

MONEY REMITTANCE FACTORS AFFECTING THE GROWTH OF FINANCIAL SECTOR IN THE KENYAN ECONOMY

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ABSTRACT

The general objective of this study was to determine the money remittance factors affecting the growth of financial sector in the Kenyan economy. The specific objectives of this study were: To establish the effect of CBK regulations of money remittance companies on the growth of financial sector in the Kenyan economy, determine the effect of the number of money remittance outlets on the growth of financial sector in the Kenyan economy, find out the effect of volume of transactions for licensed money remittance companies on the growth of financial sector in the Kenyan economy, determine the effect of money laundering on the growth of financial sector in the Kenyan economy and to determine the moderating effect of political stability on the relationship between money remittance factors and the growth of financial sector in the Kenyan economy. The pure Altruism, tempered altruism and the pure self-interest theory informed this study. This study adopted a descriptive research design. The population of this study consisted of all the 14 money remittance companies operating in Nairobi as at 31st June 2016. Both primary and secondary data was used; however, primary data sources was used as the main data collection repository. In order to obtain primary data, a set of semi structured questionnaires were administered to senior management of the money remittance companies. Secondary data were collected from the financial statements of remittance companies. Reliability testing and validity testing was undertaken to ascertain the soundness of the instruments. After tabulating and analyzing data

collected, analytical model was estimated to constitute the general analytical model equation as well as the analytical equation for the moderating variable. Various diagnostic tests on the data were conducted, these tests entail: normality Test, multicollinearity test, autocorrelation and homoscedasticity. Also, substantive tests such as regression and correlation analysis were conducted. SPSS software version 21 was used for the process of data analysis and report processing. The coded, tabulated and classified data was subjected to quantitative analysis. Quantitative data was presented in through statistical techniques such as pie charts, tables and bar charts while descriptive data was be presented descriptively. The study found a positive relationship between the CBK regulations and the growth of licensed remittance companies in Kenya and that CBK regulations significantly affected the growth of licensed remittance companies in Kenya. The study also found a positive relationship between the number of money remittance outlets and growth of the licensed money remittance companies in Kenya. The study further established that volume of transactions for licensed money remittance companies didn't affect the growth of licensed remittance companies in Kenya. The relationship between money laundering and growth of money remittance companies in Kenya was established to be negative. The research recommends that the Central bank of Kenya should maintain control over the standardized practices of these money remittance companies since is MRCs are likely to flourish best when the general legal framework in which it operates is sound,

predictable, non-discriminatory and proportionate. Money remittance companies were also recommended to establish anti-money laundering (AML) measures since the risk of detection has become greater for those seeking to use the global banking system to launder criminal proceeds. Further

research is suggested on the effect of number of money remittance outlets on the potential impact of emerging technologies on money remittances in Kenya.

Key Words: *money remittance, growth, financial sector, Kenyan economy*

INTRODUCTION

The World Bank estimates that remittances to developing countries were at \$436 billion in 2014, a 4.4 percent increase over the 2013 level (World Bank, 2015). Recent research shows that these remittances are as important as direct investment flows and have grown at a faster rate than the amount of official development assistance (Bouoiyour et al., 2015)). While remittances have gained increasing interest from both economists and policy makers, there is far less consensus about the factors which influence remittances in migrant-sending areas and countries.

Remittance inflows into Sub-Saharan Africa are not only from developed countries. It is estimated that about 20% of Sub-Saharan African migrants are within the region and also remit regularly (Barajas et al., 2010). As at end 2006, 33% of remittance inflows within Sub-Saharan Africa were from South Africa, 18% from Cote D'Ivoire, 11% from Uganda, 7% from Angola, 4% from Botswana and 27% from other sources in the region (Migration Policy Institute, 2006). It is not clear whether money remittance factors affect economic growth in Kenya and if they do, what the nature of such effect can be. This thesis argues from a standpoint view that money remittance factors do not affect the growth of the financial sector and that consecutive references unto these factors are an unnecessary waste of time and resources.

STATEMENT OF THE PROBLEM

Remittances are Kenya's largest source of foreign exchange, ahead of tea, horticulture and tourism. Remittances in Kenya averaged \$79,815,980 from 2004 until 2017, reaching an all time high of \$185503870 in October 2017 and a record low of \$25,154,000 in January 2004 (CBK, 2017). Overall, remittances in Kenya have been on the rise over the years. While money remittance remains a hot topic of discussion as above shown by the promising performance index of the sector, CBK regulations, the number of outlets in place, the volume of transactions and money laundering issues remain some of the factors that influence the performance of the sector and it is not well documented not adequately researched on the effect such factors have on the sector. The formulation of new rules on anti-Money Laundering and Financing of Terrorism standards by the CBK are in most cases seen as part of the regulator's effort to curb money laundering, require operators of cash remittance firms to register with CBK and pay a Sh5 million licensing fee in addition to maintaining a minimum core capital of Sh20 million (CBK

2014). Financial sector experts said the rules are targeted at Hawala, a system of money remittance that involves transfer of cash without any records of the parties involved in the transactions. Hawala, which is widely popular in the Middle East and parts of Asia, has been gaining popularity in Kenya, particularly as a money remittance system for residents of Eastleigh Estate in Nairobi who mostly receive money from friends and relatives mainly in Somalia and further across the globe (CBK, 2014). However, trading using thr hawala system still remains informal and this raises questions regarding the safety and intended nature of transactions which are conducted therein, some of which might have sinister motives such as money laundering and financing of terrorist activities. The informal nature of the system also translates to the lack of appropriate legislation which leaves the sector unregulated. Several studies have been done conducted so far. Ontunya (2006) conducted a survey of consumer adoption of mobile phone banking in Kenya; Otieno (2008) did a study on the challenges in the implementation of mobile banking Information systems in commercial banks in Kenya; Macharia (2009) studies the commercial banks perception of the influence of mobile telephones on growth of banking business in Kenya while Mutua (2009) did a study on mobile banking as a strategic response by Equity Bank Kenya limited to the challenge in the external environment. All this studies and many more have failed to unveil the effect of money remittance factors on the growth of licensed remittance companies in Kenya. It is against this background that this study seeks to determine the effect of money remittance factors on the growth of licensed remittance companies in Kenya.

