

**STRADDLING SECTORS: THE MICRO LEVEL REGULATION  
OF ELECTRONIC PAYMENT SYSTEMS IN ZAMBIA**

**By  
Grace Samui**

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requirements for the degree of Master of Laws (LLM) (Taught)**

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## **DECLARATION**

I, **Grace Samui, computer number 531001297**, hereby declare that this dissertation represents my original work; and that I have not previously submitted it for a degree, diploma, or other qualification at this or any other University.

I further declare that I have endeavoured to acknowledge work done by others. Finally, I take full responsibility for the contents and any errors, defects or omissions.

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**20 November 2013**

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## ABSTRACT

The Zambian Government has been engaged in enhancing the payment systems financial subsector as a means of expanding formal financial inclusion. Payment systems are seen as especially advantageous for citizens unable to access 'brick and mortar' banks. This is due to the systems' utilisation of electronic communications, which enable remote access to financial services. Payment systems also increase the efficiency of anti-money laundering controls in the economy through improved record keeping of financial transactions. Moreover, payment systems present a convenient alternative to cash that carries benefits over distance (in terms of money transfer) and benefits over time (savings, credit and insurance). Benefits over distance are immediate and processual or transactional in nature. Conversely, benefits over time include an informational element that instead focuses on financial status.

Market players have responded to the Government's efforts with a number of innovative multidimensional products as the requisite electronic communications infrastructure continues to improve. However, the supply of payment systems products does not appear to have contributed significantly to demand among the populace. One possible reason for this disconnect is the mistrust of non-cash and impersonal / automated methods of transacting by potential users of payment systems in an economy that is predominantly cash-based.

Such mistrust is traditionally addressed through simple, clear and comprehensive regulation that directly addresses consumer concerns. This study examined the extent to which the micro level regulation of payment systems in Zambia provides such clarity. A principally qualitative socio-legal methodology was utilised in the study in order to determine the current regulatory framework. The study used a 'trust paradigm' of privacy, security and consumer protection as the framework of analysis. It assessed whether Zambia's payment system regulations adequately address the modern trend towards the 'electronification' of payment systems, in part through whether both the transactional and informational dimensions of payment systems are addressed.

It was concluded that there is a distinct gap in the micro level regulation of payment systems in Zambia. The regulation focuses on the transactional aspect with little consideration for the informational. Additionally, provisions aimed specifically at enhancing consumer trust in electronic payment systems were found lacking. The study therefore recommended some improvements to micro level regulation to provide the much-needed simplicity, clarity and comprehensiveness of regulation that may boost the Government's efforts at formal financial inclusion.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

AML Directives	Bank of Zambia Anti-Money Laundering Directives of 2004
BIS	Bank of International Settlements
BoZ / Central Bank	Bank of Zambia
CBN	Central Bank of Nigeria
DDACC	Direct Debit and Credit Clearing
DGs	Design guidelines
E-commerce	Electronic commerce
ECTA	Electronic Communications and Transactions Act No. 21 of 2009
E-money	Electronic money
FATF	Financial Action Task Force
Finscope Zambia 2009 report	Finscope Zambia 2009 Topline Findings: Final Report (2010)
FSDP I	Financial Sector Development Plan 2004-2009 (Phase One)
GRZ	Government of the Republic of Zambia
ICT	Information and communication technology
ICT Act	Information and Communication Technologies Act No. 15 of 2009

IFC	International Finance Corporation
IFRS	International Financial Reporting Standards
M-money	Mobile money
NBFIs	Non-bank financial institutions
NPS Act	National Payment Systems Act No. 1 of 2007
NPS	National Payment Systems
PSB	Payment systems business
RBM	Reserve Bank of Malawi
SIM cards	Subscriber Identity Module cards
SMS	Short Message Service
UN Electronic Communications Convention 2005	United Nations Convention on the Use of Electronic Communications in International Contracts 2005
ZICTA	Zambia Information and Communication Technology Authority

## **LEGISLATION CITED**

### **Zambian principal legislation and regulations issued thereunder**

Authentication of Documents Act, Chapter 75 of the Laws of Zambia

Bank of Zambia Act, Chapter 360 of the Laws of Zambia

- Bank of Zambia (Currency) Regulations, SI No. 33 of 2012

Banking and Financial Services Act, Chapter 387 of the Laws of Zambia

Constitution of Zambia Act, Chapter 1 of the Laws of Zambia

Cheques Act, Chapter 424 of the Laws of Zambia

Electronic Communications and Transactions Act No. 21 of 2009

English Law (Extent of Application) Act, Chapter 11 of the Laws of Zambia

Information and Communication Technologies Act No. 15 of 2009

- ICT Act (Registration of Electronic Communication Apparatus) Regulations, SI No. 65 of 2011

National Payment Systems Act No. 1 of 2007

- Money Transmission Services Guidelines
- National Payment Systems Directives on Cheques and Direct Debit Instructions Issued on Insufficiently Funded Accounts, 2010, Gazette Notice No. 190 of 2010

Postal Services Act No. 22 of 2009

Prohibition and Prevention of Money Laundering Act No. 14 of 2001 (as amended by Act No. 44 of 2010)

- Bank of Zambia Anti-Money Laundering Directives of 2004

## **Foreign Legislation**

Bills of Exchange Act 1882 (United Kingdom)

Electronic Communications and Transactions Act No. 25 of 2002 (Republic of South Africa)

## **International Instruments**

United Nations Commission on International Trade Law, Model Law on Electronic Commerce 1996

United Nations Convention on the Use of Electronic Communications in International Contracts 2005

## **CASE LAW CITED**

### **Zambian**

The People v Beaumont (1965) ZR 130 (HC)

The People v George Wello Mpombo, SSN/09/2010

Valentine Shula Musakanya and Another v The People (1983) ZR 96 (SC)

### **Foreign**

Attorney-General v. Guardian Newspapers Ltd (No 2) (1990) 1 AC 109

Tournier v. National Provincial and Union Bank of England (1924) 1 K.B. 461



# PART 1

## INTRODUCTION

### 1.1 CONTEXT

#### 1.1.1 The emergence of payment systems in Zambia and their benefits

Economic and financial liberalisation reforms have been ongoing in Zambia since the early 1990s. These reforms have led to the proliferation of non-bank financial institutions (NBFIs) in the country's economy. Effectively, these institutions infiltrated the financial sector that had hitherto been dominated by traditional commercial banks and (failed) Government-owned development lenders.<sup>1</sup> Financial sector reforms were instituted as part of the liberalisation. These included phase one of the Financial Sector Development Plan 2004-2009 (FSDP I). The FSDP I sought to address sector ailments that included low levels of financial intermediation (resulting in high financial exclusion for a significant percentage of the population), poor credit culture, multiple and potentially conflicting roles of Government, and weak regulation of prudential and non-banking financial institutions.<sup>2</sup> The reform and development of payment systems was one identified solution to these sector ailments. This is because payment systems were,<sup>3</sup>

“envisaged to play a critical role in promoting greater access by the population to banking and financial services and a reduction in the use of cash as the main means of effecting payments in the economy.”

The development of payment systems as part of a more efficient financial sector has been recognised globally. International financial institutions such as

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<sup>1</sup> Government of the Republic of Zambia, Ministry of Finance and National Planning, *Financial Sector Development Plan for Zambia: 2004-2009* (hereinafter 'FSDP I') [Lusaka: GRZ, May 2004], 17; Abraham Mwenda and Noah Mutoti, “Financial Sector Reforms, Bank Performance and Economic Growth: Evidence from Zambia”, *African Development Review*, Vol. 23, No. 1 [2011], 60–74, 61-63

<sup>2</sup> GRZ, *FSDP I*, at page i

<sup>3</sup> GRZ, *FSDP I*, at page vi

the World Bank promote payment systems not only as a means of improving financial inclusion and ultimately economic development, but also as a means of enhancing monitoring of money laundering and terrorist financing through traceable payment transactions.<sup>4</sup>

At the micro-level, Donovan argues that well-supervised payment systems provide a safer means of asset transfer than cash.<sup>5</sup> This is of particular utility in times of crisis, such as famine or economic shock. During such times, family remittances and / or Government assistance provide a lifeline to families, without the ‘leakages’ and security risks associated with traditional cash-based payment methods.<sup>6</sup> This efficiency extends to assistance in ‘regular’ times as well, such as through farmer input subsidy provision.<sup>7</sup>

Micro-level advantages of payment systems go beyond mere movement of money “over distance”, to movement of money “over time”. That is, savings, insurance and credit.<sup>8</sup> Indeed, the ability to store monetary value in electronic payment systems such as ‘mobile money’ (m-money) is one of the justifications for the global drive to utilise payment systems as a means of

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<sup>4</sup> Pierre-Laurent Chatain, *et al*, *Protecting Mobile Money against Financial Crimes: Global Policy Challenges and Solutions* [Washington DC: World Bank Group, 2011], xxix

<sup>5</sup> Kevin Donovan, “Mobile Money for Financial Inclusion”, in *Information and Communications for Development 2012: Maximizing Mobile* [Washington, DC: World Bank, 2012], 61-72. Available at: <http://www.worldbank.org/ict/IC4D2012> [accessed on 9 October 2012], 63

<sup>6</sup> Donovan, “Mobile Money for Financial Inclusion”, 63; Financial Action Task Force (FATF) Report, *Money Laundering Using New Payment Methods* [Paris: FATF / OECD, October 2010], 12

<sup>7</sup> Both the Zambian Government and international non-governmental organisations envision electronic vouchers as a form of payment system to provide input subsidies to rural smallholders. Darlington Kahilu, *Zambia Implements Electronic Voucher for Farmers to Access Agricultural Inputs* [25 July 2012]. Available at <http://iconnect-online.org/blogs/zambia-implements-electronic-voucher-farmers-access-agricultural-inputs> [accessed on 26 November 2012]; CARE International, *CARE Market Engagement Innovation Brief: CARE & MTZL Use Mobile Phones to Increase Access to Inputs in Rural Zambia* [undated]. Available at: <http://edu.care.org/Documents/MTZL%20Innovation%20Brief.pdf> [accessed on 26 November 2012]

<sup>8</sup> Donovan, “Mobile Money for Financial Inclusion”, 71

financial inclusion. It allows ‘branchless banking’ in remote areas that are not serviced by ‘brick-and-mortar’ bank branches.<sup>9</sup>

Moreover, vibrant payment systems have added commercial advantages.<sup>10</sup> Habeenzu considers them the “cornerstone” in the growth of electronic commerce. This is due to their “convenience and flexibility when undertaking commercial transactions”.<sup>11</sup> Electronic methods of communication provide the opportunity to access remote markets<sup>12</sup>, thereby facilitating electronic commerce.

Domestic transactions also benefit from efficient payment systems. From the most basic of payment systems such as self-service automated teller machines (ATMs), to bank-facilitated direct debit and credit clearing (DDACC),<sup>13</sup> to mobile network operator-provided ‘m-money’: individuals and businesses have the ability to, for instance, settle utility bills and receive payment for services or goods rendered, without the inconvenience and risk of travel and carrying cash. One might also add that using a payment system as opposed to cash may smoothen the transition to the rebased Zambian Kwacha. This is by reducing the need for cash and reintroduced coin, and thereby reducing the corresponding risk of receiving forged currency.

Building a viable and vibrant payment system requires “extensive” work.<sup>14</sup> This includes creating and maintaining an efficient infrastructural network,

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<sup>9</sup> Caleb M. Fundanga, Governor of the Bank of Zambia, *Opening Remarks at the Celpay 2010 Mobile Payments Conference on “Setting New Standards for Cellphone Banking”* [27 October 2010]. Available at <http://www.bis.org/review/r101104b.pdf> [accessed on 22 November 2012]

<sup>10</sup> Robert Listfield and Fernando Montes-Negret, *Modernizing Payment Systems in Emerging Economies*, Policy Research Working Paper 1336 [Washington, DC: World Bank, 1994], 1;

<sup>11</sup> Shuller Habeenzu, *Zambia ICT Sector Performance Review 2009/2010: Towards Evidence-based ICT Policy and Regulation*, Volume Two [2010], Policy Paper 17, 28

<sup>12</sup> United Nations Convention on the Use of Electronic Communications in International Contracts 2005 (‘UN Electronic Communications Convention 2005’), Preamble

<sup>13</sup> Bank of Zambia (BoZ), *DDACC* [undated]. Available at [www.boz.zm](http://www.boz.zm) [accessed on 17 November 2012]

<sup>14</sup> GRZ, *FSDP I*, at vi

such as telecommunications hardware and software.<sup>15</sup> It also requires ensuring the availability of a wide range of practical and affordable payment system instruments; and maintaining government regulation that both promotes innovation and protects consumers. Lastly, it requires sustaining sufficient public demand to drive innovation and provide a reasonable rate of return for service providers.<sup>16</sup>

Public demand for payment systems arguably contains three principal elements:<sup>17</sup> awareness of their existence and an understanding of how they work; an attractive ‘value proposition’; and trust. ‘Awareness’ is self-evidently knowledge of existence. The ‘value proposition’ is the benefit to persons of using non-cash means of payment (payment systems) over cash. Conversely, ‘public trust’ is influenced by user perception, behaviour and skills.<sup>18</sup> Trust is fundamental.<sup>19</sup> Trust is however a difficult concept in relation to payment systems in Zambia, as they “are not part of the financial culture”<sup>20</sup> of a country whose economy is still predominantly cash-based<sup>21</sup>.

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<sup>15</sup> Listfield and Montes-Negret, *Modernizing Payment Systems in Emerging Economies*

<sup>16</sup> List adapted from Kevin Donovan, “Mobile Money for Financial Inclusion”; and GRZ, *FSDP I*, at vi

<sup>17</sup> Adapted from Hon. Given Lubinda, *Debates of the National Assembly, Second Reading of the National Payment Systems Bill, 2007*, First Session of the Tenth Assembly, 14 February 2007. Available at [http://www.parliament.gov.zm/index.php?option=com\\_content&task=view&id=468&Itemid=86](http://www.parliament.gov.zm/index.php?option=com_content&task=view&id=468&Itemid=86) [accessed on 10 May 2012]; and International Finance Corporation (IFC), *Mobile Money Study 2011: Summary Report* [Washington DC: World Bank Group, 2011], at pages 2 and 6

<sup>18</sup> Donovan, “Mobile Money for Financial Inclusion”, at page 65

<sup>19</sup> Rita Walczuch *et al*, “Psychological Determinants for Consumer Trust in E-Retailing”, *Proceedings of the Eighth Research Symposium on Emerging Electronic Markets (RSEEM 01) Maastricht, The Netherlands*, ed. M. Schoop, R. Walczuch [September 16-18, 2001], 1. Available at: [http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&ved=0CDUQFjAA&url=http%3A%2F%2Fciteseerx.ist.psu.edu%2Fviewdoc%2Fdownload%3Fdoi%3D10.1.1.64.9004%26rep%3Drep1%26type%3Dpdf&ei=Peu0UJLQJPGT0QXqjoD4BQ&usg=AFQjCNENZX54NID6yuwkB8gfGrMa9BFFIw&sig2=gR-n\\_wiDsfYCAw02viP96A](http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&ved=0CDUQFjAA&url=http%3A%2F%2Fciteseerx.ist.psu.edu%2Fviewdoc%2Fdownload%3Fdoi%3D10.1.1.64.9004%26rep%3Drep1%26type%3Dpdf&ei=Peu0UJLQJPGT0QXqjoD4BQ&usg=AFQjCNENZX54NID6yuwkB8gfGrMa9BFFIw&sig2=gR-n_wiDsfYCAw02viP96A) [accessed on 20 November 2012]

<sup>20</sup> Hon. G. Lubinda, *Second Reading of the National Payment Systems Bill, 2007*

<sup>21</sup> Economist Intelligence Unit, *Country Report: Zambia*, [London: Economist Intelligence Unit, 2012], 7 and 14

### 1.1.2 Trust as a driver of public demand

For the purposes of this study, the author developed Habeenzu's argument that payment systems are the 'cornerstone' of electronic commerce.<sup>22</sup> This study therefore employed trust analyses from that field. These, in turn, formed the basis of analysing the legal framework of payment systems in Zambia to build confidence in, and therefore demand for, payment systems. To that end, this study focused on the micro level of payment systems regulation. That is, regulation as it relates directly to actual and potential users.

