

Main Report



Engaging Stakeholders towards a Productive Regulation of Payment Cards in Nigeria



Initiative for Public Policy Analysis

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The preparation of this document is the joint responsibility of the entire research team. The views expressed in this report are the responsibility of the entire research team and do not necessarily represent the views of IPPA.

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List of Abbreviations

ATM	Automated Teller Machine
CBB	Central Bank of Brazil
CBN	Central Bank of Nigeria
EU	European Union
FGD	Focused Group Discussion
FGN	Federal Government of Nigeria
FRB	The Federal Reserve Bank
FSA	Financial Stability Act, USA
FSS	Financial System Strategy
HKMA	Hong Kong Monetary Authority
IF	Interchange fee
MDF	Merchant Discount Fee
NCS	National Central Switch.
NIBSS	Nigeria Inter-Bank Settlement System Plc
OFT	Office of Fair Trading UK
POS	Point-of-Sale terminal
PTSA	Payment Terminal Service Aggregator.
PTSP	Payment terminal Service Providers.
RBA	The Reserved Bank of Australia
SFGD	Stakeholder Focused Group Discussion
UK	United Kingdom
USA	United States of America
WBES	World Bank Enterprise Survey

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Executive Summary

The cashless economy policy initiated by the Central Bank of Nigeria (CBN) is in line with the key objectives the Financial System Strategy (FSS) 2020, which is that electronic payments form the bedrock of all financial transactions. A move towards a cashless economy will benefit the Nigerian economy in several ways, including reduction in both the volume of cash in circulation and the costs associated with cash management. The risk associated with movement of huge cash from one place to another will also reduce. Overall, an electronic payment system will provide incentives for expanding consumer market, increases banking access to the unbanked, improves macroeconomic efficiency, and enhances entrepreneurial activity.

The remit for this study is to undertake a research on the regulation of the payment cards industry in Nigeria, with the aim of informing policy towards a productive regulation of the industry. Promoting the smooth functioning of payment systems is a core function of the CBN and is directly linked to its responsibilities as the regulator for monetary policy and financial stability. With respect to the payment cards industry however, the view explored in this study is that undertaking these regulatory responsibilities in a productive and an efficient manner requires an active engagement of the key stakeholders in the industry.

The methodological approach adopted is largely qualitative, focusing more on engaging the industry stakeholders (Central bank, banks, card platforms, merchants, and cardholders) to elicit their perspectives and discuss issues in the current regulation and business rules. To this end, the study is conducted in two phases: the first phase involves a general assessment of the Nigerian payment card industry, paying particular attention to current regulatory practice and business rules. This phase enables an understanding of the current state of knowledge, including the constraints, incentives, and the potential impact that the current practice may have on the adoption of payment infrastructure and usage of payment cards. The second phase involves a stakeholder engagement workshop, featuring presentation of the key findings from the first phase to the stakeholders and other interest groups (academia and media), and a Focused Group Discussion on the emerging policy issues.

The Nigeria payment system is a four-party system, comprising cardholder, merchant, cardholder's bank (issuer), and the merchant's bank (acquirer), whilst the card network administers the system and provides the card platform, but does manage the relationship between cardholders and merchants. Theoretically, a payment card system is recognized as a two-sided market, in which the cardholders and merchants form two distinct demand structures that must be satisfied simultaneously. The two-sided nature of the market requires that the fees for each side of the market be set at a level that maximizes the total value of the network to both sides of the market.

However, our findings indicate that the Nigerian payment card model deviates from the standard two-sided market framework, leading to some distortions and imbalances associated with ownership, deployment, and maintenance of payment infrastructure on the one hand, and the fee structure on the other hand. Any operator at the acquiring side of the market may own their Point-Of-Sale (POS) terminal (acquiring banks, Payment Terminal Service Providers (PTSP), Payment Terminal Service Aggregator (PTSA), National Central Switch (NCS), and merchants), but only the six licensed PTSPs can deploy and maintain the POS infrastructure. By qualification a PTSP is also a competitor for POS terminal ownership. This has important implications for the efficient operations of the acquiring side of the market.

Firstly, there is a potential agency problem in POS ownership and deployment. The PTSPs have a superior bargaining position to influence their charges relative to other actors who are not allowed to deploy their own terminals. Secondly, the restricted entry into the PTSP raises concern for implicit or explicit collusive behaviour, since POS adoption cost and subsequent costs are largely dependent on the competitiveness of the PTSPs. Also, there is evidence of duplication of processes and functions amongst operators at the acquiring side of the market. This ultimately increases costs to end-users with attendant effect on POS adoption and usage.

The structure of the fees and charges also provide a source of distortion. Merchants bear the entire fee including the initial cost of adoption. The exiting fees structure price-discriminates between small retail merchants and large merchants. Large merchants such as airlines and hotels can negotiate their fees with acquirer but small or retail merchants and traders cannot. The restriction on fees effectively limits the value of transaction that can be transacted on the POS terminal to N160,000¹. This is the efficient level at which the merchant is indifferent between paying fees as a fixed sum or as a percentage of the total of value of transaction. This means that retail merchants with sales at N160,000 or lower are cross-subsidising merchants with sales above this amount. In effect, POS adoption is constrained for small retail merchants who are more likely to be SMEs and traders that the regulator (CBN) is targeting for the cashless economy.

By implication, the interchange fee is no longer neutral as merchants of different sizes and types of business face different incentive structures. Such a fee structure does not appear to balance both sides of the payment card market. Also, fee setting by the Bankers Committee is distortionary since it is an outcome of a bargaining process rather than the ‘balancing act.’ The intermediating role of fee is unclear, as the role of card network/schemes in setting of fees is unknown.

For policy making, addressing “who sets the fees” and “how fees are set” are crucial for a well-functioning payment card market. It is inevitable that setting fees by the Bankers Committee will always raise suspicion of price-fixing given the fact that the Committee comprises both the issuing and acquiring banks. It is recommended that fee setting should be left to those whose function it is to balance both sides of the market such as the experienced card network/scheme.

Theoretically, to the extent that fee structure balances both sides of the market, a removal of the ‘no-surcharge rule’ can achieve a dual goal of enhancing card usage and POS adoption. In this case, one might expect that a small surcharging will help accelerate this, but evidence have shown that (i) even when allowed, merchants do not surcharge for fear of losing customers, and (ii) even in countries such as Australia that allowed some surcharging in the past, the trend is being reversed because of customer's resentment to surcharging generally².

As expected, the stakeholder groups appear to behave in self-interested manner. There is an implicit consideration of the incentives facing them in their responses and suggestions. Both sides of the market as represented by the cardholders and acquiring banks recognise the importance of service/network availability for the functioning of the market and to build

¹ The current exchange rate is 1USD= 157 naira

² Courier Mail, Brisbane: RBA to chop up charges, 14 January, 2013 page 35

customer confidence. These views suggest creating greater awareness and education of customers and the merchants.

Also, there is a general consensus that merchants should be incentivised, which may take several forms, including, tax-relief, subsidy, free POS deployment. This will improve the adoption and usage rate amongst potential merchants who are more likely to be SMEs, the majority of who do not make much profit to meet the initial cost of POS deployment. Merchants are cost-sensitive, just as customers are price-sensitive. In addition, there should be a continuous engagement process with stakeholders. This could mainly target and involve SMEs since the sector accounts for 85% of Nigerian enterprises.

Finally, credit card tends to be the most beneficial of all payment card instruments as it provides short-term credits to individuals and businesses. But this is the least developed in Nigeria. Financial infrastructure needs to be developed especially with regards to credit agencies, functional credit bureau and credit registrars to enhance usage of credit cards for transactions as well as assist in developing the credit market.

In conclusion, there is no perfect model of payment cards market; hence it remains one of the most heavily regulated industries in the world. Countries such as USA, Australia, Canada, UK, Mexico, among others, periodically review their payment card regulations constantly to ensure that observed distortions and imbalances are addressed. More so, Nigerian payment cards industry, being at the developmental stage is expected to exhibit some distortions and imbalances of which the regulator and policy-makers from time to time review and make amends where necessary.

Chapter 1

Introduction

1.1. Background

The Nigerian economy is largely cash-oriented. This means everyday transactions in the economy are based largely on cash payments. The Central Bank of Nigeria (CBN) reports that cash-related transactions represent over 99% of customers' activities in Nigerian banks (CBN, 2011b). However, cash-dominated transactions come at considerable costs both to individuals as well as to the economy at large, particularly costs associated with cash management. For example, the CBN estimates that the cost of cash management increased from N114.6 billion in 2009 to N135 billion and N166 billion in 2010 and 2011 respectively. These represented an increase of almost 18% between 2009 and 2010, and about 45% between 2010 and 2011, suggesting that the increase was more than doubled in two years.

The CBN projects that the cost of managing cash in the economy will amount to N192 billion in 2012 (CBN, 2011c). These costs arise from frequent printing of currency notes, currency sorting, risks associated with movement of huge cash from one place to another, risks associated keeping large amount of cash at home, security check for counterfeits and preventing high incidences of robberies and burglaries (Adeoti and Oshotimehin, 2011). Consequently, much of these costs are passed unto the customer in the form of higher service charges and high lending rates, with banks preferring to lend to the capital market and oil and gas industry at the expense of the real sector of the economy, such as agriculture and small and medium scale enterprises (CBN 2011)³.

An economy, whose transactions are largely cash-oriented has important implications for policy making and the effectiveness of existing policies. Firstly, under cash dependency, effective monitoring of the amount of money in circulation becomes severely constrained, as money outside the banking system cannot be subjected to regulatory and operational procedures.⁴ Also, the cash-dependent nature of the Nigerian economy can partly explain why the largest segment of the population, particularly the rural areas, remains largely unbanked.

From the forgoing, it is clear that the Nigerian economy will potentially benefit from an electronic payment system to support a move towards a cashless economy. Generally, a move towards an electronic payment system provides incentive for expanding consumer market, increases banking access to the unbanked, improves macroeconomic efficiency, and enhances entrepreneurial activity, amongst several other benefits. Specifically, a cashless economy effectively reduces the volume of cash in circulation, as well as reducing the costs associated

³Also see, 'Press statement by the Deputy Governor, Operations, Mr. Tunde Lemo on the new CBN cash collection policy', [Available from http://www.cenbank.org/Out/2011/pressrelease/gvd/PRESS_STATEMENT_ON_THE_NEW_CBN_CASH_COLLECTION_POLICY.pdf].

⁴ Ojo (2004) estimates that over 90% of funds in Nigeria circulate outside the banking system. See also Ovia (2003).

with cash management. Secondly, the risk associated with movement of huge cash from one place to another will be reduced significantly.

The ultimate goals of the financial system in Nigeria are set out in the Financial System Strategy, FSS 2020 (Central Bank of Nigeria, CBN 2007) mission statement:

- i.) To *facilitate economic activities* by providing safe and efficient mechanisms for making and receiving payments;
- ii.) with *minimum risks* to the central bank, payment service providers and end users;
- iii.) *extending the availability and usage* to all sectors and geographies, banked and unbanked; and
- iv.) *conforming to internationally accepted* regulatory, technical and operational standards.

One of the key objectives of the FSS 2020 is for electronic payments to form the bedrock of all financial transactions in the country. Nigeria is presently at the forefront of Africa's electronic payments growth, and provides a fertile ground for growth opportunities for payment cards market players. Electronic payment in Nigeria is at the present a growing financial innovation, and the potential benefits are consistent with the developmental objectives of the country.

However, the potential gains from electronic payments could be enormous, but their realization would depend largely on how the associated costs are distributed between providers and users of electronic payment instruments. This calls for a concurrent development of (amongst others) an appropriate regulatory framework for the industry.

1.2. Aim and Objectives of study

Promoting the smooth functioning of payment systems is a core function of the CBN and is directly linked to its responsibilities as the regulator for monetary policy and financial stability. With respect to the rapidly growing payment cards market however, the view explored in this study is that undertaking these regulatory responsibilities in a productive and an efficient manner requires an active engagement of the key stakeholders in the sector.

In line with the remit as stated in the above, the central aim of this study is to explore the prospect of engaging the key stakeholders towards a productive regulation of payments cards in Nigeria.

The main objectives are:

- i. To provide an overview of the payment cards market in Nigeria, focusing on how the payment card industry has evolved in recent years.
- ii. To critically examine the current regulation and business rules in the payment card industry. This is important for identifying regulatory issues that are of interest to the stakeholders and policy-makers.
- iii. To elicit the perspectives of stakeholders and assess their preferences and views regarding the identified issues in the current regulation of payment cards in Nigeria.

- iv. To make recommendations for policy that emphasises stakeholder engagement in the regulatory process.

1.3. Methodology

The methodological approach adopted for this study is largely qualitative. This is largely because of lack of data to carry out quantitative analysis. Also, in line with the remit for the study, we focus more on engaging the industry stakeholders to elicit their perspectives and discuss the emerging issues in the current regulatory practice.

The key target audiences for this study are those whose policies, decisions, behaviours, and practices we are trying to influence with the research findings. The ultimate goal is to foster a constructive engagement amongst these groups of people towards an efficient and productive regulation of the payment cards in Nigeria. These include the CBN officials, officials of relevant ministries, sector operators (issuing and acquiring banks, and card schemes/networks), the organized business sector (merchants), and the general user public (cardholders), and independents (i.e. representatives from the academia and the media).

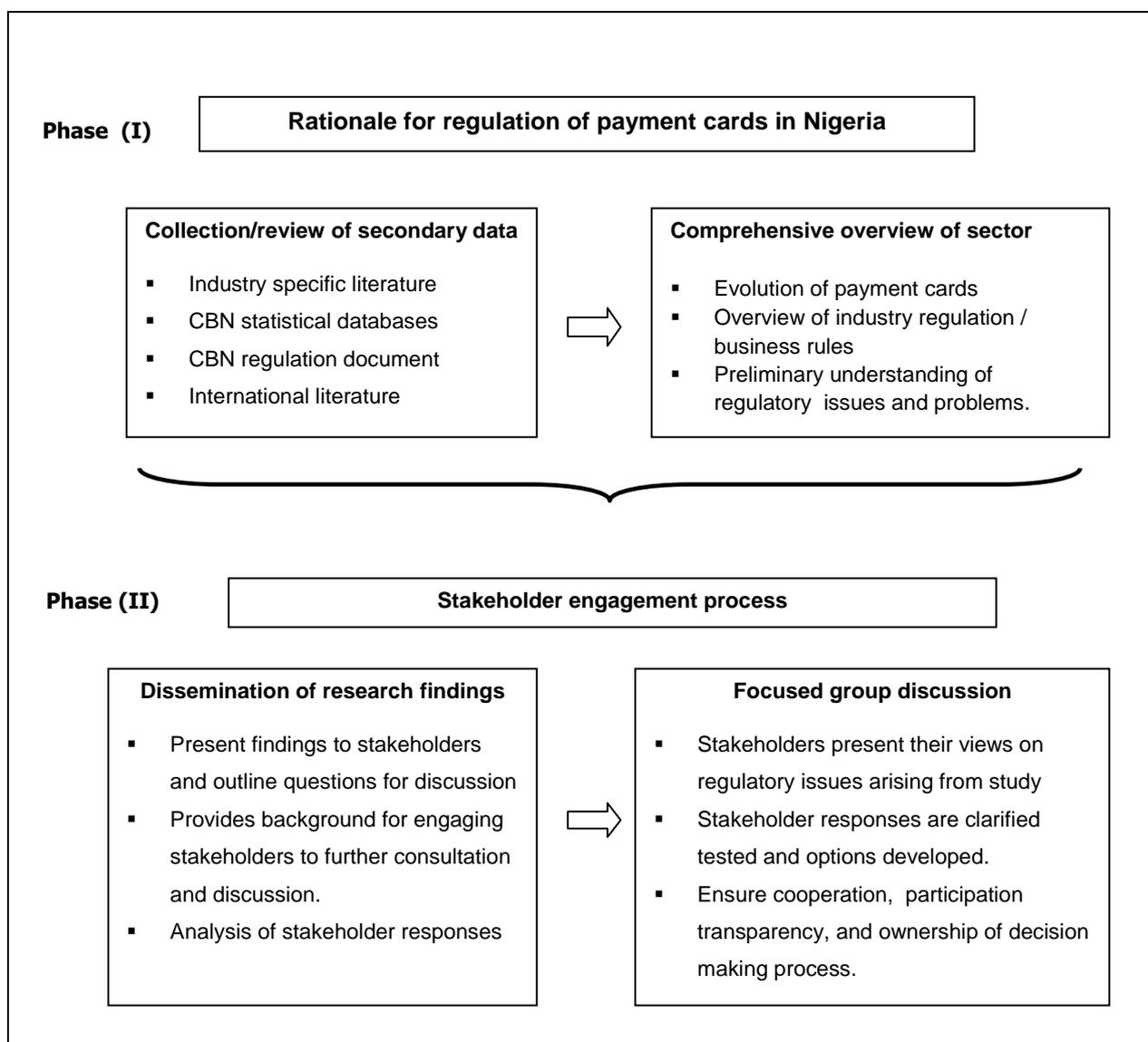
1.3.1. Conceptual framework

Figure 1 presents a diagrammatic representation of the methodological approach adopted in this study. The framework is all-inclusive in the sense that it emphasizes the participation of all the relevant stakeholders (the regulator, and other stakeholders), thereby encouraging co-operation, transparency, and participation in a decision-making process. As the figure shows, the methodological approach adopted involved two major related phases, namely:

1.3.1.1. Establishing the rationale for regulation of payment card industry in Nigeria

The first phase involved a general overview of the payment card industry, paying particular attention to an assessment of the current regulatory practice involving the industry and an assessment of the current practice with respect to regulation of the industry. This phase is important for an understanding of the current state of knowledge, including the constraints, incentives, and the potential impact that the current practice may have on the adoption and usage of payment cards.

Figure 1.1: Methodological framework



1.3.1.2. Stakeholder engagement process

The second phase involved engaging the key stakeholders and interest groups, including the academia and the media, in the payment card industry at a workshop setting, featuring a Focused Group Discussion (FGD). As indicated in Fig 1 (Stage II), the key aspects the stakeholder engagement process include:

- i) Dissemination of key findings from the first phase of the study to the key stakeholders and/or their representatives, and the general public. The aim here was to gain feedbacks

from them on the findings and to provide a platform to initiate further discussions on the emerging regulatory issues.

- ii) Featuring an FGD where the relevant stakeholders and/or their representatives, present their views on the emerging issues. Such a forum enabled the participants to identify stakeholders views and explore options for aligning interests and opportunities to work together to achieve a productive regulatory framework. Also, the FGD setting provided an opportunity amongst stakeholders to build a network of relationships, allowing issues to be verified, tested and options developed.

1.3.2. Data requirement

1.3.2.1. Secondary data

The first phase of the research relied on available secondary data and information obtained from various sources, including industry-specific literature and published articles, CBN statistics database, and international literature. For example, the CBN statistical database is publicly available on the relevant indicators such as volume of transactions and associated monetary value for all the major payment channels between 2006 and 2010. Also, information on the current regulation and business rules governing the payment cards industry in Nigeria were obtained from the relevant sections of the “*Guidelines on Point of Sale (POS) Card Acceptance Services*”, published by the CBN and stamped as ‘APPROVED’ (CBN 2011).

1.3.3. Primary data

Stakeholder engagement process via the focused group discussing was an important aspect of the study. The response of the stakeholders to the discussion issues provided useful source of information, which we analyze further.

1.4. Organisation of the report

The remaining part of this report is organised as follows. Chapter 2 provides an overview of the economics of payment card market. The key elements in this chapter include the nature of payment card market as a two-sided market, characteristics of the market, the intermediating role of card networks, and issues of regulation in the market.

