

Association for Information Systems

## AIS Electronic Library (AISeL)

---

AMCIS 2022 Proceedings

SIG GlobDev - Global Development

---

Aug 10th, 12:00 AM

### THE EFFECTS OF TRUST AND REGULATIONS ON MOBILE MONEY FRAUD AND ITS INFLUENCE ON ECONOMIC DEVELOPMENT.

Awal Bukari

*SD DOMBO UNIVERSITY OF BUSINESS AND INTEGRATED DEVELOPMENT STUDIES,*  
awalbukari85@gmail.com

Ibrahim Osman Adam

*University for Development Studies, ioadam@uds.edu.gh*

Muftawu Dzang Alhassan

*SD Dombo University of Business and Integrated Development Studies, mdalhassan@ubids.edu.gh*

Follow this and additional works at: <https://aisel.aisnet.org/amcis2022>

---

#### Recommended Citation

Bukari, Awal; Adam, Ibrahim Osman; and Alhassan, Muftawu Dzang, "THE EFFECTS OF TRUST AND REGULATIONS ON MOBILE MONEY FRAUD AND ITS INFLUENCE ON ECONOMIC DEVELOPMENT." (2022). *AMCIS 2022 Proceedings*. 8.

[https://aisel.aisnet.org/amcis2022/sig\\_globdev/sig\\_globdev/8](https://aisel.aisnet.org/amcis2022/sig_globdev/sig_globdev/8)

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2022 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

# **The Effects of Trust and Regulations on Mobile Money Fraud and Its Impact on Economic Development.**

*Emergent Research Forum (ERF)*

**Awal Bukari**

SD Dombo University of Business and  
Integrated Development Studies, Wa,  
Ghana

[awalbukari85@gmail.com](mailto:awalbukari85@gmail.com)

**Muftawu Dzang Alhassan**

SD Dombo University of Business and  
Integrated Development Studies, Wa,  
Ghana

[mdalhassan@ubids.edu.gh](mailto:mdalhassan@ubids.edu.gh)

**Ibrahim Osman Adam**

University for Development Studies, Tamale, Ghana

[ioadam@uds.edu.gh](mailto:ioadam@uds.edu.gh)

## **Abstract**

In recent years, mobile money fraud cases have been on a surge. Fraud causes financial losses to money mobile users and as well as dents the image of mobile money service providers. Amid fraudulent activities, service providers need to implement mechanisms or regulations that will promote users' trust in mobile money services. This may translate into an economically developed society as individuals will increasingly rely on mobile money services for transactions. However, there is little literature on the nexus between mobile money regulations, trust, mobile money fraud and economic development. This study intends to investigate this nexus using survey data from mobile money users in Ghana. Data will be analyzed using Partial Least Squares – Structural Equation Modeling. The findings from the study are intended to highlight the essence of mobile money regulations and trust on economic development in Ghana.

## **Keywords**

Trust, Regulation, Mobile, Money, Fraud, Integrity, Benevolence, Competence.

## **Introduction**

The use of mobile money (MoMo) has been on the ascendancy in most developing countries over the previous years. At first, rising as a way of Peer to Peer (P2P) money conveyances, it has a strong platform for a scope of mobile-rendered fiscal services such as savings and microloans, and invoice payments (Agwu, 2020). For example, after its launch in Kenya in 2007, M-Pesa reached 16.6 million users, closely two-third of the mature population (Adaba et al., 2019). MoMo enables users to deposit, transfer, and withdraw cash using an electronic account without having a bank account (Alhassan, Kolog, & Boateng, 2020). The existence of MoMo services has bridged the gap in financial inclusion (Akomea-Frimpong, Andoh, Akomea-Frimpong, & Dwomoh-Okudzeto, 2019) in developing countries. Given that the use of MoMo services does not require Internet connectivity, individuals in rural communities can easily rely on these services to conveniently carry out financial transactions (Gichuki & Mulu-Mutuku, 2018).