There are several studies on the determinants of consumer trust in electronic commerce. For instance, Phillippe and Koehler<sup>23</sup> argued for an eleven-point list of the elements of consumer trust. The list covers assurances of security and privacy, detail of information provided on the type of transaction being conducted, reputation of the seller, money-back guarantees and the impression given on the quality of customer service. Similarly, Kim, *et al*<sup>24</sup> found that consumer trust in electronic payment systems are influenced by security statements of electronic retailers, their transaction procedures and the technical protections offered by the website.

Conversely, Walczuch *et al*<sup>25</sup> present a composition of trust in electronic retailing that contains three elements: privacy, security and consumer protection. Privacy and security feature in all three analyses. However, the express addition of consumer protection made Walczuch *et al*'s conception the preferred one for this study. The three themes of privacy, security and consumer protection thus formed the analytical framework or 'trust paradigm'

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<sup>22</sup> Shuller Habeenzu, *Towards Evidence-based ICT Policy and Regulation*, 28

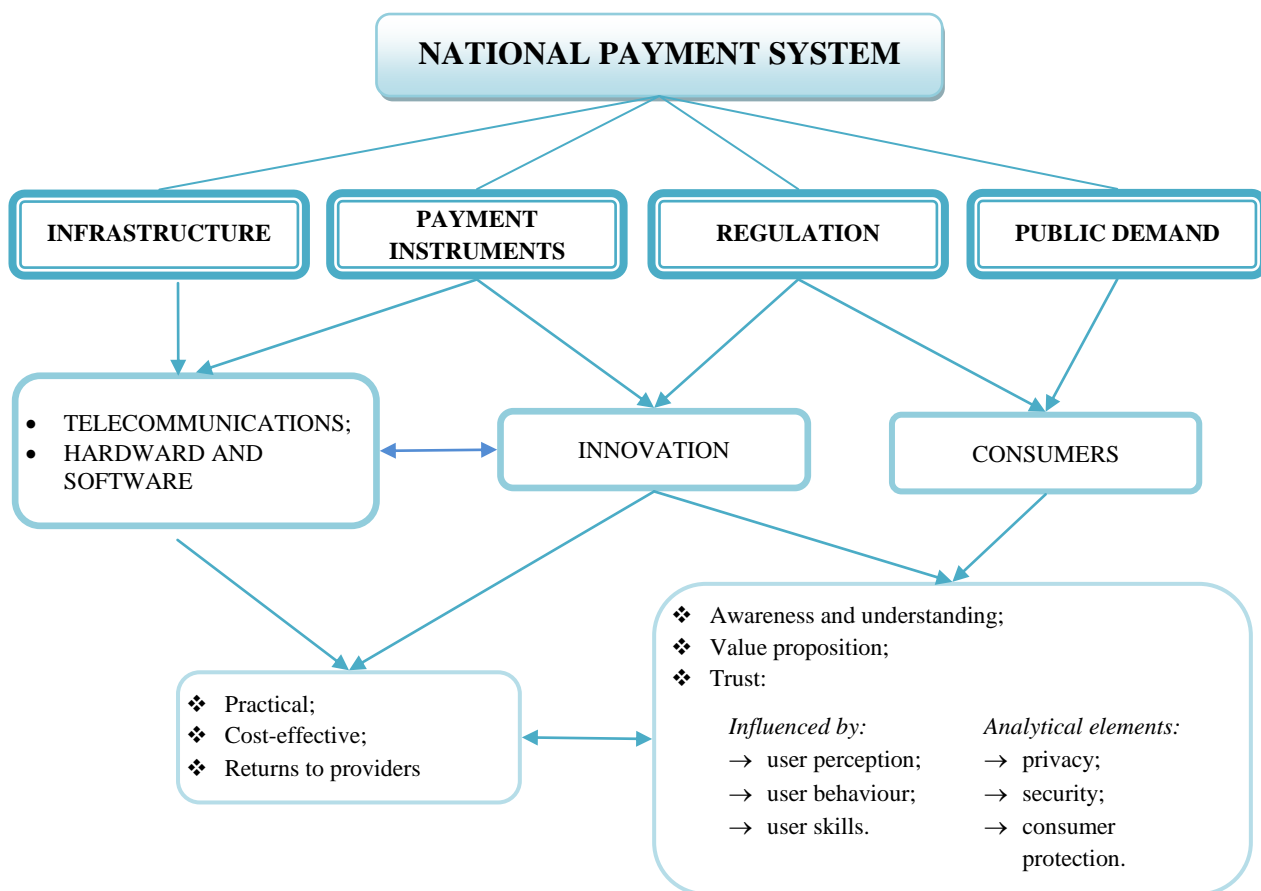
<sup>23</sup> Thomas W. Phillippe and Jerry W. Koehler, "Determinant of Consumer Trust in Electronic Commerce," *Review of Business Research* [November 2007]

<sup>24</sup> Changsu Kim, *et al*, "An empirical study of customers' perceptions of security and trust in e-payment systems," *Electronic Commerce Research and Applications* 9 (2010): 84

<sup>25</sup> Walczuch *et al*, "Psychological Determinants for Consumer Trust in E-Retailing", 1

through which the author clarified and assessed Zambia's payment system regulation as it directly relates to consumers.

Figure 1 summarises the network of elements in a payment system discussed above. There is a strong connection between and among the elements. For instance, the scope of payment systems instruments innovation is affected by both the available infrastructure and the levels of customer understanding. This therefore represents the foundation of this study into a viable and vibrant payment system at micro-level. This study is hence the author's contribution to both the awareness and understanding, and trust components of public demand at the micro level for payment systems in Zambia.



**Figure 1: Summary of elements of a viable and vibrant payment system**

Sources: GRZ, *FSDP I*; Listfield and Montes-Negret, *Modernizing Payment Systems in Emerging Economies*; Donovan, “Mobile Money for Financial Inclusion”; Lubinda, *Second Reading of the National Payment Systems Bill, 2007*; IFC, *Mobile Money Study 2011* ; Walczuch *et al*, “Psychological Determinants for Consumer Trust in E-Retailing”.

## 1.2 TERMINOLOGY

### 1.2.1 ‘Payment system’, ‘e-money’ and ‘m-money’

‘Payment system’ is defined by the National Payment Systems Act No. 1 of 2007 (the NPS Act) as “a clearing and settlement system operating under clearing house rules”.<sup>26</sup> This is a technical definition that relates to the macro

<sup>26</sup> Section 2

level of payment systems regulation. That is, regulation of the upper most level of payments systems, in which the Central Bank, clearing houses and banks operate to settle payment obligations. Individual customers have no part in this level.

The Act's definition of 'payment system business' is, on the other hand, more in line with the micro level orientation of this study. That definition is,<sup>27</sup>

“the business of providing money transfer or transmission services or any other business that the Bank of Zambia may prescribe as a payment business.”

A 'money transmission service' is in turn defined by the Money Transmission Services Guidelines issued under the NPS Act as:<sup>28</sup>

“a financial service that accepts cash, cheques, other monetary instruments or other stores of value in one location and pays a corresponding sum in cash or other form to a beneficiary in another location by means of a communication, message, transfer or through a clearing network to which the money / value transfer service belongs. Transactions performed by such services can involve one or more intermediaries and a third party final payment.”

A final definition to consider is from the FSDP I. That definition was loosely made in juxtaposition to cash: “alternative non-cash means of effecting payments.”<sup>29</sup>

'Payment systems' may therefore be considered as “any method of monetary payment alternative to cash”. Payment systems thereby include both equipment and process. For instance, cheques, debit / credit cards, ATMs and mobile phones are 'equipment' for payment systems purposes. Conversely, DDACC

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<sup>27</sup> Section 2 of the NPS Act. Emphasis supplied

<sup>28</sup> NPS Act Money Transmission Services Guidelines, paragraph 2. Available at <http://www.boz.zm/PaymentSystems/Guidelines%20for%20Money%20Transmission%20Services%20-%20Updated%20Feb2009.pdf> [accessed on 26 April 2012]. Emphasis supplied

<sup>29</sup> GRZ, *FSDP I*, vi



and mobile money transfers are examples of the ‘process’. In this light, the ‘National Payment System’:<sup>30</sup>

“encompasses the entire payment process from payer to beneficiary... [which] includes all the tools, systems, mechanisms, institutions, agreements, procedures, rules and laws applied or utilised to effect payment.”

What is apparent about the various definitions discussed above is their emphasis on ‘process’. However, payment systems often contain a static or status dimension, such as account balance statements accessible via the internet or short message service (SMS). This can be contextualised in the elucidation of payment systems as containing benefits ‘over distance’ (transfer) and ‘over time’ (savings, insurance and credit).<sup>31</sup> A user may access the static / status element of a payment system with no intention of setting in motion the process of an actual money transfer. It follows that payment systems may be additionally divided into ‘informational’ (being the static / status) and ‘transactional’ (being the process) services.<sup>32</sup>

Payment systems that utilise electronic communications infrastructure also ‘store’ monetary value electronically, as ‘**electronic money**’ or ‘**e-money**’.<sup>33</sup> ‘**Mobile money**’ or ‘**m-money**’ is a subset of e-money and is specifically applicable to,<sup>34</sup>

“financial services and transactions made using technologies integrated into mobile phones. These services may or may not be tied directly to a personal bank account. Excluded from this

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<sup>30</sup> NPS Act Money Transmission Services Guidelines, paragraph 1.1. Available at <http://www.boz.zm/PaymentSystems/Guidelines%20for%20Money%20Transmission%20Services%20-%20Updated%20Feb2009.pdf> [accessed on 26 April 2012]. Emphasis supplied

<sup>31</sup> Donovan, “Mobile Money for Financial Inclusion”, 71

<sup>32</sup> Adapted from Chatain, *et al*’s categorisation of mobile money in *Protecting Mobile Money against Financial Crime*, 1

<sup>33</sup> IFC, *Mobile Money Study 2011*, 14; FATF, *Report on New Payment Methods* [Paris: FATF / OECD, October 2006], 3

<sup>34</sup> IFC *Mobile Money Study 2011*, 14

definition is the use of any sort of card (though the mobile phone could be linked to ATM, prepaid, debit, or credit cards).”

Thus, ‘payment systems’ have various definitions and components. The author integrated these into a practical definition relevant to the micro level orientation of this study. For the purposes of this study, then, a ‘payment system’ is:

Any method of monetary payment alternative to cash that:

- (a) may be composed of informational (static / status) aspects in addition to transactional (processual) ones; and
- (b) may involve the electronic storage of monetary value as e-money.

### **1.2.2 ‘Payment systems business’ (PSB) and ‘money transmission service’**

As discussed in the previous section, the statutory definition of ‘payment system business’ is,<sup>35</sup>

“the business of providing money transfer or transmission services or any other business that the Bank of Zambia may prescribe as a payment system business.”

The ‘money transmission’ element of this definition is elaborated upon in the Money Transmission Services Guidelines’ definition of ‘money transmission services’ (also discussed above). However, a PSB for the purposes of this study will follow the author’s inclusion of the informational aspect of payment systems. It is therefore:

any business that operates a ‘payment system’ as defined by the author.

### **1.2.3 Cheque ‘truncation’**

This is the ‘electronification’ of traditional paper cheques. It involves the scanning of cheques and presentment of the electronic image for settlement by the payee bank. The process of truncation evolved as a means of reducing the

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<sup>35</sup> Section 2 of the NPS Act

costs and delays associated with physically moving paper cheques from deposit points to clearing centres.<sup>36</sup>

#### **1.2.4 ‘Contract’**

‘Contract’ is used as a precise legal term. It is defined by Peel as, “an agreement giving rise to obligations which are enforced or recognised by law”.<sup>37</sup> In order to be enforceable by law, a ‘contract’ must have a valid agreement consisting of offer and acceptance; be supported by consideration; and be made with the intention to affect legal relations.<sup>38</sup> In the context of electronic contract formation and using the static and processual elements of payment systems, offer and acceptance are informational; consideration is informational when still in promissory form and transactional when paid; and intention to create legal relations is evidenced by the informational part of the communication.

#### **1.2.5 ‘Electronic commerce’ (‘E-commerce’)**

‘Electronic commerce’ (e-commerce) is a broad term that encompasses all types of business that use electronic communication methods. Such methods include the internet, and wireless transmissions on mobile phone networks.<sup>39</sup>

#### **1.2.6 ‘Money laundering’**

‘Money laundering’ is an extensively defined term under the Prohibition and Prevention of Money Laundering Act.<sup>40</sup> Due to the strong emphasis on anti-

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<sup>36</sup> Donal O’Mahony, *et al*, *Electronic Payment Systems for E-Commerce*, 2<sup>nd</sup> ed. [Boston: Artech House Inc, 2001], 9; BoZ, *CB Circular No. 13/2012* [Lusaka: BoZ, 7 August 2012], 1. Available at: [http://www.boz.zm/Publishing/58/58\\_13-2012.PDF](http://www.boz.zm/Publishing/58/58_13-2012.PDF) [accessed on 17 November 2012]

<sup>37</sup> Edwin Peel, *The Law of Contract*, 13<sup>th</sup> ed. [London: Sweet & Maxwell, 2011], 1

<sup>38</sup> G.H. Treitel, *The Law of Contract*, 6<sup>th</sup> ed. [Oxford: Oxford University Press, 2004], 58

<sup>39</sup> Gary P. Schneider, *Electronic Commerce*, 9<sup>th</sup> ed. [Boston: Cengage Learning, 2011], 4

<sup>40</sup> Act No. 14 of 2001, as amended by the Prohibition and Prevention of Money Laundering (Amendment) Act No. 44 of 2010

money laundering (AML) practices throughout the payment systems legal framework, the statutory definition is used herein without modification.

**‘Money laundering’** therefore means:

Where a reasonable inference may be drawn, having regard to the objective factual circumstances, any activity by a person –

- (a) who knows or has reason to believe that the property is the proceeds of a crime; or
- (b) without reasonable excuse, fails to take reasonable steps to ascertain whether or not the property is proceeds of crime;

where the person –

- (i) engages, directly or indirectly, in a transaction that involves proceeds of a crime;
- (ii) acquires, receives, possesses, disguises, transfers, converts, exchanges, carries, disposes, uses, removes from or brings into Zambia proceeds of a crime; or
- (iii) conceals, disguises or impedes the establishment of the true nature, origin, location, movement, disposition, title of, rights with respect to, or ownership of, proceeds of crime.

