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COMPETITION AND REGULATION ISSUES IN THE MOBILE BANKING INDUSTRY IN ZIMBABWE

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ABSTRACT

This paper analyses the market structure and market power in the mobile money sector in Zimbabwe and the regulatory challenges this poses. It focuses on the competition complaint made by banks against EcoCash in 2014, where EcoCash is alleged to have initially refused to share its USSD infrastructure with banks, and later granted access on discriminatory terms. The analysis involves the assessment of the structure of the mobile money sector in Zimbabwe, the conduct of EcoCash and the effectiveness of the regulatory toolkits used by regulators to address the competition concerns raised. The paper draws from existing literature on mobile money, mobile banking, digital platforms, theory of network effects and market power, and policy and regulation in multisided markets. The research uses quantitative measures of market outcomes and qualitative methods to consider the regulatory performance. The role of regulation is assessed through interviews with industry players and comparing the interventions made by regulators of peer countries. The research found that competition in the mobile money sector exists at two levels, that is, within the three mobile money providers and between the MNOs and the banking system. It also found that EcoCash's prices were very high in comparison to its market rivals as well as peer country mobile money providers. The assessment of regulation in the sector found that regulation was not effective in restraining EcoCash from abusing its market power.

Keywords: mobile banking, mobile money, competition, regulation, EcoCash, market power, network effects, telecommunications

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1. Introduction

Mobile money services enable people to send, receive, store, and spend money using a mobile phone, which is connected to a mobile network using a subscriber identification module (SIM) card that is owned by a mobile network operator (MNO). Mobile banking services enable a person to access financial services on their bank account using a phone that has a SIM card linked to their bank account (Global System for Mobile Communications Association, 2010). Mobile money and mobile banking are both provided through digital platforms using telecommunications infrastructure, which is usually provided by MNOs. These services are accessed through the short message service (SMS) and the Unstructured Supplementary Service Data (USSD) technology. In cases where the MNO has banking partners, mobile money has the potential to evolve into mobile banking.

Mobile money and mobile banking services have instigated disruptive competition in the traditional banking and telecommunications sector, rendering traditional regulatory toolkits redundant and invoking a new hybrid of regulation concerns that is focused on digital platforms. Digital platforms have become a major contributor to economic growth in many countries, as well as a competition regulation concern, with countries seeking to amend their competition regulatory frameworks to enable them to deal with antitrust conduct in such markets (Andreoni & Roberts, 2020).

In Zimbabwe, mobile money and mobile banking platforms have grown rapidly alongside a rise in competition concerns. In 2014, the Bankers Association of Zimbabwe (BAZ) laid a complaint against EcoCash with the Competition and Tariff Commission (CTC) in Zimbabwe, for initially refusing to share its USSD infrastructure, and later providing access on discriminatory terms.² EcoCash is a digital payments solution platform owned by Econet Wireless (Econet). Banks depend on the USSD infrastructure provided by MNOs to offer mobile banking services to their customers, and the refusal by MNOs to provide this service on fair terms infringes on competition. Hence, access to this infrastructure is crucial for banks.

² Interview with Competition and Tariff Commission (CTC) official. 24 February 2021.

The preliminary findings from this case indicated that EcoCash had abused its dominance by refusing to interoperate, strongly lessening competition, raising rival's costs, and squeezing the margins for its rivals.³ The Commission then recommended an advocacy procedure between the Reserve Bank of Zimbabwe (RBZ), the Postal and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ) and the MNOs. The result of this advocacy was a series of regulatory pronouncements which have been rolled out over several years.

This paper examines competition and regulatory issues in Zimbabwe, with particular focus on the market structure of the mobile money sector and the conduct of EcoCash, through the assessment of market workings, prices, and market outcomes. This involves the evaluation of key regulatory decisions pertaining to the market power of Econet and EcoCash, and the effectiveness of these regulations in relation to the competition complaint, and the subsequent decisions. This involves evaluation of the firms' strategies and regulatory decisions from interviews as well as changes made in response to regulations. Market power is assessed by analysing market structure, market shares and pricing power of firms by assessing competition dynamics in mobile financial services that focus on competition between MNOs and inter-platform rivalry between MNOs and the banking system.

The EcoCash case was a major competition complaint brought to the competition authorities by rival service providers of mobile money services to foster competition in the sector through the sharing of infrastructure. This is an area of interest in the competition space, and the ultimate outcomes from regulatory decisions remain to be seen in potential outcomes in the market.