Chapter 3 describes the international experience with regulation of payment card industry, drawing examples from the United Kingdom (UK), United States of America (USA), Australia, Brazil and Mexico. For these countries, the major issues examined include rules governing operations in industry, evidences of imbalances and distortions in the market and the response of regulatory authorities, and lessons to learn.

Chapter 4 provides an overview of the current practice in Nigeria, focusing on the relevant sections of the regulatory document “*Guidelines on Point Of Sales Card Acceptance Services*” approved and published by the CBN (CBN, 2011b). We examine the transactions undertaken at the various payment channels including ATMs and POS terminals. We also discuss issues such as access to the market, POS adoption and usage, and the market structure.

Chapter 5 comprises two parts. The first part the presents the emerging issues from the previous chapter and discusses the potential impact on the adoption and usage of payment card infrastructure in the industry. The second part analyses the outcomes of the FGD with the aim of eliciting their different perspectives and seeking a balance between these.

Chapter 6 presents the general conclusions, including policy recommendations, limitations of study and areas for future research.

Chapter 2

The economics of payment cards market

2.1. Introduction

This chapter examines the economic aspects of the payment cards market. The economics of payment cards market form the basis for an understanding of how the payment card system works, and the set of interrelationships between the parties in a payment system. These are important as they tend to influence public policy-making process to address issues of regulation of the payment cards industry.

2.2. Models of payment systems

The literature recognises two dominant models of payment systems, depending on the structure of the relationships between the market actors (i.e. cardholder, merchant and card network): three- and four party card systems. In a three-party system, the relationship between the cardholder, the merchant and the card network is direct. That is; there is no clear intermediation of banks in a given transaction. Typically, the card network acts as both the acquirer and the issuer. American Express provides an example of a three party system.

In a four-party system on the other hand, the system comprises the cardholder, the merchant, the cardholder's bank (issuer), and the merchant's bank (acquirer), whilst the card network administers the system and provides the card platform, but does not manage the relationship between cardholder or merchant. VISA and MasterCard provide examples of four-party systems. This study focuses on the four-party system.

Figure 1 provides an illustration of the four-party card system.⁵ As the figure shows, there are basically five participants in the payment system, namely;

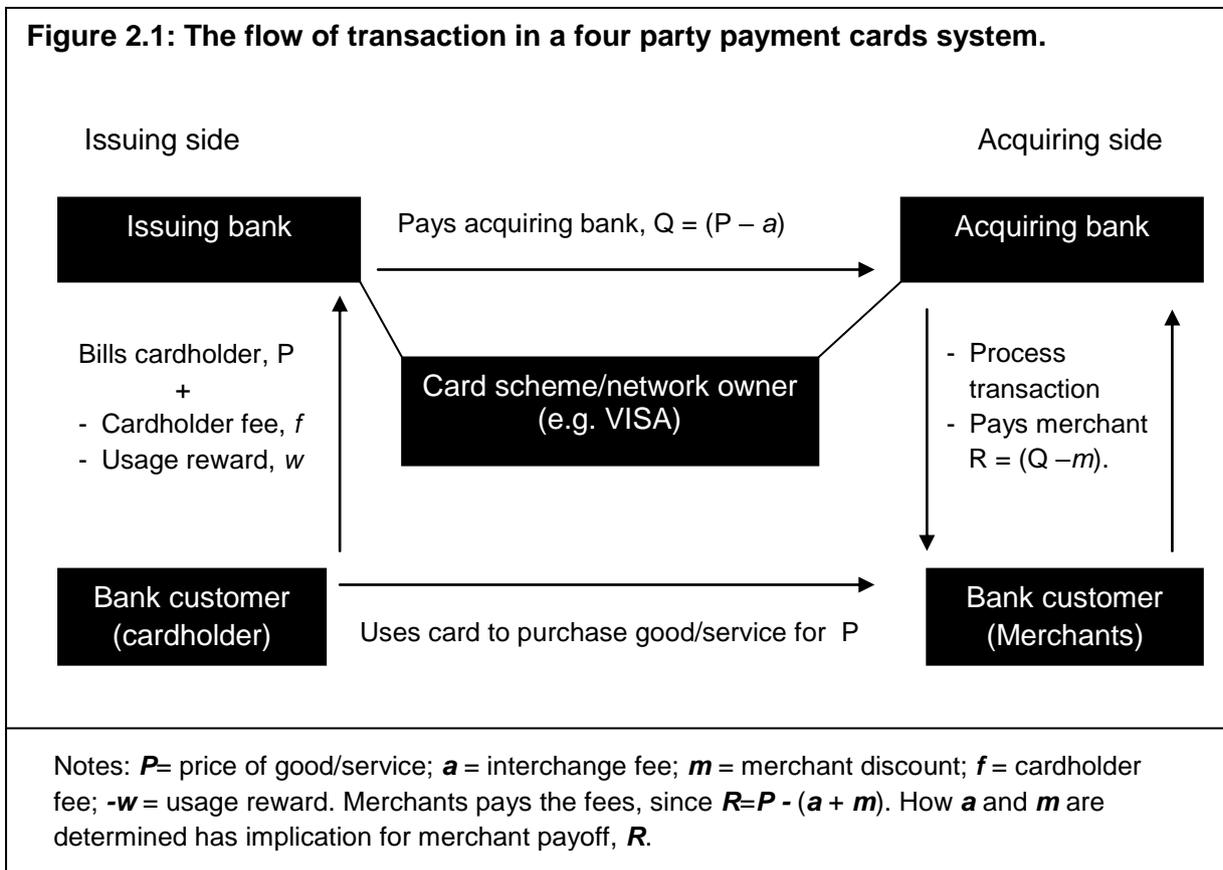
- i) **Merchants:** These are usually business entities or service providers who adopt electronic payment infrastructure such as POS technology from their banks or private suppliers and use it to accept payments by means of cards. Merchants include small retail businesses, wholesale or medium enterprises, and large scale / multinational enterprises including airlines, hotels, and departmental stores.
- ii) **Cardholders:** usually bank customers who have been issued by their banks with cards (debit or credit cards)⁶. Cardholders use their cards for different transactions, including cash withdrawals from ATM machines, and purchase of goods and services from merchants.
- iii) **Issuing banks** (or card issuers): these are mainly banks or other entities that are responsible for issuing payment cards to their customers (card holders). For this

⁵ Note that a three-party platform can be depicted from the figure as comprising cardholder, merchant and the card network, issuer, and acquirer as a single party.

⁶ Note that Automated Teller Machine (ATM cards) are mainly debit cards.

purpose, they undertake extensive process leading to issuing of payment cards, including identification, eligibility requirements, authorisation, setting cash withdrawal or credit limits, financial charges, repayment collection and arrange rewards programs.

- iv) **Acquiring banks** (or merchant acquirers): usually banks to the merchants, and are responsible for administering contracts with merchants. Such contracts govern the participation of the merchant in the payment cards system. As part of the contract, merchant acquirers provide the POS payment infrastructure including installation, maintenance and training.
- v) **Card schemes/networks** (e.g. VISA and MasterCard): are business entities who own the card brands and set up the operational standards and business rules governing a scheme.



As Figure 2.1 shows, there are various interrelationships within the system: (i) between cardholder and card issuing bank (issuer); between merchant and acquiring bank (acquirer); between cardholder and merchant; between acquiring and card issuing banks; and between the card network and the acquiring and issuing banks. The set of interrelationships that exists across these key industry players is at the centre of regulatory issues involving payment cards industry.

Box 2.1 shows a hypothetical payment transaction involving a payment of N100, with a fee structure fixed at 1.25% of the value of transaction. The corresponding flow follows five interrelated stages, namely:

- i) *Stage 1*: a cardholder builds a relationship with an issuer bank and receives a payment card (e.g. a debit/credit card), in exchange for some annual fees (if applicable), or the cardholder receives some transaction-based rewards (- w) such as cash back bonus or frequent-user rewards.
- ii) *Stage 2*: the cardholder uses the payment card to make a purchase of N100 from the merchant. With no-surcharge-rule, the merchant submits the transaction for authorisation via the network platform to the issuer⁷. Here, the merchant has a relationship with the acquiring bank acting as the former's banker and makes settlements on its behalf.
- iii) *Stage 3*: The issuer approves the transaction, bills the cardholder N100, but transfers N99.25 via the card network to the acquirer, thereby retaining the interchange fee of N0.75 on 0.75% of the total value of the transaction.
- iv) *Stage 4*: The acquirer then deposits the sum of N98.75 into the merchant's account, implying a further reduction of merchant discount fees of N0.50 or 0.5% of the total value of transaction.

Box 2.1: Simple illustration of a transaction involving a payment card

From Fig. 1: Let Price, $P = N100$; interchange fee, $a = 0.75\%$ per transaction; merchant discount fee, $m = 0.5\%$.

Cardholder transaction	N100
<i>Interchange fee (-a)</i>	N0.75
Card network transfer to acquiring bank	N99.25
<i>Processing fee to acquirer (-m)</i>	N 0.50
Acquiring bank pays merchant	N98.75

Note: Total fee structure ($a + m$) (1.25%), paid by merchants, since $R = P - (a + m)$. How a and m are determined has implication for merchant payoff, R .

From the above illustrations, it is clear that the issuing banks undertake much of the activities in a payment card system, hence they tend to incur the most significant costs necessary to provide the benefits that the consumers and the merchants receive from the payment system⁸.

⁷ The no-surcharge rule means that the merchant cannot charge the customer more than the purchase price for using a payment card. That is; the customer pays the same price irrespective of the payment instrument used.

⁸ For example, the issuing banks build a cardholder base, create and maintain a sound billing and collection system, establish some system compliance, as well as set customer service programs (Zywicki 2010).

Some questions arising from the above simple illustration are at the centre of the economic regulation of payment cards⁹.

2.3. Features of a payment card market

2.3.1. Payment card system as a two-sided market and network externalities

The payment card system is commonly recognized in industrial economics as a two-sided market, in which there exists two different sides of market to a particular product unlike the conventional one sided market. Four-party system card payment market as a two-sided market is such that cardholders and merchants represent two distinct demand structures that must be satisfied simultaneously. The market consists of the relationships between the merchants and their banks (acquiring banks) on one side of the market, and as well as the relationship between the cardholders and their banks (issuing banks) on the other side of the market, with each of the markets facing different costs and incentives that shape behaviour in each of them (Negrin, 2005; Zywicki 2010; Tirole, 2010).

The two-sided nature of the payment card market requires that the ‘prices’ or fees for each side of the market be fixed at a level that maximizes the total value of the network to both sides of the market, given that participation (or willingness to pay) of one side of the market is, to a large extent, dependent on the other side’s willingness to participate in the market. This means that each side imposes an externality on the other and that there is interdependency of demands on both sides of the markets.

Thus, the interdependent nature of the two demand structures in a four-party system generates network externalities in the payment card market. The basis for network externalities is that the value of the payment system to cardholder increases with the number of merchants participating in the network and the value of the payment system to the merchant, on the other hand, increases with card usage. Other things being equal, a merchant is will adopt a platform whose cards are widely used by customers (cardholders), whilst cardholders on the other hand, will prefer a card that are accepted by merchants as a payment instrument.

Again, getting the right amount (the optimal fees) that will maximize the value of POS card transaction is a major issue confronting the networks and mostly generates regulatory issues in the payment card industry. The issue of how much to charge each of the market sides is not peculiar to card market alone but is common in other two-sided markets. For instance, newspapers decide how much to charge advertisers against readers, and trading posts decide how much to charge buyers versus sellers (see, Zywicki 2010).

The main challenge for the card networks like VISA and MasterCard, is how to determine the cardholder and merchant prices in an open market system, especially in a four-party system, where the merchant and cardholder prices are set by the acquirers and the issuers (or their representatives). This is because merchant’s adoption of POS decisions increases with card

⁹ For a recent review of regulatory issues in payment cards, see Tirole (2011).

usage, and customer's usage increases with merchant acceptance of cards, therefore, there is need for balancing of both sides of the market through appropriate transfer fees (see Fig. 2.1).

2.3.2. Fees structure

As could be observed in Figure 2.1, the fee structure in a payment card market comprises cardholder fees f , a fixed component usually in the form of a recurrent annual fee charged on cardholders by the issuing bank; the interchange fee (IF) a , paid by the acquiring bank to the issuing bank; and the merchant discount fee m , paid by the merchant to the acquiring bank. Apart from the cardholder fees, the fees relating to a transaction (a and m) are paid through the network scheme. Indeed, both the issuing and acquiring banks pay a fee to the network/scheme owner for the use of its brand and (where relevant, international) networking services (Central Bank of Brazil, CBB 2010).

For the issuing side of the market, in addition to the fixed component of cardholder fees can also take the form of rewards (e.g. cash back bonus) ($-w$) offered by issuing banks to cardholders for usage of their cards¹⁰. The cardholder fees is usually smaller than the marginal cost of service provision, as the essence is to encourage payment card usage by customers (CBB 2010).

The literature indicates that cardholder fees is influenced by several factors, including the cost to the issuing bank/issuer and the degree of competition amongst issuing banks and other issuers (e.g. CBB 2010). If the cost (e.g. security costs) to the issuer increases, this increase might be pass onto customers in terms of higher fees. To some extent, the more competitive the market in which the issuer operates, the lower will be the fees.

Also, higher interchange fees and the degree to which customers can respond to changes in prices of demand for card services should lower cardholder fees. In the former, any increase is shifted to the merchants (see illustration below). In the latter, if the customer can find alternative payment method, without using the card.

For the acquiring side of the market, merchants tend to undergo two types of costs, namely, a short-run fixed cost and a variable cost. The fixed cost is usually incurred for the adoption of the POS infrastructure and the use of the card platform (e.g. procurement or rental charges, maintenance, training, security, etc.). The variable cost on the other hand, is the merchant discount fee (MDF) m ; and it is usually transaction-specific. That is, it is based on the value of a transaction.

The MDF tends to increase with the acquiring costs of providing services to merchants. Also, an increase in the interchange fee a , is more likely to be passed onto the merchants in terms of higher MDF. On the other hand, the degree of competition amongst acquirers may reduce MDF, and the degree to which merchants can resist such changes (CBB 2010). Specifically, if the merchants are themselves competitive they will be less likely to resist fees hike (or more willing to pay higher fees), making them more inclined to adopt and accept card payments.

¹⁰ Note that the customer reward or bonus is a negative fee.

Also, the nature of goods and services being traded can also influence the degree of resistance that merchants can exercise in the face of an increase in MDF. If the demand for the good or service is inelastic (i.e. less responsive to price changes), the more the merchants are able to pass on the MDF increase to their customers. In practice however, merchants are often prevented from doing so through regulations such as the no-surcharge rule (see Section 2.2.3.1).

2.3.2.1. The interchange fee (IF)

The interchange fee a , is the fee charged by issuing banks to acquiring banks, generally a small percentage of the value of a transaction. The interchange fee presents the issuing bank with the ability to recoup some of the operating costs without imposing higher direct costs (e.g. annual card fees, etc) on cardholders¹¹. It is clear from fig.1 that merchants have no direct relationship with issuing banks, except where the issuing bank is also the acquiring bank.

However, it is through the interchange fee that merchants compensate issuing banks for the cost it incurs for the provision of the payment service. Thus, although the interchange fees are paid by the acquiring bank, the merchant is actually the one making the payments, albeit indirectly¹². Therefore, the interchange fee set should be able to balance the costs of provision with the benefit of usage to the merchant.

The interchange fee essentially is a reallocation tool. That is; it reallocates some of the costs towards the merchants for the benefits the merchants enjoy from card purchases (Schmalensee 2001). The interchange fee shifts some costs of service provision to the merchant, as well as facilitating the payment card system by enabling merchants to make sales electronically and on credit (in case of credit cards) without incurring operating costs such as the risks associated with holding large volume of cash, with attendant risk of theft or robbery. Thus, it is critical to attract merchants to the payment system network.

Much of the regulatory issues surrounding IF relates to the 'who' sets the fees. Specifically, it is often argued that market failure arises when interchange fee is jointly determined by issuing and acquiring banks (or their representatives) as often observed in practice.¹³ However, whilst a joint determination of price is a regulatory issue in a less competitive or in an oligopolistic market, the concern for market failure arising from a joint determination of IF is unfounded in the context of payment cards. This is largely because; first, there are two groups of end-users; cardholders and merchants. The functioning of a two-sided market is such that an increase in the price of card transactions (i.e. IF) for one group (merchants) lowers it for another group (cardholders)¹⁴.

The conclusion in the literature is that the IF affects the price *structure* and not the price levels. This is a feature of two-sided markets, which makes suspicion of collusion or joint determination of IF inadequate as evidence of market failure (e.g. Tirole 2011; Evans 2011; Armstrong 2006; Rochet and Tirole 2003).

¹¹ Note that the issuing banks can receive payment for their services to the consumers (cardholders) such as annual card fees, in addition to the interchange fees.

¹² Note that from Fig. 2.1, the payoff to the merchant is $R = P - (a + m)$.

¹³ For example; Mexico (Negrin 2005).

¹⁴ See the example provided in (ii) below.

2.3.2.2. Interchange fee as a balancing (an equilibrium) mechanism

From the academic literature, the payment card transaction is at the equilibrium when the total transaction demand for card services (determined by cardholder and merchant jointly), is equal to the total transaction costs of providing those card services by both the issuing and acquiring banks (Baxter 1983). Even where both the acquiring and issuing banks exercise market power, and merchants operate in a competitive environment, the interchange fee balances the demand for payment services by cardholders and merchants and the cost to banks of providing them (Schmalensee 2002). In this case, the profit-maximising level of interchange fee of issuing and acquiring banks may also be socially optimal (Bolt and Chakravorti 2008).

However, where merchants in different industries or of different sizes receive different benefits from accepting cards, an increase in the interchange fee will lead to a trade-off between cardholder benefits and merchant usage, as some merchants will not accept card payments (Wright 2004).

2.3.3. The intermediating role of card networks and the balancing act

Both sides of the payment card market can be thought of as providing necessary inputs to the production of a payment card transaction, which in turn is consumed by both the cardholders and the merchants. The card networks act as intermediaries in the card payment system by setting the rules under which the fund transfers between the issuing and acquiring banks take place (see, Figure 2.1). This helps to smoothen the functioning of the payment card system. Also, by bringing together the four participants in a transaction involving card payment (i.e. cardholder, issuing bank, merchant, acquiring bank), card networks facilitate both sides of the transaction, and intermediate between acquiring and issuing banks.

More importantly, the intermediating role of the card network in bringing the two sides of the market together creates an economic value. This is because cardholders only benefit from holding a card when they know that their cards are accepted by a wide variety of merchants and likewise merchants benefit from card usage only if consumers use it. Cardholders will not carry a card if no merchants will accept it, and merchants would not incur the costs of accepting a card that consumers do not use. Thus, the fees charged by the network/platform is not a price per se, but a mechanism through card network ensures participation of the two sides of the payment card market (Tirole 2011).

However, a key challenge facing any two-sided market is to set prices (fees) for each side of the market to attract their simultaneous participation in the network (CBB 2010). Deriving the right amount of inputs and optimal fee to maximise the value of a payment card transaction is a central issue faced by card networks or platforms, and often generate issues in the regulation of the payment cards industry. For example, a high merchant discount fee may discourage some merchants to adopt the POS payment infrastructure, or if adoption is forced on them, they may refuse acceptance of payment cards, resulting in fewer potential card transactions. On the other hand, a high cardholder fee may reduce consumer participation. For instance, if cardholders pay charges per transaction, this may reduce the usage of their cards. Thus, for policy makers, addressing the related questions of 'who sets the fees?' and

‘how are the fees set?’ is important for an effective policy-making affecting the functioning of a payment card market.