### **1.3 PROBLEM STATEMENT: THE CHALLENGES OF UNDERSTANDING PAYMENT SYSTEMS REGULATION IN ZAMBIA**

The Zambian Government enacted the National Payment Systems Act No. 1 of 2007 (the NPS Act) as part of its post-liberalisation financial sector reforms. The NPS Act was a response to the fragmented financial sector regulation that did not explicitly regulate the payment systems that had been steadily increasing in the country since economic liberalisation.<sup>41</sup>

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<sup>41</sup> Hon. Ng’andu Magande, *Debates of the National Assembly, Second Reading of the National Payment Systems Bill, 2007*; BoZ, *NPS Vision and Strategy 2007-2011* [Lusaka: BoZ, February 2007]. Available at: [http://www.boz.zm/PaymentSystems/VisionAndStrategy2007\\_2011.pdf](http://www.boz.zm/PaymentSystems/VisionAndStrategy2007_2011.pdf) [accessed on 29 April 2012]. The Bank of International Settlements (BIS) listed at least eight (8) different statutes from which regulation was loosely drawn and supplemented by statutory instruments, clearing house rules and service provider agreements. BIS, *The Payment System in Zambia* [Basel: BIS, 2005], 225

The statute is noticeably skeletal. This is to allow the Bank of Zambia the flexibility as regulator to administer a financial sub-sector that is inherently dynamic.<sup>42</sup> It does not expressly identify any particular payment system other than cheques. In its quest for minimalism, however, it also does not appear to address the ‘informational’<sup>43</sup> side of payment systems. These include accessing bank account statements electronically without initiating any actual ‘transaction’ or payment.

This apparent deficiency is potentially addressed by a statute enacted two years later to address the uncertainty in regulatory landscape of electronic communications.<sup>44</sup> The statute thus enacted was the Electronic Communications and Transactions Act No. 21 of 2009 (ECTA), which is an Act to,<sup>45</sup>

“... develop a safe, secure and effective environment for the consumer, business sector and the Government to conduct and use electronic communications...”

With its express goal of consumer safety and security,<sup>46</sup> ECTA ostensibly fits into the author’s ‘trust paradigm’ for analysing the regulation of payment systems in Zambia. Unfortunately, ECTA itself has provisions that prevent it from forming a comprehensive payment system regulation framework with the NPS Act.

Firstly, ECTA is itself partly skeletal. Unlike the NPS Act, however, this feature is principally not to assist in flexible administration. It is to serve as a

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<sup>42</sup> Listfield and Montes-Negret, *Modernizing Payment Systems in Emerging Economies*, 1; Hon. N. Magande, *Second Reading of the National Payment Systems Bill, 2007*

<sup>43</sup> Adapted from Chatain, *et al*’s categorisation of mobile money services as ‘transactional’ and ‘informational’ in *Protecting Mobile Money against Financial Crimes*, 1

<sup>44</sup> Hon. Prof. Geoffrey Lungwangwa, *Debates of the National Assembly, Second Reading of the Electronic Communications and Transactions Bill, 2009*, Third Session of the Tenth Assembly, 4 August 2009. Available at [http://www.parliament.gov.zm/index.php?option=com\\_content&task=view&id=971&Itemid=86&limit=1&limitstart=5](http://www.parliament.gov.zm/index.php?option=com_content&task=view&id=971&Itemid=86&limit=1&limitstart=5) [accessed on 5 January 2012]

<sup>45</sup> Extract from the long title to the ECTA

<sup>46</sup> Long title to the ECTA

‘functional equivalent’ of existing regulation on communications. This is perhaps only to be expected, given that the statute is virtually a ‘domestication’ of international instruments on electronic commerce that were designed to be the electronic “functional equivalents” of existing laws.<sup>47</sup> The concept of functional equivalence is explained in Box 1.

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<sup>47</sup> UNCITRAL Model Law on Electronic Commerce 1996, 20-21 and United Nations Electronic Communications Convention 2005, 27. UNCITRAL, *Model Law on Electronic Commerce with Guide to Enactment 1996 with additional article 5 bis as adopted in 1998* [New York: UN, 1999]; UNCITRAL, *Explanatory Note by the UNCITRAL Secretariat on the United Nations Convention on the Use of Electronic Communications in International Contracts* [Vienna: UNCITRAL Secretariat, 2007]

## ‘FUNCTIONAL EQUIVALENCE’ IN ELECTRONIC COMMUNICATIONS

‘Functional equivalence’ in electronic communications is a means of adapting existing law on traditional paper-based documentary requirements to electronically-generated data. The adaptation is done with a view to improving the laws’ applicability to the electronic medium, without wholesale amendment to legal provisions and without changing the established legal concepts that underlie traditional documentary requirements. It is therefore, “based on an analysis of the purposes and functions of the traditional paper-based requirement with a view to determining how those purposes or functions could be fulfilled through electronic-commerce techniques”.

An instance of ‘functional equivalence’ under Zambian law is ECTA when read with the much older Authentication of Documents Act, Cap 75. Cap 75 provides for the verification (‘authentication’) of a signature appended to a paper document outside Zambia. The signature may, for instance, be ‘authenticated’ by a notary public if the document was signed in Great Britain. If the document is in fact electronically-generated (as a ‘data message’), recourse is to be had to ECTA. Parts II and III of ECTA provide for, *inter alia*, what suffices as a ‘signature’ in electronic form and what sort of electronic encryption will be legally acceptable for a genuine electronic notarial signature and seal. In this way, ECTA applies to the electronic medium the same principles applicable to paper-based documents, without amending the basic requirements of documentary proof. Electronic ‘data messages’ and their stipulated features are thus the ‘functional equivalents’ of paper-based documents by virtue of ECTA.

Sources: UNCITRAL Model Law on Electronic Commerce 1996, 20; Authentication of Documents Act, Chapter 75 of the Laws of Zambia; ECTA 2009

### **Box 1: ‘Functional equivalence’ in electronic communications**

The secondly element of concern is that ECTA out rightly excludes financial transactions from several of its material provisions. This is while having apparently only a partial exclusion of financial information. For instance, the definition of ‘transaction’ under section 2 categorically excludes banking and electronic funds transfers. Conversely, the definition of ‘electronic

communication’ excludes “electronic funds transfer information stored by a financial institution...”<sup>48</sup> This raises a question of scope: how far can ‘electronic funds transfer information’ be extended? Does it cover basic bank account or mobile money account status information? If it does extend to ‘account status’ information, does that render such information unregulated?

The *prima facie* need to rely on both the NPS Act and ECTA highlights the cross-sectoral element of payment systems. That is, financial on the one hand, and communications on the other.<sup>49</sup> This is even more so when it is noted that payment systems require telecommunication infrastructure in order to operate,<sup>50</sup> and payment systems providers are no longer just traditional banks but also mobile network operators.<sup>51</sup> The regulation of payment systems thus takes on a greater measure of complexity than identified in the literature.<sup>52</sup> Admittedly, the complexity of the regulation may be unbeknownst to the public. This however adds to the difficulty of improving consumer confidence as the trust paradigm of privacy, security and consumer protection is not immediately satisfied from a casual perusal of the two main statutes.

The problem identified by the study can thus be summarised as a lack of confidence in the payment systems in Zambia due to the lack of publicity and / or understanding of the complex regulatory regimes for the cross-sectoral systems.

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<sup>48</sup> Section 2 of ECTA

<sup>49</sup> Donovan, “Mobile Money for Financial Inclusion”, 61

<sup>50</sup> As evident from the Money Transmission Services Guidelines’ definition of ‘money transmission services’ discussed at heading 1.2.1 above

<sup>51</sup> FATF, *Report on New Payment Methods* [2006], 3; Donovan, “Mobile Money for Financial Inclusion”, 61

<sup>52</sup> For instance, Habeenzu’s ‘cornerstone’ argument is prefaced with a statement on ECTA being the legal framework for ‘m-mobile applications’ such as ‘mobile banking and payment systems’. Habeenzu, *Towards Evidence-based ICT Policy and Regulation*, 28



#### **1.4 AIM, OBJECTIVES AND RESEARCH QUESTIONS OF STUDY**

The aim of this study was to answer the question, “How can payment systems regulation be explained and simplified in order to improve customer uptake of payment systems in Zambia?”

This aim was attained through a set of objectives, each of which was met through the answering of a set of corresponding research questions. Figure 2 provides the objectives and research questions that underpinned the study.

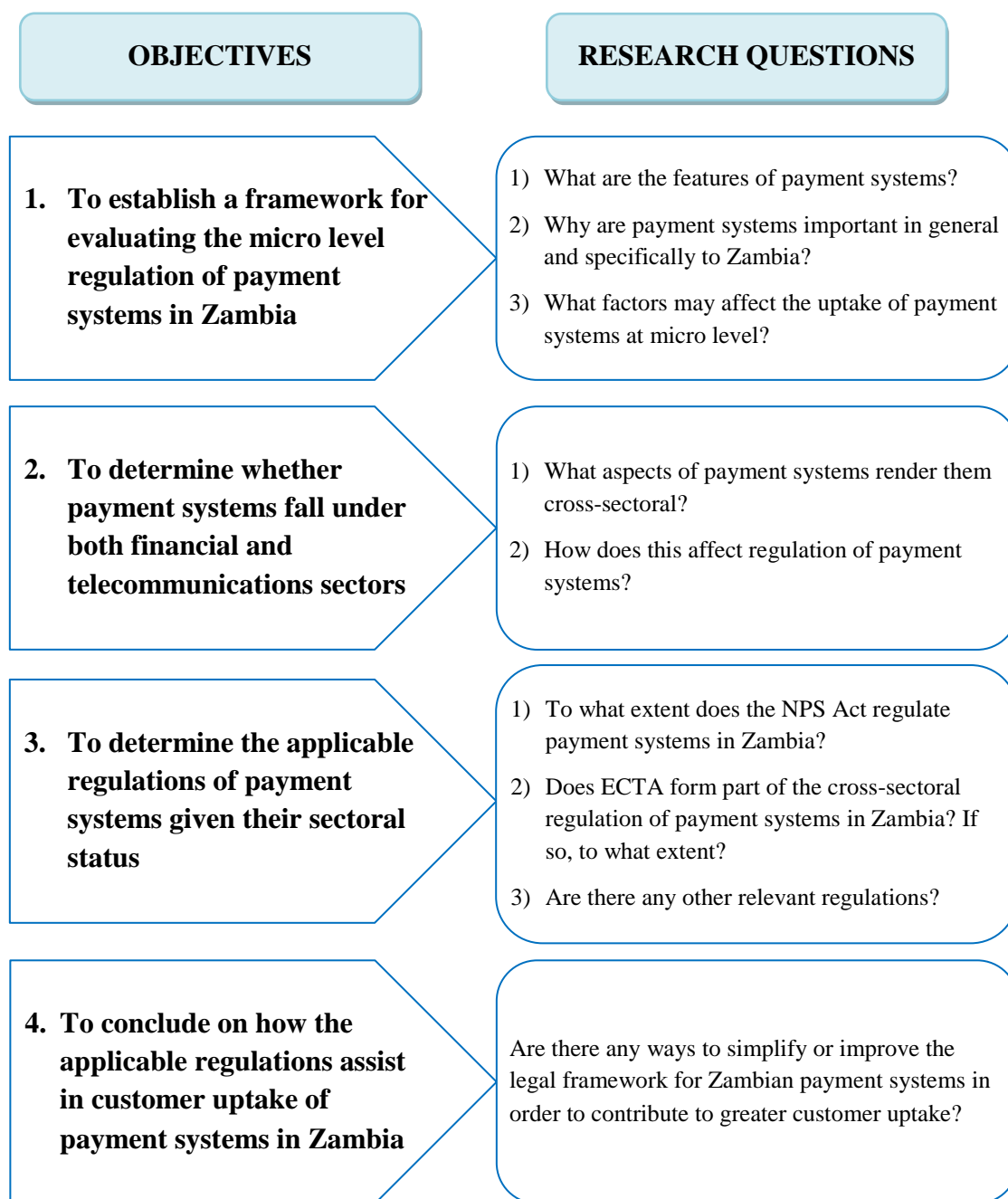


Figure 2: Objectives and research questions that underpinned the study

### 1.5 SIGNIFICANCE OF STUDY

A staple of Bank of Zambia officials’ public speeches is the Finscope Zambia 2009 report. This report showed that by then, sixty-two point seven percent

(62.7%) of Zambian adults remained excluded from formal financial services. This was only a slight improvement from sixty-three point three percent (66.3%) in 2005.<sup>53</sup> These levels of formal financial exclusion were notwithstanding the increase in formal financial service providers over the same period from 14 banks and NBFIs to 19 banks and 90 NBFIs. Clearly, an increase in the supply of financial services does not automatically mean access to those services.<sup>54</sup>

The levels of formal financial exclusion in the country may be contrasted with the notable electronic communications inclusion within the population. According to the Zambia Information and Communication Technology Authority (ZICTA)<sup>55</sup>, mobile network subscribers increased from about fifty thousand in 2000 to more than eight million in 2011.<sup>56</sup> Every year in between had seen increments of double- and even triple-digit percentages. By December 2012, ZICTA recorded more than ten and a half million mobile subscribers, with a mobile penetration rate of 78 percent of the population.<sup>57</sup> Conversely, internet access has been much more limited at just about eight thousand in 2000 to about ninety thousand by mid 2012 for both traditional methods of

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<sup>53</sup> FinMark Trust and African Heights, *Finscope Zambia 2009 Topline Findings: Final Report* [Lusaka: GRZ, June 2010], 4

<sup>54</sup> Bwalya K.E. Ng'andu, DGO, BoZ, *Deputy Governor's Speech at the 3<sup>rd</sup> Celpay Mobile Banking Conference* [26 October 2011]. Available at <http://www.boz.zm/publishing/Speeches/DGOSpeechThirdCelpayConference.pdf> [accessed on 22 November 2012]

<sup>55</sup> Hon. G. Lubinda, *Second Reading of the National Payment Systems Bill, 2007*

<sup>56</sup> These statistics have been criticised as not being clear on whether adjustments were made for subscribers to multiple networks: Hon. Mr. Lumba, M.P., *Debates of the National Assembly on the Ministerial Statement on Infrastructure Development and Policy Interventions to Grow the Communications Industry*, Fifth Session of the Tenth Assembly [18 November 2010]. Available at: [http://www.parliament.gov.zm/index.php?option=com\\_content&task=view&id=1334&Itemid=86](http://www.parliament.gov.zm/index.php?option=com_content&task=view&id=1334&Itemid=86) [accessed on 5 May 2012]. However, the Finscope 2009 report stated that three out of five Zambians did not own a cell phone, with most owners being based in the urban areas: FinMark Trust and African Heights, *Finscope Zambia 2009 Topline Findings*, 4. That figure corresponds with ZICTA's mobile subscription statistics for that year, lending some credence to ZICTA's 2011 statistics.

<sup>57</sup> ZICTA statistics, available at [http://www.zicta.zm/index.php?option=com\\_content&view=article&id=126&Itemid=56](http://www.zicta.zm/index.php?option=com_content&view=article&id=126&Itemid=56) [accessed on 8 August 2013]

access such as dial-up, and for mobile internet. Mobile phone internet access is however substantially higher at almost eight hundred thousand subscribers in 2008, up from about two hundred thousand when introduced in 2007. By the end of 2012, this had risen to over two million. Table I sets out ZICTA's statistics on mobile phone and internet subscription in the country.