EcoCash entered the mobile money market in September 2011, after Telecash and OneMoney had entered in January 2011. In 2012, ZimSwitch, the only national electronic funds switch and clearing house in Zimbabwe introduced the ZimSwitch Instant Payment Interchange Technology (ZIPIT), an alternative platform that enables instant funds transfers between banks that are affiliated to the ZimSwitch

³ Interview with CTC official. 28 September 2021.

network (ZimSwitch, 2021). The growth of the ZIPIT platform has been slow compared to the growth of mobile money services offered by EcoCash and fellow MNOs.

2: Literature Review

2.1: Mobile money and mobile banking

Mobile money has penetrated remote markets, financially empowering the unbanked and marginalised segments of society. Customers mainly utilise the platforms for airtime recharging and transfers, payments for goods and services, and cash withdrawals, at affordable rates that are convenient, safe, and fast (Anderson, 2010). Mobile banking services are used by financial institutions to provide an intermediary infrastructure on a two-sided digital platform to perform financial transactions using a phone. Mobile money services are generally provided by a digital platform that connects users from different sides of the market, including subscribers who cash in and cash out money through the platform, agents who facilitate transactions, and the service provider who provides the network and enables customers to process a transaction using their phone, and is thus multi-sided in nature.

The rise of mobile money has contributed to development through the provision of financial services to segments of society where branch banking was geographically limited, and remote parts of the countries that had no access to such services (Jack & Suri, 2011; Pelletier, Khavul & Estrin, 2019). Research has found that establishing the specific economic effects of mobile money is not easy since this requires impact measurement at various levels, and quantifying the spillover effects can be a challenge (Jack & Suri, 2011).

The nature of competition in the mobile money services industry is tiered, with competition between MNOs in the provision of mobile money services and competition with financial institutions in the provision of value-added services. In many countries, the dominant mobile network operators have likewise established dominant positions in the provision of mobile money services, partly due to inherent network effects, giving rise to a lot of competition and regulatory concerns (Robb & Vilakazi, 2015). Dominant firms tend to want to maintain their dominance, foreclosing

rivals through various forms of anticompetitive behaviours, including but not limited to exclusion and margin squeeze among other issues. The market structure of the telecommunications industry exhibits the features of a dominant firm, with weaker rivals sharing a small portion of the market.

2.2: Network effects in multi-sided markets and market power

Multi-sided markets connect two or more distinct, interdependent groups of market participants via a digital platform (OECD, 2018). This interdependency is caused by the externality effects which arise in these markets, since users value the platform based on the number of users in it. Multi- or two-sided markets are characterised by network effects, which are defined as the benefit that a user derives from another user's consumption, thus users derive greater utility when more users consume that service (Macmillan, Paelo & Paremoer, 2016). In such instances, dominant MNOs are attractive to consumers and service providers, hence they will continue to grow, sometimes tipping the markets to a dominant service provider (Furman Review, 2019).

Successful platforms enjoy increasing returns to scale due to network effects, and this may also reinforce the market power that some platforms already have. Scale economies may lead to increased size, which may reflect in better services to consumers, but it may become problematic when the reward for innovation becomes an incumbency rent. The existence of network effects in markets is not always beneficial: they may entrench dominant firms even if they are inefficient and lack innovation, which may lead to consumers bearing the burden of higher prices or inducement (Paelo & Roberts, 2022). This can be due to incumbency advantages created by first mover advantages that arise where a first entrant in the market enjoys a larger base of customers, because of it being the first mover. Multi-sided markets naturally tip towards the control of a few dominant firms and monopoly due to these network effects, which lead to rapid growth, creating barriers to entry and challenges for competition enforcement as well as increasing levels of concentration (Weyl & White, 2014).

A firm with a larger market share of voice and data subscribers is more likely to dominate the mobile banking platform. For example, Safaricom in Kenya has maintained its dominance in the mobile money sector due to the strong network effects arising from its dominance in the voice and data markets (Anderson, 2010; Robb & Paelo, 2020).