2.3.4. Business rules in the payment card industry

2.3.4.1. No-surcharge rule

The no-surcharge rule is one of the business rules governing payment cards market and it is often a subject of debate on the regulation of the industry. The no-surcharge rule means that a merchant is not allowed to charge a customer for the use of a payment card. That is; a merchant cannot charge the customer more than the purchase price for using a payment card rather than other payment instruments such as cash. A customer pays the same price irrespective of the payment instrument used.

However, there are concerns relating to potential anti-competition and distortionary effects associated with this rule. Specifically, the no-surcharge rule has implications for market efficiency, payment card usage, and access to credit (in case of credit cards).

From the economics perspective, allowing merchants to surcharge cardholder for the use of their cards represents price differentiation or price discrimination. Allowing merchants to surcharge implies that merchants can charge different prices according to the payment instrument used by customers. According to CBB (2010), price differentiation embedded in allowing merchants to surcharge is beneficial:

- i) It reduces cross-subsidisation from consumers who use other payment instruments such as cash to customers who use payment cards, particularly if the later are high income customers.
- ii) It promotes economic efficiency where there are various payment instruments such as debit cards, credit cards, prepaid cards, by allowing merchants to signal the costs of a payment instrument through differential pricing. This is based on the view that price differentiation distorts the contestability of the payment card instruments.

It is often argued that surcharging may lead to a lower usage of POS payment instrument. This is so because customers using alternative payment instrument such as cash, will pay a lower price, thereby leading to loss of social welfare arising from a reduction in the volume of transactions at POS terminals and reduction in usage of card by customers (CBB 2010). Contrary to this view however, customers/cardholders can benefit from surcharging as it leads to a positive effect on the free structure. Surcharging implies that merchants will pay a higher merchant discount fee which are passed unto to customers in terms of lower card fees or higher rewards in order to encourage card usage¹⁵.

Moreover, the literature and country experience (next chapter) indicate that even where surcharging has been allowed in practice, only a few proportion of merchants do apply them (e.g. CBB 2010). The majority of merchants do not apply the rule for fear of losing their

¹⁵ It is likely that the amount of surcharge per transaction will be lower than card fees. In Nigeria, issuing banks do charge the customer a monthly fee of N100.00 for the use of ATM cards to withdraw cash. This is equivalent to 5, 000 transactions with a surcharge of 0.02% or 2 kobo per transaction.

customers. This suggests that the removal of ‘no-surcharge’ rule does not necessarily impose a significant effect on the payment card industry.

In summary, the no-surcharge rule is a distortion in the payment card market, as it reduces competition, and indirectly imposed greater costs on the customers. Regulatory issues associated with surcharging are discussed Section 2.4.

2.3.4.2. Honour all cards rule

The honour-all-cards rule implies that merchants should accept all relevant payment cards, irrespective of the issuing bank, the nature of the card, or product type. In principle, the honour-all-cards rule stimulates competition in the issuing side of the market and this rule is necessary to maintain the credibility of the payment card arrangement. Also, this rule ensures that no customer/cardholder is discriminated against on the basis of the issuing bank or the type of card.

2.4. Regulatory issues in payment cards industry

The major issues of economic regulation in payment cards market relate to the fees structure and the business rules governing operations of the key participants in the market. Some of these issues are discussed as follows:

2.4.1. Network setting of interchange fees

An important policy-relevant question relates to who sets the fees and how are the fees set. This is policy relevant as the fee issue can, to a large extent, hinder adoption of payment infrastructure by merchants and card usage by cardholders. The interdependent nature of the two sides of the market makes it clear that merchants would not incur the cost of procurement of payment infrastructure when they are unsure of usage by customers. Even after procuring the payment infrastructure, if the fees are very high it may discourage some merchants from accepting payment cards.

One of the important results from the literature is that, if the card networks (e.g. VISA and MasterCard) each set their own interchange fees, the system competition will bring the interchange fee down only if cardholders could hold multiple payment cards. This is called ‘*multi-homing*’ in the literature. If cardholders hold a single card or hold several cards on the same network (e.g. several VISA cards issued by different banks or cards with different functions), competition between the networks will exert pressure on the interchange fee to come down, because only the cardholder has a choice of which card to use for a transaction.

The merchant on the other hand has little choice but to accept the cardholder’s offer of payment card. This imposes a competitive dilemma for the merchant. Thus, the consumer information about the merchant’s card acceptance policies will drive the interchange fee up, whereas consumer’s holding multiple cards drives interchange fee down towards the social optimal level. Interestingly, multi-homing by customers also implies that the issuing banks will have little incentive to increase fees to the cardholder, as multi-homing effectively imposes competition amongst issuing banks. However, this sort of competition may lead to

proliferation of different types of cards, with product differentiation characterising the market (e.g. Tirole 2011; Zywicki 2010).

In summary, the above conclusions suggest that regulation of interchange fees may lead to unintended consequences that generate distortions and inefficiencies in the system.

2.4.2. Neutrality of interchange fee and no-surcharge rule

As indicated earlier, interchange is essential to balance both sides of the two-sided market. However, the regulation of Interchange Fee (IF) is at the centre of regulation of payment cards in developed countries such as Australia, UK, and USA¹⁶. The last decade has witnessed particularly intense debates surrounding the regulation of IF level, with Australia serving as a case for mandated reduction of IF for VISA and MasterCard schemes, as well as removal of no surcharge-rules (see, Gans and King 2003b and 2000c).

Allowing merchants to surcharge according to the payment instrument used has been considered as a practical regulatory solution relating to the level of interchange fee. The argument is that surcharging is essential to maintain neutrality of interchange fee. For example, in their theoretical analysis of regulation of payment cards in Australia, Gans and King (2003a) argued that interchange fee is neutral if, irrespective of whether the merchant, issuing, or acquiring banks have market power, a change in the interchange fee does not change the volume of transaction by cardholders and the profit level of merchants and banks. The effect is that, there is a '*cost pass through*' arising when a lower consumer card fee resulting from higher interchange fee are exactly offset by higher goods prices from merchants. The authors therefore recommended that policy-makers should remove any merchant pricing restrictions, such as the no-surcharge rule.

The conclusion in the literature is that, allowing price differentiation according to the payment instrument used is the best policy. It is believed that an effective price differentiation takes into account not only the costs incurred in providing payment card services, but also beneficial in that it provides greater incentive for cardholders to recoup this cost via rewards associated with increased usage.

In the next chapter, we examine the international experience with respect to regulation involving the payment cards industry.

¹⁶ We provide a comprehensive review of cases in Chapter 3. Also, see Tirole (2011).

Chapter 3

International experience of the regulation of payment cards industry

3.1. Introduction

This chapter provides an overview of the international experience regarding economic regulation of the payment card industry. The rationale for this chapter is to examine what their experiences are and understand what lessons can be learnt. The lessons from the experiences of those countries can serve as a guide in implementing the system and help to assess the feasibility or otherwise of the initiative.

The advancement in information technology has found expression in the banking industry in recent times. In fact, e-transactions have increased considerably in virtually every part of the world. Banks and other financial institutions are increasingly recognising the need to move towards in e-payments and cashless economy. However, this development has introduced new challenges, particularly for economic regulation. Firstly, the adoption of the payment card system in any country will consider important factors such as security, cost, mobility, trust, convenience, speed of transaction, privacy, system quality, technology adoption usage (Chen & Adams, 2005; Mallat, 2004; Dewan & Chen, 2005). Pousttchi (2003) analyzing the results of a survey conducted in Germany argued that for payment cards to be accepted by customers, they must be secure, cost-effective, functional and convenient.

Secondly, in the view of Andreoli (2008), the failure of the electronic payment system in Europe in the late 1990s was as a result of regulatory barriers, system complexity and difficulties in interlinking banks. He admits that payment cards involved a high level of risk and its success requires strict and effective regulation. Base on their experience in Europe, Atos Worldline (2010) emphasizes the importance of regulation and compliance in the e-payment system. He argues that compliance and continual monitoring are essential for the success of payment cards system. Zulu (2006) identified the challenge of inadequate telecommunications infrastructure, poor power supply, and lack of appropriate regulatory framework as the bane of electronic payment system in Africa.

Also, regulations governing the credit card industry in Canada have witnessed radical changes in recent times (Deloitte, 2010). Similarly, study by KPMG (2009) indicates having appropriate regulations is one of the major challenges facing the payment card system. They argue that regulation will help to set out the opportunities and the cost of compliance. It will also assign how risk and responsibilities will be allocated among stakeholders.

Australia has executed series of regulations in the payment card industry. Notable amongst these is the reduction of interchange fee by 50% by the Reserve Bank of Australia. According to MacKinnon (2009), government initiative to lower interchange fee would benefit merchants and make card users worse-off. He argues based on the experience in Australia that such a direct intervention may have a negative impact on card users and other stakeholders. According to him, intervention can only be justified when there is clear evidence of market failure or when it is perceived that customers will benefit from the intervention. He concludes that based on the experience of Australia, regulators in other countries should ensure that regulation is minimal.

Contrary to MacKinnon (2009), Muris (2005) argued that regulators have to consider the two-sided nature of the payment card market before embarking on regulations. He is of the opinion that regulation of interchange fee will lead to increase in price for card users and decrease in competition. Taking the experiences of Australia and UK into consideration, MacKinnon (2009) proposed the following: encourage consumer education and protection, focus on competition instead of regulation, and adopt an efficient and fair interchange fee. In the case of credit cards, Schmith (2008) opined that understanding and strict adherence to operating regulations is paramount in the payment card system. Regulators must ensure stability and security of the system in order to prevent fraud and manage credit risks. He added that a good telecommunication system, consumer education, effective acceptance network and credit bureaus are vital components in the payment system.

The remaining part of this chapter focuses on the individual country experience with respect to the regulation of the payment card industry.

3.2. Australia

Australia is one of the countries that have experienced substantial regulation of the payment card industry worldwide. Since 2003, the Reserved Bank of Australia (RBA) has adopted various regulations and reforms in the payment card industry. Notable amongst these reforms is the drastic reduction of interchange fee as well as the removal of no-surcharge rule. Prior to the regulations, interchange fee on card transactions averaged 0.95% and merchants were not allowed to apply surcharges on payment card transactions. The RBA decided to regulate the payment card industry on the basis that the interchange fee and other business practices were causing inefficiency in the system, and that there were evidence of market failure.

It was expected that a reduction of interchange fee would reallocate resources efficiently by encouraging the use of debit cards vis-à-vis credit cards. As a result of the alleged market failure in the industry, the RBA barred the major card platforms (Visa, MasterCard, etc) from implementing the no-surcharge rule. In addition, the average interchange fee on credit card transactions was reduced from 0.95% to 0.55%. This was further reduced to a maximum of 0.50% in November 2006 on Visa and MasterCard platforms. Following this, the interchange fee on debit card transactions was also changed from 0.53% to 12 cents per transaction.

The RBA also implemented regulations that affected debit card transactions, using the Electronic Funds Transfer at Point of Sales (EFTPOS) cards. In this case, the interchange fee on EFTPOS debit card transactions was reduced from 20 cents to between 4 and 5 cents. Also, unlike the credit card system in which the interchange fee is paid by the acquiring bank to the issuing bank, the reverse is the case in the EFTPOS debit card. Thus, it was called negative interchange fee.

In 2007, a modified version of the 'honour-all-cards rule was adopted, ensuring that all cards irrespective of the scheme were accepted unconditionally by merchants. The 'honour-all-cards' rules was modified so that the acceptance of a scheme's debit card by merchants is not a condition for accepting the credit cards; or the acceptance of a scheme's credit card is not a condition for accepting its debit card.

In addition to the above major interventions, the RBA allows non-financial institutions known as Specialist Credit Card Institutions to issue and acquire Visa and MasterCard credit

cards. It also specified the manner and procedures under which current participants can negotiate with new entrants. In order to ensure transparency in the industry, the RBA obliged the two major schemes (Visa and MasterCard) to provide information on the interchange fee and business rules to the public.

The implementation of the regulations in Australia, particularly those affecting credit cards was based on certain expected results. On the issuing side of the market, the reduction in interchange fee would make issuers increase fees to cardholders, thereby reducing card benefits to customers. However, it was expected that consumers would then substitute the credit card usage for other payment instruments because of the higher cost of credit card transactions. The regulation also would have effect on issuers, as the revenue accrued to them would reduce considerably.

On the acquiring side, acquirers were expected to pass on the interchange fee reduction to merchants in terms of lower merchant discount fees. Also, the improvement in transparency as a result of the regulations would ensure that merchants are well-informed when bargaining with acquirers. Moreover, it was believed that the increased competition amongst merchants would ensure the associated reduction merchant discount fees would be translated into a reduction in the final price of goods and services. It was argued also that in situations where merchants are unwilling to take advantage of surcharging, a reduction in merchant discount fees would be passed to consumers in terms of lower prices.

In addition, the prohibition of no-surcharge rule was expected that the use of credit cards would not reflect the price of goods and services paid by non-credit card users. Besides, surcharging would reduce credit card usage and shift attention towards greater debit card usage and other payment instruments. The RBA also believed that its regulations would encourage competition in the industry. For example, revenues for issuers and merchants discount fees and acquirers were expected to reduce.

Evidence of the effect of the RBA's regulations shows that:

- i) As expected, the reduction in interchange fee led to a hike in cardholder's fees and a decrease in card benefits. However, the reduction in interchange fee was not adequately offset by a corresponding increase in cardholder fees and a reduced card benefit; hence there was a reduction in issuers' profits. Consequently, these outcomes reduced the ability of smaller firms to compete and discouraged new issuers from entering the industry, thereby undermining the competition motive of the RBA.
- ii) As expected, there was a reduction in merchant discount fees as a result of reduction in interchange fees. Evidence also shows that surcharging was not widespread following the removal of the no-surcharge rule. Surcharging was also used by merchants to discriminate against credit cardholders.
- iii) Contrary to expectation, there was no evidence that reduced merchant discount fee was beneficial to customers in terms of lower retail prices. Customers actually were disadvantaged by the increase in cardholder fee and a reduction in reward programmes without a commensurate reduction in retail price.
- iv) The regulatory regimes prevented entry into the industry. Despite the access regime, new issuers and acquirers were not encouraged to enter the industry. In fact, the

regulations forced smaller firms out of the industry and led to a more concentration instead of competition.

A key lesson to learn in the Australia case is that the regulatory regime appears to have favoured merchants at the expense of cardholders. The regulatory regime redistributed resources in favour of merchants at the expense of consumers because merchants were unwilling to reduce retail prices or improve service quality. Also, consumers were further disadvantaged by the reduction in reward programs and increase in user fees. Thus, convincing evidence of market failures should be demonstrated for regulation to be warranted to benefit consumers in the payment card industry.

3.3. United States of America (USA)

The payment card industry in the United States is heavily regulated. This is as a result of changing consumer behaviors and market trends. The regulatory authorities usually issue strict guidelines for regulating the industry. In recent times, however, the legislative arm of the USA government (the Congress and the Senate) has been directly involved in payment card regulations by crafting a new set of legislations governing the industry. One of the major objectives of which was to protect credit card holders.

In mid-2008, the Federal Reserve Board (FSB), the National Credit Union Administration and the Office of Thrift Supervision jointly put forward new regulations that would proscribe unwholesome practices in credit card usage. The involvement of legislators enhanced the passage of the legislations into law in 2009. The law, simply known as the Credit Card Accountability Responsibility and Disclosure Act (CARD Act), is aimed; (i) to protect cardholders and preserve regulatory supervision to the Federal Reserve Bank; and (ii) to ensure transparency in the extension of credit under an open ended consumer credit plan. The Act provides for the regulation of certain card holder fees, especially late payment and other penalty fees and was seen as customers' protection legislation.

Prior to this Act, issues of interchange fees and business rules governing the use of credit cards were settled in court. Merchants have successfully lobbied against some perceived "unfavorable" rules and high interchange fees in the courts and in Congress. The Federal Reserve Bank was further empowered by the Financial Stability Act of 2010 (FSA) to regulate debit card interchange fees and authorize merchants to offer discounts for particular payment instruments and set the minimum values for credit card payments. In this case, debit card interchange fee was expected to be rational and relative to the actual cost incurred by the issuer on a transaction. The passing of the FSA 2010 subjects interchange fee to regulation, as practiced in other countries. However, credit card fee was exempted from regulation, and interchange fee was based on the actual marginal costs of the issuer.

Consequently, the FSA 2010 is beneficial to merchants because it allowed them to offer discounts for particular payment instruments or card brands and empowered the Federal Reserve to regulate interchange fees. Also, merchants have more power to influence customers to pay with payment methods or instruments with lower fees.

In summary, the regulation of payment cards industry in the US is focused mainly on the prohibition of the 'honour-all-cards' rule, restriction on the 'no-surcharge' rule and the regulation of interchange fee.

3.4. Canada

The regulation of payment card industry in Canada differs from that of the United States. Unlike in the United States, there are fewer regulatory bodies and regulators often consult with industry operators before issue new laws. This practice ensures that regulations cater for the interest of consumers and industry operators simultaneously. Consultation allows the parties involved, including legislators, to examine and understand the likely impact of a proposed regulation on the market operators and consumers. In Canada, the intensity of competition and marketing strategies is lower largely due to few issuers. The payment card system in Canada encourages standard pricing structures and rewards. These ensure that consumers are rarely disadvantaged.

In 2009, the Credit Business Practices Regulation was amended and it reflected some provisions similar to the United States' CARD Act. These include provision for increased transparency through adequate disclosures, a minimum of 21 days interest-free grace period, advance notices of increase in rate and other provisions.

Before the implementation of the new regulation, the Canadian payment card industry was governed by the Bank Act, the Cost of Borrowing Regulations and the Credit Business Practices Regulations. Some provinces, such as the British Columbia, also have regulations that are aim to protect consumers' interest with respect to credit card usage.

The Bank Act required banks must provide adequate information with respect to the issuance and management of credit cards. Banks are required to also disclose in details the entire cost of borrowing money, including charges for using a credit card. The rights and obligations of the card holder must be appropriately disclosed.

3.5. Europe

Regulation of payment cards industry in Europe is made at both the national and European Union levels. By all standards, payment card industry in Europe is relatively large with over 500 million debit and credit card issued, an annual transaction volume of 23 billion and turnover of over €1,400 billion. In Europe, the use of debit card has increased substantially as against that of credit card.

Some European countries such as UK, Netherlands, and Sweden have implemented a multilateral interchange fee and a removal of no-surcharge rule. Despite removal of no-surcharge rule, only between 5% and 10% of merchants surcharge their customers. This is as a result of the fear of reactions from cardholders refraining from using their cards for payment. In addition to the multilateral interchange fee, the prohibition of no-surcharge rule has been implemented in some parts of Europe, like the UK, Netherlands, Sweden, etc.

Considering that European countries are at different stages of payment card development, the multilateral interchange fee may not reflect the true value of a transaction. Experience with regulation of payment card industry in Europe varies according to the level of a country's market development. Despite fixing the multilateral interchange fee, countries charge different interchange fee based on risk, type of transaction, geography and business size. There is also evidence of lack of competition in the acquirer's market. These countries have

different levels of efficiency, costs and practices and this affects the operation of the multilateral interchange fee.

In 2006, the Spanish Ministry of Industry, Tourism and Trade initiated a move to reduce interchange fee for both credit and debit card payments in the country. The objective was to set a maximum interchange fee tied to issuer's cost.

The UK payment card industry is one of the largest in the world, issuing about 66 million cards to more than 30 million customers. Consumers in the UK use credit cards for transactions because of its flexibility; and it allows them to manage their expenditure. However, in recent times, the industry has undergone major regulatory interventions in order to ensure that products are suited to the needs of consumers and at the same time profitable to the companies involved, subject to acceptable standards of practice. The regulations have impacted the actors in the industry in different ways.