**Table 1: Mobile phone and internet penetration in Zambia: 2000-2012**

	MOBILE SUBSCRIPTION			INTERNET: TRADITIONAL AND MOBILE	MOBILE INTERNET
YEAR	SUBSCRIBERS	PENETRATION RATE	GROWTH RATE (%)	SUBSCRIBERS	SUBSCRIBERS
2000	49,957	0.505	31.5		
2001	97,900	0.97	96	8,248	
2002	139,258	1.338	42.2	11,647	
2003	204,150	1.895	46.6	12,000	
2004	413,120	3.725	102.4	16,288	
2005	949,558	8.299	129.8	10,882	
2006	1,663,051	14.369	75.1	11,996	
2007	2,639,026	22.539	58.7	17,946	
2008	3,539,003	26.955	21.5	18,289	
2009	4,406,682	32.28	17.67	17,754	
2010	5,446,991	40.14	24	34,436	24,169
2011	8,164,553	62.55	47	49,867	28,992
2012	10,542,676	78	29.13	92,642	2,196,117

Source: ZICTA statistics, available at [http://www.zicta.zm/index.php?option=com\\_content&view=article&id=126&Itemid=56](http://www.zicta.zm/index.php?option=com_content&view=article&id=126&Itemid=56), accessed on 8 August 2013

The lack of electronic communications infrastructure is also being addressed in addition to this increase in electronic communication penetration in the population. Poor infrastructure network forms one of the key stumbling blocks to the expansion of payment systems. There has hence been an aggressive programme for the expansion of fibre optic networks.<sup>58</sup> Fibre optic networks are far cheaper than current satellite internet access, and have higher capacity for quality connectivity.<sup>59</sup> Zesco Limited's extensive fibre optic cable network already spans one thousand seven hundred kilometres. It connects nearly twenty locations. Upon completion, it is expected to stretch longer than five thousand kilometres into more than forty locations countrywide.<sup>60</sup> Equally, Zamtel Limited's fibre optic network covers over one thousand nine hundred kilometres, covering at least three provinces.<sup>61</sup>

Moreover, payment systems availability is also on the increase. According to the Bank of Zambia, there were more than a million ATM cards in circulation and more than five hundred ATMs countrywide as at December 2011.<sup>62</sup> Announcements of payment systems innovations from banks, NBFIs and mobile network operators are frequent. One instance is that mobile network provider MTN Zambia Limited partnered with Kitwe City Council to create a system for bus operators and traders to pay their levies via their mobile phones.<sup>63</sup>

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<sup>58</sup> Hon. G. Lubinda, *Second Reading of the National Payment Systems Bill, 2007*

<sup>59</sup> Hon. Prof. Geoffrey Lungwangwa, *Ministerial Statement on Infrastructure Development and Policy Interventions to Grow the Communications Industry*

<sup>60</sup> Zesco Limited, *Projects: Zesco's Installation of the Optic Fibre Network* [undated]. Available at: <http://www.zesco.co.zm/CAAndBD/Projects/OpticFiber/ZESCOOpticPhaseII20062012.html> [accessed on 10 December 2012]

<sup>61</sup> Hon. Prof. G. Lungwangwa, *Ministerial Statement on Infrastructure Development and Policy Interventions to Grow the Communications Industry*

<sup>62</sup> BoZ, *Payment Systems Statistics Pack 2011*. Available at: [www.boz.zm](http://www.boz.zm) [accessed on 17 November 2012]

<sup>63</sup> Times of Zambia, *MTN Zambia sets Kitwe council on electronic bill payment system* [3 November 2012]. Available at <http://www.times.co.zm/?p=18203> [accessed on 26 November 2012]

It thus appears that while the infrastructure is increasingly available and is being utilised for some purpose, it is not necessarily being used by consumers to access formal financial services. The benefits ‘over time’ and ‘over distance’<sup>64</sup> of payment systems do not appear to be making much impact on the demand for the services.

The author’s approach is to consider this problem from a legal perspective. Granted, several structural factors make this legal approach insufficient on its own to address the low levels of payment systems uptake. The Finscope 2009 report summarised these structural factors as high levels of poverty with correspondent low levels of literacy, in a population that is principally rural-based.<sup>65</sup> ZICTA has also stated that access to information and communication technology (ICT) services in rural areas is still problematic. This is a problem that it is trying to address through the ‘universal access’ initiative and statutory fund.<sup>66</sup>

It is nonetheless submitted that these structural factors do not detract from the critical issue of trust in payment systems regulation. It is the author’s position, therefore, that a simplified outline of the law will be of considerable assistance to building customer trust in payment systems, and thereby increasing uptake (at least for those who are able to) through an incentive to take advantage of the micro- and macro-benefits of payment systems use.

The study was intended to benefit all interested parties: actual and potential customers of payment systems, payment systems businesses, regulators, supervisors and administrators who may be concerned about improving the practicability of payment systems regulation in Zambia; and the arbiters or adjudicators who may ultimately be called upon to resolve a dispute among any

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<sup>64</sup> Donovan, “Mobile Money for Financial Inclusion”, 71

<sup>65</sup> FinMark Trust and African Heights, *Finscope Zambia 2009 Topline Findings*, 4

<sup>66</sup> ZICTA, *The Authority’s Projects: Universal Access* [undated]. Available at [http://www.zicta.zm/index.php?option=com\\_content&view=article&id=48&Itemid=48](http://www.zicta.zm/index.php?option=com_content&view=article&id=48&Itemid=48) [accessed on 29 November 2012]

of these interested parties. The principal target of this study is the individual - be them actual or potential user of payment systems. The study is therefore of regulation at the micro level of payment systems.

## 1.6 METHODOLOGY

This study employed an empirical legal or socio-legal research strategy. An interdisciplinary approach combining law and society was chosen in order to place the legal analysis of the study into a social context relevant to the aim of the study.<sup>67</sup>

There were therefore two components to the research: doctrinal and non-doctrinal.<sup>68</sup> The doctrinal aspect was conducted through a desk analysis of the NPS Act, ECTA, complimentary laws, and international or local jurisprudence that assisted in understanding the regulatory framework for payment systems in Zambia. Additionally, there was some consultation with financial industry ‘insiders’ with knowledge of payment systems regulation in Zambia.

The non-doctrinal or ‘law in context’ component of the study was conducted with reference to empirical facts. These included the Hansard to determine the rationale behind the pieces of legislation analysed; and policy statements by relevant Government, Central Bank and ZICTA officials. At a more general level, they also included various works on payment systems value and regulation.

In terms of research method, the data collection and analysis was principally qualitative. This is because value judgments were made on each piece of data collected and analysed – both legal and empirical.<sup>69</sup> Some quantitative data was also used, in the form of financial and communications statistics. This was an

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<sup>67</sup> Mike McConville and Wing Hong Chui, “Introduction and Overview”, *Research Methods for Law*, ed. M. McConville and W. H. Chui [Edinburgh: Edinburgh University Press, 2007], 4

<sup>68</sup> Ian Dobinson and Francis Johns, “Qualitative Legal Research”, *Research Methods for Law*, 19-21

<sup>69</sup> Dobinson and Johns, “Qualitative Legal Research”, 21-22



additional aspect of the contextualisation of the study<sup>70</sup> within the Zambian society.

## **1.7 SCOPE**

As discussed above in relation to the significance of this study, the author recognised that an understanding of the legal framework of payment systems is only one element to building public demand for and confidence in payment systems. Structural difficulties are however beyond the scope of this study. It is principally legal and only social to the extent that the law is contextualised.

Furthermore, statutory references were limited to provisions material to the subject of the study. Thus, no mention of ECTA's provisions on "Protection of Critical Databases" (Part VIII) was made. In the same vein, the technical aspects of payment systems provided for under the NPS Act such as 'settlement cycles' were not considered, as they have little relevance to general consumers.

## **1.8 STRUCTURE OF STUDY**

This study is divided into three parts. Part One is the introduction. It provides the context of the study; defines its terminology; sets out its aim, supportive objectives and research questions, and its significance. It also states the scope of the study and the methodology employed.

Part Two contains three sections. The first is an analysis of the legal framework of the transactional and informational aspects of payment systems in Zambia. The second section of Part Two discusses the practical constraints of the identified framework in fulfilling the author's trust paradigm, such as any *lacunae*. The final section of Part Two concludes the analytical component of the study with a summary of its findings.

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<sup>70</sup> Lisa Webley, "Qualitative Approaches to Empirical Legal Research", *Oxford Handbook of Empirical Legal Research*, ed. P. Crane and H. Kritzer [Oxford: Oxford University Press, 2010],

Part Three of the study provides recommendations for micro level payment system regulation system in Zambia. These recommendations fulfil the study's objective to contribute to consumers' privacy, security and protection, without stifling service providers' innovation.

## PART 2

### SECTION A: PAYMENT SYSTEMS LEGAL FRAMEWORK

#### 2.1 PRELIMINARY NOTE

##### 2.1.1 Level of analysis

The National Payment Systems Act No. 1 of 2007 (the NPS Act) gives the Bank of Zambia the responsibility of the oversight and regulation of payment systems in Zambia.<sup>71</sup> The Bank of Zambia's mandate in this role is to,<sup>72</sup>

“ensure the integrity, effectiveness, efficiency, competitiveness and security of the payment systems so as to promote the stability and safety of the Zambian financial system.”

This is the macro level responsibility of the Central Bank. It fits into that level of benefits of payment systems, such as using the traceability of payment systems transactions to monitor and control money laundering and terrorist financing.<sup>73</sup> As part of the Central Bank's mandate and due to the skeletal nature of the NPS Act, the substantive provisions regarding payment systems are contained in regulatory rules, guidelines and directives issued by the Bank of Zambia.<sup>74</sup> The principal regulations in this regard are the Money Transmission Services Guidelines.<sup>75</sup>

The aim of this study is to analyse payment systems regulation at the micro level, against the author's 'trust paradigm' of privacy, security and consumer protection. This in order to encourage greater uptake of payment systems by

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<sup>71</sup> NPS Act, Section 11

<sup>72</sup> NPS Act, Section 11

<sup>73</sup> Pierre-Laurent Chatain, *et al*, *Protecting Mobile Money against Financial Crimes*, xxix

<sup>74</sup> NPS Act, Section 43

<sup>75</sup> Available at

<http://www.boz.zm/PaymentSystems/Guidelines%20for%20Money%20Transmission%20Services%20-%20Updated%20Feb2009.pdf> [accessed on 26 April 2012]

consumers. Therefore, this analysis of the legal framework for payment systems will focus on the relationship between the customer and the intermediaries regulated by the Central Bank. These intermediaries are the ‘payment systems businesses’ (PSBs).

As stated in the ‘Terminology’ section of Part One, the author will utilise their own definitions of ‘payment system’ and ‘payment systems business’. These definitions are more descriptive of the practical application of payment systems by consumers. The author will nevertheless add a note to differentiate a practical term from a statutory one where necessary. A ‘payment system’ was defined for the purposes of this study as:

Any method of monetary payment alternative to cash that:

- (a) may be composed of informational (static / status) aspects in addition to transactional (processual) ones; and
- (b) may involve the electronic storage of monetary value as e-money.

Correspondingly, a ‘payment systems business’ (PSB) is,

any business that operates a ‘payment system’ as defined by the author.

### **2.1.2 Cross-sectoral structure of legal framework**

Traditional payment systems such as cheques are one-dimensional in nature. That is, the paper cheque is the payment system in and of itself – it is purely transactional (involving the processual or actual transfer or transmission of money) and does not contain an informational (static / status or non-money-transfer) component. Payment systems have since evolved to incorporate both transactional and informational elements. For instance, m-money allows a user to both transfer funds and access account statements.<sup>76</sup> Similarly, ATMs provide account information in addition to funds withdrawal facilities. This is arguably a consequence of the global trend of migrating from paper-based to

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<sup>76</sup> Chatain, *et al*, *Protecting Mobile Money against Financial Crime*, 1

electronic payment systems<sup>77</sup> that provide a much wider array of services. The trend is also towards not just electronic informational services, but transactional ones as well. The two are combined to foster greater financial inclusion<sup>78</sup>.

Despite this progression in payment systems generally, the NPS Act and the Money Transmission Services Guidelines appear to focus on the transactional aspect of payment systems. They have little, if any, mention of the informational aspects. This is perhaps only to be expected: informational aspects of payment systems are often accessed at the customer's leisure, away from the PSB, and – significantly – via an electronic communications medium. Electronic communications are a different sector from financial services. Thus, laws on the one cannot be expected to fully cater for the other if legislative efficacy is to be achieved. This is the first reason why payment systems exist “at the intersection of finance and telecommunications”<sup>79</sup>: the informational and transactional dimensions of payment systems.

The second reason flows from the expansion of financial sector participants. Banks were the traditional participants. Now, non-bank financial institutions (NBFIs) and mobile network operators are also providing financial services.<sup>80</sup> In other words, payment systems are becoming less provider-based and more service-based.<sup>81</sup> The ‘electronification’ of payment systems means that telecommunications carriers have become a critical component of not just facilitating traditional banks’ payment systems, but also actively offering their

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<sup>77</sup> FATF, *Report on New Payment Methods* [2006], 2

<sup>78</sup> FATF Report, *Money Laundering Using New Payment Methods* [2010], 12

<sup>79</sup> Donovan, “Mobile Money for Financial Inclusion”, 61

<sup>80</sup> FATF, *Report on New Payment Methods* [2006], 3; Donovan, “Mobile Money for Financial Inclusion”, 61

<sup>81</sup> Chatain, *et al*, *Protecting Mobile Money against Financial Crimes*, 65-67

own.<sup>82</sup> They have consequently also come under financial regulation. This is notwithstanding their still being part of the telecommunications sector.

These two developments – multidimensional payment systems and the entrance of telecommunications carriers into the payment systems market – are what shape the cross-sectoral regulatory framework of payment systems in Zambia. Cheques however remain a distinct payment system in this sea of merged sectors and services. As will be shown, they are still provider-based notwithstanding the movement of cheques from paper-based transactional to electronic transactional through the process of ‘truncation’.<sup>83</sup> Uniquely, cheques have retained their sole dimension as transactional without informational aspects even once truncated.

With these preliminary points in mind, the author will examine the legal framework of payment systems in Zambia from three angles. These are the service providers, or the payment systems businesses; the transactional dimension; and the informational dimension of payment systems in Zambia. Cheques will also be briefly discussed due to their unique place in the payment systems market.

## **2.2 THE SERVICE PROVIDERS: PAYMENT SYSTEMS BUSINESSES (PSBs)**

There are different models for regulating the participants of payment systems. This differentiation is based on the cross-sectoral nature of payment systems.<sup>84</sup> In practice, the inclination is towards Central Bank supervision rather than communications authority or financial intelligence unit supervision. This is due to the Central Bank’s specialisation on how financial institutions operate; and

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<sup>82</sup> Chatain, *et al*, *Protecting Mobile Money against Financial Crimes*, 12

<sup>83</sup> It is worth noting here that the role of the NPS Act in relation to cheques is to provide for their electronification through truncation (under Part IV). Cheques predate modern payment systems and thus have historical ‘paper based’ regulations discussed in the concluding portion of this Section of Part Two.

