

REPORT

The Profile of Retail Payment Services and Models in South Africa Assessing the Potential to Increase Financial Inclusion and Market Participation

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PREPARED FOR FINMARK TRUST



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...a comprehensive solution can only come from viewing the next billion consumers through a prism of opportunity rather than obligation...

Sinha, J and Subramanian, A. The Next Billion Consumers: A Roadmap for Expanding Financial Inclusion in India. The Boston Consulting Group. November 2007. P 6.

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Executive Summary

The South African retail payment services landscape has developed significantly in the past few years. There is a wall-to-wall tapestry of payment services and models that cater for a range of diverse needs for entry-level customers and others. As the supply-side of the market has expanded through the breadth and depth of service suppliers, new types and styles of payment services have arisen, providing for greater potential levels of inclusion. In essence, South Africans that seek financial inclusion face a materially more accommodating landscape than was the case a few years ago.

The primary catalyst for the changes is arguably the sector-wide accord aimed at transformation and financial inclusion in the financial sector, known as the Financial Sector Charter, negotiated between government and industry and in force since 2004. In particular, the broad-based negotiations that resulted in the accord, and the subsequent commitment to deliver more accessible retail financial services, triggered the conviction among industry that there are innovative ways to serve previously un-served market segments in a commercial manner. The socio-political commitment to improve substantively access to financial services ultimately led to the business imperative of doing so. This resulted in a multiplicity of endeavours by both banks and non-banks to seek innovative methods to serve excluded markets.

In addition, the regulatory authorities have systematically adjusted the regulatory regime to accommodate more accessible payment services.

The opportunities of convergence within and across sectors also fundamentally changed mindsets about 'the art of the possible'. Innovation continues to happen and will surely push the current boundaries of services, business models, pricing, convergence partnerships and new suppliers.

At the same time, South Africa has a sizeable market segment that is not yet included in formal financial services.

The objective of the study is to review and analyse current South African retail payment models that have a positive impact on financial inclusion and market participation. The findings are based on desktop research, stakeholder interviews, mystery shopping excursions and a stakeholder workshop. The latter event was particularly useful to test initial thinking with practitioners, regulators and other researchers.

While the topic of the study is supply oriented, the report has chosen to tackle the review and analysis from the point of view of the customer, by asking: *what are the payment services needs of the unserved market?* This then forms the lens for further questions, notably: do current service offerings cater for these needs? How do new technology, new business models, improved competition, regulatory changes and so forth improve the market's ability to service entry-level customer needs? How do service offerings differ in this regard, that is: into which distinct payment services models can the various payment services in the market be classified?

In order to arrive at the point of constructing a portfolio of models, the report covers three essential building blocks.

- Firstly, **key concepts** are defined to ensure common views in a field characterised by dissimilar terminology and definitions. The key defined concepts include a group of associated notions: a 'payment' versus a 'deposit'; (retail) 'payment services'; and the 'payment system'. A second set of

three concepts that form the basis for analysing the selected services and defining the models are also described, namely: ‘financial access’ (or inclusion); the construction of a ‘basic need’ that serves to guide how transformational capability is measured; and thirdly, in support of moulding the basic need, the study also seeks to create a profile of a typical ‘unserved’ individual who ‘inhabits the twilight of exclusion’. Akin to successfully finding a single individual who experiences the national rate of inflation, so it is trying to define this typical unserved or under-served individual. But, what is apparent is that there is a reasonably common profile that defines South African individuals who remain unserved. They are poor, with intermittent incomes, predominantly black, rural and unemployed, but almost all have mobile phones and have an aspirational outlook.

- Secondly, a review of the **regulatory regime** that governs payment services and the associated rules for market participation is conducted. There are five layers of statutes and associated directives and position papers that cover the well-regulated field of payments, through the national payments system. The regulatory regime governing the financial system is a critical element in the retail payments services market. It is the view of the authors that the South African Reserve Bank, the custodian of banking and national payments regulation, exercises its role with considerable aplomb, maintaining the appropriate level of risk management, while being sensitive to market dynamics and responding thereto over time. The South African regulatory regime as a whole cannot be said to be an inhibitor of service innovation and improved supply-side responses to entry-level needs. There appears to be a suitable balance between the weight of compliance and risk, as exhibited by permitting non-bank parties to participate formally in the payment system as third party payment providers, and three layers of KYC compliance requirements depending on the weight of the risk that is likely to arise. There are, however, certain instances where the regulatory framework may be ambiguous and inadvertently impede both the participation of new market entrants, especially smaller entities, and prevent participation in particular ways due to an over- or under-compliance approach.