However, with the increased convenience MoMo services offer users, there are major concerns connected with users' security on MoMo platforms (Abdul-Hamid et al., 2019). In recent years, individuals' use of MoMo services has been accompanied by several issues of fraudulent activities. Fraud is comprehended as lying intended for advantage, a dissimulation purposely skilled to procure unjust or illegal earnings (Ng & Kwok, 2017). Fraud in MoMo services is the fashioned and calculated action by actors in the mobile financial services ecosystem to derive a gain (either cash or electronic), refusing to grant other actors receipts and destructing the reputation of the other stakeholders (Gilman & Joyce, 2012).

This study, therefore, intends to investigate the nexus between MoMo regulation, trust, MoMo fraud and economic development. An analysis of these effects will highlight the need for MoMo service providers to emphasize regulatory policies that ensure the safety of MoMo services to promote increased use and economic development.

Given this, our paper is motivated by the following research questions.

*RQ1. What are the effects of regulations and trust on MoMo fraud?*

*RQ2. What are the effects of MoMo fraud on economic development?*

*RQ3. What are the mediating effects of MoMo fraud on the linkages between regulations, trust and economic development?*

The remainder of this paper is structured as follows. The next section discusses the proposed theoretical foundation of our research. The study's hypotheses are discussed in Section 3 and Section 4 details the study's proposed methodology. The expected contribution and conclusion are discussed in Sections 5 and 6 respectively.

## **Proposed Theoretical Foundation**

### ***Economic development***

Mobile technology has been touted as a new hope for economic development, especially in Africa.. The World Bank stated that in developing countries people cherish the use of the mobile phone even more than access to some basic needs such as clean water and electricity (Ahmad et al., 2020). The nature of mobile telephony and its portability as well as access to content it provides makes it easy for people to use.

There are some benefits associated with using mobile phones and these include the fact that mobile phones enhance access to information, reduce search costs, and improve communication with suppliers and customers within an organization. Moreover, the use of mobile phones has also led to the creation of jobs among the citizenry in developing countries. New businesses have been created as a result of mobile money. Businesses also gain from incremental trade and production, and these enhance competition among organizations or firms. With the penetration of mobile phones in Ghana, the government gains from high-level tax revenues due to greater economic activity in the country. Given all these benefits discussed above, these may lead to economic development.

### ***Disposition of Trust***

Information Systems and marketing literature increasingly claim that consumers' trust toward the service through the internet is best defined in terms of three related but conceptually defined dimensions (Komiak & Benbasat, 2006; McKnight et al., 2002; Pavlou & Dimoka, 2006). The first dimension of trust is the consumer's impression of the earnestness of the mobile money service. It is the extent to which a consumer believes he or she can count on the business firm to comply with a set of moral principles such as truthfulness, fairness and honesty (Flavián and Guinalú, 2006; McFall, 1987). Integrity overlaps conceptually with beliefs about ethicality and credibility (Koufaris and Hampton-Sosa, 2004; McKnight et al., 2002).

Secondly, benevolence reflects beliefs about characteristics of the trustee that exhibit a genuine concern and care for the partner, such as reactivity and goodwill (Ganesan and Hess, 1997; Koufaris and Hampton-Sosa, 2004). Higher levels of benevolence hint that the mobile money service is motivated to act in the consumer's best interest and will not take unwarrantable advantage, which implies selflessness and motives to seek joint gains (Doney, Cannon and Mullen, 1998; McKnight et al., 2002).

Eventually, the competence or ability dimension reflects the consumer's impression of the mobile money service knowledge and skills that are essential to meet anticipated performance levels (Flavián and Guinalú, 2006; Koufaris and Hampton-Sosa, 2004). The subscribers of mobile money services will only have trust, when they believe that, their services can meet the above three dimensions criteria.

## **Hypotheses Development**

### ***Trust in MoMo services and information regulation***

With the era of advancement in modern technologies, trust plays a progressively vital role in these times. Trust is a difficult concept and can be seen from various ways. For instance, trust can be between an individual or a group of people. When people trust that their online transactions as well as service quality, privacy and information about the service are regulated, and the binding agreement between the service providers and customers is favorable, there will be an increase in the number of persons conveniently utilizing the service. We, therefore, hypothesise that:

H<sub>1</sub>: Trust in MoMo services positively influences information regulations.