GENERAL OBJECTIVE

To determine the effect of money remittance factors affecting the growth of financial sector in the Kenyan economy.

SPECIFIC OBJECTIVES

1. To establish the effect of CBK regulations of money remittance companies on the growth of financial sector in the Kenyan economy.
2. To determine the effect of the number of money remittance outlets on the growth of financial sector in the Kenyan economy.
3. To find out the effect of volume of transactions for licensed money remittance companies on the growth of financial sector in the Kenyan economy
4. To determine the effect of money laundering on the growth of financial sector in the Kenyan economy
5. To determine the moderating effect of political stability on the relationship between money remittance factors and the growth of financial sector in the Kenyan economy

RESEARCH HYPOTHESIS

H₀₁: CBK regulations of money remittance companies do not affect the growth of financial sector in the Kenyan economy

H₀₂: The number of money remittance outlets does not affect the growth of financial sector in the Kenyan economy

H₀₃: The volume of transactions for licensed money remittance companies does not affect the growth of financial sector in the Kenyan economy

H₀₄: Money laundering does not affect the growth of financial sector in the Kenyan economy

H₀₅: Political stability does not have a moderating effect on the relationship between money remittance factors and the growth of financial sector in the Kenyan economy

THEORETICAL FRAMEWORK

A number of studies on remittances and migration analyze the factors that influence the decision of persons abroad to transfer funds to their countries of origin which make up the recipient countries. Lucas and Stark (1985) and Stark (1991) therefore make an important effort to come up with a systematic theory of remittances for less developed countries. These theories are classified into pure Altruism, tempered altruism and pure self-interest or enlightened self-interest.

Pure Altruism Theory

The Pure Altruism theory highlights that migrants remit money back home in concern of the welfare of the remaining family members (Hagen-Zanker & Siegel, 2007). Chami et al. (2003) report that in this model, the migrant's utility is derived from that of his/her family back home. The migrant is rather satisfied when the welfare of his family back home is better off (OECD, 2006). This implies that the migrant is motivated to remit more funds to his family when there are unfavourable economic conditions holding in the home country. The theory observes that remittances are "compensatory transfers" since they increase when the migrant's home country is faced with economic disruptions such as droughts and a financial crisis (Chami et al., 2003). In order for the migrant to remit more funds, the economic disruptions or "bad luck", a term used by Chami et al. (2003), must be creating a shortfall for the remaining family. As a result, the compensatory nature of remittances under the Pure Altruism model implies that remittances are countercyclical, that is, they increase during times when there is deterioration in economic conditions in the business cycle (Vargas-Silva, 2008; Chami et al., 2003). Also commenting on behavioural patterns of remittances under a Pure Altruism model, Brown (2006) suggests that there is an inverse relationship between the volumes of remittances and economic conditions holding in the home country. Under this model, favourable economic conditions in the home country would imply a reduction in the volume of remittance inflows.

Pure Self Interest Theory

The Pure Self Interest theory is modelled around the argument that remittances are not always countercyclical. There are some instances or contexts where volumes of remittances reduce following poor economic conditions in the recipient country. In such a case, there is no inverse relationship between volumes of remittances and the economic performance of the home country (Brown, 2006). In fact, there might be a positive correlation between volumes of remittances and economic performance of the home country where bad economic conditions may result in low volumes of remittances. Such behavioural patterns have led to the formulation of the Pure Self Interest theory. Lucas and Stark (1985) claim that migrants' self-interest can be one other motive for remittances. In this context, migrants remit money in order for them to invest or inherit in assets back home and also for them to return home with dignity. When there is deterioration in economic performance of the home country; migrants are most likely to remit less since the situation will have a negative impact on both investible and inheritable assets. There is most likely to be an increase in the volumes of remittances if the home economy is undergoing a favourable spell.

Tempered Altruism Theory

In 1985, Stark and Lucas advanced a tempered altruistic theory of remittances as a result of the inability of the two theories above to sufficiently explain the nature of remittances. This theory states that remittances are part of an inter-temporal and mutually beneficial contractual plan that is established between the migrant and the household in the recipient country with the prospect of carrying out investments and taking some risks. The family in the recipient country educates the migrant worker and anticipates yields in the form of remittances as they consider the education as their investment (Stark & Lucas, 1985). This indicates that remittances for educated migrants are greater than those of in-laws or even spouses. It is noted that less developed countries' insurance markets and financial markets are not well established and proceeds particularly from agriculture are greatly declining. As a result, migration is seen as a sensible choice which makes it possible to expand and diversify the recipient family's wealth. The prevailing conditions of the economy in both the country of origin and the host country influence to some extent the flow of remittance money. When the home country is facing adverse conditions such as natural disasters, the migrant tends to remit relatively more. On the other hand when the migrant is in difficulties such as being unemployed the family at home makes some transfers to him or her. Therefore, remittances are viewed as a part of inter-temporal, mutually beneficial contractual arrangements between the migrant and the family at home country. The contractual arrangements could be co-insurance, loan repayment and exchange of services

RESEARCH METHODOLOGY

Research Design

Research design is a roadmap of how one goes about answering the research questions (Kothari, 2004). According to Kothari (2004), a good research design has a clearly defined purpose, and has consistency between the research questions and the proposed research method. Mugenda & Mugenda (2003) define this as simply the framework or blue print for the research, Orodho (2003) define the research design as a framework for the collection and analysis of data that is suited to the research question. Orodho (2003) defines research design as the scheme, outline or plan that is used to generate answers to the research problem. This study adopted a descriptive research design. According to Mugenda and Mugenda (2003), descriptive research is a process of collecting data in order to test hypotheses or to answer questions concerning the current status of the subjects in the study. A descriptive study determines and reports the way things are. The choice of the descriptive study design is based on the fact that the research will be interested on the state of affairs already existing in the field and no variable was manipulated. This study therefore generalized the findings to a larger population.