A key function of the regulatory regime is to manage **market participation in the national payment system**. There are **four tiers of participation** that define the rules about what types of institutions may involve themselves in particular payments related activities. The report considers these tiers from the customer’s perspective, unpacking each layer as they unfold outwards from those that have most direct impact on a customer, but which are least regulated, toward the core of regulation, namely settlement processes that only South African banks conduct through the SARB. As market dynamics have evolved in the payments industry, the number of supply-side participants has expanded, both in numbers and types of service providers.

- Lastly, a brief profile is provided of the twelve **retail service providers** that the sample of 30 reviewed payment services are drawn from. They fall into two main standard categories, namely, banks and non-banks. Banks include the four big banks, two smaller players (Capitec and Wizzit), and the public sector bank Postbank. Non-banks mainly provide third party payment services and include POCit, Flashcow, Net1, WiredLoop and Blue Label Telecoms.

While the focus of the study is retail payment models, the models are not the smallest unit of comparison; they are, instead, a way to group individual payment services together. The study creates an analytical tool to assist in profiling individual retail payment services, with the objective to aggregate or bundle individual

services, thereby distilling a portfolio of models. A customer-centric '**customer engagement cycle**' is used as the prism through which the universe of retail payment services' characteristics is delineated. The customer engagement cycle is used to profile the selected 30 services against the defined basic service need. The services that emerge with substantive common characteristics are bundled together to form **eight models** of retail payment services.

While some service features are shared amongst the models, there is at least one core distinguishing factor in each model to ensure that they are all mutually exclusive, but collectively form a relatively complete picture of the full retail payment services landscape.¹

The eight models that are the outcome of the review and model building process are summarised below (in no particular order):

- i. The '**Grocer**' Model – covers five of the 30-retail payment services reviewed, mainly national retail store-led, bank sponsored money transfer services. The customer experiences the service as if they were grocery shopping. No bank accounts are required on either end of the transaction. This model is most closely aligned with the basic need as defined. KYC compliance requirements fall within FICA Exemption 17.
- ii. The '**Poor Person**' Model – this is the Mzansi Money Transfer, also a pure no-account based money transfer service. It is a creature of the Financial Sector Charter and is treated poorly by both customers and suppliers. It has technical potential but seems to have the albatross of coercion around its neck. Compliance requirements are also Exemption 17 driven, but more complex than for the Grocer Model services as both sender and recipient are impacted.
- iii. The '**Mobile Money**' Model – essentially those services that through some mechanism create e-money on a mobile platform and enable it to be used in an eco-system of e-money. The lowest KYC requirements pertain here, governed by the 'prepaid' FICA exemption if so compliant. A customer's primary interface point is their mobile handset, and this defines the model. There are four services in this model, including FNB's *eWallet* and Flash's Flash Cow services.
- iv. The '**Smart Card**' Model – there is only one true smart card product offering in South Africa at present, namely that provided by Net1. It has high technology on the card platform, in the processing of on-line and off-line transactions and biometric customer verification. The customer experience is likely defined by the nature of the high-tech card and its dissimilarity to a bankcard. Currently it operates in its own closed loop proprietary system, much as all the bank services do through various levels of interoperability. Plans are afoot to integrate the card into the EMV environment. Compliance (KYC) is also Exemption 17 based.
- v. The '**Electronic Voucher**' Model – this model is defined by a card-based prepaid platform, offered by banks in concert with the card associations, Visa and MasterCard. Services need to be FICA Exemption 17 compliant.

¹ Note that the 30 services selected to represent the retail payment service landscape provide a snapshot at the time of the field research, namely early 2011. It is recognised that the market evolves and there may therefore be players and services not described in the report. However, the key characteristics and, hence, models, remain valid. Refer to Annexure 8 for the schedule of services included in the report.