Consumers also find it difficult to coordinate switching to rival platforms due to the value they place on a platform. These network effects may also facilitate exclusion through tying and bundling of services by firms thus reinforcing network effects in the market (Robb & Vilakazi, 2015). The highly concentrated nature of the telecommunications sector in most countries plays a contributor to high barriers to entry in those markets, but it is important to note that it is in their nature to be so. High barriers to entry and concentrated markets imply market power on the part of incumbent firms that do not face effective competitive restraint, and this may reflect in uncompetitive prices (Macmillan et al., 2016).

2.3: Policy and regulation in multisided platforms

There has been unmatched growth between international competition policy awareness and the rise in digital markets and associated competition concerns. This has been attributed to the ease with which digital platforms have expanded and the new competition concerns that this has given rise to. Most regulatory frameworks are designed for straightforward markets, where suppliers and consumers meet in one market, and the monitoring of activity is all done in the one market (Anderson, 2010). This means that regulatory frameworks designed for such markets will not serve effectively for multi-sided markets, hence the new resurgence of a rethink in regulation for digital platforms in many markets.

The high concentration levels of digital markets may encourage strategic behaviour by incumbents. Because it is inevitable for digital platforms to grow rapidly in size and the complexity of their operations, developing effective regulatory tools can be a challenge for regulators (Stigler Center, 2019). The historical methodologies of defining markets do not capture the dynamic features of digital markets, since

market demand is multi-sided and there is a need to consider the consumers' welfare in multiple groups (Evans & Schmalensee, 2013).

Clear regulation and interoperability of telecommunications infrastructure play a fundamental role in the success of mobile money services (Macmillan et al., 2016). Regulators can use tools such as infrastructure sharing agreements to open markets and encourage innovation, entry, and participation by smaller firms who could not afford such costly setups. Market power inferred by the structural nature of telecommunications markets may grant dominant firms the ability to squeeze profit margins from their business customers, ultimately reducing end-consumer welfare through transferred higher prices. High USSD rates charged to banks by MNOs may translate to higher mobile banking rates to customers. The growth and success of digital platforms is dependant on the ability of regulatory institutions to implement and enforce regulations that place a restraint on uncompetitive conduct, while encouraging innovation without stifling competition. Striking this balance is a huge task to regulators, and platform markets need this balance to generate inclusive growth and competitive outcomes (Paelo, 2014)

Interoperability can exist at different levels in the market. Platform interoperability exists where customers can send and receive money between accounts across networks. Where agents can serve customers from different networks, agent interoperability exists. If customers can access their mobile money account from any SIM card, customer interoperability is said to exist (Robb & Vilakazi, 2015). Very few of the above levels of interoperability exist, and where they do exist, the regulators have intervened to ensure that these are available on fair terms. Most of these markets exhibit constraints, where customers must cash out their funds from a registered agent who usually serves one MNO, known as agent exclusivity. This has become a common competition concern in many markets because it limits customer choice and ties customers to one network, which may in most cases be dominant but is not necessarily preferred by customers.

Enabling interoperability does not immediately result in fierce market competition, as the dominant firm's position may be otherwise entrenched, and firms may not have

the incentive to compete vigorously (Katz & Shapiro, 1985). Concerns therefore remain, including abuse of dominance, collusion, margin squeeze and tying and bundling. Because telecommunications markets are prone to tipping, many markets have witnessed strong winners and losers, where the winner takes it all. Thus, smaller rivals remain small, serving a small share of the market, usually with lesser quality services and network, and no influence on competitive outcomes in the market (Rysman, 2009). However, Tanzania is an example where interoperability has been part of mobile money service providers competing and consumers have seen the benefits of such infrastructure sharing agreements through lower prices and convenient services across networks (Robb & Vilakazi, 2015).

3: Analysis of market power, competition, and regulation in mobile money

The market structure and concentration in the mobile money sector in Zimbabwe was assessed using market share data from the mobile money and mobile banking sectors. The market power of EcoCash was assessed by using the mobile money transfer rates charged by firms for mobile money and mobile banking services in the context of rivalry from other MNOs and the banking system. The conduct of EcoCash was reviewed to establish the role of network effects in the mobile money sector, while the effectiveness of the regulations and competition enforcement was assessed by evaluating the market outcomes during and after the regulatory interventions had been pronounced.