In 2006, the Office of Fair Trading (OFT) opined that the credit card default charges were higher than what was legally fair. These included charges on failure to pay minimum amount on the due date, exceeding a credit limit and failure to honour a payment made. Thus, OFT mandated that default charges be used to recover certain administrative costs. This view was on the ground of fairness to consumers. The OFT later set the default fee at £12, except for exceptional circumstances.

With respect to interchange fee, the OFT has examined the interchange arrangement for credit and debit card transactions since 2000. The major aim of the Office of Fair Trading has been to encourage competition amongst operators in the industry, as well as protecting the interests of consumers. This is also in line with the UK Competition Act of 1998 which prohibits anti-competitive practices.

The removal of 'no-surcharge' rule in the EU is another area of intervention in the payment cards industry. The 'no-surcharge' rule was abolished in the UK in 1991. The abolition of this rule has had insignificant effect merchant's behavior towards their customers, as less than 10% of merchants actually surcharge their customers. This is due to the fear of consumers not using their cards.

The result with respect to regulation has been mixed. Competition and product differentiation have increased innovation and given rise to improved choice for consumers. However, excessive regulation of the UK payment card industry undermined the competitive nature of the market, with severe unintended effects on the consumers. The impact of new regulations on cardholders' behaviour in the UK is similar to that of US. The regulation of increasing minimum payments so that debts are paid more quickly has been rebuffed by the cardholders claiming they are already paying more for credit card use. They also claim that they have other debts obligations that are of main concern. The regulation regarding credit line increase has had little or no effect on the use of credit card. In fact, some consumers increased spending on their credit cards, which is contrary to its main objective.

After major regulation change, card issuers became stricter in their lending practices. They increased fees and reduced reward schemes. As more regulations tend to increase the risk exposure of issuers are introduced, the issuers responded with a more stringent credit appraisal policies that further reduced availability of credit and increased the cost of the few available ones.

In Switzerland, regulation of the payment card industry was viewed from the angle of protecting consumers. The 2010 regulation from the Competition Commission has led to reduction in interchange fee. After full implementation, the regulation is expected to reduce interchange fees from 1.282% to 1.058%. The ultimate goal of the regulation is to reduce the cost of credit to consumers. A total of £18 million is expected to be saved as a result of this regulation. However, there is no conclusive evidence that interchange fee reduction leads to reduction in cost of credit.

3.6. Hong Kong

The payment card system in Hong Kong comprises large volumes of low value transactions with associated systemic risk. As a result, the Hong Kong Monetary Authority monitors the implementation of a self-regulatory framework adopted by the payment card industry. Under this system, the payment card industry is expected to take up a self-regulatory approach whereby the operators draw up the rules that govern their operations and monitor their compliance with the rules. This set of rules was embodied in the Code of Practice. The Hong Kong Monetary Authority only assumes a supervisory role.

The Code of Practice was drawn up by the payment card scheme operators with the approval of the Hong Kong Monetary Authority. The Code recognizes the three and four party schemes. Although the Code is not legally binding; but in order to promote safety and efficiency of the payment card operations and garner public confidence in the system, operators are required to sign up to the code to signify their intention to comply with its provisions. Each operator monitors compliance while the Hong Kong Monetary Authority supervises the overall implementation of the Code and follow-up on non-compliance issues when they arise. The Code recognizes the different mode of operations of each operator and covers the relationship between all the parties to the card, whether it is a three or four-party scheme.

Under the Code, each operator is expected to have a sound legal basis for its operation in the country. The rules, procedures and contractual relationships between the parties should be valid and enforceable. The Code stipulates that operators of a four-party scheme should ensure that the rules, procedures and regulations governing the scheme as well as the rights and obligations governing the participation of all parties should be clearly stated and readily available to acquirers and issuers. In addition, the Code made provisions for rules and procedures covering the liabilities of cardholders as well as the mode of handling disputes resulting from unauthorized use of the card. It also encourages issuers and acquirers to have clear procedures for the processes of setting fees and charges. Regarding operational reliability and business continuity, the Code provides that each operator is required to have strong control procedures, conduct risk analysis on new card products, provide its issuers and acquirers with relevant fraud awareness information, and have comprehensive operational and technical procedures to address system functionality in the face of unforeseen interruption.

To ensure security of the system, each operator encourages its issuers and acquirers to adopt appropriate security measures to protect the security of its system. Each operator monitors on an ongoing basis any attempted security lapses that may open up its system for irregularities and conduct a regular security review of its system. In terms of participation criteria and competition, each operator has a consistent procedure for considering applications to become

an acquirer or issuer under its scheme; and should provide adequate and relevant information in respect of this. The Code also stipulates that the general criteria for eligibility and participation should be provided to applicants upon requests. The Code frowns at measures that unfairly restrict competition in the payment card industry in the country. The relevant fees, policies and procedures as well as any change to them are documented and communicated clearly to all the parties involved in the system.

The Hong Kong Monetary Authority oversees and supervises the general activities of acquirers and issuers of the scheme operators that are authorized entities in the country. At specified interval and in accordance with the law, the scheme operators are expected to submit to the Hong Kong Monetary Authority its compliance status, relevant information and statistics with respect to their operation in Hong Kong and other decisions that may compromise the efficiency and safety of the system.

In summary, the regulation of the payment card industry in Hong Kong is quite different from some countries. Whilst the authorities are responsible for regulation of fees and mode of operations in Australia, the scheme operators jointly decides the modus operandi in Hong Kong, with the Hong Kong Monetary Authority monitoring and supervising the process, not as the key regulator.

3.7. Brazil

The Brazilian payment card industry is regulated by several authorities. These authorities include the National Monetary Council, the Central Bank of Brazil, Brazilian Council for the Advancement of Competition, National System for Consumer Protection and Defense and others. These authorities regulate the industry directly and indirectly.

The payment card industry in Brazil has witnessed some degree of regulations in recent past. Notable amongst them is the institution of ‘no-surcharge’ rules, aimed at preventing price differentiation in the industry. This rule is backed by an Act of the Brazilian Consumer Defense. The authorities were of the view that the removal of the no-surcharge rule would reduce the incentive to use payment cards. This also necessitated the need for regulation of prices in the industry. However, a survey conducted by the authorities show that merchants are unwilling to price discriminate due to fear of loss of customers.

The regulatory authorities in Brazil required that all payment cards should be accepted irrespective of the issuer, nature or category (honor-all-cards rule). It is believed that this regulation would enhance the reliability of the system as well as encourage competition between issuing firms irrespective of their sizes. They argued that card discrimination would cause problems to users, reduce the usage of payment cards and stir loss of confidence in the system.

With respect to access rules, firms wishing to be either issuers or acquirers must be under the direct supervision or control of the Central Bank of Brazil. The aim of this rule is to ensure proper risk management, especially on the part of issuers, but it has also discouraged new firms from entering and participating in the industry. The authorities argued that they would give priority to security at the expense of competition since there are a large number of existing financial institutions. However, this rule can be exempted for acquirers depending on the characteristics of each market.

The interchange fee in Brazil is set by the scheme owner in line with those charged in other countries and it is adopted by all participants. This system enhances competition by encouraging entry of new firms and protecting the interests of smaller participants. Nevertheless, as a result of setting the fees at international level, local market peculiarities are not taken into consideration; thereby reducing the efficiency of the system. For example, merchants have to wait for 30 days to receive payments for credit card transactions unlike the 2 days observed in other countries. Similarly, card users have 28 days to pay their credit card bills. Consequently, issuers bear no financing costs in payment card transactions. The interchange fee is set according to the card type, technology, number of installments and the market segment in which the business operates. The users of credit cards pay an annual fee. This fee is independent on transactions. These fees are charged by the credit card scheme and found to be relatively stable. However, this fee is not applicable to debit card users. The reward programs were used to facilitate and encourage the use of credit cards usage.

3.8. Mexico

The payment card industry in Mexico has limited coverage, but it is dynamic and has undergone regulations in recent past. The payment card industry in Mexico is highly concentrated with evidence of market power and restrictions on participation. Therefore, interventions in terms of regulations and standards are justified in order to achieve a more efficient retail payment system and to promote competition. Consequently, the overall goals of these interventions are to reduce commission on credit card use.

The institutions authorized to regulate the payment card industry in Mexico are the Federal Competition Commission and Banco de Mexico. The Federal Competition Commission is concerned with ensuring competitive practices in every sector of the economy. The Banco de Mexico, on the other hand, is responsible for regulating payment systems in the country. The Banco de Mexico has initiated reforms that permeate the entire retail payment system, not restricted to payment cards alone. Some of the measures include ensuring transparency in bank's charges, encouraging easy entry and participation, and enhancing the coordination of market participants.

The Banco de Mexico required that card issuers must inform it in advance of modification or changes to fees and charges levied on cardholders. It also required card issuers to inform their customers of fees and commissions charged against them. With respect to encouraging easy entry and participation, the Banco de Mexico affirms that payment of credit cards must be routed through e-transfer. In addition, the "honor-all-card" rule was revised so that merchants can have the choice of determining whether they will accept a particular card or not.

The interchange fee is determined by the Association of Mexican Banks. The Banco de Mexico does not issue regulations for interchange fee in credit or debit card transactions but has set interchange fee on electronic transfer at zero level. However, the Association of Mexican Banks has reduced interchange fees for both debit and credit card transactions; and also introduced interchange fee discrimination into the industry to reflect types of business. It was alleged that limited information is available with respect to the setting of the interchange fee by the association.

The specific regulations adopted by the Banco de Mexico in 2004 include the following:

- i) Customers must be duly informed of fees and charges by banks.
- ii) Credit card-based credit contracts must specify commissions and charges.
- iii) Banks must report their fees and commissions and inform the Banco de Mexico of any change in them. The Banco de Mexico makes the fees and commissions available to the public through the internet so that they can compare charges.
- iv) The Banco de Mexico compelled all banks to allow credit payment through e-transfers.
- v) The honor-all-cards rule has been reviewed to allow merchants to either accept only credit, only debit, or both.

The Association of Mexican Banks has adopted the following measures:

- i) Reduction of interchange fee by 43 basis points on average.
- ii) Introduction of several categories of interchange fees to discriminate type of business.
- iii) Promote card acceptance by allowing merchants to add up debit and credit card transaction volumes.

The impact of regulation on the payment card industry in Mexico is still unclear. The reduction in interchange fee has had insignificant impact on commissions charged to cardholders. This is because banks are unwilling to lose their customers and they have to report their proposed actions in advance to the Banco de Mexico. This has discouraged banks to increase user fees. Also, it is feared that the reduction in interchange fee, which is the major source of income for small issuers, would drive out small participants from the industry. This is likely to further promote concentration as against competition.

3.9. Summary

This chapter has provided a comprehensive overview of the international experience with respect to the regulation of payment card industry. These countries include developed countries with well-developed payment cards markets. The lessons from this review can be summarized as follows:

- i) The fee structure (interchange fee and merchant discount fee) and business rules (e.g. no-surcharge rule) are the key elements in the regulation of payment cards;
- ii) Most regulations of payment cards industry were aimed at protecting the consumers, but as the Australian experience demonstrates, it can also have unintended consequences.
- iii) There is little evidence supporting the view that removal of no-surcharge rule reduces card usage. In developed countries where surcharging has been allowed, merchants rarely surcharge their cardholder, as less than 10% actually do so.

- iv) Regulations always have the costs of implementation, which further increases the cost of doing business. Regulation in the payment card industry in the countries above has shown the impacts on the issuers, acquirers, merchants and cardholders in the various countries.
- v) Evidence from Australia shows that merchants and their acquirers are always the major beneficiaries of interchange fee reduction. They do not always pass the reduction to consumers in terms of reduced retail price.
- vi) International experience shows that the scheme owners set the interchange fees in line with those charged in other countries and it is adopted by all participants. This system enhances competition by encouraging entry of new firms and protecting the interests of smaller participants.
- vii) The Hong Kong experience demonstrates that a self-regulatory framework is practicable in a developing country context. Here, the participants in the industry draw-up the rules and regulations that govern their operations, which the authorities approve and monitor compliance.

Chapter 4

Payment cards industry in Nigeria

4.1 Introduction

In this chapter, we present a comprehensive overview of the payment card industry in Nigeria. The central objective is to examine the potential impact that the existing regulations and business rules may have on the adoption of POS technology and usage of payment cards in Nigeria.

The electronic payment system in Nigeria is relatively new, compared to other countries such as Mexico and Brazil, with well-established infrastructure systems. Due largely to data constraints, the analysis is restricted to payment cards issued by deposit-taking banks and in conformity with the four part system framework. We have no information on payment cards issued by non-bank institutions which are of limited use in Nigeria. Also, we focus on debit cards. This is largely because much of the recent developments in the electronic payment system in Nigeria have largely been centred on the debit cards that are used at POS terminals. Credit cards are still largely underdeveloped in Nigeria and it represents other type of services. In Nigeria, ATM cards of most banks are debit cards which provide an option of paying for goods and services at POS.

The chapter is divided into three parts. The first part provides an overview of the evolution of payment cards industry, focusing on the dynamics of the volume and value of transactions undertaken at different payment channels: ATM, POS, Web/internet, and Mobile phones. The data used were sourced from the various CBN annual reports and this constrained us to the period 2006 to 2010.

In examining the dynamics of the volume and value of transactions, we focused on the share in total transactions of each of the payment channels, and the associated trends overtime. This allowed us to compare and contrast across payment channels and between the two indicators (volume and value of transactions).

The second part looks at the organisation of the market including, indicators of concentration, market power, competition, and so on. The third part examines the current regulation of the payment cards industry in Nigeria, based on the relevant sections of the official regulatory document published by the CBN; “*Guidelines on Point of Sale Card Acceptance Services*” (CBN 2011b).

4.2. Evolution of payment channels in Nigeria

4.2.1. Infrastructure and usage, 2006-2010

In Nigeria, electronic payment is undertaken at four main channels, excluding e-cheque system, namely; ATM; POS; Web/internet; and mobile phones. At inception in 2003, electronic payment transactions were undertaken only at ATM and POS (offline). The offline POS payment was phased out with the emergence of online POS terminals in 2006.

Table 4.1 presents the share of each of the payment channels in total volume and value of transactions for the period 2006-2010. Transactions undertaken at the ATM dominated the transactions undertaken at all the remaining payment channels put together during the period, both in volume and value. In terms of the total volume of transaction, the share of ATM accounted for 92.8% on average per year, compared to 1.4%, 2.9%, and 2.9% for POS, Web/internet, and Mobiles respectively. In terms of the associated value of the transactions, the share of transactions at ATMs accounted for 89.6% on average per year during the period 2006, compared to 2.6%, 7.6%, and 0.15% for POS, Web/internet, and Mobiles, respectively.

Table 4.1. Shares of volume and value of transaction in total (%), 2006-2010

Payment channels	Transactions	Years					Average annual
		2006	2007	2008	2009	2010	
ATM	Volume	97.32	87.59	90.93	95.30	95.15	92.79
	Value (N'm)	94.62	88.43	90.52	85.05	88.92	89.65
POS (online)	Volume	0.57	2.35	1.81	0.78	0.56	1.38
	Value (N'm)	0.84	4.33	3.65	1.71	1.18	2.63
Web/internet	Volume	1.78	5.03	2.42	2.35	3.68	2.89
	Value (N'm)	4.40	7.14	5.67	13.05	9.27	7.57
Mobile	Volume	0.33	5.03	4.84	1.57	0.61	2.94
	Value(N'm)	0.15	0.10	0.16	0.20	0.62	0.15
Total annual	Volume	100	100	100	100	100	100.00
	Value(N'm)	100	100	100	100	100	100.00

Source: Authors' calculation from Table A5.1 in the Appendix.

Table 4.2 shows the changes in the share of each of the payment channels in total volume and value of transactions during the period 2006/07 and 2009/2010. Figure 4.1 compares the trends in volume and values of transactions for each payment channel during the period under consideration. In terms of volume of transactions, the share of transactions at ATMs in total transactions declined overtime at an average of 0.46% per year, compared to an increase of 77.5%, 42.5%, and 456.1% on average per year for POS, Web/internet, and Mobiles respectively. In terms of value of transactions, the share of transactions undertaken at ATMs in total transactions also declined overtime at an average of 3.4% per year, compared to an increase of 116.2%, 57.2%, and 16.7% on average per year for POS, Web/internet, and Mobiles. These results reflect the increased usage of the other payment channels relative to ATMs overtime. An increase in alternative payment channels reduces the use of ATMs.

Table 4.2. Changes in share of volume and value of transactions in total (%)

Payment	Transactions	2006/2007	2007/2008	2008/2009	2009/2010	Average
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channels							annual
ATM	Volume	-10.00	3.81	4.81	-0.17	-0.46	
	Value (N'm)	-6.54	2.37	-6.05	4.55	-3.41	
POS (online)	Volume	312.34	-23.07	-56.70	-28.18	77.52	
	Value (N'm)	417.51	-15.79	-53.06	-30.84	116.22	
Web/internet	Volume	182.22	-51.86	-3.01	56.70	42.45	
	Value (N'm)	62.22	-20.55	129.95	-28.91	57.21	
Mobile	Volume	1,439.62	-3.71	-67.67	-60.82	456.08	
	Value(N'm)	-31.44	58.02	23.60	219.70	16.73	

Source: Figures calculated from Table 4.1.

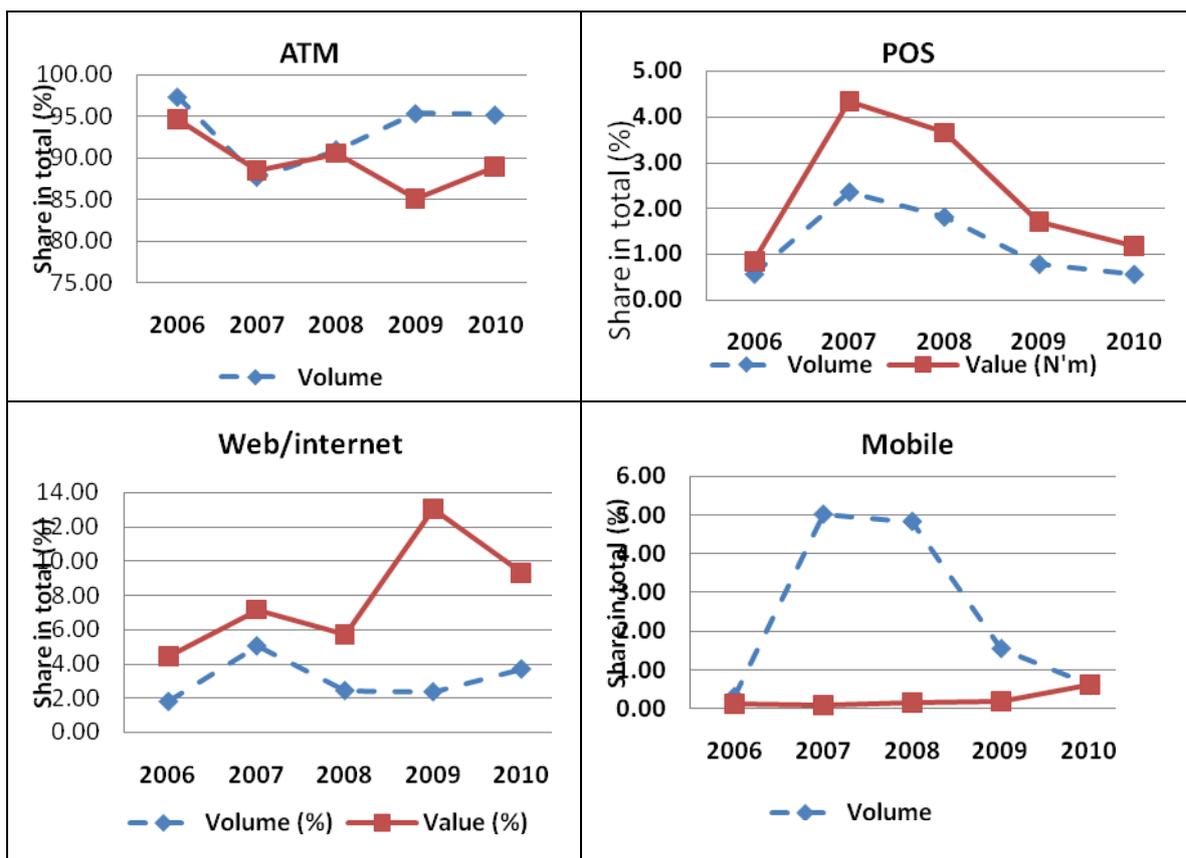
Important differences can be observed when the trends in volume and value of transactions overtime are compared across the payment channels (Figure 4.1). For the share of transactions at ATMs, both the volume and associated value declined overtime, but on average overtime, the size of the decline in value of transactions is about seven times as great as the size of volume of transactions (see, Table 4.2)¹⁷.

