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INCREASING COMPETITION BETWEEN BANKS AND MOBILE MONEY COMPANIES: COMPETITORS OR ALLIES?

Kwami Ahiabenu
Global Centre for Fintech Innovations, Canada

Abstract

This paper investigates the increasing competition between traditional banks and mobile money service providers. Although mobile money service is a well-researched area in the literature, the competition between mobile money operators and banks has yet to receive much attention. This paper contributes to a better understanding of the competition between banks and mobile money service providers through a qualitative study framed within Porter's competitive advantage theory. This study applied purposeful sampling of experts in mobile money service provision, Fintech and Banks operating in Ghana. The banks saw mobile money at inception as unattractive, and therefore no pressure on the banks to support this type of innovation. Over time, it has evolved into a critical digital payment service, forcing the banks to launch their mobile money service, Ghana Pay. This study highlights three elements of Porter's theory and provides evidence that banks led mobile money service is not expected to increase competitive pressure on existing mobile money service providers; it is an uphill task because the incumbents benefit from network externalities effects. The data from this research shows that for many years it was challenging for the banks in Ghana to collaborate and deploy common platforms; therefore, the introduction of Ghana Pay is significant since it is the first-time banks as competitors are collaborating to deal with existential threat to their business.

Keywords:
Mobile Money, Ghana, Banks, Digital Finance, Competition

1. INTRODUCTION

Fintech firms are now in direct competition with banks, challenging banks in many ways while at the same time bringing digital disruption to the financial sector with mobile money wallet as one of the most profound examples [1]-[3]. Money service has spurned a wide range of services including credit, micro insurance, micro pension, savings, digital payments, utility bill payments, cash transfer to dispersed populations during humanitarian crises, bulk cash disbursements, merchant payments, peer to peer transactions, and international remittances [4]-[5]. Mobile money service is now a mainstay of Ghanaian economy representing 82% of GDP in terms of transactions meaning majority of payments run through this service, making Ghana one of the fastest growing mobile money markets in Africa [6].

Mobile money services have now established themselves as a tool to enable cashless or cash lite society while contributing to reducing the number of financial excluded population. Mobile Money was launched mobile service in Ghana in 2009, over time the mobile money service has seen significant growth and development with over 50.2 million registered mobile money accounts generating over 87.7 billion cedis as at April 2022 [7] . Until recently players in Ghana's money mobile industry were Mobile Network Operators (MNO) namely MTN Ghana, Vodafone and AirtelTigo, Fintech player known as Zeepay and Bank led product known as GCB G-Money. A major change occurred in the mobile money ecosystem when banks in Ghana form a consortium known as Ghana Pay to offer money in direct competition to existing providers.

Although there are a number of studies on mobile money its relationship with the banking sector in Ghana such as [8], [9] there is relatively low research on the competition between banks and mobile money service providers. The objective of this paper is to understand the dynamics of the competitive forces between Ghana Pay offered by banks and traditional mobile money service providers. Based on this objective, this paper sets out to answer the following a key research two related questions: What are the differences in Banks and Mobile Network Operators mobile money services? and What are the main drivers of competition in mobile money service space? This paper is organised as follows, the next section describes the methodology followed by results, the paper discusses its findings, outlines its conclusion and discussions.

2. LITERATURE REVIEW

In many Sub-Saharan African countries, there is growing evidence that mobile money is enabling a wide spectrum of socioeconomic benefits, financial developments and general well-being of a country [10]. Mobile money can be described as an innovative tool which enable users to conduct a number of financial transactions including sending and receiving remittances, cash-in (deposit of cash and electronic equivalent of cash), cash out (withdrawal of cash), savings, payments of utility bills, purchase of goods and services, consumption of other financial products such as pensions, loans, insurance, stock among others [11].

Mobile money works as a financial wallet typically linked to a user's phone effectively serving as a bank account on mobile phone for the underserved and underbanked population. Mobile money has significantly reduced the barrier to the consumption of financial services, making it a cost-efficient financial inclusion solution [12]-[14]. Mobile money is now the biggest rival to commercial banking since it offers security, convenience, affordable access to financial services, greater choice and wider network than banks [15]. Since its inception, mobile money service providers have enjoyed a near monopoly in the offering mobile money service, this changed when Bank of Ghana licensed Fintech to offer similar mobile money service and on January 30th, 2020, G-Money (mobile money service) launched by GCB Bank [16].