<sup>84</sup> Chatain, *et al*, *Protecting Mobile Money against Financial Crimes*, 71

the fact it is the services and not the providers that provide the stimulus for payment systems robustness.<sup>85</sup> Zambia has adopted this model through a uniform licensing procedure for all payment systems businesses.<sup>86</sup> Thus, a person – regardless of which sector that person principally operates in – cannot operate a payment systems business (PSB) unless the business has been specifically ‘designated’ as such by the Bank of Zambia.<sup>87</sup>

A PSB may operate on its own behalf; or as an agent for a ‘recognised’ international PSB; or as an agent for a locally registered bank or NBF. <sup>88</sup> Nevertheless, whether a PSB acts on its own behalf, as an agent, or through an agent, they must be individually designated by the Bank of Zambia. Such designation is not transferable.<sup>89</sup> In other words, an agent is not covered by their principal’s designation or recognition. Similarly, an entity cannot appoint a PSB as its agent unless that entity is also either designated (if local) or recognised (if international) by the Bank of Zambia as ‘Designator’.<sup>90</sup> Thus, the well-known international PSB the Western Union Company, although ‘recognised’, cannot operate in Zambia unless through an agent ‘designated’ as a PSB in Zambia. As at January 2012, there were twenty-eight designated PSBs in Zambia. These included traditional banks, postal institutions, agents of recognised international PSBs, and m-money entities.<sup>91</sup>

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<sup>85</sup> Chatain, *et al*, *Protecting Mobile Money against Financial Crimes*, 72

<sup>86</sup> Chatain, *et al*, *Protecting Mobile Money against Financial Crimes*, 68-70

<sup>87</sup> NPS Act, Section 12. This applies to traditional banks and NBFIs as well, who will have to supply the details of their licences when applying for designation. BoZ, *Requirements for Designating a Payment System Business* [undated]. Available at: <http://www.boz.zm/PaymentSystemsForms/Requirements%20for%20payment%20system%20business.pdf> [accessed on 15 November 2013], 1

<sup>88</sup> Money Transmission Services Guidelines, paragraphs 11(6) and 12

<sup>89</sup> Money Transmission Services Guidelines, paragraph 7

<sup>90</sup> Money Transmission Services Guidelines, paragraphs 5 and 17

<sup>91</sup> BoZ, *Payment Systems Statistics Pack 2011*

The requirements for designation as a PSB are in line with the Central Bank's duty of promoting stability and integrity of the Zambian financial system.<sup>92</sup> They include the applicant providing details on how they will maintain operational and financial soundness. The Bank of Zambia must also conduct its own investigations to determine the credit-worthiness and tax compliance record of the applicant.<sup>93</sup>

Maintaining designation as a PSB is equally rigorous. PSBs must have compliance officers to ensure they adhere to applicable regulations. They must conduct their business with "integrity, prudence and professional skill".<sup>94</sup> This includes the avoidance of transactions that "may involve or facilitate money laundering"<sup>95</sup>, and using the processes and procedures outlined by the Bank of Zambia Anti-Money Laundering Directives of 2004<sup>96</sup> (AML Directives). The PSBs are also required to maintain records in accordance with International Financial Reporting Standards (IFRS).<sup>97</sup> Additionally, PSBs are subject to both on-site and off-site inspections of their records by the Bank of Zambia. Any hindrance to such inspections is an offence.<sup>98</sup>

In relation to actual and potential customers, PSBs must conspicuously display on their premises:<sup>99</sup>

- signs clearly identifying their premises as a PSB;

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<sup>92</sup> Money Transmission Service Guidelines, paragraph 1.1

<sup>93</sup> BoZ, *Requirements for Designating a Payment System Business*, 1-3

<sup>94</sup> Money Transmission Services Guidelines, paragraphs 11 (6) and 12 (1)

<sup>95</sup> Money Transmission Services Guidelines, paragraph 12 (3)

<sup>96</sup> Money Transmission Services Guidelines, paragraph 30. The AML Directives were issued pursuant to the Prohibition and Prevention of Money Laundering Act No. 14 of 2001.

<sup>97</sup> Money Transmission Services Guidelines, paragraph 12. The IFRS are international standards used to prepare annual accounts showing the financial position of the institution. BoZ, *CB Circular No. 2/2006* [Lusaka: BoZ, 10 January 2006]. Available at: <http://www.boz.zm/> [accessed on 7 December 2012]

<sup>98</sup> Money Transmission Services Guidelines, paragraphs 32 and 33

<sup>99</sup> Money Transmission Services Guidelines, paragraphs 9 and 11



- the length of time it takes to remit funds to all areas serviced by the PSB; and
- their fees and exchange rates (where applicable); ensuring that where applicable, the exchange rate used in transactions is the rate quoted by their bankers.

Furthermore, PSBs must:<sup>100</sup>

- provide to the customer and retain for their records written receipts of each transaction, specifying the customer's name, address, date of transfer, sum transacted, currency, exchange rate and fees charged;
- have rules and procedures for quick resolution of any customer disputes; and
- ensure that funds received from consumers but not yet transmitted are not used for the PSB's own income generation.

Errant or non-compliant PSBs face suspension or revocation of their designation.<sup>101</sup>

### **2.3 PAYMENT SYSTEM SERVICES: TRANSACTIONAL**

Transactional services relate directly to the money transfer aspects of payment systems.<sup>102</sup> As such, they are regulated by the NPS Act and any applicable rules, regulatory guidelines or directives issued by the Bank of Zambia under that Act.

There appears to be little micro level regulation of the transactional aspect of the actual payment system, such as ATM use or DDACC transfers. What regulation is existent apparently covers only how service providers are to

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<sup>100</sup> Money Transmission Services Guidelines, paragraphs 10 and 11

<sup>101</sup> Money Transmission Services Guidelines, paragraph 18 (1)

<sup>102</sup> Adapted from Chatain, *et al's* categorisation of mobile money in *Protecting Mobile Money against Financial Crime*, 1

proceed in the event of insufficient funds in the customer's account.<sup>103</sup> Most regulations apply to the meso (intermediate) level among PSBs. They also apply to the macro level between the Central Bank, PSBs and clearing houses<sup>104</sup>.

From the perspective of the customer, therefore, what is necessary for a valid transaction is the PSB's fulfilment of its operational requirements as specified in the NPS Act and Money Transmission Services Guidelines. In addition to the requirements for conspicuous notices, receipting, and dispute resolution mechanisms discussed under heading 2.2 above, these operational requirements include:<sup>105</sup>

- making and receiving payments in Zambian Kwacha only<sup>106</sup>; and
- limiting over the counter transactions to the sums approved by the Bank of Zambia.

## **2.4 PAYMENT SYSTEM SERVICES: INFORMATIONAL**

Informational services relate to the non-money-transfer aspects of payment systems, such as accessing one's account statements online or via SMS.<sup>107</sup> The NPS Act and Money Transmission Services Guidelines, as principal regulations of payment systems in Zambia, appear to focus exclusively on the transactional or processual dimension of payment systems. They do not appear

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<sup>103</sup> Such as the National Payment Systems Directives on Cheques and Direct Debit Instructions Issued on Insufficiently Funded Accounts, 2010, Gazette Notice No. 190 of 2010. The Directives require banks to record and levy fees for each dishonoured set of instructions, and ultimately withdraw the facilities for habitually delinquent customers. Criminal sanctions also exist for dishonoured cheques and will be discussed below.

<sup>104</sup> NPS Act, Part V (Settlements), that is, settlement of payment system obligations among PSBs and their banks.

<sup>105</sup> Money Transmission Services Guidelines, paragraph 11 (7) and (8)

<sup>106</sup> This requirement is reinforced by the Bank of Zambia (Currency) Regulations, SI No. 33 of 2012. Under that SI, a person is prohibited from paying or receiving foreign currency as legal tender for any domestic transaction. 'Domestic transaction' is defined as, "any transaction within the Republic that involves a payment of a sum of money in or towards the satisfaction of any debt due, of for the credit of, a person resident in the Republic." (Regulations 2 and 4)

<sup>107</sup> Adapted from Chatain, *et al's* categorisation of mobile money in *Protecting Mobile Money against Financial Crime*, 1

to provide for the informational dimension. This raises the question of what statute, if any, regulates the informational dimension. This question is particularly relevant in light of the increasing ‘electronification’ of both dimensions of payment systems. The Electronic Communications and Transactions Act No. 21 of 2009 (ECTA) appears to be relevant in this regard.

ECTA formed part of a giant legislative leap intended to regulate and support the growing use of electronic communications in the country.<sup>108</sup> It was enacted together with two other pieces of legislation to form a more coherent updating of the statute book. These statutes are the Information and Communication Technologies Act No. 15 of 2009 (ICT Act) and the Postal Services Act No. 22 of 2009.<sup>109</sup> The ICT Act transformed the then Communications Authority of Zambia into the Zambia Information and Communication Technologies Authority (ZICTA). It also endowed the Authority with powers more apace with rapid global and national technological advancements. The Postal Services Act on the other hand restructured the country’s Postal Services Corporation by bringing it under the control of ZICTA. It also ‘modernises’ postal services through the incorporation of electronic communications in the delivery of mail, and provides structures for postal banking as part of the Government’s cross-sectoral approach to increasing financial inclusion.<sup>110</sup>

ECTA was enacted to, among other purposes, “promote legal certainty and confidence” in the use of electronic communications.<sup>111</sup> It was thus heralded as the statute that,<sup>112</sup>

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<sup>108</sup> Hon. Prof. Geoffrey Lungwangwa, *Debates of the National Assembly, Second Reading of the Electronic Communications and Transactions Bill, 2009*, Third Session of the Tenth Assembly, 11 August 2009

<sup>109</sup> The National Assembly of Zambia, *Debates of the National Assembly*, Third Session of the Tenth Assembly, 11 August 2009. Available at: [http://www.parliament.gov.zm/index.php?option=com\\_content&task=view&id=981&Itemid=86&limit=1&limitstart=2](http://www.parliament.gov.zm/index.php?option=com_content&task=view&id=981&Itemid=86&limit=1&limitstart=2) [accessed on 5 January 2012]

<sup>110</sup> Hon. Prof. G. Lungwangwa, *Second Reading of the ICT Bill 2009 and Postal Services Bill 2009*

<sup>111</sup> Extract from the long title to the ECTA

<sup>112</sup> Shuller Habeenzu, *Towards Evidence-based ICT Policy and Regulation*, 28

“provides for a legal and regulatory framework for the development of a safe and secure environment for online business transactions.”

The use of ‘transactions’ in its short title and the many propositions of ‘certainty and confidence’ in its long title would certainly appeal to, say, a potential online shopper apprehensive about their privacy, security and protection. Indeed, titles such as Consumer Protection (Part VI) and Protection of Personal Information (Part VII) are *prima facie* tailor-made for the author’s trust paradigm of those three components. This is particularly so because payment systems form a critical part of e-commerce. Unfortunately, the content of the statute presents a much less concrete framework than the NPS Act does as regards payment systems. This is evident from an interpretation of ECTA’s key definitions (in relation to payment systems) and the scope of its substantive provisions.

#### 2.4.1 Interpretative tools

The author used two interpretative aids to analyse ECTA’s definitions and the manner in which they affect its substantive provisions. These were:

(i) the principle of statutory construction that all parts of a section in a statute and all sections of a statute must be construed together and not individually or in isolation, so that the entire statute is brought into harmony;<sup>113</sup> and

(ii) the Explanatory Note to the UN Electronic Communications Convention 2005. Paragraph 7 of the Note states in part that:<sup>114</sup>

“... the Convention does not apply to transactions in certain financial markets subject to specific regulation or industry standards. These transactions have been excluded

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<sup>113</sup> **The People v Beaumont (1965) ZR 130 (HC)** and **Valentine Shula Musakanya and Another v The People (1983) ZR 96 (S.C.)**

<sup>114</sup> UNCITRAL, *Explanatory Note by the UNCITRAL Secretariat on the United Nations Convention on the Use of Electronic Communications in International Contracts* [Vienna: UNCITRAL Secretariat, 2007], 14

because the financial service sector is already subject to well-defined regulatory controls and industry standards that address issues relating to electronic commerce in an effective way for the worldwide functioning of that sector.”

ECTA does not expressly domesticate the Convention. It is nevertheless the author’s considered view that ECTA contains appreciable similarities to it.<sup>115</sup> The author also shares the view that the Convention has utility in educating “lawmakers about the legal ramifications of electronic transactions and as a framework for any country wishing to draft electronic transaction legislation”<sup>116</sup>. As such, the Convention’s rationale for its exclusion of ‘financial markets transactions’ appears to be a logical basis upon which to assess ECTA’s role in payment systems. This assumption is reinforced by the existence of the NPS Act.

#### **2.4.2 ECTA’s scope determined through its key definitions <sup>117</sup>**

ECTA’s key terms for the purposes of this paper are:

- ‘data’,
- ‘data messages’,
- ‘electronic communications’, and
- ‘transactions’.

‘Data’ are “electronic representations of information in any form”. In that vein, a ‘data message’ is “data generated, sent, received or stored by electronic

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<sup>115</sup> Snail notes that the UNCITRAL Model Law on Electronic Commerce 1996 was influential in the drafting of the South African Electronic Communications and Transactions Act No. 25 of 2002. Sizwe Snail, “Electronic Contracts in South Africa – A Comparative Analysis”, *Journal of Information, Law & Technology (JILT) 2008 (2)*. Available at: [http://go.warwick.ac.uk/jilt/2008\\_2/snail](http://go.warwick.ac.uk/jilt/2008_2/snail), [accessed on 17 April 2012], 3. The Model Law was the basis of the Convention, and Zambia’s ECTA was modelled on the South African statute. However, the Convention is preferred over South Africa’s ECTA in this instance due to the latter statute’s non-exclusion of financial transactions and information in the statute’s key definitions.

<sup>116</sup> Snail, “Electronic Contracts in South Africa – A Comparative Analysis”, 3

<sup>117</sup> All definitions, unless expressly stated, are provided under ECTA, section 2

means”, including stored records and a voice used in an automated transaction. A data message is thus the electronic equivalent of a paper document.<sup>118</sup> An ‘electronic communication’ on the other hand is a transfer of data by electronic means, but does not include (among others),

“electronic funds transfer information stored by a financial institution in a communications system used for electronic storage and transfer of funds.”

Similarly, a ‘transaction’ may be of a commercial or non-commercial nature, “but does not include any banking transaction or electronic funds transferred by a financial institution.” Unfortunately, there is no definition of the composite term ‘electronic transactions’.

In summary, ‘data messages’ are defined in static terms under the Act. The definition contains no specification of the nature of such information, that is, financial or otherwise. Conversely, ‘electronic communications’ and ‘transactions’ (which together form the short title of the Act) expressly exclude banking transactions, electronic funds transfer and electronic funds transfer information. All three must be stored by a financial institution in a communications system used for the electronic storage of funds (presumably e-money) and for the transfer of funds. These exclusions from ECTA’s key definitions are hence relevant to both the processual and static dimensions of payment systems.

Subsection (1) of section 3 of ECTA limits the application of the Act to, “any electronic transaction or data message” (emphasis supplied). The disjunctive ‘or’ and the use of the more generically defined ‘data message’ as an alternative to the exclusionary ‘electronic transaction’ are confusing. The provision simultaneously broadens and narrows the application of the statute in a manner only immediately qualified by further subsections that expressly

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<sup>118</sup> ECTA, section 5

exclude immovable property transactions, wills, the execution of bills of exchange, and guarantees.<sup>119</sup>

This may not appear a material confusion in terms of Part II of the Act, which deals with Legal Requirements for Data Messages. That Part covers the contractual elements of e-commerce. These include the ‘functional equivalence’ of ‘writing’, how terms may be effectively joined into data messages when not expressly stated therein, how a valid signature may be ascertained, how to determine the originality of a data message, and rules for determining admissibility and weight of data messages in legal proceedings.<sup>120</sup> After all, the informational dimension of payment systems is about status and not process. The only concern to the user is that the statement of account they are viewing is accurate as opposed to legally enforceable.