3.1: Market structure and concentration in Zimbabwe

3.1.1: Mobile money and mobile telecommunications

There are three main telecommunications firms in Zimbabwe, namely Econet Wireless, NetOne and Telecel, which provide both mobile telephone and mobile money services as EcoCash, OneMoney and TeleCash respectively. Econet is a fully privately owned company. NetOne and Telecel are government owned companies (Nhundu, 2015). Both the mobile telecommunications and mobile money markets in Zimbabwe are highly concentrated, which is a common global phenomenon.

Market share information showed that Econet has consistently dominated the mobile telecommunications market, growing its market share to a high of 69.1% of subscribers in 2019, with a small decline in 2021 to 65.9% (Table 1). NetOne has consistently been in second place with a share varying between 22% and 36%, with Telecel being much smaller. Although Econet has shown some resilience in its market share, Netone has maintained a reasonable number of subscribers, growing slowly, exerting pressure on Econet’s market share.

Table 1: Market shares of active mobile subscribers for MNOs (2016 - 2021).

Operator	Year					
	2016	2017	2018	2019	2020	2021
Econet	50,6%	51,1%	65,8%	69,1%	68,0%	65,9%
NetOne	35,4%	35,9%	24,0%	22,9%	26,2%	29,8%
Telecel	14,0%	12,9%	10,2%	8,1%	5,7%	4,3%

Source: POTRAZ Quarterly Reports.

EcoCash entered the mobile money market later than OneMoney and TeleCash, and quickly gained dominance in the sector within a few years. Like its parent MNO it remained dominant through 2016 to 2020. In 2016, EcoCash had 98.1% market share of active mobile money subscribers, OneMoney had 0,7% and TeleCash had 1,2% (Table 2). EcoCash’s share of active mobile money subscriptions in 2020 had dropped to 88,0%, OneMoney had grown to 11,6% and TeleCash had a mere 0,4% (POTRAZ, 2020). EcoCash has consistently dominated the mobile money market over its two rivals OneMoney and TeleCash, despite its declining share. Even though NetOne had a reasonable market share in mobile subscribers, its market share in mobile money subscriptions was negligible between 2016 to 2019. It started growing its subscriber base significantly in 2020 due to government regulations which used NetOne as the preferred mobile money provider for the COVID19 relief funds disbursements. This demonstrates how government can use regulatory incentives to foster effective competition in a market which has a dominant player and few small players.

Table 2: Market shares of active mobile money subscribers for MNOs (2016 - 2020).

Operator	Year				
	2016	2017	2018	2019	2020
EcoCash	98,1%	97,4%	96,0%	93,8%	88,0%
OneMoney	0,7%	0,8%	2,8%	5,5%	11,6%
TeleCash	1,2%	1,7%	1,1%	0,8%	0,4%

Source: POTRAZ Quarterly Reports.

Since EcoCash has the most subscribers and the widest agent network, more subscribers are bound to join the popular network in subscriber numbers and agent network to enjoy the same benefits (Robb, Tausha & Vilakazi, 2016). The lack of interoperability between mobile wallets may also contribute to EcoCash’s sustained dominance, because it is convenient and cheaper to transfer funds between the same MNO wallets than off-net wallets.

EcoCash was more popular and resilient than its parent company, Econet. In 2020 EcoCash had 88,0% market share compared to Econet’s 68.0% market share (POTRAZ, 2020). This implies that there are customers who use other SIM cards for voice calls, but prefer using EcoCash for mobile money transfers. EcoCash clearly benefits from high network effects beyond Econet’s dominance in voice subscriptions and multisimring, with customers indicating that they use multisim phones which enable them to use EcoCash as a preferred mobile money provider and another network for voice calls.⁴

3.1.2: Mobile money and mobile banking

EcoCash, OneMoney and TeleCash are the main competitors in the provision of mobile money services on a primary level. They also compete with banks on a secondary level, through the ZIPIT platform. Because mobile banking mainly caters for clients who have a bank account, MNOs compete with banks for the provision of the service for the bankable sector of the population, while they compete amongst themselves for provision of the service to the unbanked sector of the population. The

⁴ Interview with RBZ staff member in the Regulatory Department. 9 September 2021.

convergence of competition exists in the provision of the service to the banked population, which both bankers and MNOs serve.