A major milestone took place on June 15th 2022, when the banks in Ghana through their industry association Ghana Association of Banks, under the aegis of The Ghana Interbank Payment and Settlement Systems Limited (GhIPSS) a wholly owned subsidiary of the Bank of Ghana launched Ghana Pay [17]. This new development does not come as a surprise as noted by

[18]-[19] banks in Africa have long ignored mobile money's target market that is financial excluded persons in favour of higher-income customers who are able to consume banks more lucrative traditional products, however, these traditional banks have woken from their slumber and are now rushing to capture a share of mobile money market. Money mobile was launched in Ghana in July 2009 by MTN, an MNO in conjunction with nine banks namely Merchant Bank, Stanbic, UBA, Zenith Bank, CAL Bank, Ecobank, Fidelity Bank, GT Bank and Intercontinental Bank.

At inception mobile money regulations was a gray area, so the Central Bank of Ghana, relied on branchless banking licensing regulations which mandates mobile money service to partner with at least 3 banks in the delivery of mobile money services. Bank at inception of mobile money service were not interested in this partnership, due to their strategy not to pursue mass market customers but to focus on high worth individuals and large account holders. Secondly, the regulatory framework led to prematurely forced collaboration between the banks and mobile money service provider without any room for any of these two parties offering a robust leadership, since any investment by any of the commercial banks in strengthening mobile money service infrastructure will lead to a free-rider problem since this investment will be benefits its competitors that is other banks [20].

According to [8] bank clients make use of money service through integration of the accounts enabling them to move between mobile money wallets and their bank accounts. For example, instead of visiting a bank branch to make a bank deposit, a user can transfer funds from their mobile money wallet to a connected bank account and vice versa. Also, most banks in Ghana offer mobile money service through the online banking, SMS banking or banking mobile app, which means bank customers can undertake mobile money services similar to what a typical mobile money wallet account can do through these platforms, the only exception is that they cannot receive money from third party mobile money wallet to their bank account.

2.1 MOBILE MONEY SERVICE DELIVERY THROUGH PARTNERSHIPS

In their study which examines the effects of mobile money revenue allocation [21] reveals that mobile money services may provide benefits to participating banks. Authors [22] noted that banks and mobile money providers on their own may not have all the diverse resources to operate mobile money services exclusively, mobile money providers may have the mechanism for rapid development, branding, marketing and distribution, systems and analytics management. On the other hand, banks have experience and capacity to manage depositor's funds, banking license and long history of managing money. Given this background, mobile money provider and bank partnership becomes a critical success factor.

In agreeing with the notion that mobile money services are better deployed through partnership between banks and mobile money service providers [20], [23] argue that partnership between banks and mobile money service providers is now the most common relationship mechanism in delivering mobile money service, driven by the need to deliver mobile money in cost effective and profitable manner. Furthermore, regulatory requirements sometimes mandate the need for mobile money service providers to partner with banks in mobile money service delivery.

The drivers for partnerships arrangements between banks and mobile money service providers are competitive forces, revenue generation and distribution. The banks are interested in how to increase mobile money float that is mobile money funds held at banks, and possibly recruit underbanked clients to be bank account owners. Whereas the mobile money service providers are motivated to partner with the banks based on the need for a banking license which is a regulatory requirement. Also, mobile money service providers by going into partnership with the banks, are able to offer financial products such as savings, loans as a value-added service for mobile money client thereby increasing revenues. [24] points out that, banks and mobile money service providers have now developed a symbiotic value chain, with mobile money service provider reselling financial services from banks such as a saving product. Sometimes not very common, these mobile service providers are able to provide financial services independent of the banks if regulations permit. In actualisation of these partnership, the banks and mobile money service providers either utilises an operational management or co-management partnership model [20].

