Collaborative Regulatory Development in Sri Lankan Mobile Money Sector for Financial Inclusion.

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Abstract

Providing financial services for unbanked and underbanked has been challenging, mainly due to relatively high operational cost and the difficulty of reaching the targeted group of people. Mobile money has provided bank-like facilities, to the unbanked communities through its low cost of operation and widespread agent network. Regulatory response and support is essential for this advancement where it necessitates significant changes to the current regulatory practices. This task has been found to be difficult for regulators due to their limited technical knowledge in the field and resources. This paper posits the need for collaborative regulatory development which can provide solutions for multifaceted regulatory needs. It identifies how regulators and industry could work collaboratively to develop prudent regulation. Novel practical aspects, practiced among telecommunication firms and regulators, will be used for extending economic regulatory theories.

Keywords: Financial Technologies, Financial Inclusion, Mobile Money, Regulation, Collaboration

Introduction

Banks are reluctant to provide banking facilities to low income communities while the communities are as reluctant to approach formal financial services. Most banks find it economically unattractive to provide banking facilities to low-income communities, due to small value transactions and high transaction costs (Greenacre 2013; Mirmazaheri 2016) (Alexandre et al. 2011; Chatain et al. 2011). Due to these reasons, 2.5 billion of world adult population are deprived of formal financial services, which is defined as ‘financially excluded’ or ‘unbanked’ (Williams 2013).

Providing financial service to unbanked, also known as ‘financial inclusion’ have shown to benefit lower income communities (Arun and Kamath 2015). Studies shown that financial inclusion protects lower income segments against economic downturns (Bara 2013). An economic shock can become detrimental to the precarious financial position of poorer communities, making them much more difficult to alleviate from it. Additionally, financial services can assist them to save and borrow, enabling them to invest in value generation activities such as enterprises and smoothen their consumption (Ehrbeck and Tarazi 2011; Mirmazaheri 2016).
One technology stood out as a key tool for financial inclusion: mobile money (Bara 2013; Chatain et al. 2011; Ehrbeck and Tarazi 2011). Mobile money is a value storing instrument, provided by bank or nonbank entities (Buckley et al. 2015). This electronic form of money enables airtime transfers, small payments, local and international money transfers (Kirui et al. 2012). Mobile money has complemented banking services by allowing cash deposit and withdrawal through a network of third party retailers who acts as agents. For some communities, it has become the only form of non-traditional banking (Williams 2013).

The roles of policymakers and regulators are crucial to drive the change to use mobile money (Tagoe 2016). Study by Arun & Kamath (2015) asserts that outreach of finance, through mobile money can empower the disadvantaged groups. However, this requires responsive regulation framework (Alexandre 2011; Alexandre and Eisenhart 2012; Arun and Kamath 2015). An assessment of policy environment for financial inclusion by the Economist Intelligence Unit (EIU) on 55 countries reveals Peru and Kenya are the top ranking countries in the use of mobile money. In both countries, the key for mobile money growth was comprehensive electronic money regulation that ensures interoperability and level playing field, especially when there is a dominant player such as MPesa in Kenya (Arun and Kamath 2015).

Problem Statement

Even if mobile money regulatory becomes a decisive factor in deciding the role it plays in financial inclusion and development, rate of technological change and product innovation makes it difficult for regulators to provide adequate regulatory responses (Thaw 2013). This difficulties often lead to two outcomes. First, the regulations are too strict that they obstruct the services’ benefits to reach the unbanked community. Second the regulation may be too loose that the absence of proper controls may lead to cases of frauds and misuses. Unfortunately, many regulatory agencies lack the technical skills and resources (physical and human) to develop multi-faceted regulatory that balance the need of the users while protecting their wellbeing.