An assessment of the mobile transfer market indicated that the number of mobile money subscribers on average was higher than the number of mobile banking subscribers in the economy, between 2016 and 2020. There were just over 5 million mobile banking subscribers in 2020, with mobile money subscribers at over 6,9 million (Table 3). Considering that in 2020 EcoCash had a 92,1% share of the mobile money market, this implies that EcoCash had more mobile money subscribers than mobile banking subscribers collectively (for all the banks in Zimbabwe). Thus, in terms of market share, EcoCash is dominant in the provision of mobile payments services – both in comparison to its MNO and banking sector rivals.

Table 3: Active mobile banking subscribers and active mobile money subscribers (2016 – 2020).

Year	No. of mobile banking subscribers	No. of mobile money subscribers
2016	3 339 355	3 264 445
2017	3 750 348	3 797 179
2018	5 633 368	5 811 332
2019	6 331 432	7 059 239
2020	5 041 264	6 988 050

Source: RBZ and POTRAZ Quarterly Reports.

3.2: Market power and pricing

The assessment of market shares in the previous section clearly shows that EcoCash is dominant in the mobile money market. This section determines market power by assessing pricing across different services, namely mobile money and mobile banking. Tariff rates were calculated as a percentage of the transaction amounts to match the ZIPIT rates, which are gazetted as a percentage of the transaction amount. The Zimbabwe Dollar (ZWL) was the currency used in the analysis, unless otherwise stated.

EcoCash prices increased by more than 300% from 2017 to 2020, accompanied by only a 5% decrease in their market share (Table 4). This is indicative of substantial market power and a lack of any effective competitive restraint from rivals. Even though EcoCash should ideally be facing competitive constraints from banks and fellow MNO firms, it continued to raise its prices and retain a significant portion of the market.

Table 4: EcoCash mobile money tariff rates to registered subscribers (2017-2021)

Transaction amount (ZWL)	2017	2019	2020	2021
10	0,37	0,81	1,42	1,42
20	0,53	0,95	2,10	2,10
30	0,69	1,22	2,50	2,63
50	1,22	2,39	4,62	5,31
100	2,12	4,41	6,96	8,01
300	2,58	5,29	14,59	17,87
400	2,62	5,31		
500			27,54	34,43
1000				52,31
3000				1,91%

Source: Econet website and author's calculations

A comparison of prices for mobile money transfer indicated that EcoCash prices were higher than other MNOs at all transaction levels (Table 5). EcoCash also charged higher tariff rates than mobile banking, ZIPIT rates, at lower transaction levels, and the rates drew closer to each other at higher transaction levels. The analysis showed that mobile money transfer rates were lower for higher transaction amounts, and higher for smaller transaction amounts. The difference in charges was higher at lower transaction amounts and drew closer to other firms' charges for higher transaction amounts. With MNO mobile money subscriber bases reaching remote parts of the country including rural areas, an inference may be drawn that the common transaction amounts for mobile money could be low transaction amounts, and high transaction amounts for banks. Table 5 shows that MNOs charged a higher

percentage for these low transaction amounts, with Econet charging the highest tariff rate of 14.2% for sending ZWL10, compared to the ZIPIT average rate of 1,58%. In such instances, network effects can lock in subscribers in remote areas in an inefficient technology as they are not at liberty to switch in response to higher prices charged due to issues of convenience and accessibility (Weyl & White, 2014).

Table 5: Comparison of mobile money and mobile banking tariff rates as a % of transaction amount (2021).

Transaction amount	EcoCash	OneMoney	TeleCash	*ZIPIT (average across all banks)
10	14,20%	7,50%	5,90%	1,58%
20	10,50%	6,75%	4,75%	1,58%
30	8,77%	5,83%	4,07%	1,58%
50	10,62%	6,58%	4,60%	1,58%
100	8,01%	6,39%	4,20%	1,58%
300	5,96%	3,22%	4,62%	1,58%
500	6,89%	2,00%	4,04%	1,58%
1000	5,23%	1,00%	1,50%	1,58%
3000	1,91%	1,70%	1,50%	1,58%

Source: Econet website and author's calculations

A peer country comparison from 2017 shows that EcoCash was charging higher rates for high transaction amounts and lower rates for low transaction rates. For a US\$5 transfer, EcoCash was charging 10 cents, which was lower compared to Uganda charging the highest rate of 28 cents, and Kenya and Tanzania which were charging 15 cents and 14 cents respectively (Table 6). However, for a US\$150 transfer, EcoCash charged the highest transaction charge of US\$2.86, almost three times the next highest rate charged by Kenya. In 2020, maximum transfer limits were set at ZWL5000, which was equivalent to US\$61, hence no charges for the US\$150. Using Kenya as a benchmark, we can conclude that EcoCash overcharged its subscribers by 286%, which was exploitative in nature.