Banks started relationship with MNO as partners in delivery of mobile money through serving as custodian of mobile money float, over time some banks started developing alternatives or creating their mobile money service, leading to coopetition or co-opetition (portmanteau of cooperation and competition). For example, mobile money account holders are able to withdraw funds from Bank's ATM under co-opetition model. In assessing the relationship between coopetition and first mover advantage [25] points out that the coopetition intensity decreases the propensity of achieving a radical innovation and first mover advantage in contrast propensity to imitate increases in context of an increased coopetition intensity.

In describing the nature of the relationship between banks and mobile money services, [9] pointed out mobile money is complementary to the strategic goals of banks. On the other hand, [26] pointed out that although commercial banks have started experiencing the impact of mobile money services on their long term financial and operational sustainability of banks in Kenya, their study concluded that mobile money services have a negative insignificant impact on the sustainability of banks. An author [27] suggested that mobile money has forward and backward linkage with bank's performance in Nigeria. [28] indicated that there is fierce competition between mobile money operators and banks with significant threats for survival of banks including potential reduction of banks profit base.

2.2 THEORETICAL BASIS

According to [15] the effects of network externalities on competition in the mobile money industry is well documented, this means consumers are incentivised to join firms with a larger network since the consumers are able to increase their utility and benefits from the said firm. Though competition is possible through introductory pricing or price wars this may result in efficiency losses. The network externalities make it extremely difficult for other mobile phone operators, Fintech or banks to compete with dominant mobile money operator. The downside of network externalities could mean there in no incentives for the dominant to reduce prices or offer better deals or innovate since they have a larger consumer base. [29] suggest that while network externalities may contribute to mass adoption of mobile money in one situation, another country's institutional and industrial context may not lead to the achievement of similar adoption rates.

In the literature, competitive advantage is described as a set of attributes that enable an organisation to outperform its competitors. The two dominant competitive advantage theories are the Market-Based View (MBV) and the Resource-Based View (RBV). One of the best-known theories under The Market-Based View (MBV) is Porter's five forces model which is derived from Structure-Conduct-Performance (SCP) framework [30]. Porter's Theory of Competitive advantage focuses on competitive responses in a given business context, which is responsible for how various firms react in the face of competition. The Porter's theory highlighted five key elements, namely competition among existing competitors, bargaining power of the buyers, threats of product substitution in the market space, the bargaining power of suppliers and barrier of entry to entry of new players [31]. New digital technologies can create competitive advantages for firms manifesting in three ways, it can change industry structure while altering the rules of competition, second it creates new pathway companies' new ways to outperform their rivals and lastly it can create a new business [32]

In the case of mobile money technological innovations, mobile money services providers are now able to outperform traditional banks especially in increasing accessibility of financial services to a mass market. Competitive advantage can be seen in three areas namely cost advantage; ability to produce and market product or service as a rate lower than competition, second the ability to provide product or service features which is considered valuable by customers and third niche advantage where a firm is able to serve a segment of the market better than its competitors. [33] noted that competitive advantage therefore offers a new way of understanding how a firm operates by disaggregating a firm activity that represents the key building blocks of competitive advantage.

The power of competitive advantage is not only through the identification of core activities, but also how these activities relate to each other and elements in a value chain. In this sense competitive advantage offers a tool to capture the complexity of competition through unpacking value chain analysis to construct underlying activities which makes a firm perform better than its competitors. In the case of mobile money service providers, their competitive advantage over banks is convenience, that is the customers' ability to consume financial services anywhere and anytime. To identify and analyses competitive forces, we apply Porter's five forces: A company working in an industry with low number of competitors coupled with low rivalry among competitors, strong barriers to new entrants into the industry, large pool of suppliers, low bargaining power of customers and low threats of substitutes products and services is able to boost profits and maintain a competitive advantage over the market [34]

Porter's 5 forces are not without criticism, it ignored effect of complements on the industry, a firm's agility holds more value than market dominance especially a firm's ability to be fast, fluid and flexible is paramount in fast technological driven market space. Another critique of Porter's model is that it explains how a firm can get competitive advantage and it is very weak on how to maintain it [30], [35], [36]. It is imperative to note the boundaries between industries are becoming blurred, making it difficult to put them in distinct baskets, however, Porter's five forces is very useful in evaluating a firm's place within an industry and how it can strategies in the evolving long-term plans [37].