One way of overcoming the Central Bank’s deficiency in coming up with effective regulation on emerging financial technologies is through collaboration with the industry, i.e. technology firms (Thaw 2013; Thaw 2014). In regulating industries driven by novel and agile technologies, involvement of the industry proved to be resourceful. A study by Kobick (2010) argues how multiple sources of knowledge can be incorporated through negotiated rulemaking. Another study by Merritt (2011) states how the learning process of both regulators and stakeholders are supported through negotiated rulemaking. The current state of knowledge on collaborative regulation development, however, is lacking on on how to make this collaboration work.

Research Questions and Objectives

Central research question: How can a regulator such as a central bank work with technology/telecommunication firms to develop regulations for emerging financial technologies?

Sub questions

1. How do regulators and technology firms come together to collaborate on regulation development?
2. What are the activities during the collaboration process?
3. What are the outcomes of this collaborative process?

Main objective: To develop a model of collaboration between regulators and technology/telecommunication firms in regulating emerging financial technologies.

Sub Objectives

1. To identify the motivating factors for regulators and technology firms to collaborate in regulatory development.
2. To determine main activities of collaboration, between regulators and technology firms in regulatory development.
3. To determine the outcomes of the collaborative regulatory development.

Literature Review

Financial Services through Mobile Money.

Money transfers through mobile money is an inexpensive, safer, convenient and quicker alternative to the conventional money transfer services (Kirui et al. 2012; Mas and Morawczynski 2009). Due to compulsory transaction fees, charge for a small volume transfers can reach up to 35% via banks. This can discourage small volume transfers through the banking grid. Instead, transfers through mobile money is six times cheaper (Kirui et al. 2012). Secondly, mobile money is more secure with the existence of formal bodies, governing regulations, registered agents to trace every transaction. Finally, widespread agents network easily accessible to the rural community, make it both convenient and faster for both sender and recipient (Mas and Morawczynski 2009).

Several case studies discuss the capability of using mobile money to access conventional savings accounts. Commercial banks have partnered with telecommunication companies to introduce mobile based savings system (Njiraini and Anyanzwa 2008). Conventional bank accounts are accessed through the telecommunication agents network for transactions (Ehrbeck and Tarazi 2011; Varshney 2014). This fulfills the need of short term savings of the lower income segment (Jack and Suri 2011; Kirui et al. 2012; Mbiti and Weil 2011). Further mobile money serves as secured value storing instrument for contingencies in long distances travelling (Mas and Morawczynski 2009).

Previous study has proven the role of M-PESA in unbanked community where it reaches over 70% of households and over 50% of the poor, unbanked, and rural communities (Mas and Morawczynski 2009). Furthermore, survey by Jack and Suri (2010) revealed Kenyan households who have access to M-PESA who are close to an agent point are better able to maintain the level of consumption expenditures in the face of negative income shocks, compared to the households without the access to mobile money. Further financially included individuals can invest in education and launch businesses, where this contributes to poverty reduction and economic growth (Bruhn and Love 2014). Financial inclusion provides individuals with a safe place to save for the future and financial stability. On the other hand high level of bank deposits secures more stable deposit base for banks in difficult times (Fungáčová and Weil 2015)

Ensuring better control and security over the transactions, has been another advantage of mobile money which ensures secure and robust financial system (Alexandre and Eisenhart 2012). This is due to the virtual nature of mobile money, where time and place of payments are at customer’s discretion, which improves the control and reduces risk of robbery (Alexandre et al. 2011). Similarly, mobile money creates transaction traces for tracking transactions, ensuring higher security against fraud. Higher visibility of mobile money compared to physical cash, makes it difficult to handle discreetly for fraudulent and criminal activities (Alexandre 2011; Alexandre and Eisenhart 2012). As mobile money shifts a large portion of cash-based transactions to electronic-based transactions, it magnifies the sheer volume of financial movements that can be monitored (Alexandre and Eisenhart 2012).