Population

Population refers to the entire group of people or things of interest that the researcher wishes to investigate, Sekaran (2010). Mugenda and Mugenda, (2003) defines population as an entire group of individual or objects having common observable characteristic. Population is a group of individuals, or objects, or items from which a sample is taken for measurements and they have at least one thing in common (Kombo & Tromp, 2006). The population of this study consisted of all the 18 money remittance companies operating in Kenya as at 30th June 2018 as shown in appendix III. The headquarter of all the money remittance companies is in Nairobi. The population consists of all the Money remittance companies licensed and governed by the CBK Act CAP (491) 2013. A census of the 18 money remittance companies was conducted. Five respondents were picked per company as the target population in order to reduce bias that would have been caused if one respondent was to be picked per remittance company. This made the total target respondents population 90 and which formed the assessable sample as a census study was conducted.

Data Collection Instruments

Both primary and secondary data was used; however, primary data sources was used as the main data collection repository. In order to obtain primary data, a set of questionnaires was administered to senior management of the money remittance companies. Primary data was collected by use of the questionnaires with both open ended and closed ended questions which was administered to the respondents in the selected institutions. The close-ended questions provide more structured responses to facilitate tangible recommendations. The open-ended questions provided additional information that might not have been captured in the close-ended

questions. The questionnaires were dropped to the selected institutions and collected after two days which was considered enough time for the respondents to fill them in with the help of the research assistants. The data collection commenced after training the research assistants, pre-testing the instruments, and obtaining an introduction letter from the university. The researcher supervised the assistants and hold feedback meetings to collect completed data and ensure the research process is on course. Data was stored appropriately after each day's collection to safeguard any loss or interference.

Data Collection Procedure

Sekaran (2010) defines data collection as a means by which information is obtained from the selected subjects of an investigation. A letter of introduction to NACOSTI was given to the researcher which was used to apply for the permit from the National Council for Science and Technology to enable the researcher to collect data from the field. Data collection involved the use of self-administered questionnaires. The questionnaires were pre-tested to establish their reliability and validity before conducting the study. The questionnaires were distributed by the researcher to all the different remittance companies in Nairobi County. Further the questionnaires were accompanied by a brief introduction of the study and purpose of the study for the respondents to understand their purpose. According to Mugenda and Mugenda (2003), breaching confidentiality, is a matter of concern to all respondents. In view of this, the study withheld the names of the respondents and their respective view with utmost confidentiality.

Data Analysis

This section presents the conceptual and analytical models that are used to analyze data. Operationalization of variables and their measurements is also presented together with the diagnostic tests conducted on the data. The section crowns it all by specifying the particular ways in which data was presented. The dependent variable for this model was expressed as a percentage change of the stock market performance to a function of percentage changes in tax incentives, liquidity incentives, growth incentives, visibility incentives and investors' perceptions. The following 5 conceptual models were therefore drawn regarding the various incentives the study seeks to investigate as follows:

$$G = f(\text{CBK. R}) \dots \dots \dots (1)$$

$$G = f(\text{NO.O}) \dots \dots \dots (2)$$

$$G = f(\text{V.T}) \dots \dots \dots (3)$$

$$G = f(\text{M.L}) \dots \dots \dots (4)$$

$$G = f(\text{CBK.R, NO.O, V.T, M.L}) \dots \dots \dots (5)$$

Where: G = Growth of money remittance companies in Kenya; CBK.R = CBK Regulation; NO.O = Number of remittance outlets; V.T = Volume of Transactions; M.L = Money Laundering

After tabulating and analyzing data collected, analytical model will be estimated. Percentage changes in dependent variable were multiplied by respective correlation coefficients and then summed up together with the error term and the constant term to arrive at percentage change in stock market investments. The analytical model that was used in the study as explained below:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where: Y = Percentage change in growth of remittance companies in Kenya; β_0 = Constant term; β = Correlation coefficients; X1= Percentage change in CBK regulations; X2= Percentage change in number of outlets; X3= Percentage change in volume of transactions; X4= Percentage change in money laundering; ε = Error term

RESEARCH RESULTS

The study found out that there was a positive relationship between the CBK regulations and the growth of licensed remittance companies in Kenya and that CBK regulations significantly affected the growth of licensed remittance companies in Kenya. The study also found that remittance industry, like any other, is likely to flourish best when the general legal framework in which it operates is sound, predictable, non-discriminatory and proportionate. It clear from the study that a key form of regulation is for anti-money laundering and related purposes and involves "know your customer" requirements and recording/reporting of individual transactions. Hence there is need for the regulatory agencies to maintain control over the standardized practices of these institutions, to create transparency between banking institutions and the individuals and corporations with whom they conduct business, among other things and to help to reduce the level of risk to which bank creditors are exposed.

The study found out that there is a positive relationship between number of money remittance outlets and growth of the licensed money remittance companies in Kenya. The number of money remittance outlets does not affect the growth of licensed remittance companies in Kenya. As the results found statistically insignificant positive linear relationship between number of outlets and growth of licensed money remittance companies in Kenya even thou majority of the respondents agreed that Money remittance potential for Financial Accessibility to finances is considered a key determinant to business success.

The volume of transactions for licensed money remittance companies does affects the growth of licensed remittance companies in Kenya. This due to the findings of the study that there is a statistically significant positive linear relationship between volume of Transactions and growth of licensed money remittance companies in Kenya. The study also found that the significant advantage of an open network arrangement is its global coverage: it is possible to make a

payment between banks almost anywhere in the world. The expected volume of cross border payments therefore has to be sufficient to justify the cost of achieving straight through processing.