First mover connotes a situation where an industry player derives significant advantage as the first actor to provide a service leading to a significant market share which can ultimately led to abnormal profitability [38]. An author [39] suggested that the persistence of first mover advantage performance can negatively be impacted by industry dynamics that is market growth and technological discontinuity. [40] posits that first mover can be difficult to achieve and if an organization can gain first mover advantage it is a function of two conditions that is the pace at which technology linked to a product is evolving and the rate at which the market for the said product is expanding. Furthermore, authors [41]-[43] argue that first mover (leader) can be costly since the firm needs to start product or service development from scratch, pay a lot of development, setup and learning costs. However, the follower (the second mover) in relatively terms incurs a smaller upfront entry cost in comparison to the leader. At the end of the day, a firm must balance the benefits of waiting at the opportunity cost of forgoing current period's profit versus going in as a leader and enjoying current period's profit.

This study relies on three elements of Porter's competition advantage theory that is barrier to entry of new players, competition among existing competitors in the market, and threats from substitute products in the market combined with first mover advantage as its theoretical underpinning. These theories are important for this study because it help elucidate how Ghana banks through their mobile money service Ghana Pay compete with traditional mobile money services.

3. METHODOLOGY

This paper utilised a qualitative approach to provide the mechanism for an-in-depth understanding of a phenomenon, especially in situation where information is not readily available. Qualitative approach is appropriate for understanding complex, nuanced situations with multiple interpretation, though it does not provide definitive answers to such complex questions, it can help provide better understanding and a springboard for further research [44], [45]. This study applied purposeful sampling based on experts who are knowledgeable and experienced in mobile money and banking sector from a population of MNOs, Fintech and Banks operating in Ghana.

3.1 DATA COLLECTION AND ANALYSIS

The summary of interview respondents is listed in the Table.1. An interview guide was developed to collect data, which was recorded, transcribed and all the interviews were done though online means.

The interview guide was based on Pyramid Model which starts with research purpose interfacing central research question linked to literature leading to theoretical questions thereafter culminating in specific interview questions [46].

The Data collected from the interviews were process through six-step processes to develop themes; familiarisation, coding generation of themes, reviewing themes, defining and naming these and final analysis [47]. As noted by [44] coding is the first process in data analysis of interviews where transcripts from interviews are converted into usable data through systematic process of identification of themes, concept and connections with each other. Thereafter, themes were generated from the data using MAXQDA software. Interviews data were supplemented with secondary data mainly industry reports, laws and policies.

Table.1. Summary of Interview Respondents

Code	Description
FT 01	Mobile money technology solution provider
FT 02	Expert with experience in Banking, Fintech and mobile money company
FT 03	National digital payments integrator and facilitator of mobile money services
FT 04	Fintech focusing on payments
FT 05	Mobile phone company providing mobile money service
FT 06	Fintech experience with experience working with mobile money company
FT 07	Banking Expert
FT 08	Fintech expert working with banks on digital micro loans
FT 09	Banking Expert
FT 10	Banking Expert

Source: authors' own constructs (2022)

4. FINDINGS

4.1 CONFIGURATION OF MOBILE MONEY SERVICE

The Fig.1 below explains the configuration of mobile money services and related parties. The process starts with onboarding mobile money customers using ID and physical address, which leads to creating a mobile money wallet. The actors in the mobile money ecosystem are Users, mobile money agents, Banks, mobile money service providers, and regulators situated within the context of Porter's competitive factors: substitute competition, first-mover advantage, barriers to entry and existing rivalry. The results of this study indicate that banks have a bilateral agreement with mobile money service providers, and the banks hold funds on mobile money users' wallets as a float. The float serves as liquidity for the banks since they can monetize it. Banks, as the custodian of mobile money funds, hold this fund like any other bank account. This regulatory arrangement ensure mobile money funds are protected under Ghana's deposit insurance system based on The Ghana Deposit Protection Act, 2016 (Act 931), as amended which established the Ghana Deposit Protection Scheme [48]. Mobile money providers cannot intermediate the funds on clients' mobile money wallets leaving this function in the hands of the bank partners. Based on the terms of partnership agreements, periodically the bank and mobile money providers will undertake reconciliation of balances of the escrow account and value of mobile money wallets transactions [49].