Mobile money directly contributes to cashless transaction systems by replacing physical cash. It enables rapid conversion between cash and electronic money both ways through existing networks of third-party retailers or merchants (Varshney 2014) with reach beyond conventional financial services (Alexandre and Eisenhart 2012; Buckley et al. 2015). For cashless systems, the most difficult part to design and implement is to achieve wider reach with minimum operating and deployment costs. Currently annual cashless transaction count per head exceeds hundreds in developed countries while less than one in developing countries (Alexandre and Eisenhart 2012). Mobile financial services can effectively reduce this disparity of financial systems, in developing countries (Alexandre et al. 2011).
Studies on collaborative regulatory development.

Objective of the regulatory framework is to foster responsible development of an innovative technology while protecting protects consumers, businesses, and the financial system (Comizio 2017). Regulatory environment is a critical success factor for MFS providers where it present unique and varied challenges (Varshney, 2014). According to de Albuquerque et al., (2016), restrictive and complex rules and continuous emergence of technologies were stressed as major challenges in mobile money.

Restrictive regulation can arise from policies to ensure financial integrity. Financial integrity controls creating barriers to financial inclusion through mobile money is unavoidable (Winn and de Koker 2013). Specially, developing countries with fewer regulatory resources, face enormous challenges in integrating these ambiguous goals (Winn and de Koker 2013). Restrictive regulation in Zimbabwe has hindered mobile money usage when compared to its successful African counterparts (Bara 2013). In contrary, healthy regulatory balance between security and development goals have driven mobile money development in Kenya and Philippines (Vlcek 2011).

Secondly ,difficulty of keeping up with the rapid technological change is another regulatory challenge faced by many regulators (Bara 2013). Delay in adopting new innovations and lack of legal infrastructure impede research and innovation (Bara 2013). With the novelty and the rapid growth of mobile money systems, the parallel regulatory development has been caught somewhat off-balance (Robinson 2013). Most regulatory frameworks continue to consider mobile money as payment services, depriving the users of deposit insurance and earning interests (Ehrbeck and Tarazi 2011). A comparative study of emerging mobile money markets suggests that regulatory paradigm for mobile money is critical and yet to develop (Greenacre, 2013). Also regulatory issues surrounding MFSs received much less attention (Comizio 2017).

Collective efforts of government, industry and regulators are vital to understand the market dynamics and consumer demand (Buckley et al. 2015). Hence, cooperation between the regulator and the regulated becomes resourceful when regulated entities not only possess a comprehensive knowledge on regulation, but possess expert knowledge of potential threats, and possible defenses(Thaw 2013).

Consulting the industry in development of the regulations provide scope for technological innovations and new market conditions (Buckley et al. 2015; Porteous 2009). Meanwhile, assessing the potential impact of regulatory changes, become easier for regulator, by engaging industry stakeholders. It also help to maintain the agility to respond to the developments which are common in this sector (Bara 2013). These collaborations in regulatory developments can be in the form of consultations or participations.

Consulting approach has been analyzed in the domain of financial technologies. Mirmazaheri (2016), states collaborative environment fostering informal communication between institutions and regulatory agencies should be established. These discussion forums can include new product introduction, services, third-party contracts, or audit and compliance procedures. Regulators will be able to gather knowledge on new technological development and industry can benefit from the expertise of the regulator for compliance procedures. Further Mirmazaheri (2016) states this consultation forums make regulating agency knowledgeable about current developments, help to understand motivations behind developments, increase effectiveness and efficiency in responding to innovations.