Table 6: Peer country comparison of mobile transfer tariff rates 2017 and 2020 (converted to USD).

Transaction amount	Zimbabwe (EcoCash, 2017)	Tanzania (2017)	Uganda (2017)	Kenya (2017)	Kenya (MPESA 2020)	Zimbabwe (EcoCash, 2020)
\$5	0,1	0,14	0,28	0,15	0,15	0,18
\$15	0,29	0,16	0,28	0,39	0,41	0,51
\$150	2,86	0,68	0,56	0,98	1,00	Not applicable

Source: Paelo, 2019 and author's calculations from Econet gazetted prices.

Considering that EcoCash prices increased substantially since 2017, this clearly indicated EcoCash's anti-competitive pricing compared to its peers in other countries. Comparing EcoCash's prices with M-PESA, Kenya, for the year 2020 showed that peer countries' prices remained relatively constant or increased slightly by small margins from 2017 to 2020. The analysis showed that EcoCash charged supracompetitive prices for its mobile money transfer services.

3.3: Conduct of EcoCash

The advocacy proceedings between POTRAZ, the RBZ, the CTC and the three mobile network operators resulted in the promulgation of various regulations in Zimbabwe. In November 2015, POTRAZ issued regulations on interoperability of mobile money platforms, mandating all three MNOs to facilitate interoperability and cross network mobile money transactions between their mobile money platforms (POTRAZ, 2015). EcoCash did not implement the wallet-to-wallet and bank-to-wallet transfers immediately.

A dominant firm has the incentive to resist interoperability and maintain its dominance by inducing out of network subscribers to join its network, and network subscribers to stay within its network (Robb et al., 2016). EcoCash exerted its market power by resisting interoperability while charging high tariff rates and growing its subscriber base over the years, without facing any consequences. EcoCash strategically spread its agent network across the country, riding on Econet's

widespread network infrastructure and ensuring that their agents exclusively served their customers.

With agent exclusivity, if an EcoCash customer sent funds to a NetOne subscriber, the receiver would have to cash out the funds at an EcoCash agent. EcoCash's refusal to interoperate between MNO wallets placed it at a strategic advantage because due to its dominance and widespread agent network, customers with other MNO SIM cards would ultimately have to use EcoCash to receive funds. It has been found that in the absence of interoperability, the difference between on net and off net charges tends to be higher than in markets where there is interoperability (Paelo, 2019). Dominant firms may exclude rivals by charging higher off net charges in such a manner that the customers are induced to switch to the dominant firm. Thus, EcoCash's refusal to interoperate may have excluded off-net customers, inducing them to switch from their provider, thus inferring market power for EcoCash and its ability to retain a significant market share beyond its exorbitant prices.

EcoCash also acted in an exploitative manner; by raising its prices anticompetitively between 2017 and 2020. Transferring ZWL50 cost ZWL1,22 in 2017, and this rose to ZWL4,62 in 2020. In a market where the dominant firm exclusively and exploitatively abuses its dominance, consumer harm is substantial and regulation needs to address this outright. EcoCash's refusal to interoperate also prevented its smaller rivals from effectively competing in the mobile money market, indirectly harming consumers by limiting their choices in an exclusionary manner and extracting rents from them through anticompetitive prices.

3.4: Evaluation of effectiveness of competition and regulation

In Zimbabwe's mobile financial services sector, regulators have been observing the workings of markets and making decisions based on their observations to regulate and enforce competition.⁵ In the case of EcoCash, regulators introduced various regulatory instruments to address the competition concerns raised by BAZ. These instruments included guidelines for both physical and USSD infrastructure sharing between service providers (POTRAZ, 2016).

⁵ Interview with CTC official. 28 September 2021.

Regulators initially failed to enforce the regulations as EcoCash took four years to comply with the interoperability regulations without consequences. Even so, EcoCash's prices, which are regulated by RBZ are still substantially higher than other MNOs and peer countries, indicating some level of political power and a great deal of market power. Thus, EcoCash has abused its dominant position in both the mobile telecommunications and mobile money services sector, and regulators have failed to restrain its conduct, at least in the five years during which new regulations were promulgated. Lack of credible enforcement mechanisms of regulation have rendered all the regulatory efforts useless.