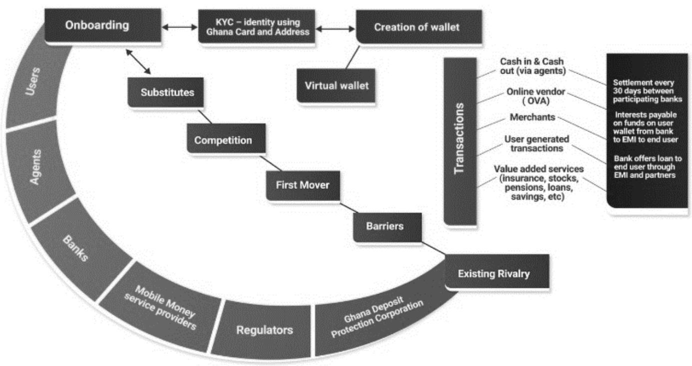

Fig.1. Configuration of Mobile Money Service (Source: Authors own construct (2022))

In describing how the mobile money and the banks are relationship are structured, a respondent noted, "Periodically, the banks must settle with each other and mobile money providers therefore the role of banks is central to Mobile money. Banks do not get paid for participating in the money service, however, the float that run through the banking system based on mobile money transactions, they are able to monetize this float through utilising it for loans or other financial services provisions" (FT05 personal communication, July 8, 2022)

Funds on mobile money wallets are treated as an interest-bearing account by the custodian banks. First, the bank pays the mobile money service provider, an annual interest of 4% on float that is mobile money users funds held at these banks. This interest is paid monthly. Second, the mobile money service provider, upon receipt of this 4% interest from the bank distribute 90% of this interest to the user on quarterly basis and the mobile money provider keeps 10%. Third, according to the regulation of mobile money services by the regulator, Bank of Ghana, when a bank holding mobile money users' funds, exceed 25% of the banks net worth, they are expected to invest this excess float in Government of Ghana 21-day treasury bill. The returns on this excess float investment are shared in the ratio 10% to the bank, 15% to mobile money service provider and 75% to the users.

4.2 BARRIERS TO ENTRY

The data from this study reveals that there are a number of barriers influencing the entry of new entities into mobile money service provision. In terms of regulatory barriers to entry, an applicant for a mobile money license (Dedicated Electronic Money Issuer) need to put up an integrity capital of 20 million Ghana cedis (1,818,181 USD) which can be a barrier for some entities. Second, provision of mobile money service requires a lot of up-front capital, therefore, lack of financial resources can also be stated as a major barrier to entry. In assessing technical barriers to the entry of mobile money services, a respondent noted:

"The platform itself is not complicated you have basically a server that posts all the wallets of mobile money and processes all the requests and it's integrated to channels like Unstructured Supplementary Service Data (USSD) like apps web browser so it's not a differentiator since it the conventional infrastructure that is used for mobile money service provision platforms" (FT 01 Personal Conversation 14th July 2022).

Therefore, from a technology point of view, it takes me less than 48 hours to set up an infrastructure for mobile money service based on a Unstructured Supplementary Service Data USSD or an short message service centre (SMSC) backbone. However, a technical barrier may arise when it comes to integration into a MNO to drive the service, thus this it becomes a more or less a more a commercial barrier rather than a technical barrier. Another respondent noted,

"I wouldn't say there's no significant barrier to entry because i don't regard technology as the biggest differentiator distribution is the biggest differentiator so anybody can do mobile money, but you have to be distributed" (FT 02 Personal Conversation 8th July 2022).