On the other hand, expanding regulator’s role from supervisor or enforcer, to a participant in deciding compliance procedures, can build confidence in service providers. According to Grasmick (2016) this approach can better focus on overall product rather than narrow compliance procedures and reduce the compliance cost and business disruptions due to non-compliance. Industry players can highlight the compliance risks where regulators can decide the mechanism to mitigate them which will achieve better system stability through this approach(Mirmazaheri 2016)

In both these involvements, industry should focus both on the main regulatory aspects, growth and integrity. Financial regulators are required to plan with industry players to facilitate financial inclusion through policies standards and regulatory changes (Buckley et al. 2015; Chatain et al. 2011). This ensures the aspect of growth. Similarly for the aspect of integrity, collaborative development of
compliance plans and operational controls to overcome threats to the financial integrity is important (Thaw 2014)

**Theoretical Lens: Negotiated Rulemaking**

Negotiated rulemaking brings stakeholders to collaborate, working towards a consensus based rule, prioritize objectives and trade-off less important issues (Harter, 1982; Kobick, 2010). In a negotiation, stakeholders can rank their priorities for the rule in question, and engage in tradeoffs with other stakeholders and agencies through interacting with them directly (Langbein and Kerwin 2000). Though not appropriate for all the rulemaking instances (Kobick 2010; Lubbers 2007), highly complex, politicized rules—where such rules will dissatisfy stakeholders when developed unilaterally using conventional procedures, will benefit from negotiated rulemaking (Harter 1982; McKinney 1999).

Negotiated rulemaking has been effectively used for learning and information sharing, where multiple sources of knowledge on regulatory is involved (McKinney 1999). A comparative study on conventional and negotiated rule making revealed 62 percent of the negotiated participants have gained knowledge over the 17 percent of the conventional process (Langbein and Kerwin 2000). A study by Merritt (2011) recognizes the knowledge sharing practices among the groups engaged in the negotiation process. In regulating dynamic techno based industries, knowledge on multiple perspectives can provide better options for the regulator and improve learning of both the regulators and the stakeholders (Derco and Hochman 2016). Further according to Merritt (2011), regulatory decision making capacity of the participants of a regulatory development process, also improves through regulatory negotiation.

Process perspective of negotiated rulemaking has been identified by (Susskind and McMahon 1985) where he describes it as a three stage process. In the first, pre-negotiation stage, the regulator decides whether the rule is to be negotiated. Then relevant stakeholders are to be selected and ground-rules for guiding proceedings are set. Also the resources needed for the negotiation such as funding, or knowledge for regulatory development is provided (Susskind and McMahon 1985). Secondly, In the negotiation stage, participants decide on, structure, work programme with deadlines. Subcommittees are appointed to develop preliminary draft proposals. These committees will confront their major difference of interest to summarize the agreements reached. During the final, post-negotiation stage, reviews and comments are accepted and analyzed for reviewing the final draft proposal. This might reconvene the participants to review the comments and discuss the decisions on final rule (McKinney 1999).

![Negotiated Rulemaking-Process Perspective](image)

**Figure 1. Negotiated Rulemaking-Process Perspective**

**Research Methodology**

The research intends to use qualitative research design. Qualitative research can address multiple and complex views (Mertens,1998; Creswell, 2007; Flick 2008). In simpler terms, qualitative inquiry identifies many factors involved in a particular situation, reporting multiple perspectives (Marshall and Rossman, 2006). Also, complex interactions between these factors are identified to capture the complete picture of the situation under study.
Secondly, in qualitative research, researcher derives meanings from the participants understanding of the situation. Often, these meanings are formed through interactions with others, rather than individual views, leading the researcher to look for complexity of views (Creswell, 2007). Mobile money regulation has several perspectives such as financial integrity, inclusion, consumer protection and product innovation. Regulatory development involves a process of interaction among, individuals and complex views where exploratory approach through qualitative design is most suitable (Mertens, 2010 as cited in Creswell 2013).

Case study research is proposed, since it develops in-depth understanding of a phenomenon under study through interpretive perspective (Walsham,1995 as cited in Tsang, 2014; Creswell, 2018). Similarly, case studies are used to accomplish various tasks such as to provide description (Kidder, 1982), generate (Gersick, 1988; Harris & Sutton, 1986) or test theory (Pinfield, 1986; Anderson, 1983). Hence case studies will be most suitable for providing descriptions for unique real-life systems (Kidder, 1982) such as the regulatory development process with involvement of the tech firms. Also considering derivation of theories out of the novel practices and necessity of a complete comprehensive solution, case study is selected as most suitable approach (Weick, 2007; Siggelkow, 2007; Tsang, 2014).