The study further found that the relationship between money laundering and growth of money remittance companies in Kenya is negative. Even though the relationship is negative it had significant influence on the growth of money remittance companies in Kenya. On this finding, the majority of the respondents strongly agreed that: As financial institutions majority of the organizations have put anti-money laundering (AML) measures into place since the risk of detection has become greater for those seeking to use the global banking system to launder criminal proceeds. Most organizations representing legal professionals and some academics have sometimes criticized claims that legal professionals are unwittingly involved in money laundering.

The study also established that that political stability influenced the relationship between CBK regulations, number of outlets, volume of transactions, money laundering and growth of licensed money remittance companies in Kenya.

CONCLUSION

The study concludes that CBK regulations affects growth of Licensed money remittance companies in Kenya. Therefore when the CBK regulations are fully implemented by the MRC they will create transparency between banking institutions and the individuals and corporations with whom they conduct business, among other things. The regulations will also help to reduce the level of risk to which bank creditors are exposed. The remittance industry, like any other, is likely to flourish best when the general legal framework in which it operates is sound, predictable, non-discriminatory and proportionate.

Moreover, the study concludes that even though there is a positive relationship between number of money remittance outlets and growth of money remittance companies in Kenya, the relationship is insignificant.

The study also concludes that growth of money remittance companies in Kenya was significantly affected by volume of Transactions which was statistically significant. The significant advantage of an open network arrangement is its global coverage: it is possible to make a payment between banks almost anywhere in the world.

Finally, the study concludes that Money Laundering was found to significantly and negatively affect growth of money remittance companies in Kenya. Hence there is need for financial institutions to put anti-money laundering (AML) measures into place since the risk of detection has become greater for those seeking to use the global banking system to launder criminal proceeds.

RECOMMENDATIONS

The research recommends that the Central bank of Kenya should maintain control over the standardized practices of these money remittance companies since MRCs are likely to flourish best when the general legal framework in which it operates is sound, predictable, non-discriminatory and proportionate.

Based on the findings and conclusions of the study, the recommendations made were that there is a need for Money remittance companies to put anti-money laundering (AML) measures into place since the risk of detection has become greater for those seeking to use the global banking system to launder criminal proceeds.

REFERENCES

- Adams, R. H., and J. Page. (2003). "International Migration, Remittances, and Poverty in Developing Countries." Policy Research Working Paper 3179, World Bank, Washington, DC.
- Aghion, Philippe & Howitt, Peter (1992). "A Model of Growth through Creative Destruction", *Econometrica*, vol. 60(2), pages 323-51, March
- Aker, J. (2008). 'Does Digital Divide or Provide?' *The Impact of Cell Phones on Grain Markets in Niger; Center for Global Development & Economics Department*, Fletcher School of Law and Diplomacy, Tufts University: BREAD Working Paper No. 177.
- Aker, Jenny and Isaac Mbiti. (2010). "Mobile Phones and Economic Development in Africa" *Journal of Economic Perspectives*.
- Aker, Jenny C. (2010). "Information from Markets Near and Far: The Impact of Mobile Phones on Agricultural Markets in Niger." *American Economic Journal: Applied Economics*
- Al-Hamiz, S. (2005), "Hawala: a U.A.E perspective", *Regulatory Frameworks for Hawala and Other Remittance Systems*, International Monetary Fund, Washington, DC, available at: www.imf.org/external/pubs/nft/2005/Hawala/Hawala.pdf (accessed 16 June 2011).
- Ashraf, Nava. (2009). "Spousal Control and Intra-Household Decision Making: An Experimental Study in the Philippines." *American Economic Review* 99, no. 4, September 2009.
- Au, Y. & Kauffman, J. (2008). *The economics of mobile payments: Understanding stakeholder issues for an emerging financial technology application*. *Electronic Commerce Research and Applications*, (7), pp. 141–164.
- Australian Institute of Criminology (2010), *Risks of Money Laundering and the Financing of Terrorism Arising from Alternative Remittance Systems*, Australian Institute of Criminology, Canberra.
- Avery, Robert B, Gregory E. Elliehausen, Arthur B. Kennickell, and Paul A. Spindt. (1986). "The use of cash and transaction accounts by American Families," *Federal Reserve Bulletin* February, pp. 87-108.
- Ballard, R. (2006), "Hawala: criminal haven or vital financial network?", *Newsletter of the International Institute of Asian Studies*, University of Leiden, Leiden, pp. 8-9,