An assessment of USSD rates charged to banks by MNOs was carried out by POTRAZ in 2015 using regional and international comparisons, and this revealed that Zimbabwe's USSD rates were much higher than those in other countries (POTRAZ, 2015). A costing analysis for USSD conducted by POTRAZ also revealed that the prevailing charges were not competitive and not justified. Based on these findings, in November 2015 POTRAZ issued regulations guiding the determination of USSD rates and standards of operation for MNOs. Of note was that network operators were mandated to assign USSD to banks on a non-discriminatory basis to promote competition in the mobile money sector (POTRAZ, 2015). Previously, USSD charges were not regulated by POTRAZ and in 2015 they ranged close to US\$0.30.

In 2016, POTRAZ introduced the Long Run Incremental Cost model (LRIC) to determine USSD pricing, with the aim of effectively reducing USSD tariff rates.⁶ This is the preferred pricing model by regulators as it is forward looking and transparent. Using this model, in 2016 POTRAZ initially pegged the price ceiling for USSD for mobile banking transactions at US\$0.05. This was then reduced to below US\$0.02 as of September 2021, equivalent to ZWL1,61 (POTRAZ, 2021). However, this was still very high in comparison to Kenya, whose USSD tariff rate is about US\$0,01 (Paolo & Roberts, 2022). In the same year, POTRAZ published the interoperability regulations for mobile money operators to enable their customers to send money

⁶ Follow up interview with Talent Munyaradzi. POTRAZ. 7 December 2021.

across different networks.⁷ Statutory Instrument 137 of 2016 was also published, stating the guidelines for physical infrastructure sharing to minimise unnecessary duplication of telecommunications infrastructure and promote competition.

MNOs in Zimbabwe are regulated by POTRAZ, and previously, there was a blind spot in the regulation of their mobile financial services. The growth of mobile money and associated competition concerns motivated the regulators to streamline the regulation of the mobile money sector to become regulated by a financial services regulator.⁸ The involvement of the RBZ has brought about sector-specific functional regulations through interoperability legal mandates. However, both regulators seem to be struggling with controlling the prices of EcoCash, which have remained at exorbitant levels through 2016 to 2020.

In 2017, RBZ issued Guidelines for Retail Payment Systems and Instruments, which required that all players in the payments industry implement interoperability in their systems (RBZ, 2017). By then, all mobile money providers were interoperable with banks through the ZimSwitch payments platform, but EcoCash had not yet activated the wallet-to-wallet service with fellow MNOs, which meant that recipients of cash had to withdraw money from agents depending on the network of the sender. Regulators continued with efforts to implement full mobile interoperability including wallet-to-wallet transactions across platforms in 2018, but to no avail (Robb & Paelo, 2020).

In 2020, the Money Transmission, Mobile Banking and Mobile Money Interoperability banking regulations were pronounced. These regulations mandated MNOs to ensure that their payment systems were recognised as per the National Payments Act, in addition to being licensed by POTRAZ. This entailed the requirement that these providers integrated to the National Payments Switch, and ensured that their infrastructure was deployed in such a manner that enabled interoperability of payments systems and services (SI 80 of 2020). In an economy where digital

⁷ Interview with CTC official. 28 September 2021.

⁸ Interview with RBZ staff member in the Regulatory Department. 9 September 2021.

financial transactions have grown rapidly over the past few years, the expected outcome of these regulations was robust competition between MNOs and inter-platform rivalry between MNOs and banks.

The regulators promulgated various regulations which were met with strong resistance from the dominant player in the industry, and also failed to fully enforce them. Currently, customers can transact between wallets – mobile or bank – at tariff rates regulated by the RBZ.⁹ However, it should be noted that despite RBZ regulations, EcoCash still charges higher prices compared to other MNOs, and to the detriment of their customers. MNOs now share some base stations, and there are potential projects where MNOs intend to jointly build base stations to enhance the benefits of infrastructure sharing.¹⁰

4: Conclusion

The objective of this paper was to assess the regulatory challenges that mobile money has presented in Zimbabwe, with particular focus on the anti-competitive complaint raised by banks against EcoCash in 2014, and the effectiveness of regulation in mobile money services. The study used EcoCash as a case study due to the fundamental competition concerns raised and the important milestones that regulation has reached while addressing these concerns. The major competition concern was abuse of dominance undermining rivalry. The study used primary data from the interviews and secondary data from different websites of the market players and regulators. Interviews were used to evaluate the market power of EcoCash and the effectiveness of competition and regulatory policies. The study's assessment found that EcoCash had phenomenal market power, and that it had abused its dominance by resisting regulations and continuing to charge anti-competitive prices to its customers.