However, whilst both indicators followed identical (declining) pattern during 2006-2008, the trend went in opposite directions during 2009 and 2010. In 2009, an increase in the volume of transactions was accompanied a decline in the value of transaction and this trend seemed to have reversed during 2010. Overall, the results here suggest that small value transactions have been undertaken at ATMs – apparently reflecting cash withdrawals.

For the share of total transactions undertaken at POS terminals, both the volume and associated value of transactions increased substantially by 312.3% and 417.5% during 2006/07 (Table 4.2). However, both of these indicators have declined overtime, reaching a decline of 27.2% and 30.8% in volume and value during 2009/10, respectively. As can be observed in Fig. 4.1, the declining trend in both volume and associated value of transaction suggests that the initial high interest in the use of POS terminals for payments has not been sustained beyond the first year.

Fig. 4.1. Share of volume and value of transactions by payment channels, 2006-2010

¹⁷ The value is $3.41/0.46=7.41$ times higher than the volume of transactions.



Source: Plotted from the figures in Table 4.1

Also, comparing between the two indicators, the volume of transactions has been consistently lower than the value of transactions. Unlike transactions undertaken at ATMs however, the value of transactions has consistently been higher than the volume of transactions, suggesting that transactions undertaken at POS terminals have been high valued transactions.

For the share of transactions undertaken on the Web/internet, the initial considerable increase of 182.2% and 62.2% in volume and value of transactions during 2006/07 have not been sustained, as both declined by 51.9% and 20.6%, the following year (2007/08) (see, Table 4.2 and Fig. 4.1). Like the share of transactions undertaken at POS terminals, the value of the share of transactions on the Web/internet has consistently been higher than the volume of transactions.

Finally, transactions undertaken at mobiles accounts for relatively smaller shares during the period compared to other payment channels. The volume of transactions increased substantially at 1489.6% which could not be sustained overtime, reaching a decline of 60.8% during 2009/10. In contrast to this trend however, the decline of 31.4% in the value of transactions during 2006/07 was turned into increase overtime, reaching an increase of 219.7% during 2009/10 (Table 4.2). Also, the volume of transactions has been higher than the value of transactions. Thus, in contrast to POS terminals and the Web/internet, the transactions undertaken at mobiles appear to be low valued transactions – e.g. transfer of small funds.

4.2.2. Foreign currency denominated credit card usage in Nigeria

We made use of the data published in the various CBN annual reports on volume and associated value of transactions in US dollar denominated credit cards usage in Nigeria for

the period 2005-2009. As Table 4.3 shows, the volume of transactions by US\$ denominated credit cards increased progressively from 40,842 in 2005 to 600,937 transactions in 2009, representing an average of US\$299,607.4m transactions per year. Similarly, the value of transactions by US\$ denominated credit cards also increased progressively from US\$10.7m in 2005 to US\$139.9m in 2009, representing an average of US\$73.4m per year.

Table 4.3. Volume and value of transactions in US Dollar denominated credit cards, 2005-2009

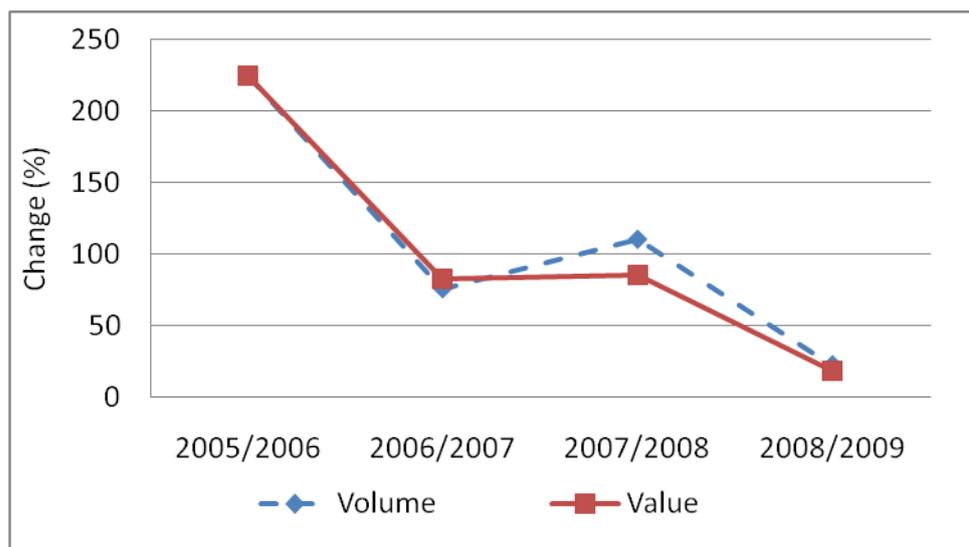
Year	Volume of transactions	Value of transactions (\$'million)	Time	Changes (%)	
				Volume of transactions (%)	Value of transactions (%)
2005	40,843	10.7		-	-
2006	132,637	34.77	2005/06	224.75	224.95
2007	233,175	63.56	2006/07	75.8	82.8
2008	490,445	117.9	2007/08	110.33	85.49
2009	600,937	139.88	2008/09	22.53	18.64
Average annually	299,607.4	73.36		108.38	102.97

Sources: Figures for transactions are from CBN various Annual Reports.

In terms of the changes overtime, the volume and value of transactions increased at comparable rates; that is, by 108.4% and 103% on average annually. Figure 4.3 shows the trends in volume and value of transactions by US\$ denominated credit cards during the same period. Both the volume and value of transactions have declined overtime. The steady decline in the use of US Dollar denominated credit cards overtime can be associated with increased use of alternative payment channels such as credit cards denominated in local currency and web/internet.

Comparing between the two indicators, the volume and value of transactions show identical pattern of decline during 2005/06 and 2006/07 due largely to similar changes in the two indicators. During the period 2007/08 and 2008/09 however, the size of changes in the volume of transaction was greater than the size changes in the value of transactions.

Figure 4.3. Changes in volume and value of transactions for US Dollar denominated credit cards, 2005/06-2008/09



Source: Plotted from figures in Table A5.3 in the Appendix

4.3. Access to payment cards market

Access to banking services and associated banking products in Nigeria is limited by the fact that a large segment of the population remains unbanked. This can be associated with low provision of banking services in the rural areas where the majority of the population resides. A recent survey indicates that only 28.6 million or 32.5% of the population Nigerians have access to bank accounts formally.¹⁸

Also, the number of bank branches is less than 6,000 nationwide with one branch serving almost 28,808 bank customers, while 16,770 customers are served by one ATM machine¹⁹. Additionally, these branches and ATMs are largely concentrated in urban cities and towns, thus limiting access to the majority of the population living in the rural areas. Moreover most of the ATMs are based on salary accounts, which have improved access to banking services to previously unbanked employees. It is also common that these account holders only use their ATM debit cards to withdraw cash rather than using it for direct purchase at POS terminals.

¹⁸ 'CBN launches strategy to attract 39% unbanked Nigerians' by Godfrey Obioma, *BusinessDay*, 12 Dec. 2012. <http://www.businessdayonline.com/NG/index.php/banking-a-finance/48926>.

¹⁹ See, 'Banking the Unbanked' by Comrade Edwin U Ekene, *The NigerianVoice*, 9 Oct. 2012. <http://www.thenigerianvoice.com/nvnews/99706/1/banking-the-unbanked-nigerians.html>.

4.4. Low POS adoption and market imbalances in Nigeria compared to other countries

In order to understand the level of development of POS penetration in Nigeria, it is useful to compare POS adoption data with those of other countries²⁰. As Table 4.4 shows, Nigeria has the lowest POS adoption rate (the number of POS terminals per 100,000 potential merchants) amongst the selected developing countries. The adoption rate is 0.013% per merchant (or 13 POS per 100,000 potential merchants). The rate will need to increase by at least 230 times the present rate to meet the CBN projected 3 POS per merchants by 2015.

Table 4.4. POS adoption in Nigeria compared to other countries

Country	POS adoption per 100,000
Brazil	2,224
Nigeria	13
Uganda	453
South Africa	1,063

Source: CBN (2011d)

Also, in line with the value of the transactions showed in the previous section, these merchants are mainly large merchants undertaking higher valued transactions. Worse still, many merchants that adopted the POS technology do not use it. EFINA survey on POS usage in 2010 showed that only about 23% merchants use their POS terminals. This means that more than 75% were dormant (EFInA, 2010).

Additionally, substantial imbalance exists in the Nigerian payment cards market when the adoption rate (0.013%) is compared with the share of volume of transactions undertaken at POS in total transactions, which stood at 0.56% as at 2010 (see Table 4.1)²¹.

4.5. Market structure

Due to shortage of data, overview of the market structure is limited to the issuing side of the market, focusing on distribution of card products amongst the banks operating in the industry. These information are used to examine product differentiation and to proxy market competition using concentration ratios based on the distribution of card products amongst banks operating in the market. As noted previously, product differentiation relates to the process that banks undertake to distinguish their card products from those of other issuing banks or card issuers generally. This involves differentiating a firm's product from those of competitors by varying the product features in order to attract a particular target market – potential cardholders²².

²⁰ Every business, small, medium, or large enterprises with a bank account is a potential adopter of POS technology.

²¹ The volume of transactions is a measure of card usage at POS terminals.

²² For a comprehensive review of product differentiation see Carlton and Perloff (2005, ch.7), and for concentration ratio as a measure of market competition, see Martin (2002).

Table 4.5 shows the distribution of card products amongst banks and card product concentration ratios. As the table shows, the market is characterised by horizontal product differentiation, with same card being offered in different features. There are 92 varieties of card products in the Nigerian payment card market, provided by 21 banks. These cards comprise debit cards, credit cards, pre-paid debit cards, cards denominated only in Naira, cards denominated only in US Dollar, and dual currency cards (both Naira and Dollar denominated). Amongst these different types of cards, debit cards accounts for the majority (53) provided by 19 banks, compared with 33 credit card products provided by 9 banks.

Table 4.5. Distribution of card products amongst banks and concentration ratios

	Number of cards products ^a	Number of banks	CR4 ^b	CR2 ^c
All card product types	92	21	0.435	0.272
Debit cards	53	19	0.509	0.321
Credit cards (standard)	33	9	0.606	0.364
Credit cards (Naira denominated)	43	10	0.605	0.326
Credit cards (US\$ denominated)	32	20	0.406	0.281
Credit cards (Dual currency – \$ & Naira)	15	6	0.867	0.667

Notes: ^a Figures are compiled from information on cards available on bank's websites as at 31 July, 2011;

^b CR4 = four-bank concentration ratio. That is; the share of four banks in total number of card products; ^c CR2 = two-bank concentration ratio. That is; the share of two banks in total number of card products.

Generally, product differentiation will benefit issuing banks; improve quality and delivery of service. However, these may come at higher fees or hidden costs to consumers (cardholders) and may bias cardholder perception of card products. However, evidence of card product concentration, as an indicator of non-competitiveness of the market, is weak. The four-bank cards product concentration ratio is 0.435, suggesting that the top four banks provide 43.5% share of the total card products. When this is further disaggregated into the type of cards with specific usage features, the four bank card product concentration ratio increases to 0.606 and 0.867 for Naira denominated cards and dual currency denominated currencies, respectively.

In summary, data constrain us from examining the market structure in greater detail. However, the evidence provided by product differentiation suggests that much of the competition in the issuing side of the market arises from product differentiation. Little is known whether this also translates into competition on prices. Also, there are varieties of foreign currency denominated cards, but the level of usage is unclear. In addition, the fact that only a few banks are providing credit cards compared to debit cards may mean that customers of these brands are provided at higher costs to consumers. Moreover, the relatively smaller varieties of dual currency cards and large concentration suggest that consumers do not have sufficient flexibility in (credit) card usage.

4.6. Current regulatory practice and application of business rules²³

4.6.1. Payment card infrastructure (POS)

The payment system infrastructure in Nigeria comprises interoperability and interconnectivity amongst a variety of POS acceptance services stakeholders, namely: merchant acquirers, card issuers, merchants, cardholders, card associations and card schemes, POS terminal owners, Payment Terminal Service Aggregator (PTSA), Payment Terminal Service Providers (PTSPs), and switches (processor):

i) Merchant acquirers

Merchant acquirers include acquiring banks and non-financial organisations licensed by the CBN that can own and deploy POS terminals to merchants through a CBN licensed PTSP. In Nigeria, all POS terminals deployed and supported by PTSPs accept all cards irrespective of the card scheme. All acquirers are expected to connect their POS terminals directly to the PTSA. However, acquirers have a choice of the local switch they want as processor.

ii) Card neutrality

In order to achieve interoperability amongst the industry players, POS terminals deployed in Nigeria accept all transactions from any cards issued by any Nigerian bank or issuer (Honour-all-cards rule). This implies that acquirers and other service providers are card neutral, as they accept all cards. However, there is a limit on the volume of transactions and type of business activities that merchants can transact.

iii) Payment Terminal Service Providers (PTSPs)

PTSPs have the objective of ensuring effectiveness of POS operations and to provide support and maintenance infrastructure on the system. Only CBN licensed providers can be a PTSP. Their function is to deploy, maintain, and provide support for POS terminals – including training, repairs, and replacement of spare parts. The fees for PTSPs are arranged with acquiring banks on a fee-per-terminal basis, independent of the location, value or volume of the transaction. As at the time of undertaking this research, the CBN has licensed only six PTSPs, namely: Valucard, Etop Nigeria, Paymaster, ITEX, CitiServe²⁴, and more recently Easyfuel. Only these PTSPs can deploy POS terminal in Nigeria. Card associations/schemes or any entity having a business relationship with a card scheme, and banks having a controlling share or card schemes having at least 20% share ownership are excluded from being a PTSP.

iv) Ownership of POS terminals

In Nigeria, banks, merchants, acquirers, PTSA and PTSPs can own their POS terminals, in as much as they meet the minimum POS specification and bear the cost of repairs and maintenance.

²³ The review of the structure is based on the relevant sections of the most recent guidelines on Point of Sales (POS) card acceptance services (CBN 2011). Much of the guidelines are also relevant to credit cards.

²⁴ See, 'Five companies granted licenses to Operate as Payment Terminal Service Providers in Nigeria'. *Business Report*, ThisDay, September 22, 2011.

v) *Payment Terminal Service Aggregator (PTSA)*

PTSA comprises the Nigerian Interbank Settlement Systems (NIBSS), owned by all Nigerian banks and the CBN for the financial system. NIBSS ensures POS data traffic on the network, and negotiates the procurement prices for bulk purchase of POS terminals for the entire Nigerian market. This is to enable cost reduction, ensure specification requirements for the Nigerian market, and ensure sufficient support infrastructure from the terminal manufacturers. However, only NIBSS is permitted to operate a terminal management system. All POS terminals operating in Nigeria are expected to connect to the PTSA, in line with the objectives of shared industry infrastructure and best practice.

Additionally, the PTSA routes all transactions on POS terminals to the relevant acquirers or its designated third party processor. This function enables acquirers who are also issuers to handle *On-us* transactions, and transactions with *Charge-back* rules relevant to card schemes more efficiently and more appropriately²⁵. The PTSA is responsible for data collection on transaction traffic on all POS terminals and provide analysis and reports on performance and transaction trends to the CBN. However, these operations amount to duplication of processes in the system, which ultimately increases cost to the end-users (consumers and merchants). This may affect both usage and adoption of payment cards by merchants especially where there is no surcharge rule. Under this arrangement, banks and acquires have no choice of the switch they connect to use.

vi) *Card issuers*

Under the new banking model in Nigeria, issuers of payment cards are limited to deposit-taking banks, and all cards issued must be EMV-compliant²⁶. Cardholders must pay the amount of operations and charges due to the issuers. Issuers are liable (where proven) for card frauds arising from card skimming and cloning, or which borders comprises on the issuers' security system. Card issuers sets transaction limits on cards per day and transaction limits of such cards by payment channel, according to card products and risk guidelines or cardholder risk profiles. Card issuers are required to provide sufficient information to the cardholder with respect to limits, balances, fees and charges, offline, withdrawal limits, billing cycles, termination procedures, etc.

vii) *Merchants and cardholders*

Merchants accept cards as a method of payment for goods and services. Merchants are not allowed to surcharge a cardholder or price discriminate against any member of the public who chooses to pay with other payment methods such as cash (see Section 4.5.6). On the other hand, a cardholder may opt-out of a card contract without a penalty.

viii) *Card associations and card schemes*

Examples of card associations and schemes are VISA, MasterCard, Interswitch, etc. In Nigeria, there are two types of card associations and card schemes, comprising local switches

²⁵ *On-us* transaction means that the bank that issue your card is the same as the one which owns the ATM or POS terminals on which you made transaction. *Chargeback* is a process that allows you ask your card provider to reverse a card transaction if there is a problem with goods you have purchased.

²⁶ EMV stands for Europay, MasterCard and Visa. It is a new global electronic transaction standard named after the three organisations that established it. This new standard enables POS terminals to process 'chip based' debit and credit cards.

(e.g. Interswitch) and international card networks (VISA and MasterCard). These associations and schemes are expected to make public their objective rules for membership and estimated time required for certification. Card associations and schemes are not allowed to indulge in activities that create entry barriers. Also, card associations and schemes or institutions having a management contract with them are prevented from engaging as acquirer.

In Section, 4.7.5 of the 2011 guidelines, card associations and schemes or institutions having a relationship with them are forbidden from engaging in any antitrust and any other activities that may be seen as abusing a dominant position, monopoly, or unfair competition. Also, they are prevented from any form of arrangement or collusion between card associations and schemes, with respect to issuing, acquiring, processing, and switching. Card schemes and switches that also issue cards include Interswitch, E-Transact, Valucard, VISA, MasterCard, etc. How these behaviour are determined is very essential, as Nigerian has no functioning antitrust and competition laws or a competent agency to deal with antitrust issues.

ix) Switching companies

The switching companies are networking companies that interconnect the issuing and acquiring banks. Switches ensure transformation of a transaction and provide the payment infrastructure for processing transactions. They ensure interoperability of payment schemes. All domestic transactions in Nigeria must be switched on a local switch (e.g. Interswitch). Switches can also own their cards, especially debit cards. E.g., Verve owned by Interswitch is said to be the most widely accepted debit card in Nigeria. Verve cards are accepted at the ATM, POS, Web/Internet and Mobile platforms. The central role of switches is to ensure that all transactions relating to all cards issued by Nigerian banks are successfully switched between acquires and issuers. There is a National Central Switch (NCS) implemented by the NIBSS and all the banks are expected to connect to it. All switching companies are expected to connect to the NCS central switch and PTSA.