### ***Trust in MoMo services and MoMo fraud***

Trust is a multi-complex concept concerning the circumstance in which it occurs. Trust in MoMo services means that, a person or an individual is confident about the MoMo services rendered by service providers in terms of information, security and privacy protection on the usage of MoMo. In this context, customers will be aware of the social engineering techniques. User awareness of social engineering has a greater effect on MoMo fraud. For instance, urging users to restrain themselves by reporting any fraudulent activity by forwarding the sender's number to a short code as in the case of MTN in Ghana can boost people's trust. With all the above measures, hypothesise that:

H<sub>2</sub>: Trust in MoMo services negatively influences MoMo fraud.

### ***Regulations and MoMo fraud***

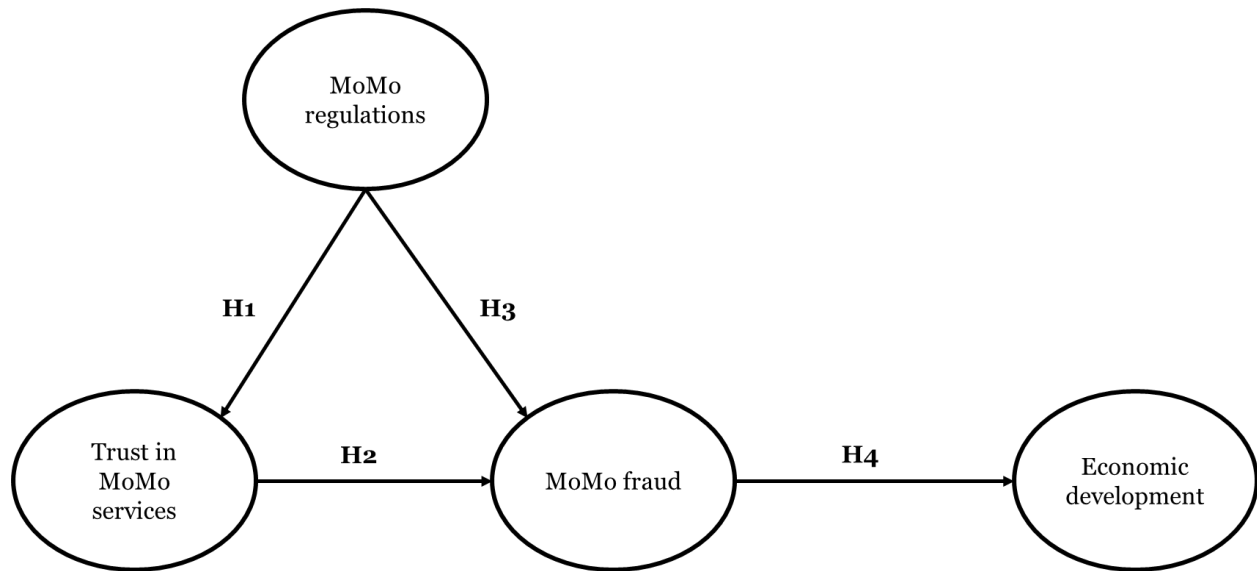
Regulations aim to develop a system to secure authentic future conduct and to also do away with failures (Gasparotto et al., 2018). Regulation supports customers or employees trust within an organization. Again, rules and procedures as well as sanctions, when applied well in any financial institution, will scare away perpetrators who engage themselves in fraudulent activities. In this context, both internal and external control should be enforced to ensure efficiency and effectiveness as well as operational excellence in any financial institution. We, therefore, hypothesise that:

H<sub>3</sub>: Regulations negatively influence MoMo fraud.