The inconsistency in the simultaneous use of the generic ‘data message’ on the one hand and exclusionary ‘electronic communication’ and ‘transaction’ on the other does, however, become an issue if a payment systems user contracted electronically for the service with a PSB. This is particularly so in light of the only two instances where the exclusionary ‘electronic transaction’ is used in Part II to qualify the generic ‘data message’. These are under section 6, in relation to signatures that validate data messages. Subsections (3) and (5) of section 6 provide for instances where an ‘electronic signature’ is or is not “required by the parties to an electronic transaction”. It would appear, therefore, that if the rules for validating signatures under ECTA are not applicable to banking transactions, electronic funds transfer and electronic funds transfer information, then Part II itself is inapplicable. This conclusion is based on the first of the author’s interpretative tools.

Conversely, there is less ambiguity in the interpretation of Part VI of ECTA on consumer protection. Section 34 declares from the outset that Part VI “applies

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<sup>119</sup> ECTA, section 3, subsections (3), (4) and (5)

<sup>120</sup> ECTA, sections 5, 6, 7 and 8, respectively.

only to electronic transactions”. Yet, there are some important provisions in Part VI that do relate to the use of payment systems in the purchase, hire or exchange of goods and services through electronic transactions. In that vein, section 35 makes three references to payment systems. The section obliges a supplier of goods or services through a website to:

- (i) make available to customers on their website, “the security procedures and privacy policy of that supplier in respect of payment, payment information and personal information;<sup>121</sup>
- (ii) “utilise a payment system that is sufficiently secure in accordance with accepted technological standards at the time of the transaction and the type of the transaction concerned;<sup>122</sup> and
- (iii) make good any damage suffered by a customer due to the failure of the supplier to utilise a sufficiently secure payment system.<sup>123</sup>

Under section 40, customers have the right to complain to ZICTA in respect of non-compliance by the supplier with any of these provisions.

Effectively, therefore, payment systems are only relevant to consumer protection under Part VI of ECTA as regards a supplier of goods or services through electronic transactions. The burden of ensuring security and privacy is placed upon the supplier and so, it would seem, is the choice of payment system. The customer is thus not concerned about the PSB and has no interaction with them, save to channel their payment through them to the supplier.

Lastly, ECTA’s provisions on protection of personal information under Part VII have no ambiguity whatsoever between which of the two - data messages or electronic transactions – is covered. Under subsection (1) of section 41,

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<sup>121</sup> ECTA, section 35(1)(q)

<sup>122</sup> ECTA, section 35(5)

<sup>123</sup> ECTA, section 35(6)



personal information is only protected if it “has been obtained through electronic transactions”. In other words, any personal information derived from banking transactions or electronic funds transfer is not protected by ECTA.

Therefore, ECTA’s application to the informational dimension of payment systems is severely circumscribed by its definitions of ‘data messages’, ‘electronic communications’, and ‘transactions’. By using the two interpretive tools discussed in section 2.4.1 above, it can be concluded that this is due to the belief that the NPS Act provides sufficient regulation of payment systems. ECTA thereby makes the integrity of payment systems only incidental to its promotion of “legal certainty and confidence” in the electronic communications industry. This however does not answer the question of what regulations, if any, apply to the informational aspects of payment systems such as account statements. This question will be considered in the second section of Part Two. This section will now turn to a brief consideration of the place of cheques in payment systems regulation in Zambia.

## **2.5 CHEQUES**

Cheques occupy an interesting place in the payments system. They have historically been used as a substitute for cash<sup>124</sup> and are exclusively transactional in nature. They are traditionally ‘paper-based’. They are however now being gradually ‘electronified’ through the truncation process as part of the modernisation of payment systems. Regulation of cheques is, as for all payment systems, at the micro, meso and macro levels. Truncation in particular is meso level, as it relates to the relationship between the paying bank and the collecting bank in terms of settlement of payment instructions. This discussion on cheques will briefly consider truncation as it is relevant to the micro level of payment systems in terms of reducing the time taken for the clearance of

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<sup>124</sup> Jennifer James, *Richardson’s Guide to Negotiable Instruments*, 8<sup>th</sup> ed. [London: Butterworths, 1991], 159

cheques.<sup>125</sup> The discussion will also include mention of another development in cheque use in Zambia relevant to individual users: criminalisation of issuing cheques on insufficiently funded accounts.<sup>126</sup>

Cheques are regulated by the British Bills of Exchange Act 1882 as read with the Cheques Act<sup>127</sup> and Part IV of the NPS Act (“Presentment and Electronic Transmission of Cheques”). The first two statutes contain detailed provisions on the form and enforceability of cheques. An in depth analysis of those provisions is beyond the scope of this study, as this study relates to payment systems generally.<sup>128</sup> What is relevant for the purposes of this study, is the NPS Act’s role in transforming cheques as a payment system through truncation.

Truncation has not altered the nature of cheques as fundamentally transactional. It has not given cheques any informational aspects. This is evident from the fact the drawer (the person whose bank account will be debited with the sum stated on the cheque<sup>129</sup>) cannot use the (paper or electronic image of) cheque in any way to determine their account status. In terms of legal provisions, the NPS Act does not use the term ‘truncation’. It is a term employed globally in the financial sector<sup>130</sup> and hence is used by the Bank of Zambia in its Circulars on the implementation of the process.<sup>131</sup>

In that vein, section 15 of the NPS Act provides that a cheque may be presented for payment by a banker to the banker on whom it was drawn, “by

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<sup>125</sup> O’Mahony, *et al*, *Electronic Payment Systems for E-Commerce*, 9; BoZ, *CB Circular No. 13/2012*, 1

<sup>126</sup> NPS Act, section 33

<sup>127</sup> Chapter 424 of the Laws of Zambia. The Bills of Exchange Act 1882 applies by virtue of the English Law (Extent of Application) Act, Chapter 11 of the Laws of Zambia and the Cheques Act, sections 6 to 8.

<sup>128</sup> Detailed treatment of the regulation of cheques in Zambia may be found in Mumba Malila, *Commercial Law in Zambia: Cases and Materials* [Lusaka: UNZA Press, 2006]

<sup>129</sup> James, *Richardson’s Guide to Negotiable Instruments*, 160

<sup>130</sup> O’Mahony, *et al*, *Electronic Payment Systems for E-Commerce*, 9

<sup>131</sup> BoZ, *CB Circular No. 13/2012*; BoZ, *CB Circular No. 14/2012* [Lusaka: BoZ, 16 August 2012]. Available at: [http://www.boz.zm/Publishing/58/58\\_14-2012.PDF](http://www.boz.zm/Publishing/58/58_14-2012.PDF) [accessed on 17 November 2012]

electronically transmitting its essential features or by transmitting it by other means instead of presenting the cheque itself”. Three things become apparent from this provision:

- (i) cheques are still a provider-based payment system, regardless of whether truncated. That is, they are managed by traditional banks as opposed to more diverse cross-sectoral service-based payment systems;
- (ii) notwithstanding being a traditional financial institution payment system, the telecommunications sector plays a part in the transmission of truncated cheques. This maintains the modern trend towards cross-sector collaborations in payment systems; and
- (iii) being purely transactional, there is no doubt as to truncated cheques’ exclusion from the ECTA. This is except as regards section 35 on consumer protection. Truncation is therefore exclusively regulated by the NPS Act.

With regard to the issuance of cheques on insufficiently funded accounts, section 33 of the NPS Act provides that any person who does so “wilfully, dishonestly or with intent to defraud” commits an offence and is liable to either a fine, or imprisonment, or both. The introduction of this offence was a direct response to the rampant issuance of cheques on insufficiently funded accounts. This was a practice that substantially undermined the reliability of cheques as an alternative to cash.<sup>132</sup> The seriousness with which the provision has been enforced is evident from a number of high profile prosecutions on ‘rubberised’ (that is, with the ability to ‘bounce’) cheques.<sup>133</sup> Granted, zealous application of section 33 may also be attributed to political expedience rather than

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<sup>132</sup> Hon. G. Lubinda, *Second Reading of the National Payment Systems Bill, 2007*

<sup>133</sup> The Case of **The People v George Wello Mpombo, SSN/09/2010** is a well-known example. The Accused was a former Defence Minister who was charged and convicted under section 33 of the NPS Act for issuing a cheque for K10 million (K10, 000 rebased) on an insufficiently funded account.

protection of payment systems integrity. It is nevertheless a useful provision for both assuring reliability and deterring delinquency. This is particularly in light of the fact that cheques are the only type of payment system that has specific criminal sanctions when issued on an insufficiently funded account.

Criminalisation of issuance of cheques on insufficiently funded accounts is coupled with civil sanctions under the National Payment Systems Directives on Cheques and Direct Debit Instructions Issued on Insufficiently Funded Accounts, 2010. Under these Directives, banks are required to levy fees on customers whose payment instructions have been dishonoured due to insufficient funds, record every such dishonour, and withdraw the facilities from any customer whose instructions are dishonoured on three occasions in a period of twelve consecutive months.<sup>134</sup>

Thus, users of cheques as a payment system need not be concerned about gaps in the informational dimension of payment systems. Cheques are purely transactional, and are well regulated by several statutes. They are still exclusively provided by banks. They are therefore only subject to mainstream payment systems regulations (that is, the NPS Act) when truncated. They however have the distinction of being the only payment system with a specific criminal sanction imposed on users to maintain the integrity of the system. This is a very useful distinction in terms of the author's trust paradigm, but also a strong warning to would-be cheque users to exercise utmost care before utilising them as a payment system.

## **2.6 CONCLUSION ON LEGAL FRAMEWORK**

Payment systems businesses (PSBs) are regulated under the NPS Act. They form a distinct category of financial service providers that include both traditional banks and non-traditional NBFIs and telecommunications companies. There are rigorous requirements for both obtaining and retaining

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<sup>134</sup> Paragraphs 5 and 6 of the Directives

‘designation’ as a PSB. These requirements overlap with the transactional dimension of payment systems, leaving very little specific regulation of that dimension.

Conversely, informational systems appear to have no statutory regulation. The NPS Act and Money Transmission Services Guidelines are worded in purely processual terms. Similarly, ECTA, with its promising title and purposes, appears to have little application to the informational aspects of payment systems; and none beyond a supplier-customer relationship that is, in any event, outside the financial sector. This seems logical under the second of the interpretative tools utilised (the UN Electronic Communications Convention 2005 Explanatory Note), but only to the extent that the transactional services are well regulated - the informational ones are not. It therefore appears that notwithstanding the cross-sectoral nature of modern payment systems, regulation in Zambia remains distinctly mono-sectoral and one-dimensional. It is firmly within the financial sector under the NPS Act and Money Transmission Services Guidelines, and entirely transaction-based.

This leads to the conclusion that there are ambiguities on whether the privacy and security of informational payment system services is legally assured. This ambiguity forms part of the author’s evaluation of regulatory constraints to building customer trust in electronic payment systems regulation in Zambia in the second section of Part Two.

## **PART 2**

### **SECTION B:**

#### **EVALUATION OF REGULATORY CONSTRAINTS TO BUILDING CONSUMER TRUST IN ELECTRONIC PAYMENT SYSTEMS**

The author's 'trust paradigm' for building public demand for payment systems is composed of three elements: privacy, security and consumer protection. Each of these three elements will be considered in turn against the entire micro level framework of electronic payment systems in Zambia, as summarised in the preceding section. The aim of this consideration is to assess what changes, if any, would assist in improving consumer confidence in and therefore demand for, electronic payment systems in Zambia. Such changes will be discussed in Part Three of the study.

### **2.1 PRIVACY**

#### **2.1.1 The 'professional skill' of PSBs**

Privacy or confidentiality of payment systems information is both a transactional and an informational concern. An actual or potential user of a payment system will be concerned to know that both the details of the money transfer and of the status of their account are kept confidential by the PSB.

From the outset, it is noted that there is no constitutional guarantee of privacy of information in Zambia. Article 17 of the Constitution<sup>135</sup> only protects the privacy "of home and other property". Under that Article, a person shall not be subjected to the search of his person or property except with his own consent or under authority of law.

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<sup>135</sup> Schedule to the Constitution of Zambia Act, Chapter 1 of the Laws of Zambia

Similarly, statutory protection of confidentiality at the micro level<sup>136</sup> under the NPS regime is, unfortunately, only implicit.<sup>137</sup> Under the Money Transmission Services Guidelines, PSBs are required to conduct their business with “integrity, prudence and professional skill”.<sup>138</sup> What precisely constitutes these three characteristics is only elaborated upon with regard to money laundering.<sup>139</sup> The ‘professional skill’ aspect nonetheless contains promise due to its broad nature. It can be built upon in relation to confidentiality, using traditional financial industry practice as a standard.

In that vein, section 50 of the Banking and Financial Services Act<sup>140</sup> imposes a duty on financial service providers to maintain “the confidentiality of all confidential information obtained in the course” of providing financial services. ‘Confidential information’ is defined under that section as including information about a person that is not public, and was obtained in the course of providing financial services to them, concerning:<sup>141</sup>

- (a) the nature, amount or purpose of any payment made by or to the person;
- (b) the recipient of a payment by the person;
- (c) the assets, liabilities, financial resources or financial condition of the person;
- (d) the business or family relations of the person; or

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<sup>136</sup> The distinction of micro level is made here due to section 29 of the NPS Act. That section gives the Central Bank access to information from macro level payment systems participants and clearing houses, and declares such information confidential.

<sup>137</sup> It is however explicit for banks and other financial institutions registered under the Banking and Financial Services Act, Chapter 387 of the Laws of Zambia. Section 50 of the Act provides similar protection to that given through the case of **Tournier v National Provincial and Union Bank of England** (1924) 1 K.B. 461. The import of this decision can be extended to PSBs in the manner to be discussed shortly.

<sup>138</sup> Money Transmission Services Guidelines, paragraph 12 (1)

<sup>139</sup> Money Transmission Services Guidelines, paragraph 12 (3)

<sup>140</sup> Chapter 378 of the Laws of Zambia

<sup>141</sup> Banking and Financial Services Act, section 50 (2)

- (e) any matter of a personal nature that the person disclosed to the financial service provider in confidence.

The duty is however subject to some exceptions. These are the disclosure of confidential information:<sup>142</sup>

- (a) in accordance with the express consent of the customer, or the order of a court; or
- (b) where the interest of the financial service provider itself requires disclosure; or
- (c) where the Bank of Zambia, in carrying out its functions under the Act, so requests.

Unfortunately, the Banking and Financial Services Act's protection of confidentiality of information obtained through the provision of financial services cannot be applied to payment systems. This is because the latter are subject to regulation by a specific – and more recent – statute, namely the NPS Act.<sup>143</sup>

Assistance may be obtained from a decision of the British Court of Appeal to which section 50 bears remarkable similarity. In the case of **Tournier v National Provincial and Union Bank of England**,<sup>144</sup> the Court held that a banker's duty of secrecy (or confidentiality) is an implied term in the contract between the banker and the customer. It is implied because, "both parties must have intended that it should be a term of the contract, and have only not expressed it because its necessity was so obvious that it was taken for granted" and "the Court considers they must necessarily have agreed upon" the term.<sup>145</sup>

The Court in **Tournier** delimited the scope of the duty as covering more than just the state of the account (debit or credit balance) and the amount of the

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<sup>142</sup> Banking and Financial Services Act, section 50 (1) (c)

<sup>143</sup> Francis Bennion, *Bennion on Statute Law*, 3rd ed. [London: Longman Group UK Ltd., 1990]

<sup>144</sup> (1924) 1 K.B. 461

<sup>145</sup> (1924) 1 K.B. 461, 483-484, Per Atkin LJ



balance. It also covers the transactions processed through the account and securities given in respect of the account. Moreover, the duty extends beyond the termination of the banker-client relationship.<sup>146</sup>

Additionally, the Court provided four grounds upon which the banker will be allowed to disclose confidential information about the customer notwithstanding the implied term:<sup>147</sup>

- (i) where the disclosure is compelled by law;
- (ii) where there is a duty to the public to disclose;
- (iii) where the disclosure is required in the interests of the bank; and
- (iv) where the customer expressly or implicitly consents to the disclosure.