- October Issue, available at: www.casas.org.uk/papers/pdfpapers/iiasHawala.pdf (accessed 17 June 2011).
- Barrett, C. (2008). *Smallholder Market Participation: Concepts and Evidence from Eastern and Southern Africa*. Food Policy, 34, 299-317
- Barajas, A., Gapen, M.T., Chami, R., Montiel, P. & Fullenkamp, C. (2010). Do workers' remittances promote economic growth? IMF Working Paper WP/09/153. Washington, DC: International Monetary Fund. 22 pp
- Beck, Thorsten, Asli Demirgüç-Kunt, and Soledad Martinez Peria. (2007). "Reaching Out: Access to and Use of Banking Services across countries," *Journal of Financial Economics*,
- Berti, B. (2008), "The economics of counterterrorism: devising a normative regulatory framework for the Hawala system", *MIT International Review*, available at: [http://tufts.academia.edu/BenedettaBerti/Papers/838864/The Economics of Counterterrorism Devising a Normative Regulatory Framework for the Hawala System](http://tufts.academia.edu/BenedettaBerti/Papers/838864/The_Economics_of_Counterterrorism_Devising_a_Normative_Regulatory_Framework_for_the_Hawala_System)(accessed 2 July 2011).
- Biljon, J. & Kotzé, P. (2008). *Modelling the factors that influence mobile phone adoption*.
- Board of Governors of the Federal Reserve System (U.S.). "Banking and Monetary Statistics 1941-1970". Section 5. Table 55. September 1976, accessed at: <http://fraser.stlouisfed.org/publications/bms2/issue/60/download/106/section5.pdf>
- Bower, Joseph L. & Christensen, Clayton M. (1995). "Disruptive Technologies: Catching the Wave" *Harvard Business Review*, January–February 1995 Burgess, Robin and Rohini Pande. (2005). "Do Rural Banks Matter? Evidence from the Indian
- Central Bank of Kenya (CBK). (2010). *Bank Supervision Annual Report*. Prepared by the Central Bank of Kenya; Available on the Internet at: <http://www.centralbank.go.ke>
- Central Bank of Kenya (CBK). (2014). *Bank Supervision Annual Report*. Prepared by the Central Bank of Kenya; Available on the Internet at: <http://www.centralbank.go.ke>
- Central Bank of Kenya (2015). *Diaspora Remittances*. Retrieved from <https://www.centralbank.go.ke/index.php/rate-and-statistics/diaspora-remittances>
- Central Bank of Kenya (CBK). (2017). *Bank Supervision Annual Report*. Prepared by the Central Bank of Kenya; Available on the Internet at: <http://www.centralbank.go.ke>
- Chami, R., Fullenkamp, C. & Jahjah, S. (2003). Are Immigrant Remittances Flows a Source of Capital for Development? IMF Working Paper 3(189) (Washington: International Monetary Fund).
- Chêne, M. (2008), *Hawala Remittance System and Money Laundering*, available at: www.u4.no/helpdesk/helpdesk/query.cfm?id=170 (accessed 2 June 2011).
- Chimhowu, C., J. Piesse, and C. Pinder. (2003). "Assessing the Impact of Migrant Workers' Remittances on Poverty," presented at the EDIAS Conference on New Directions in Impact Assessment for Development Methods and Practice, November 24–25.
- Cletus, Agu, (2004) "Efficiency of Commerical Banking in the Gambia," *African Review of Money, Finance, and Banking*
- Coetzee, G. (1997). Institutional change in rural financial markets in South Africa. *Unpublished PhD Thesis: Pretoria: University of Pretoria*.
- Coetzee, G., Kamau, K. & Andrew N., (2003). *Taking Banking services to the people: Equity's Mobile Banking Unit*. Nairobi. Kenya.

- Collins, Daryl, Jonathan Morduch, Stuart Rutherford & Orlanda Ruthven, *Portfolios of the Poor: How the World's Poor Live on \$2 a Day*, Princeton, NJ: Princeton University Press, 2009.
- Consultative Group for Assisting the Poor (GAP), (2004). *Scaling up poverty reduction: case study for Microfinance*. World Bank Financial Sector Network, Washington, D.C
- Contini, D., Crowe, M., Merritt, C., Oliver, R. and Mott, S. (2011). *Mobile Payments in the United States*, Mapping Out the Road Ahead: in proceedings of the Mobile Payments Industry Workshop, Federal Reserve Banks.
- Development) Financial Sector Deepening (FSD) Kenya Project. <http://www.fsdkenya.org/finaccess/>.
- Duflo, Esther, Michael Kremer, and Jonathan Robinson (2010). "Nudging Farmers to Use Fertilizer: Theory and Experimental Evidence from Kenya" *American Economic Review*,
- Edwards, A., and M. Ureta. (2003). "International Migration, Remittances, and Schooling: Evidence from El Salvador." *Journal of Development Economics* 72 (2): 429–61.
- Eijkman, Frederik, Jake Kendall, and Ignacio Mas, "Bridges to Cash: the retail end of M-PESA" 2010.
- El Qorchi, M., Maimbo, S.M. and Wilson, J.F. (2003), *Informal Funds Transfer Systems: An Analysis of the Informal Hawala System*, International Monetary Fund and World Bank, Washington, DC.
- Engberg, Holger L. (1965). "Commercial Banking in East Africa, 1950-1963," *Journal of Modern*
- Fafchamps, M. & Gabre Madhin, E. (2006). Agricultural markets in Benin and Malawi. *African Journal of Agricultural and Resource Economics* 1(1): 67 – 94
- Fafchamps, M. & Hill, R. (2005). Selling at the farm gate or travelling to the market. *American Journal of Agricultural Economics* 87(3): 717-734
- Fafchamps, M. (2004). *Market institutions in sub-Saharan Africa*. Cambridge, M.A: MIT Press
- FATF (2014). *FATF IX Special Recommendations*, Financial Action Task Force, Paris.
- FATF (2001-2002), *Annual Report*, Financial Action Task Force, Paris, available at: www.fatf-gafi.org/dataoecd/13/1/34328160.pdf (accessed 3 July 2011).
- FATF (2003a), *Combating the Abuse of Alternative Remittance Systems – International Best Practice*, Financial Action Task Force, Paris.
- FATF (2003b), *Interpretative Note to Special Recommendation VI: Alternative Remittance*, Financial Action Task Force, Paris.
- FATF (2005), *Money Laundering and Terrorist Financing Typologies 2004-2005*, Financial Action Task Force, Paris.
- FATF (2008), *Mutual Evaluation Report: Anti-Money Laundering and Combating the Financing of Terrorism*, Middle East and North Africa Financial Action Task Force, FATF and IMF, Bahrain.
- FATF (2011a), *Money Laundering Risks Arising from Trafficking in Human Beings and Smuggling of Migrants*, FATF, Paris.
- FATF (2011b), *Mutual Evaluation of Afghanistan. Executive Summary. Anti-Money Laundering and Combating the Financing of Terrorism*, Asia/Pacific Group on Money Laundering, Sydney.

