation in economic performance could be accounted for by the changes in ICT systems security, remittances costs, economic environment, technological infrastructure leaving 18.6% unexplained (error term). It was also found that remittances costs, economic environment, Technological infrastructure and ICT systems security were individually linearly related to economic performance ($P\text{-value}<0.05$).

Conclusions

Following the research study that was carried out, the literature review and the results of data analysis from the questionnaires from respondents, conclusions arrived at indicated that Dahaabshiil International, in its efforts to aid in money transfer services from Kenyans and other nationalities in the diaspora experienced numerous challenges in ICT systems security that contributed negatively through hacking of computers and emails, information on security lacking

or not clearly understood by customers, ICT systems security laws that did not protect customers fully.

Recommendations

From the research study carried out, the study recommended that ICT systems security which include security of financial transfers, availability of customer protection polices challenges identified in the research study should be researched further to improve efficiency on services offered by money transfer companies and help increase the remittances from Kenyans in the Diaspora, thus create employment and investment opportunities for good economic performance. It was noted that there was need to interact more frequently and establish a dialogue with the government and the Central Bank of Kenya so that issues relating to regulations, policy and laws relating to money transfers and transactions be more enforced to protect both the companies, banks and customers. Banks and money transfer companies should also embark on a vigorous training of their staff and customers on the importance of systems security maintenance, how to address fraud and insider criminal activities relating to computer systems, customer protection and regular changing of accounts, email and mobile phones passwords. Money transfer companies and banks should be advised to invest heavily on systems upgrading to keep up with the rapid changing of technology that affects money transfers.

Suggestions for Further Study

The study also recommended that further research be carried out on the challenges that have been identified in the study such as how to overcome the challenges experienced by Kenyans abroad when remitting money to Kenya so as to improve on the amount remitted and also have an updated information that is at par with the rapid changes in technology, government regulations and also changes in the economic environment

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