In this direction, the need to establish a distribution platform is a key barrier to entry for banks interested in offering mobile money services, since this distribution platform cannot be built overnight. Another respondent provided a counter view on distribution:

"Agent's network which is the primary distribution mechanism for mobile money service provision is no longer a barrier, since agents cannot be exclusive to a particular provider, regulations prevent exclusive agents. Co-branding is key in terms of agents serving multiple providers. However, mobile phone companies which establish these agents' network with deep historical ties with them, have a first mover advantage therefore this could be a barrier" (FT 10 Personal Conversation 10th August 2022)

Also, traditional mobile money relied on the need for a mobile phone number, which was under the exclusive control of mobile phone companies, today this is no longer a barrier since a new entry into mobile money service provision can have access to these mobile numbers. That said, banks do not have a detailed database of mobile phone users and their transaction history making this a key barrier to entry. Lastly, existing mobile money services providers are able to be innovative while the banks are not nimble enough negatively impact their capacity to compete.

4.3 THREAT OF SUBSTITUTES

In terms of a substitutes for mobile money, one respondent noted,

"I don't know of any immediate substitute as things are happening cryptocurrency, digital currencies are being discussed, non-fungible token (NFT)is in the works. I don't know where it all lands, but these are some possible substitutes for mobile money. (FT 02 Personal conversation 8th July 2022).

Some respondents noted that cash is a key substitute to mobile money services, especially in an environment where cash is a predominant means of payments. Due to the imposition of electronic levy (e-levy) in Ghana on mobile money, more users are now turning to cash instead of using mobile money. According to a respondent.

"The e-levy has rolled back almost a decade of hard work is promoting digital payments especially mobile money, so i think the society have now turn back to the use of cash which is very unfortunate" (Personal Conversation FT 08 9th July 2022). Respondents suggested Central Bank Digital Currency (CBDC) known as eCedi to be issued by Bank of Ghana, blockchain type applications and cryptocurrency as a possible substitute for mobile money services.

4.4 EXISTING RIVALRY

The results of this research indicated that banks have been in direct and indirect competition with mobile money services since the inception of mobile money. The rivalry is manifested in terms of pricing and convenience with mobile money service providers performing better than banks on both counts. The second level of rivalship is loan provision, traditional loan provision has been the preserve of banks, however, mobile money service providers are now operating in this area. A respondent suggested:

"Micro loans offered by mobile money services providers are based on data analytics derived from mobile phone users' activities, i mean there's modeling there's uh cleaning and sorting of data there's credit scoring and then you are able to properly use these credit scores to then make a credit decision which the banks do not have" (FT 08, personal conversation 9th July 2022)

Some respondents opined that the banks could compete in mobile money loan space by offering loans to Small and Micro Enterprise (SMEs). Lastly interest rates offered on bank loans and savings are also a source of rivalry between banks and mobile money service providers.

4.5 FIRST MOVER ADVANTAGE

The data from this study points to the fact that mobile money service providers have gained a first mover advantage over the banks through established partnership with last mile mobile money distribution agency network. The current dominance of mobile money service providers is based on the control of this distribution mechanism. Respondent said, "so if look at the reserve requirements of a bank like Stanbic nine billion in comparison to MTN mobile money service provider transactions of 10 billion then you see this first mover advantage at work" (FT 02, personal conversation 8th July 2022). Another respondent in summarising first mover advantage for mobile money service providers:

"The mobile phone companies who started the mobile money services have superior advantage that it would take a monumental investment to try to crash and it makes no sense for the bank of to try to compete with them, it will be better for these banks to actually go the route rather of an enabler that is experiential products built on mobile money service." (FT 01, personal conversation 14th July 2022)

4.6 COMPETITION IN THE MARKET SPACE AND THE IMPACT OF COMPETITION

In assessing competition between Ghana Pay and traditional mobile money service, one respondent noted:

"Ghana pay it would never be as popular as traditional mobile money and the point is that even if banks invest a lot of money into Ghana pay to make it rival mobile money it would be still money being washed down the drain because now i think it has come rather late in the day that is my worry i say is that it's Ghana pay 10 years behind time this is what the bank should have come together 10 years ago" (FT 08, personal conversation, 9th July 2022).

The mobile money service industry in Ghana at inception had difficulties, it took two years for pioneer, MTN Ghana to find a bank partner. So, after a decade of mobile money service which has now grown to trillion Ghana Cedis (97,087,378,000 USD) business, it may be too late for the banks to compete. Banks have over time invested in significant legacy technology systems meaning they are slow to response to uptake of modern technology such as mobile money services. It is important to stressed that, Ghana Pay introduction means there is going to be competition among banks, for Ghana Pay mobile money customers, though this is a common platform, with each individual bank, must acquire their own mobile money customers.