4.6.2. Structure of Fees and charges ²⁷

In Nigerian, fees and charges are set by the Bankers Committee, comprising top officials of Nigerian banks who are mainly the acquiring and issuing banks. Fees and charges for POS card acceptance services are agreed between providers (Switches) and banks, and entities to which services are provided, subject to some limits with exceptions.

Specifically, Section 6, of the Guidelines (Fees and Charges) provides that: *“The maximum total fee that a merchant shall be charged for any POS transaction shall be 1.25% of the transaction value subject to a maximum of N2,000:00. Exceptions may apply in respect of travel and entertainment merchants including but not limited to hotels, restaurants, airlines, etc. In which case shall be at such rate as agreed from time to time between the Acquirer and the Merchant.....”* (page 11).

²⁷ This is based on Section 6 of the 2011 Guidelines which focuses on fees and charges.

Table 4.6 shows how fees/charges are to be distributed between the industry operators. The fee structure can be summarised as follows:

- i) Current regulation recommends a fee of a maximum of 1.25% of the transaction value subject to a maximum of N2,000. In line with Fig. 2.1, $(a + m) = 1.25%$ of total transaction value or a maximum of N2,000. That is, for a given transaction, a merchant either pays 1.25% or N2,000. This fees structure excludes the costs of acquiring POS terminals to merchants. Also, the guidelines provides for an exception in transport and entertainment merchants, such as hotels and restaurants, airlines, and other large merchants, whose limits are agreed between the acquirer and the merchant. This amounts to price discrimination as small retailer merchants may have to pay higher fees.
- i) Fees and charges are applicable to only Naira dominated cards. Cards issued in foreign currencies follow similar pricing structure that are put in place by the international card associations/schemes (these are unknown).
- ii) Fees charged at POS terminal are to be distributed across the industry players as follows:

Table 4.6. Distribution of fees and charges between industry operators for transactions undertaken at POS terminals

Operator		Distribution of fees/charges (%)
i.	Issuer	30.0
ii.	Acquirer	32.5
iii.	POS terminal owner	25.0
iv.	Local switch	5.0
v.	PTSA	7.5
vi.	Total	100

4.7. Summary

- i) There has been an increased use of electronic payment channels in Nigeria. However, transactions undertaken at ATMs still remain dominant amongst other channels. This is largely because cardholders use their cards to withdraw cash.
- ii) A common feature of the payment channels in Nigeria is that the initial acceptance of these electronic payment channels has not been sustained overtime. Transactions undertaken at the POS has been the worst hit. This phenomenon can be interpreted to

mean lack of sustainability. There is a natural inclination for Nigerians to rush to acquiring new things, especially technology when they are newly introduced. But the rush soon fizzles out probably as they become more informed about the costs.

- iii) Whilst smaller valued transactions are undertaken at ATMs and mobile payment channels, transactions at POS and Web/internet are largely elitist in nature and a symbol of social status.
- iv) The gap between usage and adoption of POS remains very wide indicating a source of imbalance in the payment cards market.
- v) There is little evidence of market power at the issuing side of the market, as the industry players on this side of the market appear to compete on the basis of product differentiation rather than competition in service provision or card fees. Proliferation of card products has its own advantages, but it is of interest to understand the costs to consumers of such proliferation.

In the next chapter, we provide a critical assessment of the current practice with respect to the regulation of the payment cards industry in Nigeria. This will allow us to provide the Nigerian model of the payment cards market and then identify sources of distortions.

Chapter 5

Discussion

5.1. Introduction

There are two objectives in this chapter. The first objective is to critically assess the current practice with respect to regulation and business rules in the Nigerian payment cards industry as presented in the previous chapter. In this case, we discuss their implications for POS adoption and usage. In discussing the implications, we first provide a brief review of the theoretical and empirical underpinnings from the literature on adoption and diffusion of technology. This is to enable an understanding why regulation may impact on adoption of a technological innovation such as POS technology.

The second objective is to present the result of the stakeholder focused group discussion undertaken in the course of this project in order to elicit the perceptions of the stakeholders based on certain regulatory issues emerging from the study.

The chapter is organised as follows. The next section (5.2) presents a brief overview of adoption and diffusion of technology. Section 5.3 presents a discussion of the current regulatory practice and business rules governing the payment cards industry in Nigeria. Section 5.4 presents the outcomes of the Stakeholder Focused Group Discussion (SFGD).

5.2. Technology adoption and diffusion overview

Technology adoption can be seen as a choice to acquire and use a new innovation while technology diffusion is the process by which new innovation spreads in a given population. Diffusion of technology is a key process through which the potentials of a new technology can be turned into productivity. Generally, the characteristics of the economic environment in which the technology is introduced may affect both the adoption and diffusion rate, but more specifically, individual decisions by the potential adopters to a new innovation (technology) determines its rate of adoption and usage. These individual decisions are often the product of comparisons of the benefits of the new technology with the costs of adopting it. The literature predicts that the probability of adoption and diffusion is higher when the benefit outweighs the cost.

Also, such decisions follow a dynamic process, a result of series of decisions made overtime. For some, adoption and diffusion is immediate whilst for others, these decisions are delayed overtime (Hall and Khan, 2002; Sullivan and Wang, 2005). The dynamic process of technology diffusion process have been identified as shown in Fig II; namely; knowledge acquisition, persuasion, decision, implementation and confirmation.

Knowledge acquisition (learning stage) entails creating awareness by the promoters of the technology to enable the potential adopters learn about the new technology. The persuasion stage requires the promoters to convince the potential adopters of the need and the gains from adopting the new technology. Having sufficient knowledge about the new technology will enable potential adopters make decision for adoption. After making the decision to adopt the new technology, then the adopters will start using it (implementation) and upon implementation will confirm their decision of adoption and usage.

Griliches (1957) opined that factors that would affect technology adoption decision may not be significantly different from those that influence investment decisions such as; benefits, costs, risks (uncertainty), environmental and institutional, market (competition) and regulation. But that benefit-cost consideration is the most important of all the factors as adopters would want to get net return from adoption.

The empirical literature, on the other hand identifies five heterogeneous categories of adopters (e.g. Mohr and Shoostari 2003; Mohr et al 2005). As shown in Figure II, these are:

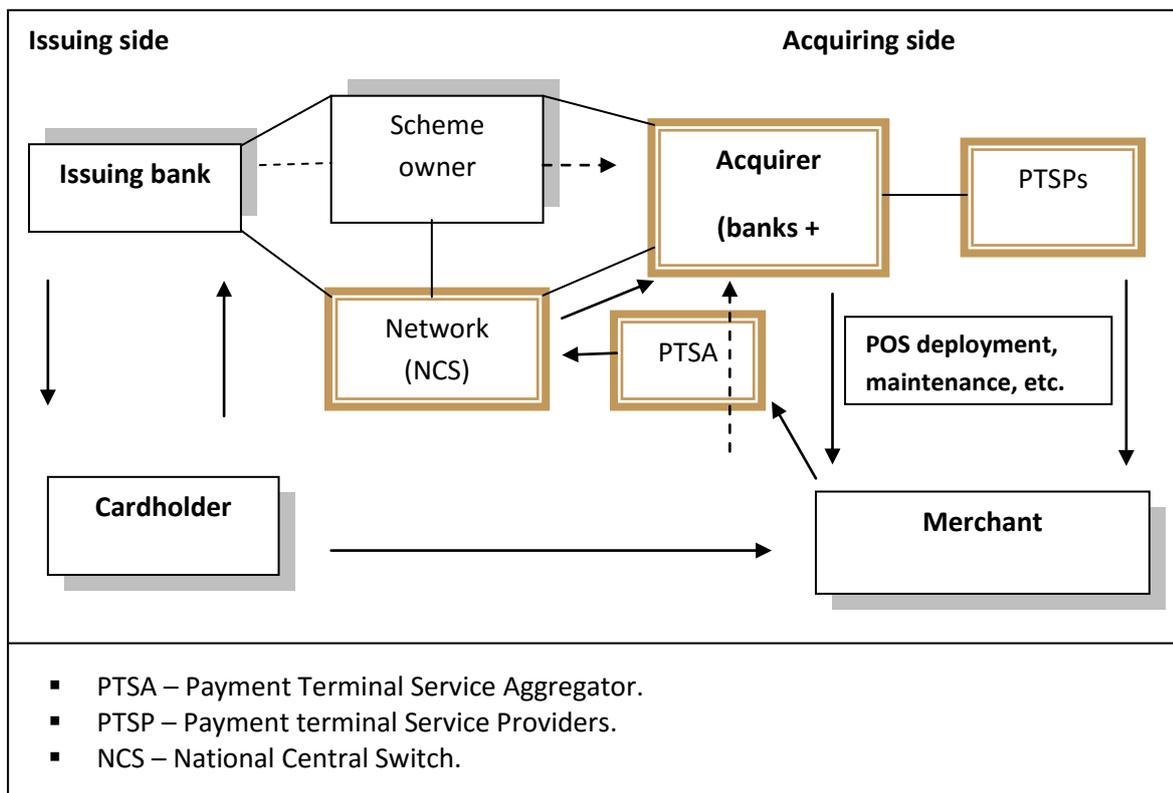
- (i) *Innovators/ Motivators*: these are technology enthusiasts. This group is usually the first to adopt new technology, mostly motivated for being a change agent and appreciate new technology for its own sake. Most times they are not in the majority and would tolerate initial hitches that come with technology introduction.
- (ii) *Early adopters*: this group is also known as visionaries. It usually comprises of individuals or firms that are attracted to high-risk high-reward ventures. They are not necessarily price-sensitive but want to revolutionize competitive rules in their industry (pace-setters). They are mostly large sized firms, blue-chip companies who need to meet international standards and high-tech oriented companies. Individual adopters in this group will most likely be high social class, elites among others.
- (iii) *Early majority/Pragmatists*: this category of adopters is mostly comfortable if the new technology would bring changes in their business practices in order to get productivity enhancement. They are risk-averse and would want proven and tested reliable service as they would mind if there is failure in service of the new technology. Most early adopters include mainstream businesses (e.g. hotels, supermarkets, petrol stations, large stores etc), individuals in this category are elites, educated, and young.
- (iv) *Late Majority/Conservatives*: this group of adopters are motivated only just to keep-up with the trend and competition in their respective industry. They usually adopt by relying on evidence of successful performance from early users. They are very conservative and price-sensitive. Individuals and businesses in this group are mainly lower social class, traders, and small and medium enterprises.
- (v) *Laggards/Sceptics*: major characteristic of this group is that they would want to maintain the status quo and even when they adopt the new technology may not use it. They are averse to change and critical to innovations. However, they may adopt a new technology only if all other alternatives are worse. Individuals in this group are more likely to be older and conservative firms.

In summary, literature on adoption and diffusion of technology shows that; first, decision to adopt takes place at different stages of the process overtime. Second, potential adopters are heterogeneous or tend to vary in characteristics. Thus, the dynamic and heterogeneous nature of technology adoption and usage may limit the effectiveness of a regulatory mandate.

5.3. Implications of the current regulatory practice for adoption and usage of payment card infrastructure

Following the review of the current practice with respect to regulations and business rules governing the Nigerian payment cards industry as presented in Chapter 4, Section 4.6, Figure 5.1 depicts the Nigerian framework of payment card market based on the relevant section of the 2011 CBN guidelines for POS terminal services as described above.

Figure 5.1: The Nigerian framework (CBN 2011 regulation)



It is clear that the Nigerian framework deviates significantly from the standard two-sided market shown in Chapter 2, Fig. 2.1. The major sources of these deviations are discussed as follows:

- (i) Section 4.3.1 of the guidelines indicates banks, merchants, acquirers, PTSA, and PTSP can each own their POS terminals. Switching companies (NCS) can also own cards. But by Section 4.2.1 however, deployment and maintenance can only be made through PTSPs. Therefore, there is a link between PTSPs, PTSA, and NCS on the acquiring side of the market, suggesting that their activities are potentially interdependent. Interdependent relationship tends to create externalities. This has important implications for the functioning of the acquiring side of the market.
- (ii) The six PTSPs operate on the acquiring side of the market (see Figure IV), and their operations (in ownership, deploying, maintaining and supporting POS terminals) can affect merchants and acquirers. The PTSPs are subsumed under the acquiring banks. Section 4.2.2 states that: “*PTSPs shall agree their fees directly with acquirers, but subject to the following guideline: (i) a flat fee per terminal.....*”. But Section 6.2 of the Guidelines provides the fee structure, which excludes the PTSPs. Thus, the PTSPs have the capacity to use their superior bargaining position to influence their charges, relative to other owners but who cannot deploy POS terminals.
- (iii) The fact that there are only a few PTSPs (6 in number) implies that PTSPs tend to operate an oligopolistic market structure. We need to understand how firms behave in an oligopoly (e.g. collusive pricing) to appreciate the potential impact that the operations of PTSPs might have on the acquiring side of the market, and the entire payment cards market in general.
- (iv) Acquiring banks expend resources to acquire POS terminals for its merchants, but the POS terminals can only be deployed by a PTSP, who by qualification is also a competitor for POS terminal ownership.

The implication of the above sources is that they generate distortions in the payment card market, including:

- (i) *Potential agency problem in POS ownership and deployment.* Several POS owners compete for deployment, but **only** PTSP can deploy, maintain, and support.
- (ii) *Restricted entry into PTSP.* Issuing banks are excluded from POS ownership, but most issuers are also acquirers, who can also own POS.
- (iii) *Adoption cost and subsequent costs are largely dependent on the competitiveness of the PTSPs.* Restricted entry and six PTSPs raise concern for collusive pricing. Adoption cost is fixed at N45,000 per ordinary POS excluding subsequent charges.
- (iv) *There is evidence of duplication of processes and functions, which may increase costs to end-users (consumers and merchants), ultimately affecting adoption and usage.* Through membership of NIBSS, the NCS, Switches and PTSA undertake essentially the same function.

5.3.1. Distortions from fee structure

The distortion associated with the structure of fees and charges discussed as follows; firstly, from Fig. 2.1, the merchants bear all the fees, $R = P(a + m) + \text{initial cost of adoption}$.

Secondly, existing rule price discriminates between small retail merchants and large merchants. Large merchants such as airlines, restaurants, and hotels can negotiate their fees with the acquirer, but smaller or retail merchants and traders cannot.

In order to appreciate the implication of the fee structure on merchants, we need to know the efficient level of transaction. The efficient level is the value of transaction at which the merchant is indifference between either paying 1.25% of the value of transaction or a maximum of N2,000. That is; efficient level of a transaction is where ($N2,000 = 0.0125$). The result is that this restriction on fees effectively limits the value of transaction that can be transacted on the POS terminal to N160,000 (i.e. $2000/0.0125$). By (ii) above however, we know that this applies only to small retail merchants, since large merchants such as airlines and large hotels can negotiate their fees directly with acquiring banks.

The implication is that (small) or retail merchants with value of a sales at N160,000 or lower are cross-subsidizing merchants with sale above (N160,000). Indeed at a transaction value of N160,000 large merchants are not paying any fees. Also, POS adoption is effectively constrained for small retail merchants, who are more likely to be SMEs and traders that the regulator (CBN) is targeting for the cashless economy. If the merchants are aware of this implication, then they will hesitate to adopt POS terminal.

In this case, the interchange fee is no longer neutral as merchants of different sizes and types of business face different incentive structures. Such a fee structure does not appear to balance both sides of the payment card market. Specifically, fee setting by that Bankers Committee is distortionary, as it is an outcome of a bargaining process rather than the ‘balancing act’. The intermediating role of fee is unclear, as role of card networks/schemes in setting of fee is limited.

Additionally, where the issuer and acquirer are the same as in most banks in Nigeria, the share of fees is not 62.5% (i.e. $30+32.5$), but 87.5% if the bank also owns POS terminals (i.e. $30+32.5+25$) (see, Table 4.6). All of these distortions arising from the acquiring side of the market impose higher costs on potential merchants and other traders alike, with attendant implication for technology adoption and usage.

In the next section, we present these issues before the stakeholders in order to elicit their perception, views and opinions.

5.2. Eliciting the perception of the stakeholders: results of stakeholders focused group discussion (SFGD)

We conducted a SFGD on March 27, 2012 as part of a workshop to present the outcomes of our research and used the SFGD session to uncover a range of perspectives of the key stakeholders on the emerging issues. Details of the SFGD protocol and procedures are presented in Appendix 2.

The stakeholders were mainly the key participants in the payment cards industry. That is; those who (or their representatives) have a 'stake' in the payment cards industry, and the general public as represented by the media and academics. The key stakeholders are identified in Section 2 of the Central Bank of Nigeria's '*Guidelines on Point of Sale Card Acceptance Services*'.

Table 5.1 shows the participant stakeholder groups at the SFGD and the number in each group. The participants at the SFGD comprised 47 individuals, representing seven stakeholder groups and two independent groups. The stakeholder groups comprised the regulator (CBN), issuing and acquiring banks, card schemes, switching companies, merchants and cardholders (customers), whilst the independent groups comprised representatives from academia and the media.

Figure 5.1 shows the frequency distribution of the participant stakeholder groups at the SFGD. The majority of the participants are the merchants and cardholders, each representing 19% of the total number of participants, respectively. This was followed by the issuing banks (17%) and acquiring banks (15%). The independent group comprising academia and the media accounted for 14% of the participants.

Table 5.1: Participant stakeholder groups at the focused group discussion

Group identifier	Participant group	Number
A	Regulator (CBN)	3
B	Issuing banks	8
C	Acquiring banks	7
D	Merchants	9
E	Cardholders	9
F	Switches	3
G	Int. card schemes	2
H	Media	3
I	Academia	4
	Totals	47

5.2.1. Discussion questions

The SFGD was centred on addressing the central question:

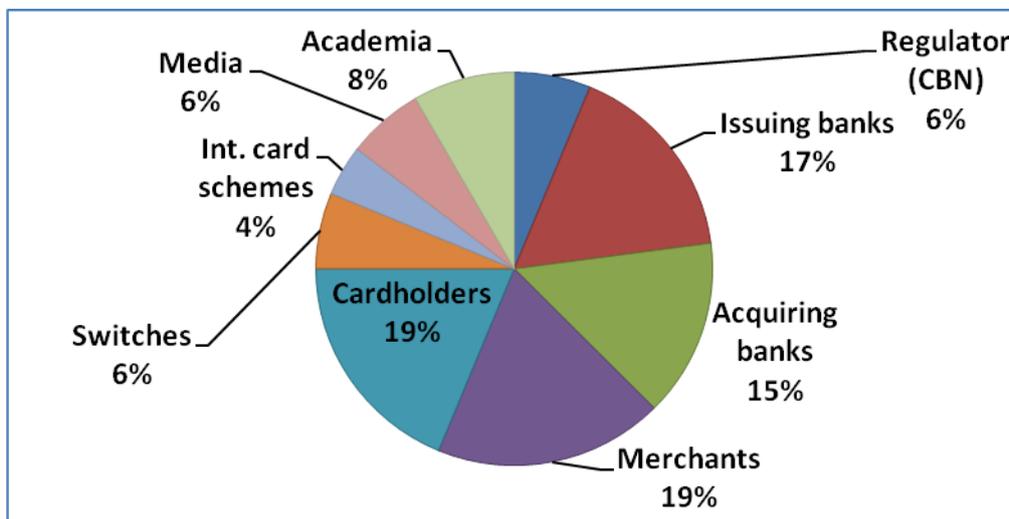
What sort of public interventions (economic regulation) will improve adoption of POS by merchants and usage of payment cards by consumer.