- Feige, Edgard L. (1987). "The theory and measurement of cash payments: a case study of the Netherlands" in R.D.H. Heijmans and N. Neudecker (eds.), *The Practice of Econometrics*:
- Financial Times, (2008 March). ICT to substantially reduce agricultural costs to farmers. Vol. 2, No. 40 March 2, 2008
- Haggblade, S., Hazell, P. & Reardon, T. (2007). *Transforming the Rural Nonfarm Economy: Opportunities and Threats in the Developing World*. Johns Hopkins University Press, 51p
- FinMark Trust. (2008) *Finscope in Africa*, 2008.
- FinScope Kenya. (2007). "Results of a National Survey on Access to Financial Services in Kenya." Prepared for DFID's (U.K. Department for International
- Forthcoming East African Standard Reporters "Why central bank position on mobile banking attracts wrath," 2/6/2009, East African Standard <http://www.standardmedia.co.ke/InsidePage.php?id=1144015709&cid=457&>
- Gikunju, Washington (2009) "Mobile money transfers edge out rival operators" *Business Daily*, September 14 2009. accessed at <http://www.businessdailyafrica.com>
- Goredema, C. (2011), "Combating illicit financial flows and related corruption in Africa: towards a more integrated and effective approach", *U4 Issue*, No. 12, October.
- Gugerty, Mary Kay (2007) You Can't Save Alone: *Commitment and Rotating Savings and Credit Associations in Kenya*," *Economic Development and Cultural Change*, vol. 55, pages 251-282
- Gupta, S., C. Pattillo, and S. Wagh (2007). "Impact of Remittances on Poverty and Financial Development in Sub-Saharan Africa." Working Paper 07/38, International Monetary Fund, Washington, DC.
- Hanieh, A. (2010), "Temporary migrant labour and the spatial structuring of class in the Gulf cooperation council", *Spectrum: Journal of Global Studies*, Vol. 1 No. 3. [Infotrieve]
- Hanson, G., and C. Woodruff. 2003. "Emigration and Educational attainment in Mexico." Working Paper, University of California.
- Hernández-Coss, R. (2005), "Comparing mature and nascent remittance corridors: US-Mexico and Canada-Vietnam", *Regulatory Frameworks for Hawala and Other Remittance Systems*, International Monetary Fund, Washington, DC.
- <http://siteresources.worldbank.org/FSLP/Resources/JohnOwensshortversionupdated.pdf>.
- Poulton, C., Kydd, J & Doward, A. (2006). *Overcoming market constraints on pro-poor Agricultural growth in sub-Saharan Africa*. *Development Policy Review* 24(3), 243-27
- http://www.brookings.edu/articles/2009/1016_mobile_phone_kimenyi.aspx
- <http://www.finscope.co.za/documents/2008/FSAfricaBrochure08.pdf>
- International Monetary Fund (2015), "Islamic Republic of Afghanistan: detailed assessment report on anti-money laundering and combating the financing of terrorism", IMF Country Report No. 11/317, International Monetary Fund, Washington, DC.
- Interpol (2000), *The Hawala Alternative Remittance System and its Role in Money Laundering*, Interpol, Lyon, available at: www.interpol.int/Public/FinancialCrime/MoneyLaundering/Hawala/default.asp (accessed 2 June 2011).

- Jack, William and Tavneet Suri (2010) "The Risk Sharing Benefits of Mobile Money" MIT Working paper
- Jack, William and Tavneet Suri (2011) "Mobile Money: The Economics of M-Pesa" NBER Working Paper 16721
- Jack, William, Caroline Pulver, and Tavneet Suri, "The Performance and Impact of M-Pesa: Jaffee, S. (2005). *Transaction costs, risk and the organization of private sector food commodity systems In:*
- Jaffee, S. and Morton, J. (Eds). *Marketing Africa's High Value Foods: Comparative Experiences of an Emergent Private Sector*, Dubuque, Iowa.
- Jenkins, B. (2008). "Developing Mobile Money Ecosystems." Washington, DC: IFC and the Harvard Kennedy School.
- Jensen, Robert T. (2007). "The Digital Divide: Information (Technology), Market Performance and Welfare in the South Indian Fisheries Sector," *Quarterly Journal of Economics*, 122(3), p. 879 – 924
- Johnston, B.R. (2005), "Work of the IMF in informal funds transfer systems", *Regulatory Frameworks for Hawala and Other Remittance Systems*, International Monetary Fund, Washington, DC.
- Kabbucho, K., C. Sander, and P. Mukwana. (2003). "Passing the Buck. Money Transfer Systems: The Practice and Potential for Products in Kenya." Study for MicroSave-Africa, Nairobi. http://www.dai.com/pdf/Passing_the_Buck.pdf.
- Kabbucho, Kamau, Cerstin Sander and Peter Mukwana "PASSING THE BUCK- Money Transfer Systems: The Practice and Potential for Products in Kenya" MicroSave Africa Report. Accessed at <http://microfinancegateway.org/content/article/detail/19594?PHPSESSID=332fab3a7849fc635883a38e113c62da>
- Kenya's Greene Bean Industry: A Paired Case Study of Small and Large Family Farms. Selected paper for American Agricultural Economics Association (AAEA) annual meeting, Providence, RI, July 24-27, 2005
- Kim, C., Mirsobit, M. & Lee, I. (2010). An empirical examination of factors influencing the intention to use mobile payment, *Computers in Human Behavior*, 26, pp. 310–322.
- Kimenyi, Mwangi S., and Njuguna S. Ndung'u, "Expanding the Financial Services Frontier: Lessons From Mobile Phone Banking in Kenya," Brookings Institution, October 16, 2009.
- Laurent, Robert D. (1970) "Currency Transfers by Denomination." Ph.D. dissertation, University Of. Chicago.
- Levi, M. and Gilmore, W. (2002), "Terrorist finance, money laundering and the rise and rise of mutual evaluation: a new paradigm for crime control?", *European Journal of Law Reform*, Vol. 4 No. 2, pp.337-64. [CrossRef] [Infotrieve]
- Lubambu, K.N.K (2014). The impact of remittances on developing countries. European Union.
- Lucas, R. E., & Stark, O. (1985). Motivations to Remit. Evidence from Botswana. *Journal of Political Economy* 93(5), 901-918.
- Maimbo, S.M. (2003), *The Money Exchange Dealers of Kabul: A Study of the Hawala System in Afghanistan*, World Bank, Washington, DC.