The data from this research shows that for many years it was very difficult for the banks in Ghana to collaborate and introduce common platforms, therefore the introduction of Ghana Pay is significant since it is the first-time banks as competitors are collaborating to deploy this service due to existential threat to their business. In term of how-to Ghana Pay should interact with traditional mobile money service, a respondent opinionated that the relationship should be more of more cooperation than competition, where the competition is at the level of experiential delivery of services rather than competition across board.

According to a respondent, the launch of Ghana Pay is a competitive response aimed at expanding the scope of mobile money services to value additions such as payments, savings, insurance, pension thereby evolving the service from cash-in and cash-out services to a fully-fledged digital payments tool. Lastly the banks have the muscle, financial strength, long history of holding people’s money in trust thereby strengthening their competitor advantage.

5. DISCUSSION

The findings of this study, shows six key characteristics that shape the relationship between the traditional mobile money service providers and banks : the configuration of mobile money service demands a high level of partnerships between the two primary actors, barriers to entry to mobile service is dominated by commercial, regulatory and technical barriers, there is currently no threat of substitutes for mobile money services, predominance of high level of existing rivalry, first entrants are enjoying first mover advantage and there is now intensive competition in the mobile money market space.

This study highlights the fact that three elements of Porter’s competition advantage theory that is barrier to entry of new players, competition among existing competitors in the market explains developments in mobile money market. [33]. However, the study results show there is no threats from substitute products in the market for mobile money services, explaining why mobile money is enjoying a significant first mover advantage while maintaining a unique competitive over traditional brick and mortar service. Banks are now struggling to develop their version of mobile money service in order to compete, however, it is an uphill task for the banks to compete effectively in the mobile money service market since the mobile money industry is benefiting from the effects of network externalities on competition [15].

It must be noted that that the next level of competition will come from cryptocurrency of a sort or Central Bank Digital Currency in case of Ghana known as eCedi, therefore both banks and mobile money service providers must work towards evolving cryptocurrency solutions or work towards the use of blockchain in their service delivery. Banks by entering into mobile money service sector are aiming to remove traditional money mobile money service providers as a middleman in order to directly serve clients. This development does have significant partnership and competition implications, the bank are still big and important actors in payments ecosystem, however, mobile money has significantly eroded their monopoly as financial intermediator since mobile services are equally performing this role. Competition between banks and mobile money service providers is going to accelerate, however, given how mobile money services is structured around the need for partnership among stakeholders, there is going to be more coopetition than competition.

6. CONCLUSION

This paper aims to understand the dynamics of the competitive forces between Ghana Pay offered by banks and traditional mobile money service providers. This paper sets out to find the differences between Banks' and Mobile Network Operators' mobile money services and the main drivers of competition in the mobile money service space. According to the results of this study, mobile money was launched as a critical vehicle for domestic remittances at inception. At the launch of mobile money, the banks saw mobile money as unattractive, and there was no pressure on the banks to support this innovation. Over time it has evolved into a critical digital payment service and a dominant payment mechanism in the economy, making it a key competitor to the banks. This background compelled the bank to launch its mobile money service to compete. The results indicated that there are no substitutes for mobile money, and there is fierce competition between banks and mobile money service providers. At the same time, the two parties are in partnership leading to a coopetition situation. The traditional mobile money service providers are enjoying first mover advantage, with banks trying to play catch up by launching their mobile money service. The evidence from this research shows that banks-led mobile money services will not increase competitive pressure in the mobile money service ecosystem.

7. LIMITATIONS AND FUTURE RESEARCH

Although this study contributed to the theory and provided insights, it has some limitations. The small size of respondents is a key limitation of this research; future research could expand the pool of respondents beyond experts to include consumers and other stakeholders. Further research could explore how a higher degree of competition driven by the entry of banks into the mobile money ecosystem can promote greater access to financial services, thereby improving financial inclusion. Also, there is the need to empirically evaluate how heightened competition could contribute to cost efficiencies which can be passed on to consumers in terms of lower prices.

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