The central question is centred on POS adoption by merchants and usage of cards by customers. This is in line with the two sided and interdependent nature of the payment cards

market. The central question was further disaggregated into two parts (see, Appendix 3). The participants were asked to respond to a set of two questions with respect to changes in the current practice, with each question containing a set of policy suggestions/recommendations. The third question relates to how their responses (or preference set) balance the two sides of the market (i.e. increase card usage and POS adoption). Each of the suggestions/recommendations in (1) and (2) focused on card usage by cardholders and adoption of POS terminals, respectively.

In addition to the suggestions/recommendations, stakeholder groups were provided with an option to make suggestions. Allowing participants to contribute separate opinions/suggestions was to enhance participation of all groups, and to enable them identify areas of concern to them which our suggestions might have not covered. However, such contributions should be seen as addressing the central question. The response matrix for all participants is shown in Appendix 4.

Figure 5.1. Frequency distribution of the participant stakeholder groups.



5.2.2. Participant responses: Card usage amongst cardholders

Suggestion 1.1: *Increase the proportion of fees in total value of a transaction from the current 1.25% to 1.50%.*

The rationale for this suggestion stems from the need to increase card usage. The idea is that an increase in the fees per transaction shifts the costs of providing card service to the merchants who pay the fees, thereby indirectly reducing costs faced by card holders such as card usage charges and ultimately increases card usage.

However, none of the participants supported this suggestion and the consensus amongst the participant was that an upward adjustment in the current fee level will not provide incentive for merchants to adopt payment infrastructure. Both the regulator and the acquiring group argued that the current level of fees is high and merchants are reluctant to pay.

According to the regulator;

“It is not doable because it will not incentivize the merchants. Merchant will not want to pay and this will have negative effect on merchant adoption”.

Even the cardholder group who were more likely to benefit from the increase disagreed.

Suggestion 1.2: *Reduction in annual fees/charges to cardholders, but increase merchant discount fees.*

The rationale for this suggestion is that a reduction in fees to cardholders will increase card usage, whilst issuing banks can recoup the loss in revenue from the increase in merchant discount fees (which in Nigerian case include interchange fees). For the merchants, though they pay higher fees, but the corresponding increase in card usage will more than offset this increase. In this case, both the sides of the market benefit. Also, an increase in card usage will increase competition amongst merchants, other things being equal.

There were divergent views to this suggestion. The majority (four out of seven) of the stakeholder groups agreed to the first part of this suggestion. That is; to reduce cost of transaction to card holders. This group includes cardholders, merchants, regulator, and independents. Stakeholders such as acquiring banks, issuing banks and switches disagree.

However, there was a consensus with respect to the second part, as the entire stakeholder groups, except independents (six out of seven stakeholder groups) disagree to the suggestion of increasing the merchant discount fees.

Comparing the responses of the stakeholder groups, it appears that each stakeholder group responded in self-interested manner, i.e. according to what they believe will benefit them. For example, the issuing and acquiring banks and switches disagreed that fees be reduced for card holder, whilst agreeing that merchant fees should be increased. The position of these stakeholders seems intended to preserve their benefits.

Suggestion 1.3: *Reduce both annual fees/charges on card usage and merchant fees.*

Reduction in all fees is not ideal as it will impose costs on the acquiring side of the market and the network. This is because the fee structure is expected to ensure a balance on both sides of the market. The issue will be whether the reduction achieves this ‘balancing’.

Again, there were divergent views regarding this suggestion, and the responses of the key stakeholder reflect their self-interests. The majority (four out of seven) of the stakeholder groups agreed to this suggestion (regulator, merchants, cardholders, and issuing banks). The acquiring banks, switches and independents disagree.

However, different reasons were offered for disagreeing to fees increase. In buttressing their agreement that annual fees/charges on card usage and merchant fees be adjusted downward,

the regulator argued that merchants are reluctant to pay existing fees, as they are not getting their value from the system:

“Merchant doesn’t want to pay. They prefer cash. They don’t get value they want”.

On the other hand, the acquiring banks group argued that they were already operating at a loss due to costs associated with ensuring uninterrupted service availability. Thus, a reduction in fees will further deepen their loss. One of the representatives of the acquiring banks argued that his bank

“..... incurs N505million loss on their platforms. This includes cost for communication, etc.” Also that: *“Some banks do not charge annual fee”.*

Suggestion 1.4: *Regulation to encourage price competition rather than (horizontal) product differentiation.*

The rationale for this suggestion arises from the view that horizontal product differentiation leads to barriers to entry; and monopolistic competition, which is inconsistent with a competitive industry. Although product differentiation increases product quality, but this may come at a greater (often hidden) costs to cardholders, as it suppresses price competition and increase profit to issuing banks.

Only three stakeholder groups offered any response to this suggestion, namely; regulator, issuing banks, and switches, and they all disagreed to this suggestion of a limit to proliferation of card products. It should be noted that these are the stakeholder groups more likely to benefit from proliferation of card products.

The regulator argued that the proliferation of cards provides incentive for banks to offer loyalty schemes to attract customers. Whilst loyalty scheme might be intended to bind customers to the issuing banks, the extent of such loyalty is influenced by the costs associated with the product (see, Dowling and Uncles 1997). Thus, the extent to which loyalty schemes provide competition amongst the issuing banks is debatable.

In assessing stakeholder responses to suggestions for fees changes generally, we examined whether those groups who agreed to reduce card fees (first part of Suggestion 1.2) also agreed to reduction in all fees (Suggestion 1.3). The aim is to test the consistency of stakeholder responses. Our finding on the test is mixed. Three out of the seven stakeholder groups agreed to both suggestions: regulator, merchants, and cardholders. These groups were consistent in their responses (downward adjustment to fees).

The other stakeholder groups such as acquiring banks, issuing banks and switches were less consistent in their responses. For example, the acquiring banks group and switches disagreed to a reduction in any fees. On the other hand, issuing banks disagreed to reducing cardholder

fees, but agreed that all fees should be reduced. Yet, the independents agreed to reducing card holder fees, but not all fees.

We also examined whether those groups that disagreed to increasing merchant fees (second part of Suggestion 1.2) also agreed to reducing all fees (Suggestion 1.3). We find that the majority (four out of seven) of the stakeholder groups were consistent in this case. These are cardholders, issuing banks, merchants and regulator. Stakeholder groups such as switches, acquiring banks and independents were less consistent here. Both switches and acquiring banks disagreed both to increasing fees to merchants or any fees whatsoever.

5.2.3. Participants responses: ensuring greater POS adoption

Suggestion 2.1: *Removal of 'no-surcharge' rule.*

The rationale is based on the international experience which shows that the 'no-surcharge' rule is a distortion on the payment card system. Thus, a removal can be seen as intended to make the market more efficient and reducing pressure on the fee structure.

Five stakeholder groups offered any response to this suggestion, out of which only one (merchants) supported the idea, arguing that allowing them to surcharge a little for card usage will reduce their current cost burden. The remaining four stakeholder groups vehemently disagreed, namely; regulator, acquiring banks, issuing banks and cardholders). It appears that the dissenting responses viewed surcharging from cardholder/customer's perspective, arguing in that it will increase the cost of transaction to card holders, thereby reducing card usage. Indeed, the regulator considered surcharging as a 'crime';

"No, no, no! Surcharge is a crime and what will happen is that the surcharge would be transferred to cardholders. To allow merchants surcharge a small fee on card usage. When you allowed merchant to surcharge, merchant will transfer the costs to cardholder".

A representative of the regulator cited the example of negative outcome of POS (usage) when petrol stations were allowed to surcharge because of their small profit margin. Such a negative outcome might arise if there is no corresponding benefit to the cardholder such as in terms lower usage fee and/or higher rewards, which would more than offset the surcharge.

Suggestion 2.2: *Incentivise merchants to increase POS adoption (e.g. tax relief)*

Providing incentives for merchants may increase POS adoption, as such incentives will provide a way for merchants to offset the initial cost of POS deployment. Such incentives include tax relief, free POS deployment and installation, etc. At present the initial cost of deployment is N45,000 for an ordinary POS terminal and N85,000 for POS that has extra features such as battery-powered. One of the arguments by the potential merchants, particularly the small and medium enterprises (SMEs), is that they do not make the deployment cost in a year.

Four of the stakeholder groups offered any response to this suggestion and all of them supported the idea. These were issuing banks, merchants, regulator and independents. According to the regulator;

“Yes. Tax relief is a good one. There is the need to incentivise merchants. It is an incentive and it should be welcomed”.

The independents also supported the idea of incentivising merchants. However, they further suggested the need to ensure that such incentives actually work, since other factors might also be affecting POS adoption by merchants.

Suggestion 2.3: *Reduce the proportion of fees in total value of a transaction from the current 1.25% to 1%.*

This suggestion is a reverse of the previous suggestion in (Suggestion 1.1). A reduction will create a loss to both issuing and acquiring banks, as merchants will be paying less than the cost of providing the payment card service. The effect is to increase cost to cardholders, for example, in terms of higher transaction fees and/or a removal of incentives to enhance card usage.

Unlike the previous suggestion (1.1) in which the stakeholders were unanimous in their response (i.e. rejection of the suggestion), views and opinions were divided amongst the stakeholder groups as to whether the transaction fees (IF and MDF) should be adjusted downward. Whilst issuing banks, merchants and independents supported the suggestion, the regulator, acquiring banks, and switches disagreed with the suggestion.

In supporting their position on this suggestion, the regulator argued that there is little incentive for fees to reduce since merchants do not bear the costs of maintaining payment infrastructure. According to the regulator;

“No to this recommendation. It will benefit merchants but create processing bottleneck. Merchants do not maintain infrastructure and merchants do not pay for maintenance”.

On the other hand, the acquiring banks did not consider it ideal to reduce fees to the merchants in order to enhance POS adoption.

Contrary to the view expressed by the regulator, it was clear from the previous section that even though they do not directly pay for the maintenance services, the cost is passed onto them in terms of merchant discount fees.

Suggestion 2.4: *Merge PTSA and PTSP and the new entity to function under NIBSS.*

The rationale for this suggestion is to reduce the duplication of functions on the acquiring side of the market, thereby reducing costs to merchants.

Only four stakeholder groups responded to this suggestion and all of them were in support of the suggestion. These were acquiring banks, issuing banks, merchants and regulator. The response by this group of industry players is an implicit acceptance that duplication of functions creates distortion and imbalance in the payment card market.

However, they supported the suggestion for different reasons. The regulator group was of the view that the merged entity should function independently of NIBSS, whilst the issuing banks agreed on the basis that the entity be under the control of NIBSS. However, the operators at the acquiring side of the market (i.e. acquiring banks and merchants) supported the idea on the basis of cost reduction.

Suggestion 2.5: *The Bankers Committee should leave setting of fees to card networks/schemes.*

The rationale for this suggestion is that setting the fees by card networks/schemes is in line with international standard and it is the main function of card networks/schemes to balance the two sides of the market through the fees. Also, this will enhance credit card usage and wide spread acceptance outside Nigeria. Credit card usage is relatively of limited usage in Nigeria and only a few Nigerian banks issued credit cards that are accepted outside Nigeria.

Opinions/views were divided amongst the stakeholder groups as to whether Bankers Committee or the card networks/schemes should set the fees. Whilst two stakeholder groups; issuing banks and merchants agreed that the fees should be set by card network/schemes, acquiring banks and regulator disagreed.

In supporting their position, the regulator was of the view that setting the fees by the card schemes will make no difference to merchant adoption;

“The participation of Bankers’ committee will make no change to merchant adoption. In fact Bankers’ committee does not have a say (in setting the fee) because they are in the business”.

The position of the regulator here differs from the guidelines, which stipulates that fees are set by the Banker’s Committee.

5.2.4. Other views offered by stakeholder groups

Most of the stakeholder groups, except the regulator offered alternative views or suggestions separate from those outlined above. The stakeholder groups offered different opinions/views that were also of concern to them.

i) *Acquiring banks*

On reforming the existing fee structure, the acquiring banks were of the view that they were already running at a loss due to costs associated with providing uninterrupted payment card services to merchants including costs of transportation, maintenance, etc. As one of the representatives of the acquiring bank put it, where his bank also serves as an issuing bank, they do not charge card fee;

“Already acquiring banks are mostly ‘operating at a loss’ e.g. (we recorded a) N505 million loss on our platform. This includes cost for communication..and our cards are free of charge”.

On POS adoption, the acquiring banks were of the view that ‘network’ availability is essential for the functioning of the payment cards industry. Also, they were of the view that determination by regulator about the funding of POS infrastructure is important, as this adds to the costs facing them and the merchants. Such costs arising from transportation, installation and maintenance of POS, all of which add to the total costs, and there is limit to which they could continue to pass this onto the merchants since they do not set the fees.

ii) *Regulator*

On their part, the regulator group suggested that banks generally should go beyond seeking deposit and promote POS adoption and other electronic payment channels and use these as customer retention tool, rather than seeing POS adoption as a way to make money from merchants.

iii) *Issuing banks*

On card usage, the issuing banks were of the view that the regulator (CBN) group were inconsistent in their regulatory policy on card usage. Specifically, they cited the exception granted the Ministries and other government departments from the limit imposed on cash withdrawals. This exception was viewed as impeding card usage though POS and other electronic channels in all transactions associated with this group of merchants;

“The regulation exempts MDAs (Ministry, Department and Agencies) and statutory organisations like PHCN and Tax revenue office, from the limit on cash transactions. Payment of Statutory bills through prepaid cards will increase card usage. In a way to increase card usage, the regulator should not exempt the payment of these bills through POS or other channels”.

To the issuing banks, the limit imposed on cash withdrawals is seen as a way to increase card usage by card holders and POS adoption by merchants, but indiscriminate exceptions granted to large merchants and constant changes in the policy has actually affected usage and POS adoption.

iv) *Cardholders*

Like the acquiring banks the cardholder group viewed service availability as an essential element for the functioning of the payment cards market. Whilst the acquiring banks considered network availability as essential to ensuring smooth operation of the system, cardholders were of the view that service availability builds consumer confidence;

“Service availability is key to build(ing) consumer confidence in using e-payment channels. Once a channel failed or a consumer experienced any difficulty in transacting business through electronic channel, there will be lack of confidence”.

The cardholders also cited the level of literacy and computer literacy amongst cardholders as well as merchants as essential for card usage and adoption. These views suggest creating greater awareness and education of customers and the merchants

v) *Merchants*

On card usage, the merchants suggested a fixed fee/charge of between 50K – N1.00 per transaction, irrespective of the value of the transaction. The rationale for this suggestion is hard to justify because such an approach leads to cross subsidisation, as those with smaller transactions will be cross-subsidising those with large volumes of transaction. As shown earlier, cross-subsidisation is a distortion in the market.

On POS adoption, merchants appear to be more concerned with the operations of the payment card system as it may be affecting them. They suggested timely settlement of payments for POS transactions. They were of the view that POS deployment by banks should not attract any charges, but can be considered as part of the adoption package to them.

They also argued that providing POS to merchants free of charge initially (e.g. first time merchants) will enhance adoption, with a reduction merchant discount fee (from the current level) such a fee should be seen as representing the cost of providing the service to merchants. The view expressed by merchants suggests that the initial deployment fee is a problem facing the merchants.

5.2.5. Stakeholder responses to balance both sides of the payment cards market.

In the third part of the SFGD (see, Box 2), we asked the participant groups to view their responses to the policy suggestions as an attempt to seek a balance between the two sides of the payment cards market. In this subsection, we examine the extent to which the stakeholder responses can be used to seek a balance between both sides of the market. That is; we examine the extent to which their responses align with each other and cross stakeholder groups.

Also, the responses and the additional suggestions made are indicators of their preferences. Thus, the preference set for a stakeholder group provides the incentive to be more productive in the system. The focus is on the key players on the two sides of the payment card market (i.e. issuing and acquiring sides).

Table 5.2 presents the response matrix for the players on the two sides of the market. As the table shows, the response takes the value 1 if the participant group agreed/supported the

policy suggestion; and 0 otherwise. An empty space implies that the participant provided no response.

Table 5.2. Response matrix between issuing and acquiring sides of the market

	Issuing side		Acquiring side	
	Issuing banks	Cardholders	Acquiring banks	Merchants
Increase overall fees from 1.25 to 1.5%	0	0	0	0
Reduce annual fees to cardholders	0	1	0	1
Increase merchant fees	0	0	0	0
Reduce both cardholder and merchant fees	1	1	0	1
Price competition not product differentiation	0			
Remove of no-surcharge-rule	0	0	0	1
Incentivise merchants (tax relief, free POS)	1		0	1
Reduce overall fees from 1.25 to 1%	1		0	1
Merge PTSA and PTSP under CIBSS	1		1	1
Networks set fees not bankers committee	1		0	1

Notes: Response takes the value 1 if the participant group agrees/supports the policy option/suggestion, and 0 if otherwise. The empty space implies that the participant provided no response.

Three points are worth noting. Firstly, on the issuing side of the market, the preference set for the issuing banks consists of a reduction in both cardholder and merchant discount fees and all suggestions to improve POS adoption, except surcharging. On the other hand, the preference set for the cardholders consists of a reduction in both the cardholder fees and merchant fees. For the cardholders, a downward adjustment of the current fee structure will enhance their productivity, in terms of card usage, which also will increase POS adoption. Comparing the preference set between the issuing banks and the cardholders, their preference set seems to align in terms of disagreement with any increase in any type of fees and a removal of the ‘no-surcharge’ rule.

Secondly, on the acquiring side of the market, the preference set for the acquiring banks consists only of merging PTSA and PTSP into a new entity. The preference set for the merchants consists of a reduction in both the cardholder fees and merchant fees and all the suggestions to improve POS adoption. However, the preference sets of the acquiring side of the market align in that they both disagree with increase in overall fees, merchant fees and the need to eliminate the duplication of functions associated with PTSA and PTSP.

Thirdly, the two sides of the market are in alignment in two areas; (i) disagreement with an upward adjustment to current fee level, including merchant fees, and (ii) the need to eliminate duplication of functions in the system. Opinions remained divided on surcharging, whether fees should be reduced for both cardholders and merchants, and whether setting of fees should be transferred to the card networks/schemes.

5.2.6. Summary

- i) The stakeholder groups appear to behave in self-interested manner. There is an implicit consideration of the incentives underlying the suggestions in their responses.

- ii) The cardholder and regulator groups were more consistent in their responses to the various suggestions some of which lead to the same outcome, but were suggested from different perspectives.
- iii) The acquiring banks and the switches appear to always behave similarly.
- iv) Both sides of the market as represented by the cardholders and acquiring banks recognise the importance of service/network availability for the function of the market and to build customer confidence. These views suggest creating greater awareness and education of customers and the merchants.
- v) The issuing banks seem to compete in different ways and in ways to retain customers. Whilst some issuing banks compete on the basis of horizontal product differentiation accompanied by various loyalty schemes to keep their customers, some do not charge card fees.
- vi) The two sides of the market are in alignment only in terms of adjustment to current fee level and the need to eliminate duplication of functions in the system. Opinions are divided on key regulatory issues such as surcharging, the fees and who set the fees in line with international standards.

Chapter 6

Conclusions

6.1. Overview of study

The remit for this study arises from the need to engage the relevant stakeholders towards a productive regulation of the payment card industry in Nigeria. Experience from developed economies with well-established payment cards markets (e.g. Australia, UK, and USA), demonstrate that adequate regulatory oversight in the electronic payments industry is essential to maintain financial stability, consumer confidence and data privacy and security of the industry.

Whilst electronic payments will support economies of scale and increase consumer consumption, regulations might be required to encourage competition, ensure stability and security, prevent fraud, and manage credit and financial risk concerns that may undermine consumer confidence in existing and new payment products.

However, regulatory barriers that restrict or limit efficient operations of the industry operators will effectively limit usage, for example, by limiting adoption and diffusion of financial innovation (e.g. POS technology), and potentially increasing costs to providers, which ultimately are pass onto end-users in the form of higher charges and fees.