### ***Mobile money fraud and economic development***

The intensity of fraud cases nowadays in our financial institutions is so alarming. In this context, when the magnitude of fraud is high, transaction cost may also be increased to bring forth enough revenue to keep the business running. More so, if a financial institution loses money through fraud, it may be attempted to increase charges which in effect will be a burden on the general populace, thereby making it too expensive for the general population. Mobile money startups, for instance, who might have lost money through fraudulent activities, may be tempted to shut down their business there by putting the burden on the economy. We hypothesise that:

H<sub>4</sub>: Mobile money fraud negatively influences economic development.



**Figure 1. Proposed research model**

## Methodology

Our study will rely on survey data to validate the formulated hypotheses. Data will be analyzed by using the principles of partial least squares-structural equation modelling after the data has been gathered later.

This study will rely on a survey instrument that will be designed to collect data from mobile money users in Ghana. The survey instrument will be divided into two parts. Part 1 will collect demographic information from respondents, while Part 2 will include statements about the links between MoMo regulations, trust, MoMo fraud and economic development. Measurement items will either be adapted from previous studies or where necessary, new items will be developed. Likert scales will be used to assess the responses, as they have been demonstrated to help assess research statements (Churchill, 1979).

The survey instrument to be developed will be pre-tested and pilot tested before being distributed to a large sample, as shown by (Straub et al., 2004). The study will use a convenience sample technique to gather data from MoMo users. Given the dispersed nature of MoMo users in Ghana, using convenient sampling technique will enable the researcher (s) to easily recruit participants for the study. The survey administered will be administered online through the help of Google forms.

Partial Least Squares – Structural Equation Modeling (PLS-SEM) will be used to examine the data gathered. When estimating statistical models with structures that are meant to provide causal explanations, PLS-SEM is a causal-predictive model that stresses prediction (Hair, Risher, Sarstedt, & Ringle, 2019). Our reliance on PLS-SEM can be attributable to the fact that PLS-SEM is appropriate for studies with smaller sample size as well as studies that are concerned with theory testing (Hair, Ringle, & Sarstedt, 2011).

Following the data collection for the study, measurement and structural model evaluation will be performed following PLS-SEM (Hair et al., 2019). To establish the instrument's reliability and validity, the measurement model will be assessed. A structural model evaluation will be undertaken to determine the importance of path coefficients (Hair et al., 2019).

## Expected Results

Given the study's objective to examine the relationship between MoMo regulations, trust, MoMo fraud and economic development in Ghana, some key findings are expected. First, it is expected that the presence and effectiveness of MoMo regulations that safeguard the funds of MoMo users will enhance users' trust in the service. When users perceive MoMo services to be safe and secure, it enhances their trust in the service and thus, increases their continuance patronage of the service. The increasing number of users that rely on

MoMo services, the higher economic activities in that country. This is because users will be financially included to easily carry out transactions from their convenience and thus, propels economic development in countries as user quality of life will be enhanced. Also, it is expected that users' trust in MoMo services will reduce the occurrence of MoMo fraud. This is because, when users trust that policies developed and implemented by MoMo service providers will safeguard their funds and financial information, they will endeavor to abide by these policies. When users abide by MoMo policies implemented by service providers, it may reduce the occurrence of MoMo fraud.

## Conclusion and Expected Contribution

The objective of this study will be to examine the nexus between MoMo regulations, trust, MoMo fraud and economic development in Ghana. Using the dimensions of trust theory, survey data from MoMo users in Ghana will be empirically analyzed using PLS-SEM. This study intends to empirically answer three questions as stated in Section 1. The findings from this study will make key contributions to research, practice and policy. For research, this study will empirically provide evidence on the linkages between MoMo regulations, trust, MoMo fraud and economic development. Future studies may use this study as a foundation for investigating these linkages in other developed and developing countries to provide comprehensive results. In terms of practice and policy, the findings from this study will highlight the need for MoMo service providers to emphasize regulatory policies that ensure the safety of MoMo services to promote increased use, financial inclusion and economic development.