Traditional banking services thus have clear rules on protection of customers' private information. Cranston however argues that the duty of confidentiality can be extended beyond the contractual banker-client relationship through equity and tort.<sup>148</sup> With regard to the latter, the general principles of breach of confidence are relevant. He cites<sup>149</sup> the judgment of Lord Goff in the case of **Attorney-General v. Guardian Newspapers Ltd (No. 2)**<sup>150</sup> for the proposition that:

“a duty of confidence arises when confidential information comes to the knowledge of a person (the confidant) in circumstances where he has notice, or is held to have agreed, that the information is confidential, with the effect that it would be just in all the circumstances that he should be precluded from disclosing the information to others.”

Furthermore, the duty of confidentiality does not terminate with the relationship.

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<sup>146</sup> (1924) 1 K.B. 461, 485, Per Atkin LJ

<sup>147</sup> (1924) 1 K.B. 461, 486, Per Atkin LJ

<sup>148</sup> Ross Cranston, *Principles of Banking Law* [Oxford: Clarendon Press, 1997], 183

<sup>149</sup> Cranston, *Principles of Banking Law*, 183-184

<sup>150</sup> (1990) 1 AC 109, 281-2.

Additionally, this principle also has its own limitations:<sup>151</sup>

- (i) the principle only applies to the extent that the information is confidential;
- (ii) the duty does not apply to useless information or trivia; and
- (iii) the public interest in preserving the confidentiality of certain types of information can be countervailed by the equally compelling public interest that favours disclosure in certain circumstances.

It is submitted that the contractual formulation of the duty of confidentiality can, like the non-contractual duty, be applied beyond traditional banker-client relations to PSBs. This will be subject to the **AG v Guardian Newspapers (No. 2)** Court's test for implying the term. This submission is supported by the fact that PSBs, as financial service providers, handle the same types of information as traditional banks and generally have contractual relationships with their clients. In other words, PSBs are like 'New Age bankers'. They therefore ought to be bound by the same duty of confidentiality as traditional bankers.

One final point from Cranston is his interesting consideration of the effect of a banker's breach of the duty of confidentiality (contractual or tortious) if a hacker has accessed a client's confidential information from a bank's information system. He states in this regard:<sup>152</sup>

“Is it relevant that the bank has installed the best security system available on the market? In principle liability for misuse of confidential information is strict, and the confidant should take steps to protect against it. Negligence is not relevant to this type of duty, whether grounded in contract (where strict performance is generally demanded) or equity (which looks rather to good faith). Whether an adequate security system is installed goes, however, to the issue of whether the bank has misused the information: it

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<sup>151</sup> (1990) 1 AC 109, 281-2.

<sup>152</sup> Cranston, *Principles of Banking Law*, 185

cannot be said to have done so if it has done everything it could to protect the confidences.”

In summary, customers of PSBs can expect the same level of protection of their confidential information as clients of traditional banks. The duty of PSBs to protect that information can be either contractual or tortious. Furthermore, the duty is applicable even if their information system is hacked into, but only if they failed to take adequate measures to secure their information system. The duty is, however, subject to exceptions, the more prominent of which are the public interest and legal requirements for disclosure.

### **2.1.2 The ‘legal’ and ‘public interest’ limitations to privacy**

These limitations to the duty of confidentiality are of considerable relevance to payment systems because of money laundering concerns. Indeed, the Money Transmission Services Guidelines heavily emphasise the need for PSBs to “exercise care and caution”<sup>153</sup> in their dealings. ‘Wilful’ failure to observe anti-money laundering (AML) regulations may lead to the suspension or revocation of the entity’s designation as a PSB<sup>154</sup>.

It is for this reason that there are extensive record keeping provisions in both the Money Transmission Services Guidelines and the AML Directives<sup>155</sup>. Such records relate both to information on the customer’s identity and on their transactions. With regard to the latter, records should, “be sufficient to permit a reconstruction of individual business transactions, including the amounts and types of currency involved, if any, so as to provide, if necessary, evidence for prosecution of criminal conduct.”<sup>156</sup> The records are kept in order to “facilitate the exchange of information relating to money laundering” and to provide information to law enforcement agencies to assist in investigations under other

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<sup>153</sup> Money Transmission Services Guidelines, paragraph 12(3)

<sup>154</sup> Money Transmission Services Guidelines, paragraph 18(4)

<sup>155</sup> Issued by the Bank of Zambia pursuant to the Prevention and Prohibition of Money Laundering Act No. 14 of 2001

<sup>156</sup> AML Directives, directive 10 (4)

laws.<sup>157</sup> The latter purpose of record keeping is also part of the public interest exception. For instance, it is in the public interest for investigators to access information in order to detect tax evaders. In such cases, legal and public interest disclosure exceptions intersect.

The exceptions of legal requirements and public interest are, in practical terms, a significant erosion of true privacy. Nonetheless, the growth of financial crimes with improvements to payment systems is a concern that can best be addressed through law enforcement agencies having better access to information on transactions passing through the systems.<sup>158</sup>

### **2.1.3 Privacy in ‘electronic transactions’**

Privacy is equally catered for under section 35 of ECTA, in relation to online purchases of goods and services. This is perhaps the only instance in which ECTA factors into payment systems. Still, section 35 is, like the rest of the Act, not applicable to financial transactions. Its utility is in its provision to actual or potential customers with the assurance that online suppliers of (non-financial) goods and / or services must have in place a privacy policy and that policy must be displayed on their website. This assists potential customers in making an informed decision on whether to proceed with the transaction. It also empowers actual and potential customers, who can lodge a complaint with ZICTA if the supplier does not comply with the requirement in any way.

The value of section 35 of ECTA is thus not directly to a customer’s relationship with a PSB. It is to a customer’s relationship with an online supplier who uses a payment system.

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<sup>157</sup> AML Directives, directive 15 (1)

<sup>158</sup> Chatain, *et al*, *Protecting Mobile Money against Financial Crime*, 1

#### 2.1.4 Summary

There do not appear to be any statutory protections to customers' privacy in their direct relationship with PSBs. Privacy is assured either contractually or tortiously, subject to limitations of consent, law and public policy. AML regulations constitute a significant part of the erosion of privacy on the grounds of requirement by law and public interest.

## 2.2 SECURITY

Security of payment systems relates to the hardware and software used by PSBs in the operation of their businesses.<sup>159</sup> Concerns over security are particularly acute with electronic payment systems due to the vulnerability of those systems to remote unauthorised access through hacking.<sup>160</sup>

Security of payment systems, like their privacy, does not have specific regulation under the NPS framework. This may be attributed to the cross-sectoral nature of modern payment systems. That is, due to their technical nature, hardware and software integrity fall under the telecommunications sector. As such, they are not regulated through the financial sector. Telecommunications infrastructure is regulated by ZICTA through the ICT Act. Under that Act, ZICTA is empowered to, *inter alia*, establish technical standards for "all electronic communications equipment intended to be used" in the country.<sup>161</sup> Similarly, the Minister for communications may, in consultation with ZICTA and the Zambia Bureau of Standards, "prescribe standards for the performance and operation" of any electronic communications apparatus.<sup>162</sup>

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<sup>159</sup> Olayemi Anyanechi, "Credibility and sustainability: new electronic payment policy", in *International law Office Newsletters: Nigeria* [20 July 2012]. Available at: <http://www.internationallawoffice.com/newsletters/Detail.aspx?g=628776b0-0818-41b2-ab04-4f7e2f546169> [accessed on 11 December 2012]

<sup>160</sup> Anyanechi, "Credibility and sustainability: new electronic payment policy"

<sup>161</sup> ICT Act, section 64

<sup>162</sup> ICT Act, section 65

One security-related development should be borne in mind. This is due to its potential impact on the security of m-money: registration of Subscriber Identity Modules (SIM cards).<sup>163</sup> According to ZICTA, the purposes of requiring SIM card registration are to:<sup>164</sup>

- (a) safeguard the national security and promote trust in electronic services;
- (b) regulate the ownership and use of SIM cards; and
- (c) enhance responsibility and accountability in the use of mobile cell phones.

There has been considerable controversy over the introduction of SIM card registration due to concerns that the information obtained through the process will be used for political gain.<sup>165</sup> However, registration has been seen for some time now by successive administrations as a means of enhancing the proliferation of mobile technology to support businesses through the better securing of such technology.<sup>166</sup>

Lastly, section 35 of ECTA also provides a measure of security. This is in relation to the online purchase of non-financial goods and services.

### 2.3 CONSUMER PROTECTION

Consumer protection suffers from the same lack of express provision under the NPS Act and Money Transmission Services Guidelines as the other two components of the trust paradigm. It may therefore be inferred from the

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<sup>163</sup> Pursuant to the ICT Act (Registration of Electronic Communication Apparatus) Regulations, SI No. 65 of 2011

<sup>164</sup> ZICTA, *SIM Card Registration Fact Sheet* (undated). Available at: [http://www.zicta.zm/index.php?option=com\\_jdownloads&Itemid=31&view=finish&cid=156&catid=30](http://www.zicta.zm/index.php?option=com_jdownloads&Itemid=31&view=finish&cid=156&catid=30) [accessed on 13 December 2012]

<sup>165</sup> Gershom Ndhlovu, *Zambia: "SIM registration is for Security Reasons* [30 November 2012]. Available at <http://advocacy.globalvoicesonline.org/2012/11/30/zambia-sim-registration-is-for-security-reasons/> [accessed on 13 December 2012]

<sup>166</sup> Hon. Prof. G. Lungwangwa, *Ministerial Statement on Infrastructure Development and Policy Interventions to Grow the Communications Industry*

“integrity, prudence and professional skill” requirements of PSBs and the necessity for them to maintain operational and financial soundness.

The Central Bank also has a role in consumer protection. This is by making enquiries and / or giving directions prior to the exercise of any of its powers under the Money Transmission Services Guidelines, “so as to ensure that the interests of the public are safeguarded.”<sup>167</sup>

With particular regard to cheques as a payment system, the criminalisation of issuing cheques on an insufficiently funded account serves as both a deterrent and an assurance of reliability (at least theoretically). Granted, zealous application of section 33 seems to be for political expedience rather than for protection of payment systems integrity. Cheques nonetheless remain distinct among the payment systems for being the only type of payment system that have specific criminal sanctions when issued on an insufficiently funded account.

Finally, section 35 of ECTA plays a role under this component as well. It places the burden of choice and security of payment system on suppliers of (non-financial) goods and services through the internet. That is perhaps the least equivocal statement of consumer protection under the entire payment systems regulatory framework.

## **2.4 SUMMARY OF EVALUATION**

There are stringent requirements for designation as a PSB and maintenance of that designation. Errant or non-compliant PSBs face suspension or revocation of their designation.<sup>168</sup> Thus, a customer should – in theory – feel a measure of confidence in a PSB that is compliant with the NPS Act and the Money Transmission Services Guidelines issued thereunder. While the customer may not be privy to the intricacies of such compliance, the required conspicuous

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<sup>167</sup> Money Transmission Services Guidelines, paragraph 24

<sup>168</sup> Money Transmission Services Guidelines, paragraph 18 (1)

notices – including that of designation – should serve as indicators of a PSB’s reliability as determined by the Bank of Zambia.

In practical terms, however, that will not suffice. Payment systems deal with an incredibly sensitive aspect of human society: money. A more sophisticated approach is therefore necessary to assure potential users of the utility, reliability and safety of these systems. In that vein, there do not appear to be explicit assurances under the NPS framework of privacy, security and consumer protection. Nor is there provision for multidimensional payment systems that offer benefits over time as well as distance. What is prominent from the NPS framework is in fact the opposite: the significant erosion of one of the components – privacy – because of an overwhelming preoccupation with AML regulation. It is thus ironic that the only provision that gives the requisite assurances is from ECTA, which does not apply to the PSB-customer relationship anyway!

This lack of express or even strongly implied provision for customer concerns shows that the NPS legal framework was designed to facilitate regulation and not to “promote legal certainty and confidence” in the same manner as ECTA. It is therefore unsurprising that any sort of assurances of privacy, security and consumer protection directly connected to payment systems use must be implied from either within the framework or from external sources. Under such circumstances, how can demand for payment systems be fuelled? After all, efficient AML monitoring requires the traceability of financial transactions that can only be provided through payment systems. The overemphasis on regulation thus becomes self-defeating, as the very things that potential users need assurance of in order to enter the payments system are hidden away in favour of a strong showing of precisely what may render potential users sceptical of changing their cash-based ways. That is not to say that AML regulations should be done away with altogether. That would not be in the public interest. Instead, they should be better packaged. They should be



balanced against the need to attract sufficient participation to make them effective.

## **PART 2**

### **SECTION C:**

#### **CONCLUSION ON ANALYSIS OF BUILDING CONSUMER TRUST IN ELECTRONIC PAYMENT SYSTEMS**

The author's aim in this study was to answer the question, "How can payment systems regulation be explained and simplified in order to improve customer uptake of payment systems in Zambia?" This aim was broken down into a set of specific objectives. These objectives were set out in Figure 2 as:

1. to establish a framework for evaluating the micro level regulation of payment systems in Zambia;
2. to determine whether payment systems fall under both financial and telecommunications sectors;
3. to determine the applicable regulations of payment systems given their sectoral position; and
4. to conclude on how the applicable regulations assist in customer uptake of payment systems in Zambia.

In fulfilling these objectives, this study found that modern payment systems are both informational and transactional. They also incorporate service providers from both the traditional financial sector and the telecommunications sector. The legislative framework around payment systems in Zambia however only recognises its cross-sectoral nature in terms of the service providers (that is, 'designation' of payment systems businesses), and not in terms of the multidimensionality of services that may be offered. This is evident from the NPS Act and Money Transmission Services Guidelines' processual phraseology to the exclusion of status / informational services. Unfortunately, ECTA, as the principal statute on electronic

communications, cannot remedy this defect because it is largely limited to non-financial electronic transactions.

Equally, the trust paradigm of privacy, security and consumer protection in the PSB-user relationship is not fulfilled from the NPS regulatory framework in its present state. Privacy must be constructed from contract or tort. Security must be implied from ICT regulation. Consumer protection must similarly be implied, but from within the NPS framework. Conversely, exceptions are prominently featured in the name of AML regulation.

The understanding that for AML regulation to be successful, there must be uptake of payment systems by a substantial portion of the population has apparently not been applied to the NPS legal framework. That uptake will not happen automatically. It will only happen with an attractive value proposition that encompasses not just the wide benefits of payment systems but also assures users of their privacy, security and protection as they use those systems. The Part of this study sets out recommendations for how that may be achieved.

**PART 3**  
**RECOMMENDATIONS FOR SIMPLE, CLEAR AND COMPREHENSIVE**  
**MICRO-LEVEL PAYMENT SYSTEMS REGULATION**

The conclusion of this study was that the current micro level regulation of payment systems in Zambia does not fulfil the trust paradigm of privacy, security and consumer protection in the PSB-user relationship. The author therefore recommends that the NPS legal framework be reformulated to:

1. provide for the regulation of informational aspects of payment systems;  
and
2. place greater emphasis on user assurance, in the same manner that ECTA does.