Generally, stakeholders are those interest groups (individuals, industry operators, businesses, government agencies, and others) who either stand to affect or to be affected, directly or indirectly, by an intervention (e.g. regulation), and whose behaviour in response to the intervention could influence the outcomes.

In this study, engagement with stakeholders was premised on the notion that those groups who are potentially affected by an intervention or can affect the outcomes of an intervention should have the opportunity to input into the development of decisions that affect them. From this perspective, stakeholder engagement was viewed as a form of risk management, where these disparate perspectives of stakeholders are identified, assessed, prioritized, and aligned towards the design of an appropriate regulatory framework.

There are some reasons why engaging the stakeholders in the regulation process in Nigeria might be expected to achieve the desired outcomes, as set out in the Financial System Strategy, FSS 2020. Firstly, the electronic payment industry generally, and payment cards market in particular, is characterised by information asymmetries and network effects between the operators and end-users arising largely due the two-sided market structure. These in turn generate externalities that may require regulatory intervention to correct.

In this case, regulation of the industry will be productive to the extent that there is an alignment in the operators' interests with the interests of the other stakeholders (e.g. merchants and cardholders). Such an alignment can be achieved by an active engagement of the key stakeholders at the early phase, in such a way that the emerging regulation minimises

the cost of these information asymmetries by obtaining information and providing operators with incentives to improve their performance.

6.2. Key findings

Much of the present research centre on improving the balancing act of the two sides of the payment cards market in Nigeria. The two-sided nature of the market for payment cards suggests that the two sides of the market should be kept in balance such that the cost of provision of cards should balance the benefits of adoption of POS terminals to merchants. We adopted a descriptive approach largely due to lack of data.

In the Nigerian case however, we find evidences of imbalances and distortions, particularly on the acquiring side of the market and the fees structure. Firstly, Nigeria operates outside the standard two-sided market, particularly the acquiring side of the market. Such a deviation is understandable at this initial stage of the development of the market, given the need to have a well functioning electronic payment system infrastructure, particularly relating to deployment, maintenance and support for POS terminals.

However, this appears to come at greater acquisition costs to potential merchants as these costs are not indicated in the regulated structure of fees and charges. For example, interconnectivity and interoperability are undertaken by different sets of related stakeholders; PTSPs, PTSA, NCS and Switches. This implies duplication of functions, which may increase costs to end-users (consumers and merchants), ultimately affecting usage and adoption. It is no surprise that the stakeholders were unanimous in their perception that this duplication of functions should be eliminated.

Secondly, the nature of the relationships between the stakeholders on the acquiring side of the market implicitly creates agency problem into the system. Acquisition of POS can be only through PTSPs, but connectivity through PTSA. Yet, this PTSA can also be an acquirer. Also, there is evidence of restricted entry into PTSP. Anyone having relationship with the issuing side of the market is excluded. However, only six PTSPs are operating in the industry, raising concerns about collusive behaviour or other type of anti-competitive behaviour.

Also, the current regulatory structure appears to undermine the learning and persuasion stages of the dynamics underlying the process of adoption and diffusion of technology, thereby limiting the ability of merchants to acquire and use POS terminals.

Existing regulation and business rules forbid any activities that are considered collusive or anti-competitive. However, Nigeria has no anti-trust laws to determine these behaviours when issues arise. Nevertheless, the CBN has submitted several bills to the National Assembly one of which is the Financial Institutions Ombudsman Bill. This is insufficient, as the financial ombudsman is not an independent agency, but industry specific. In the UK, the Office of Fair Trading is the relevant independent anti-trust and competition agency at the

national level whose scope of activities includes the payments system. Also, in the US the financial ombudsman is separated from the Federal Anti-trust and Competition Agency^{28, 29}.

The fee structure also presents evidence of distortions. Firstly, the intermediating role of the fee structure is unclear from the current guidelines. The role of card networks/schemes in setting the fees is limited. Secondly, the fees structure does not appear to balance the market. Merchants effectively incur additional cost of terminal acquisition provided outside the market framework. This may partly explain why potential markets are reluctant to adopt POS terminals.

6.3. Some policy recommendations

i) Fee setting.

For policy-making, addressing twin issues of ‘who sets the fees’ and ‘how fees are set’ are important for a productive payment cards market. At present, setting fees by the Bankers Committee is implicitly an outcome of a bargaining process rather than a process towards the ‘balancing act’. However, opinions of the stakeholders are divided as to who should set the fees. It is inevitable that setting the fees by the Bankers Committee will always raise suspicion of price-fixing, particularly as the Committee comprise both the issuing and the acquiring banks. Additionally, how fees are set remains largely unclear.

Going by the predictions of economic theory, fee regulation is complex and undesirable. It is recommended that fee setting should be left to those whose function it is to balance both sides of the market such as the experienced card networks/schemes. At present, the international card schemes are hardly involved in the operations of the payment cards in Nigeria. More importantly, their active involvement will enhance the acceptability of Nigerian credit cards outside the shores of Nigeria.

ii) Surcharging and stability of fees.

To the extent that the fee balances both sides of the market, a removal of no-surcharge rule can achieve the dual goal of enhancing card usage and POS adoption. The stakeholders disagreed to surcharging, but it is required to maintain neutrality and stability of fees regime. International experience demonstrates that even where surcharging has been permitted, merchants are reluctant to do so, for fear of losing customers. In this case, one might expect that a small surcharging will help accelerate this, but evidence have shown that (i) even when allowed, merchants do not surcharge for fear of losing customers, and (ii) even in countries such as Australia that allowed some surcharging in the past, the trend is being reversed because of customer's resentment to surcharging generally.³⁰

²⁸ The lack of an independent antitrust and competition agency in Nigeria was exhibited recently in the case of price-fixing involving two British Airlines; British Airways and Virgin Atlantic. The committee set-up by the Federal Government concluded that the conduct of the two airlines did not contradict any sections of the Nigerian constitution. Issues of antitrust and anti-competitive behaviour are not issues of constitution.

²⁹ Also, membership of such an agency should comprise of experts in antitrust laws and industrial economics.

³⁰ Courier Mail, Brisbane: RBA to chop up charges, 14 January, 2013 page 35

The key is that merchants operate in a competitive environment.

iii) *Incentives to encourage adoption*

An alternative approach for the regulatory authorities to lobby the Federal Government of Nigeria (FGN) to provide incentive to potential merchants. This may take the form of tax relief. It should be noted that the majority of potential merchants are in the small and medium enterprises sector, where they do not make much profits to meet the initial cost of POS deployment. In this case, the FGN can subsidise POS deployment costs.

iv) *Continuous stakeholder engagement targeting SMEs*

Engagement with the stakeholders should be a continuous process and targeted at SMEs. According to World Bank Enterprise Survey (WBES) on Nigerian economy in 2007, Small and Medium Enterprises (SMEs) operating as sole proprietors account for over 85% of Nigerian enterprises. It means then that the majority of the potential adopters of the POS terminals are the SMEs, and to effectively involve them to adopt and use the POS payment system the promoters have to reach out to them specifically, making concerted efforts in encouraging them to start using the technology. For instance, it is not enough organizing awareness seminars and workshops around cities, such awareness and education campaigns, and education workshops should be undertaken at the grassroots level (local government and communities) where these SMEs operate and should be a continuous process.

v) *Encourage credit card system*

The credit card tends to be the most beneficial of all payment card systems as it provides short-term credit incentives for individuals and businesses. However, credit card is the least developed in Nigeria. Thus, financial infrastructure should be developed especially with regards to credit agencies, functional credit bureaus, and credit registrars to enhance usage of credit cards for transactions as well as assist in developing the credit market. Again, as mentioned above, the proposed industry Ombudsman is not enough; a full independent anti-trust and competition commission need to be established, like it is in the UK.

Finally, electronic payment system is largely technology driven. A new technology can only contribute to the growth and productivity of the payment card system only when it has been widely adopted and used. Technology adoption and diffusion requires time and consistency in actions and policies by the promoters, as the adoption moves from one stage of the potential adopters to another. It is therefore imperative for the regulators to understand the level as well as the stage of adoption so as to be able to adequately motivate (especially at the early stage of adoption) the potential adopters for a wider usage.

Nevertheless, there is no perfect model of payment card market. That is why it is one of the most heavily regulated industries in the world. Countries such as USA, Australia, Canada, UK, Mexico, amongst others, periodically review their payment card regulations to ensure that observed distortions and imbalances are addressed. More so, the Nigerian payment card market, being at the developmental stage, is expected to exhibit some distortions and imbalances which the regulators from time to time are expected to review and make amends where applicable in order to improve wider adoption and diffusion.

It should be noted that cardholders will not carry a card if no merchant will accept it and merchants will not incur the cost of acquiring a POS terminal for accepting a card that customers do not use. Therefore, economic regulation of the payment cards market in Nigeria should focus on ensuring addressing the distortions and the imbalances in both sides of the market.

6.4. Limitations of study and Areas for future research

This study is not without limitations. Firstly, limitations of data constrained us to adopt a largely descriptive approach. For example, there was practically no information about on POS adopters. Adoption is counted on the number of POS deployed and banks do not have these records. Also, the information available for credit cards is largely insufficient. We have to resort to aggregated data published in various CBN annual reports.

Secondly, this study has partly looked at the behaviour of the payment cards industry players focusing on the potential impact of existing regulation and business rules on the behaviour of industry players. It is clear that POS adoption by merchants is a key ingredient to a productive and efficient payment card system. Our findings at this stage can be considered as descriptive in nature, confining them to a set of hypothesis to be tested in an empirical analysis in a future research.

Also, it is less likely that regulation is the only determinant of usage behaviour of cardholders or adoption behaviour of merchants. Individual behaviours are shaped by and likely to be influenced by the environment, economy wide factors, socioeconomic and demographic characteristics, perceptions, and so on. In future research therefore, we propose a nationally representative survey of both cardholders as well as merchants to empirically examine the determinants of card usage and POS adoption by merchants in Nigeria, using an appropriate econometric techniques. In such a setting, both card usage behaviour of customers and technology adoption by merchants can be considered as jointly determined.

IPPA

**Economic Regulation of Payment Cards in
Nigeria**

**Stakeholder Engagement
Workshop**

Venue: Sheraton Hotel, Ikeja Lagos

Date: 26 March, 2012

PROGRAM OF EVENT

Morning session:

Time	Event
8.30 – 9.00	Registration of Participants
9.0 – 9.20	<p>Keynote Address:</p> <p>Mr. Thompson Ayodele; Executive Director Initiative for Public Policy Analysis, Lagos.</p>
9.20 – 9.30	Tea Break
9.30 – 10.30	<p>Plenary session: The Role of Stakeholders in Policy Making and Practice</p> <p>(Chair: Professor Akpan E. Ekpo; West African Institute for Financial and Economic Management, CBN Learning Centre, Lagos Nigeria)</p> <p>Speaker: Professor Akpan H. Ekpo</p> <p>Discussant: Dr. Damilola Olajide; HERU, University of Aberdeen, UK, and Snr. Research Fellow, IPPA Lagos.</p>
10.30 – 11.00	Tea Break and Participant photographs
11.00 – 12.00	<p>Presentation of research outcomes</p> <ol style="list-style-type: none"> 1. The market for payment cards and implications for economic regulation 2. Economic regulation of payment cards: lessons of experience

12.00 – 13.00	Lunch
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Afternoon session:

Time	Event
13.15 – 13.45	<p>Overview of the research project:</p> <p><i>Presenter:</i></p> <p>Dr. Damilola Olajide; HERU, University of Aberdeen, UK, and Snr. Research Fellow, IPPA Lagos.</p>
13.45 – 14.00	<p>Introduction of participating stakeholders:</p> <p>Mr. Thompson Ayodele</p>
14.00 – 15.30	<p>Towards a productive economic regulation of payment cards in Nigeria: Stakeholder views and perceptions</p> <p>Chair: Professor C. Ikeji</p> <p>Discussant (1): Dr Femi Obembe, Obafemi Awolowo University, Ile-Ife</p>
15.30 – 15.45	<p>Wrap-up and Closing remarks</p> <p>Mr. Thompson Ayodele</p>

Appendix 2:

A note on stakeholder engagement process

Damilola Olajide; PhD

Stakeholder engagement in brief

The second session of the workshop will focus on a stakeholder focused group discussion (SFGD), aiming to bringing relevant stakeholders - those who (or their representatives) have a 'stake' in a given issue or intervention into contact with one another.

The key objective is to enhance levels of trust and initiate dialogue amongst the key players in the payment cards market, to share information, experience and institutional knowledge, and to generate solutions and relevant good practices in the payment cards industry. It is designed to enhance levels of trust, discussion and collective problem solving amongst different stakeholder groups as identified in Section 2 of the Central Bank of Nigeria's Guidelines on Point of Sale card acceptance services.

Stakeholder engagement is a very effective tool for bringing diverse interests together to build a consensus around complex, multifaceted issues encompassed in the process of a regulatory intervention involving the payment cards industry. It is based on the recognition of the importance of achieving equity and accountability in communication between stakeholders. It can involve a small group of individuals representing different experiences, areas of expertise, or practice.

In practice, stakeholder engagement is a flexible tool and can be adapted to a number of different contexts. It can be used at local, state and national levels for policy discussions.

This note presents the engagement procedures for the SFGD. We are of the view that all stakeholders have relevant experience, knowledge and information that ultimately will inform and improve the quality of the regulatory process involving the payment cards industry in Nigeria.

In this workshop, we are using the SFGD as a scoping exercise in which stakeholders come together to explore some issues that may directly impact the shape of economic regulation of the payment cards industry in Nigeria. The SFGD can also be used an implementation tool following recent interventions in the Nigerian banking environment generally, and electronic payment in particular, in order to establish how each of the stakeholder groups will be able to best put the interventions into practice.

Design and conduct of the discussion

Generally, a facilitator will convene and guide the dialogue ensuring that different groups have equal speaking time. The engagement discussion will be followed by a written summary or a set of key points agreed upon by all the participating stakeholder groups and/or their representatives, which in turn stimulate wider policy discussion or further decision-making process.

Specifically for our SFGD, the following procedures are to be followed ³¹:

- (i) The Facilitator introduces the Chair, and announces the stakeholder team leaders.
- (ii) The Chair gives a **3-5 minute** address.
- (iii) Each participant joins a relevant stakeholder group. At least two participants are required to ensure representation of a stakeholder group.
- (iv) The Facilitator will serve each stakeholder group with an outline of the issues for discussion.
- (v) Each stakeholder group is allowed a **maximum of 25 mins** to deliberate on the issues and are expected to limit discussion to the issues outlined.
- (vi) The group deliberations will be followed by a **5 min** report on the views of each stakeholder group. The group leader or any of the team representative can present the report. Report may extend beyond the stated issues, provided that there is time for further discussion.
- (vii) Stakeholder groups are expected to adhere strictly to the time allocated, as the Co-ordinator will enforce the time limit.

Potential benefits

Some of the benefits to gain from the SFGD include:

- i) Stimulates discussion and collaboration amongst stakeholder groups.
- ii) Ensures that stakeholder groups identify their priorities and their positions on the key issues/questions.
- iii) Generates enhanced understanding of different positions and perspectives on the subject matter.
- iv) Builds trust and relationships between stakeholder groups, and between stakeholders and policy-makers
- v) Helps policy-makers to understand what stakeholders want and why.
- vi) Provides a unique space for problem solving, knowledge and experience sharing, and presenting examples of good practice.

³¹ The procedure can also be found in the program.

Appendix 3: Stakeholder Engagement Focused Group Discussion Questions

Stakeholder Engagement Focused Group Discussion Questions

Central question

What sort of public interventions (economic regulation) will improve adoption of card usage by consumers and card adoption by POS merchants?

As a stakeholder, whose conducts (e.g. operations and practices) may affect or be affected by changes in one or both sides of the payment cards market, which of the following changes in current practice would you recommend;

1. To increase card usage amongst cardholders?
 - (i) Increase the proportion of fees in total value of a transaction from the current 1.25% to 1.50%.
 - (ii) Reduce annual fees/charges to cardholders but increase merchant fees.
 - (iii) Reduce both annual fees/charges on card usage and merchant fees.
 - (iv) Limit banks from issuing same cards with different features (product differentiation) to encourage price competition rather than product competition.
 - (v) Others as you may suggest

2. To ensure greater POS adoption by potential merchants?
 - (vi) Merchants are allowed to surcharge a small fee on card transactions.
 - (vii) An incentive such as a tax relief for potential merchants.

Appendix 4: Participant response matrix

Policy options	Regulator	Issuing banks	Acquiring banks	Merchants	Card holders	Switches	Independents
increase prop of fees in total trans.	0	0	0	0	0	0	0
reduce annual fees to cardholders	1	0	0	1	1	0	1
increase merchant fees	0	0	0	0	0	0	1
reduce both annual fees and merchant fees	1	1	0	1	1	0	0
price competition not product differentiation	0	0					0
suggested additional solution in q1	0	1	1	1	1	1	1
remove surcharge	0	0	0	1	0		
incentivise merchants (eg. tax relief)	1	1	0	1			1
reduce overall fees, 1.25 to 1%	0	1	0	1			1
merge PTSA and PTSP under CIBSS	1	1	1	1			
networks set fees not bankers committee	0	1	0	1			1

suggested additional solution in q2	1	1	1	1	1		
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Notes: response takes the value 1 if the participant group agrees/support the policy option/recommendation, and 0 if otherwise. The empty space implies that the participant provided no response.

Appendix 5: Volume and value of transaction by payment cards

Table A5.1: Volume and Value of transaction in four payment channels, 2006-2010

Payment channels	Transactions	2006	2007	2008	2009	2010
ATM	Volume	12,138,109	15,731,630	60,100,000	109,600,000	186,200,000
	Value (N'm)	63,238.87	131,562.67	399,710.00	548,600.00	954,000
POS	Volume	71,063	421,946	1,194,600	900,000	1,100,000
	Value (N'm)	559.23	6,442.07	16,100.00	11,040.00	12,700.00
Web(internet)	Volume	222,211	903,067	1,600,000	2,700,000	7,200,000
	Value (N'm)	2,941.96	10,623.41	25,050.00	84,150.00	99,500.00
Mobile	Volume	40,733	903,067	3,200,000	1,800,000	1,200,000
	Value(N'm)	97.5	148.79	697.80	1,260	6,700
Total annual	Volume	13,029,624	17,959,710	66,094,600	115,000,000	195,700,000
	Value(N'm)	86,139.74	148,776.94	441,557.80	645,050.00	1,072,900.00

Sources: CBN Annual report, various issues

Table A5.2. Volume-Value Index, 2006-2010

Year						
Channel	2006	2007	2008	2009	2010	Total
ATM	1.476	1.406	1.389	1.401	1.383	1.411
POS	1.766	1.477	1.445	1.473	1.472	1.526
Web/Internet	1.541	1.479	1.410	1.306	1.372	1.422
Mobile	2.318	2.741	2.288	2.018	1.589	2.191
Total	1.775	1.776	1.633	1.549	1.454	1.637

Note: Calculations are based on the ratio of log of volume to the log of value of transaction. The logs have been calculated from Table A5.1.

List of Publications, Local articles, and Conference presentations

1.	Ibeji Ngozi and Damilola Olajide . The impact of regulation on the adoption and diffusion of Point-of-Sale technology in Nigeria. <i>Paper presented at the 2012 African Technology Policy Study Annual Conference, AU Building, Addis Ababa, 19th – 22nd November.</i>
2.	Damilola Olajide . Towards a productive regulation of payment cards in Nigeria. <i>Paper presented at the Nigeria Research Group seminar, Centre for Sustainable International Development, University of Aberdeen UK, October 5, 2012.</i>
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