- Mara, I., Narazani, E., Saban, N., Stojilovska, A., Yusufi, I. & Zuber, S. (2012). Analysis of literature on the effects of remittances on education and health of family members left behind. Regional Research Promotional Programme, Western Balkans.
- Mas, I. & Kabir K. (2008). Banking on Mobiles: Why, How, for Whom? Consultative Group to Assist the Poor, Focus Note No. 48, Washington DC.
- Mas, Ignacio and Olga Morawczynski. (2009) "Designing Mobile Transfer Services: Lessons from M-Pesa" Innovations. (Forthcoming)
- Mas, Ignacio, and Amolo Ng'weno, "Three keys to M-Pesa's success: Branding, channel Management and pricing," mimeo, Bill and Melinda Gates Foundation, December 2009.
- McClenaghan, G. and Maayeh, S. (2008), *Hawala Money Transfers Defy Regulation Efforts*, available at: www.thenational.ae/news/uae-news/Hawala-money-transfers-defy-regulation-efforts (accessed 14 June 2011).
- McCusker, R. (2005), *Underground Banking: Legitimate Remittance Network or Money Laundering System?*, Australian Institute of Criminology, Canberra.
- Ministry of Finance of Kenya, "Ministry of Finance Audit Findings on M-Pesa Money Transfer Services" 26 January, 2009, accessed at <http://kenyapolitical.blogspot.com/2009/01/ministry-offinance-audit-findings-on-m.html>
- Morawczynski, Olga and Mark Pickens. (2009). "Poor People Using Mobile Financial Services: Observations on Customer Usage and Impact from M-PESA" CGAP Brief Online <http://www.cgap.org/gm/document->
- Morawczynski, Olga. (2009). "Exploring the usage and impact of "transformational" mobile financial services: the case of M-PESA in Kenya." *Journal of Eastern African Studies*. 3(3):509-525.
- Mutua, M. & Lineth, O. (2007 November). Poverty Reduction through Enhanced Rural Access to Financial Services in Kenya. Institute for Policy Analysis and Research (IPAR). Southern and Eastern Africa Policy Research Network (SEAPREN) Working Paper No. 6
- North, D. (1990). *Institutions, Institutional Change and Economic Performance* Cambridge. Cambridge University Press
- Okello, J., & Swinton, S. (2005). Compliance with International Food Safety Standards in
- Okello, J., Edith O., Oliver, M. & Ruth, O. (2010). Using ICT to integrate smallholder farmers into agricultural value chain: the case of DrumNet project in Kenya. *International Journal of ICT and Research Development*, 1:23-37
- Omamo, S. (1998). Farm-to-market transaction costs and specialization in small-scale agriculture: explorations with non-separable household model. *Journal of Development Studies* 35, 152-163
- Orozco, M. (2003). Worker Remittances: an international comparison." Working Paper commissioned by the Multilateral Investment Fund, Inter-American Development Bank, February 2003. <http://www.iadb.org/exr/prensa/images/RemittancesInternational.pdf>
- Owens, J. (2007). Leapfrogging access to finance with mobile phone technology: Philippine rural banks offering M-banking & M-commerce services. Presentation, IFC/CGAP conference 17-19 September 2007, Washington, D.C.,

- Passas, N. (1999), *Informal Value Transfer Systems and Criminal Organizations: A Study into So-Called Underground Banking Systems*, WODC, The Hague, available at: <http://english.wodc.nl/onderzoeksdatabse/informal-value-transfer-systems-and-criminal-organizations.aspx>(accessed 28 June 2011).
- Passas, N. (2003), *Informal Value Transfer Systems, Terrorism and Money Laundering*, Northeastern University, available at: www.ncjrs.gov/pdffiles1/nij/grants/208301.pdf (accessed 14 June 2011).
- Passas, N. (2006), "Fighting terror with error: the counter-productive regulation of informal value transfers", *Crime Law & Social Change*, Vol. 45 Nos 4/5. [ISI] [Infotrieve]
- Pathak, R. (2003), "The obstacles to regulating the Hawala: a cultural norm or a terrorist hotbed?", *Fordham International Law Journal*, Vol. 27 No. 6, pp. 2005-61, available at: <http://ir.lawnet.fordham.edu/ilj> (accessed 12 June 2011). [Infotrieve]
- Pickens, Mark, David Porteous, and Sarah Rotman. (2009). "Scenarios for Branchless Banking in 2020." Focus Note 57. Washington, D.C.: CGAP.
- Plyler, Megan, Sherri Hass and Geetha Nagarajan. (2010) "Community-Level Economic Effects of M-PESA in Kenya: Initial Findings" IRIS Center Report, University of Maryland.
- Preliminary Evidence from a Household Survey" Power Point presentation, 2009: http://technology.cgap.org/technologyblog/wpcontent/uploads/2009/10/fsd_june2009_caroline_pulver.pdf
- Ravallion, M., Chen, S. & Sangraula, P. (2007). New evidence on the urbanization of global poverty. Policy Research Working Paper No. 4199 (Washington, D.C.: World Bank).
- Reed, Q. and Fontana, A. (2011), "Corruption and illicit financial flows", *U4 Issue*, No. 2.
- Rees, D. (2010), *Money Laundering and Terrorism Financing Risks Posed by Alternative Remittance in Australia*, Australian Institute of Criminology Research and Public Policy Series, Australian Institute of Criminology, Canberra.
- Sander, C. (2003). Migrant Remittances to Developing Countries - A Scoping Study: Overview and Introduction to Issues for Pro-Poor Financial Services." Prepared for DFID UK,
- Schrieder, H. (2000). Estimation and inference in econometrics. New York: Oxford University Press.
- Shah, A.A. (2007), "The international regulation of informal value transfer systems", *Utrecht Law Review*, Vol. 3 No. 2, available at: www.utrechtlawreview.org/ (accessed 22 June 2011). [Infotrieve]
- Sharman, J.C. (2006), "The global anti-money laundering regime and developing countries: damned if they do, damned if they don't?", paper presented at the Annual Meeting of the International Studies Association, San Diego, CA, 22 March.
- Sharman, J.C. (2008), "Power and discourse in policy diffusion: anti-money laundering in developing states", *International Studies Quarterly*, Vol. 52 No. 3, pp. 635-56. [CrossRef], [ISI] [Infotrieve]
- Social Banking Experiment." *The American Economic Review*, 95(3): 780-795 Central Bank of Kenya. "Statistical Bulletin, June 2008", accessed at <http://www2.centralbank.go.ke/downloads/statistics/bulletin/Jun08.pdf>