The aim of competition policy and regulation is to provide for the prevention and control of restrictive practices. This study found that competition and regulation

⁹ Interview with Talent Munyaradzi. POTRAZ. 9 September 2021.

¹⁰ Interview with NetOne official. 12 September 2021.

policy in Zimbabwe failed to prevent EcoCash from engaging in harmful anticompetitive conduct, and failed to control EcoCash from substantially lessening competition and harming consumers in the period 2016 to 2020. Despite the pronouncement of various regulations over the years, results from the assessment still portray EcoCash's abuse of dominance, with no indication of prosecution.

Literature notes that first mover advantages that exist in the telecommunications sector may infer market power on the first movers who have secured a dominant share of the market. However, this is not the case for EcoCash. EcoCash entered the mobile money services market after Telecash and OneMoney. The growth of EcoCash may be attributed to the presence and play of network effects due to Econet's dominance in the voice services market and EcoCash's strategic expansion of its agent network across the country. The EcoCash platform is also possibly sustained by network effects that arise from multi-homing costs, and the value customers place on a network that has more users, which is a finding made by this study.

An important observation is that EcoCash prices were high in comparison to market rivals – MNOs and banks - and peer country MNOs. There is great concern about EcoCash's ability to continue charging high tariff rates yet still retain subscribers despite these rates. The findings of this study indicate the suggestion by some of the empirical literature that clients may place more value on the mobile money product than the cost of using it. Continued exploitative conduct by EcoCash demonstrates a level of political and market power. Abuse of market power may be attributed to the dependency of banks and other MNOs on the infrastructure of EcoCash. It is important for smaller firms to impose competitive pressure on EcoCash through investment in infrastructure and innovation. This is lacking in Zimbabwe, with both rivals of EcoCash being owned by government with little or no incentive to innovate.

The study also found that the adoption of USSD price regulation and the LRIC pricing model by POTRAZ have yielded lower USSD tariff rates, despite these rates having remained high in comparison to peer countries in the period under study.

The study found that platform interoperability now exists in Zimbabwe; where customers are now able to transact between MNO and ZIPIT wallets. However, the mobile money services sector is yet to achieve agent and customer interoperability. The study also found that there is a significant increase in the sharing of base stations between MNOs in Zimbabwe, and this reduces duplication of infrastructure and better maintenance of these base stations.¹¹

The study found that despite various reviews of regulations in Zimbabwe's mobile money services sector, lack of enforcement capacity has impeded the adoption and application of these regulations. The lack of a transparent role of the relevant regulators in regulating mobile money services has contributed immensely to this inadequacy.¹² At the time of finalising this paper, the two regulators in Zimbabwe, POTRAZ and RBZ were working on streamlining their roles in the regulation of the mobile money services sector, with RBZ taking on the responsibility of their financial regulation. It remains to be seen if the efforts being made by the two regulators in the regulation and monitoring of the mobile money and mobile banking sector jointly will restrain EcoCash, enforce competition, and generate lower prices for consumers in the medium to long term.

The case of EcoCash revealed how fundamental it is for competition and regulation policy to work together to generate a level playing field for market participants, especially in telecommunications markets. There is need for increased cooperation between competition and regulatory authorities in probing and prosecuting firms for antitrust conduct. The CTC should probe into EcoCash's ability to resist regulations and charge anticompetitive prices, in order to achieve the ultimate goal of generating fair prices to the consumer.

Lack of prosecution is problematic to efforts by regulators to develop a conducive environment for growth of mobile money and mobile banking services. Regulation

¹¹ Interview with NetOne official, 12 September 2021; Follow up interview with Talent Munyaradzi. POTRAZ. 7 December 2021.

¹² Follow up interview with Talent Munyaradzi. POTRAZ. 7 December 2021.

without enforcement does not yield full economic and competition benefits, and there is no disincentive to deter exploitative conduct. A review of competition legislation and regulatory roles to include enforcement across the board is also recommended.

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