Considering the comprehensive method of conducting case based research while securing the flexibility, Structured–Pragmatic–Situational (SPS) approach is followed in all stages of data collection and analysis (Pan and Tan 2011). First, SPS approach provides systematic eight actionable steps that are easily applied to the context. Secondly, the logical nature of the techniques enable handling practical complex issue. Finally, adaptability and flexibility features allows researchers to detect and react to the exceptions using framework (Pan and Tan 2011; Tim et al. 2017).

**Proposed Data Collection Method**

Theoretical sampling will be used to select a theoretically useful case where the regulatory development has visibly taken place between service providers and regulators. Secondly purposive sampling will be deployed to select more revelatory and interesting individuals and entities within each case, that can contribute in given theoretical aspects (Pan and Tan 2011).

Data collection process is planned in two phases. As per the SPS approach, in the first phase, published articles and industry cases regarding mobile money will be collected to gather an understanding of the complexity of the problem (Pan and Tan 2011; Strauss and Corbin 1998). This allows the phenomenon to be conceptualized as in figure1 (Pan and Tan 2011).

![Figure 2. Structured–Pragmatic–Situational approach to conducting case studies](image)

In the second phase, on site semi-structured interviews are to be carried with open ended questions are targeted for descriptive/explanatory responses. Guiding questions are to be used for better alignment of the field of interest. Interview questions are to be modified based on the findings arising from the previous round (Klein and Myers 1999). Each on-site interview will be recorded with prior permission of both the interviewee and the organization for transcribing and data analysis. Also some native speaking languages are to be allowed to get more unrestricted and deeper involvement with the interviewee.
### Collaborative Regulatory in Mobile Money for Financial Inclusion

**Table 1. Interview plan**

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Affiliation</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1, Legal and Compliance officers</td>
<td>Mobile money service providers</td>
<td>Current regulatory and Compliance</td>
</tr>
<tr>
<td>Stage 2, Product Managers</td>
<td>Mobile money service providers</td>
<td>Regulatory Challenges, Collaborations</td>
</tr>
<tr>
<td>Stage 3, Officials of the payment and settlements department of central bank</td>
<td>Regulator</td>
<td>Regulatory development Challenges, Collaboration</td>
</tr>
</tbody>
</table>

**Proposed Data Analysis Method**

SPS approach utilizes an iterative and inductive process of data analyzing where the data analysis and data collection is both linked (Klein and Myers 1999; Pan and Tan 2011). In interpretive research, the theoretical aspects and data are interconnected and mutually dependent.

Data is assessed several times and categorized into emerging themes. With deeper understanding of the phenomenon, more specific themes relevant to the theoretical aspects will be selected. Constant comparison of data and theory will be done to reinforce each other. Comparisons are done to ensure whether the theory is supported by the data or whether the theory helps to comprehend and explain the actual practices. Novel theoretical aspects not derived from data will be introduced in the process. Finally, the theory and data will be aligned at theoretical saturation (Pan and Tan 2011).

**Contribution**

This paper contributes to important but scarce research area of financial technology regulation in two folds. Despite the rapid growth of MFS, regulatory studies have been descriptive and case specific. The study contributes to the limited body of knowledge on mobile money regulation, by examining how collaborative rule making can address current requirements of regulating mobile money. It can provide learnings to the regulators in similar contexts. Collaborative regulatory practices proposed by the study, will address the technological skill gap of regulators to provide better regulatory responses. Meanwhile the empirically developed theory will be used for understanding regulatory process and its affects on emerging mobile money (Varshney 2014).

**References**


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