- Stephen, K.W., Kiiza, B. & Bonabana, J. (2010). Impact of Migrant Workers' Remittances on East African Economies. Unpublished Masters of Science Dissertation, Kampala, Makerere University
- Stiglitz, J. & Weiss, A. (1981). Credit rationing in markets with imperfect information. *American Economic Review*, vol. 71, no. 3: 393–410
- Stiglitz, J. (2000). Markets, Market Failures and Development. In Eicher, C. & Staatz, J. (Eds.). *International Agricultural Development*. 3rd ed. Baltimore: John Hopkins University Press
- Studies on Demand, Forecasting, Money and Income *International Studies in Economics and Econometrics*, Vol. 15, Dordrecht, the Netherlands: Kluwer Academic Publishers.
- Svaldi, A. (2015). Western Union Suspends its Money transfer in Greece. *The Denver Post*. Published on 29th June, 2015.
- The Economist (2001), "*Homing in on networks of informal money transfers*", *The Economist*, available at: www.economist.com/node/877145 (accessed 27 June 2011).
- Truen, S., Jitsing, W., Kgaphola, K., Chisadza, S., Majoro, M. Foshizi, E., Jimson, L. (2016). The impact of remittances in Lesotho, Malawi and Zimbabwe. FinMark Trust Publishers
- U.S. Census Bureau, "Statistical Abstract, (1996), Section 16, Banking, Finance, and Insurance", accessed at <http://www.census.gov/prod/2/gen/96statab/finance.pdf>
- UAE (2005), *Yearbook*, United Arab Emirates, available at: www.uaeinteract.com/uaeint_misc/pdf_2005/index.asp (accessed 2 July 2011).
- United Nations Office on Drugs and Crime (2011), "*Estimating illicit financial flows resulting from drug trafficking and other transitional organized crimes*", Research Report, UNODC, Vienna.
- United Nations. (2005). Department of Economic and Social Affairs: World Urbanization Prospects: The 2005 Revision, Population Division, <http://esa.un.org/unpp>.
- United Nations. (2006). Department of Economic and Social Affairs: World Population Prospects: The 2006 Revision, Population Division, <http://esa.un.org/unpp>.
- US Department of Justice (1994), *Asian Money Movement Methods*, available at: www.ncjrs.gov/App/Publications/abstract.aspx?ID=151447 (accessed 18 June 2011).
- US Department of State (2011), *International Narcotics Control Strategy Report. Volume II. Money Laundering and Financial Crimes*, available at: www.state.gov/documents/organization/156589.pdf(accessed 4 July).
- Vaccani, M. (2010), "*Alternative remittance systems and terrorism financing – issues in risk management*", World Bank Working Paper No. 180, World Bank, Washington, DC.
- Vaughan, Pauline. (2007). "Early lessons from the deployment of M-PESA, Vodaphones's own mobile transactions service" In *The Transformational Potential of M-transactions*, Vodaphone Policy Paper Series, No.6. Online <http://www.vodaphone.com/m-transactions>
- Wilson, J.F. (2002), "*Hawala and other informal payments systems: an economic perspective*", paper prepared for Seminar on Current Developments in Monetary and Financial Law, available at: www.kabul-reconstructions.net/images/wilson.pdf (accessed 6 June 2011).

- World Bank (2006). *Uganda poverty and vulnerability assessment*. World Bank Report No. 392877. Poverty Reduction and Economic Management Unit. Africa. Washington, D.C.
- World Bank. (2010). *Reaching the Rural Poor: A Renewed Strategy for Rural Development*. Washington, D.C.
- World Bank. (2007). *Uganda: Moving Beyond Recovery – Investment & Behavior Change, For Growth. Country Economic Memorandum*. World Bank Report No. 39221-UG. Poverty Reduction and Economic Management Unit. Africa. September. Washington, D.C.
- World Bank (2012), “*Informal funds transfer systems: an analysis of the informal Hawala system*”, paper prepared by the Financial Sector Vice Presidency, World Bank, and the Monetary and Exchange Affairs Department, Middle Eastern Department, IMF, Washington, DC, 21 March.
- Wright, G. (2001). *Market Research and Client Responsive Product Development*. Micro SaveAfrica, Nairobi, 2001.
- Zeller, M. & M. Sharma. (2000). *Demand for and access to financial services by the rural poor: A multi-country synthesis*. In: Zeller, Manfred, and Manohar Sharma (Eds). *Innovations in rural micro-finance for the rural poor: Exchange of knowledge and implications for policy*. Feldafing, Germany: German Foundation for International Development (DSE).