The first recommendation does not imply that the NPS Act should be modelled into the financial sector equivalent of ECTA. The technical aspects of electronic communications systems are an ICT sector concern, and are already regulated by ZICTA under the ICT Act. It must nevertheless be recognised that better cross-sectoral regulation is necessary, as modern payment systems are cross-sectoral in nature. An integrated set of rules is needed to improve user confidence and increase uptake of payment systems.

Equally, the second recommendation does not imply that AML regulation should be completely done away with. That would be inimical to the interests of the public and destructive of the national economy. Instead, AML regulation must be balanced with consumer assurance in such a way as to boost demand – and thereby give the AML regulations the necessary high percentage of payment systems uptake to succeed.

There are a number of practical illustrations of the application of the two overarching recommendations. The first is one of improved integration of the ICT and financial

sectors in the Central Bank of Nigeria's (CBN) Guidelines on Electronic Banking.<sup>169</sup>

The Nigerian Guidelines are divided into four sections:

- ICT standards – to address issues relating to technology solutions deployed, and ensure that they meet the needs of consumers, the economy and international best practice in the areas of communication, hardware, software and security;
- monetary policy – to address issues relating to how increased usage of internet banking and electronic payments delivery channels would affect the achievement of the Central Bank's monetary policy objectives;
- legal guidelines – to address issues on banking regulations and consumer rights protection; and
- regulatory and supervisory – to address issues that, though peculiar to payments system in general, may be amplified by the use of electronic media.

The Nigerian Guidelines are not overly technical. They set out standards of ICT application to the financial sector for both transactional and informational dimensions. For instance, “data confidentiality and integrity” is given primacy as a standard for any electronic device or system that connects to a financial network. This includes ATMs, computers and mobile telecommunications networks. Hardware as well as software must be properly secured against unauthorised access. The physical safety of customers is also critical when utilising any of the facilities, such as ATMs.

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<sup>169</sup> Central Bank of Nigeria, Guidelines on Electronic Banking in Nigeria [August 2003]. Available at: <http://www.cenbank.org/OUT/PUBLICATIONS/BS/2003/E-BANKING.PDF> [accessed 13 December 2012]

This comprehensive security is however not to be at the expense of quick and efficient connectivity to financial systems and networks.<sup>170</sup> Equally, it is not at the expense of AML regulations. There is essentially a balance between the need to maintain financial sector integrity by verifying clients' details and transactions, and the need to give clients the privacy and security they require to utilise the formal financial system.<sup>171</sup>

In terms of customer protection, the Nigerian Guidelines make reference to external consumer protection laws that do apply to banking services generally. In addition, there is explicit requirement for financial institutions to make customers aware of the speed with which electronic funds transfers can be made and what time frame they have to stop any unauthorised transactions.<sup>172</sup>

In summary, the Nigerian Guidelines emphasise the needs of customers while also providing guidance for the payment systems service providers. Customers' need for both physical and informational privacy, security and protection in both transactional and informational dimensions are coupled with the need to maintain "user awareness and training" regarding the financial institution's security measures and the customers' rights.<sup>173</sup>

Admittedly, the Nigerian Guidelines are not faultless. From an ICT standpoint, Oyesanya has criticised the Guidelines for lacking specificity in some technical respects such as the strength of software security protocols and the lack of data sensitivity classification.<sup>174</sup> Further, he suggested that the Guidelines should contain 'core' requirements of criminal background checks for all financial ICT employees and partner organisations; and clear regulations on how to address disgruntled former ICT employees. These suggested core guidelines can tie in with the PSB designation

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<sup>170</sup> CBN, Guidelines on Electronic Banking 1.0

<sup>171</sup> CBN, Guidelines on Electronic Banking, 3.0 (d)

<sup>172</sup> CBN, Guidelines on Electronic Banking, 3.0 (e)

<sup>173</sup> CBN, Guidelines on Electronic Banking, 1.1.5 (m)

<sup>174</sup> Femi Oyesanya, *Review of Central Bank Guideline for Electronic Banking* [undated]. Available at: <http://www.dawodu.com/oyesanya5.htm> [accessed on 13 December 2012]

requirements under the NPS Act. Under those requirements, Bank of Zambia is mandated to undertake extensive checks on applicants that include credit worthiness and tax compliance.<sup>175</sup>

Further criticisms are that the Nigerian Guidelines are directed at banks, with NBFIs implicitly having to follow suit. The new entrants onto the payment systems market – the communications companies – are mentioned only as operators of the conduit systems rather than as actual service providers. And customers are included only in terms of the financial institutions’ obligations toward them. These shortcomings on which party in payment systems the Guidelines are directed at may be a natural consequence of the fact that the Guidelines were issued before non-traditional financial sector participants entered the payment system. The Nigerian Guidelines are nevertheless a useful template for restructuring Zambia’s NPS framework, and particularly the one dimensional and regulation-centric Money Transmission Services Guidelines.

A second source for guideline reform is Abrazhevich, *et al.*’s<sup>176</sup> empirically-tested ‘design guidelines’ (DGs) for internet-based payment systems. They proffer ten such DGs, aimed at more ‘user-centric’ payment systems:<sup>177</sup>

1. take measures to address risks (regarding safety, security, and privacy) and inform users, making the measures taken visible, understandable, and justifiable;
2. explain to users the types and details of personal information to be retained, why, and how they will be used;
3. provide a clear and explicit privacy policy; make it known and understandable to users. Display privacy seals or announce compliance to related privacy legislation or codes of fair information practice;

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<sup>175</sup> BoZ, *Requirements for Designating a Payment System Business*, 1-3

<sup>176</sup> Dennis Abrazhevich, *et al.*, “Designing Internet-Based Payment Systems: Guidelines and Empirical Basis,” *Human-Computer Interaction* 24 (2009): 408

<sup>177</sup> Abrazhevich, *et al.*, “Designing Internet-Based Payment Systems”, 421 and 439-440

4. provide clear and complete explanation of costs associated with payments and use of the system; aim to lower or even eliminate these costs for the user;
5. allow users to control critical actions and information. For instance, allow for delayed commitment to the transaction until it is absolutely necessary and allow users to block accounts off line or deactivate passwords and / or personal identification numbers;
6. seek reputation and trust transference from reputed partners and technology providers and communicate trust transference to users; in practice this may mean informing users about partnerships and business relations with reputable partners;
7. ensure that interaction with the payment system resembles users' expectations about the payment process. Designers should seek to understand users' mental model of the payment process, comply with the process applied by market leaders, avoiding frequent changes to how this process is implemented;
8. support automation of payments. This includes support for scheduled payments and multiple, batch payments; support features such as personal address books or databases with payee information;
9. provide usable authentication. Limit the number of authentication steps and avoid reauthentication prior to less significant operations, such as viewing account status; and
10. support customization of the payment system. For example, provide features for currency conversion, personalized message to go with payments, multiple logins for a group of people (e.g., family, organization, etc.).

Abrazhevich, *et al.*'s DGs are expressly aimed at designers of internet payment systems. They can still be adapted to general legal guidelines aimed at both PSBs and customers. As with the Nigerian Guidelines, this is by emphasising the need to inform customers about security, privacy and protection measures. Adaptation of these DGs into regulatory guidelines is also through placing greater control in the hands of the users. In this vein, DGs 4, 7 and 9 emphasise user control and can be



conveyed in general payment systems regulations. For instance, the Bank of Zambia can stipulate that payment systems charges should be periodically published in widely circulated newspapers the same way that regular banking charges are. Additionally, Central Bank guidelines may state that account authentication procedures should not be unduly inconveniencing to clients but must still offer sufficient security against unauthorised access.

Moreover, there must be an explicit statement on who a customer can complain to if they are unhappy about the services provided. The current Money Transmission Services Guidelines focus on PSB breaches and resolution of those breaches with the Central Bank as Designator. They do not appear to provide a complaints mechanism for customers in the same way that section 40 of ECTA does. It will be recalled that that section allows customers to complain to ZICTA when an internet merchant does not provide the requisite information on, *inter alia*, security and privacy of the payment system to be used in purchasing goods or services from them.

A final source of reform considered is the Reserve Bank of Malawi's (RBM) 'Guidelines for Mobile Payment Systems'.<sup>178</sup> These Malawian Guidelines are unfortunately focused on the transactional dimension of mobile payment systems and m-money.<sup>179</sup> However, there are a few notable differences from the Zambian Money Transmission Services Guidelines, including:

- an explicit statement of the roles of the service provider.<sup>180</sup> This covers the requirement to ensure sufficient bank-deposit funds to cover all outstanding obligations with customers. It also has extensive reporting requirements to the RBM that include relaying complaints received on service failures. These roles may give customers assurance that the

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<sup>178</sup> Reserve Bank of Malawi, Guidelines for Mobile Payment Systems [March 2011]. Available at: [http://www.rbm.mw/documents/payment\\_systems/Mobile%20Payments%20Systems%20Guidelines.pdf](http://www.rbm.mw/documents/payment_systems/Mobile%20Payments%20Systems%20Guidelines.pdf) [accessed 13 November 2013]

<sup>179</sup> RBM, Guidelines for Mobile Payment Systems, 4.0

<sup>180</sup> RBM, Guidelines for Mobile Payment Systems, 8.0

service provider is financially sound and that any complaints they may have will be brought to the attention of the Central Bank as regulator;

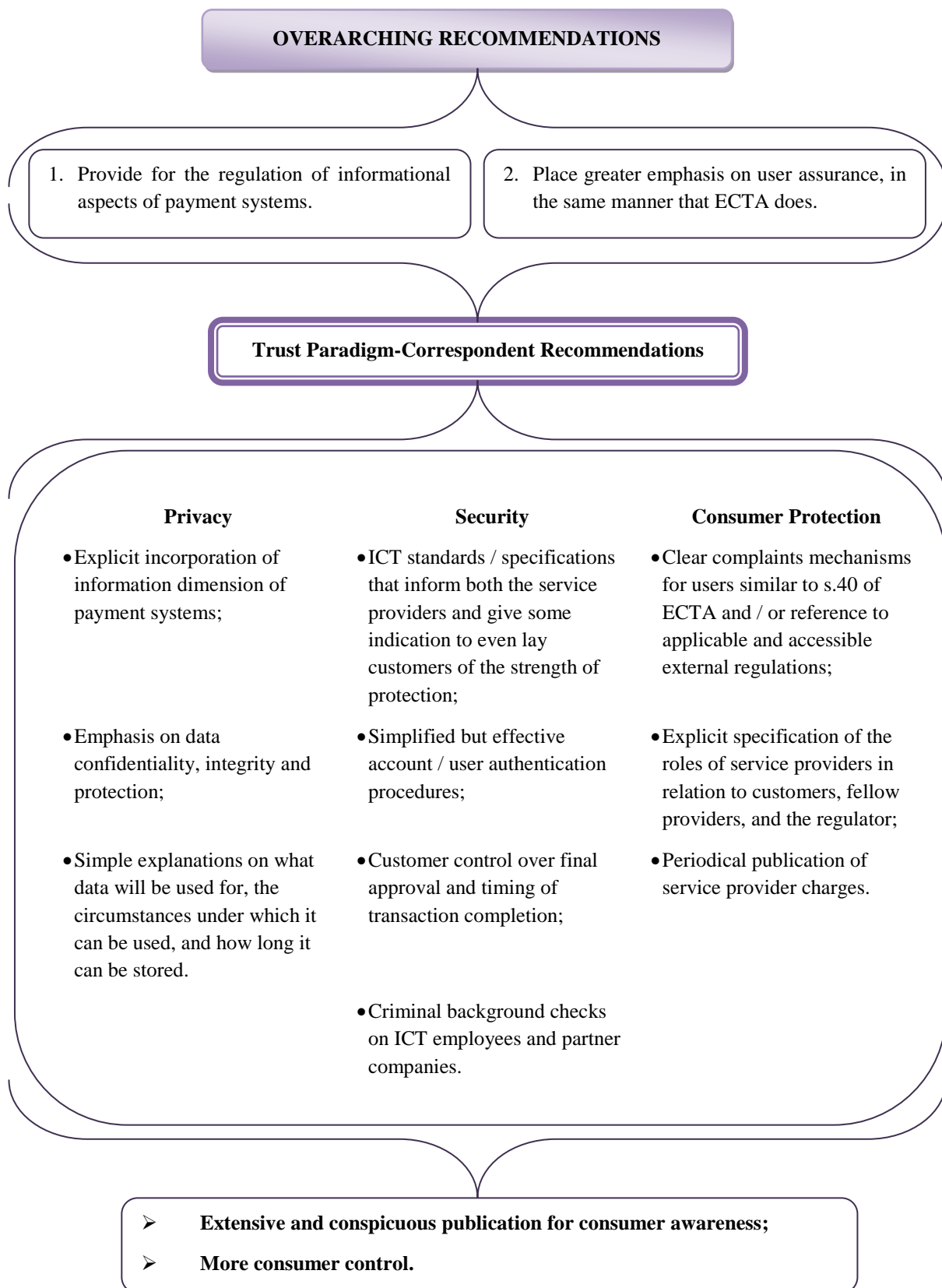
- a detailed but understandable provision on the entire payment process that covers agent selection, customer registration and activation, transaction processing and settlement, and error report generation for customer.<sup>181</sup> Stipulating the process in this manner reduces uncertainty in how customers' money is being handled during the payment process; and
- detailed technical specifications for the security and integrity of the payment process.<sup>182</sup> These Guidelines are in technical language and are aimed at service providers. It is the fact of their express specification that may add to security for lay users.

Figure 3 below summarises the three sources of recommendations of the study and fits them into the trust paradigm employed in the analysis. While the recommendations have been segregated into the elements of the trust paradigm for convenience, some of the recommendations fall under more than one trust component. For instance, criminal background checks on ICT employees and partner companies is both a security and a consumer protection measure. Figure 3 also places emphasis on two issues: the need to keep customers informed about relevant aspects of the payment system, and the need to give them as much control as possible in the way their money is handled while in the system.

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<sup>181</sup> RBM, Guidelines for Mobile Payment Systems, 9.0

<sup>182</sup> RBM, Guidelines for Mobile Payment Systems, 10.0



**Figure 3: Summary of the study's recommendations, in the trust paradigm analysis framework**

The starting point for reform is to realise that ‘guidelines’ for payment systems should include all players in the payment systems market – from regulators, to service providers (from all sectors), to the customers who make the systems viable.<sup>183</sup> Given the multidimensional nature of payment systems, this entails collaboration between the Bank of Zambia as payment systems regulator and ZICTA as ICT regulator. Service providers’ innovative and operational capabilities must also be taken into account. The costs of implementing more comprehensive guidelines are equally a critical concern because those costs will inevitably be passed on to the customers.

The needs of customers must also be given primacy in line with Central Bank policy of expanding formal financial service inclusion. A largely lay-reader-friendly document that promotes confidence in the privacy, security and consumer protection of payment systems may assist in channelling the substantial electronic communications penetration in the country into correspondingly substantial financial services utilisation. Ultimately, there is a simple fact that cannot be ignored in this regard: money is an extremely sensitive aspect of human existence. Without guidelines that allow customers greater control of their money within the payments system, customers will see no value proposition in formal payment systems.

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<sup>183</sup> Listfield and Montes-Negret, *Modernizing Payment Systems in Emerging Economies*

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