## REFERENCES

- Abdul-Hamid, I. K., Shaikh, A. A., Boateng, H., and Hinson, R. E. 2019. "Customers' perceived risk and trust in using mobile money services-an empirical study of Ghana". *International Journal of E-Business Research*, (15:1), 1–19. <https://doi.org/10.4018/IJEER.2019010101>
- Adaba, G. B., Ayoung, D. A., and Abbott, P. 2019. "Exploring the contribution of mobile money to well-being from a capability perspective". *Electronic Journal of Information Systems in Developing Countries*, (85:4). <https://doi.org/10.1002/isd2.12079>
- Agwu, M. E. 2020. "Can technology bridge the gap between rural development and financial inclusions?" *Technology Analysis and Strategic Management*, (2), 1–11. <https://doi.org/10.1080/09537325.2020.1795111>
- Akomea-Frimpong, I., Andoh, C., Akomea-Frimpong, A., and Dwomoh-Okudzeto, Y. 2019. "Control of fraud on mobile money services in Ghana: an exploratory study". *Journal of Money Laundering Control*, (22:2), 300–317. <https://doi.org/10.1108/JMLC-03-2018-0023>
- Alhassan, M. D., Kolog, E. A., and Boateng, R. 2020. "Effect of gratification on user attitude and continuance use of mobile payment services: a developing country context". *Journal of Systems and Information Technology*. <https://doi.org/10.1108/JSIT-01-2020-0010>
- Cheng, X., Guo, F., Chen, J., Li, K., Zhang, Y., & Gao, P. 2019. "Exploring the trust influencing mechanism of robo-advisor service: A mixed method approach". *Sustainability (Switzerland)*, (11:18). <https://doi.org/10.3390/su11184917>
- Churchill, G. A. 1979. "A Paradigm for Developing Better Measures of Marketing Constructs". *Journal of Marketing Research*, (16:1). <https://doi.org/10.2307/3150876>
- Gasparotto, L. S., Pacheco, N. A., Basso, K., Corte, V. F. D., Rabello, G. C., and Gallon, S. 2018. "The role of regulation and financial compensation on trust recovery". *Australasian Marketing Journal*, (26:1), pp. 10–16. <https://doi.org/10.1016/j.ausmj.2018.01.002>
- Gichuki, C. N., & Mulu-Mutuku, M. 2018. "Determinants of awareness and adoption of mobile money technologies: Evidence from women micro entrepreneurs in Kenya". *Women's Studies International Forum*, (67: December 2017), pp. 18–22. <https://doi.org/10.1016/j.wsif.2017.11.013>
- Gilman, L., and Joyce, M. 2012. "Managing the Risk of Fraud in Mobile Money". *The Microfinance Gateway*, pp. 1–10.
- Hair, J. F., Ringle, C. M., and Sarstedt, M. 2011. "PLS-SEM: Indeed a silver bullet". *Journal of Marketing Theory and Practice*, (19:2), pp. 139–151. <https://doi.org/10.2753/MTP1069-6679190202>
- Hair, J. F., Risher, J. J., Sarstedt, M., and Ringle, C. M. 2019. "When to use and how to report the results of PLS-SEM". *European Business Review*, (31: December). <https://doi.org/10.1108/EBR-11-2018-0203>

- Malaquias, R. F., and Hwang, Y. 2019. "Mobile banking use: A comparative study with Brazilian and U.S. participants". *International Journal of Information Management*, (44), pp. 132–140. <https://doi.org/10.1016/j.ijinfomgt.2018.10.004>
- Ng, A. W., and Kwok, B. K. B. 2017. "Emergence of Fintech and cybersecurity in a global financial centre: Strategic approach by a regulator". *Journal of Financial Regulation and Compliance*, (25:4), pp. 422–434. <https://doi.org/10.1108/JFRC-01-2017-0013>
- Verma, S., Chaurasia, S. S., and Bhattacharyya, S. S. 2020. "The effect of government regulations on continuance intention of in-store proximity mobile payment services". *International Journal of Bank Marketing*, (38:1), pp. 34–62. <https://doi.org/10.1108/IJBM-10-2018-0279>