- vi. The **'Buy & Pay' Model** – services here typically provide purchases and payment intermediation for mobile phone tops up, prepaid electricity, utility television licenses, lotto purchases and the like. A customer uses the service to buy or pay for services without the need to have a bank account. KYC requirements do not prevail at all.
- vii. The **'Mobile Banking' Model (or Mobile Bank Account Model)** – which is primarily different from the Mobile Money Model in that e-money is not created and stored on the mobile, it is accessed in an underlying bank account, at least on one side of the transaction, but often both. A customer experience is likely to be that they have an additional channel attached to their bank account, albeit in a more convenient way via their customer-owned handset. KYC requirements range from full FICA to Exemption 17, depending on the nature of the underlying account/s.
- viii. The **'Bank Account' Model** – this is the stock standard two-sided bank account model where customers are intermediated through a bank via a range of channels, from branch to internet to mobile. These services also have compliance ranging from full FICA to Exemption 17.

A key objective of the research is to establish the **transformational impact** of retail payment service models, namely: their ability to incorporate people who previously transacted only in cash/were financially excluded. The report will define an “ideal” basic payment service to meet a typical basic customer service need based on a number of parameters, including:

- **No need for an account**, i.e. the ability to conduct *ad hoc* transfers and payments;
- Single function or purpose services that can be used and paid for on a **'pay-as-you-go'** basis;
- **Direct costs** that are in line with the target market's low and intermittent incomes;
- Low transactional costs (**indirect costs**), generally achieved via either **broad distribution** infrastructure in areas close to the target market individuals' homes, places of work or commuting routes, or **customer-owned infrastructure** such as a mobile;
- Low **compliance requirements** to reduce indirect costs and complexity;
- The more **open the service's system loop (i.e. the more interoperable)**, the better. This factor is aligned with broad distribution footprint; and
- Use of the service can be **packaged with other activities** or transactions the customer may have, which reduces transactional costs and/or improves familiarity with the service.

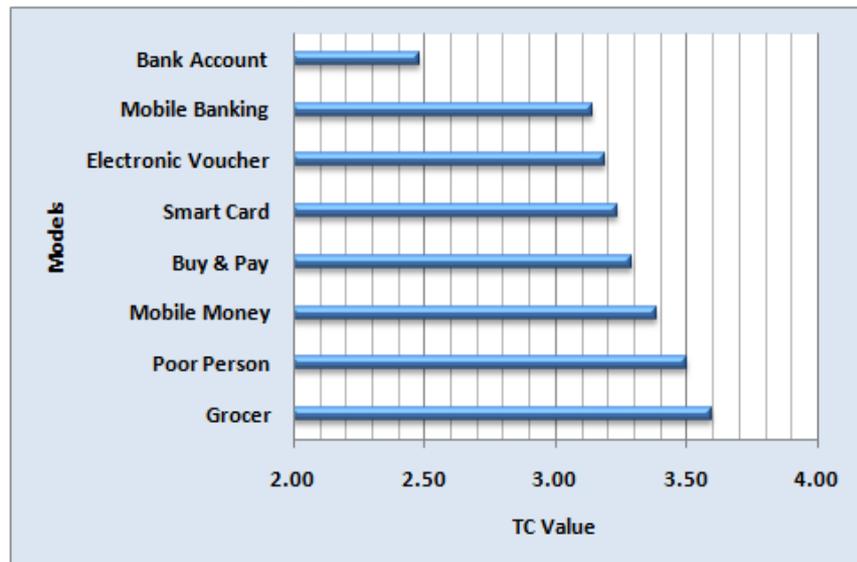
The selected services and models are then compared against these and other parameters. In this manner the relative transformational capability of the services and models, as defined for the purpose of this study, is determined². The models that exhibit the above factors best tend to be the ones that are most transformational.

The output value is calibrated between 5 (high) and 1 (low). All of the selected services have a value output over 2. That is, they are all inherently transformational, as this was the intuitive basis for selecting them.

² Note that these values are ultimately subjective, defined by the authors based on an assessment of a number of parameters or product features, viewed from the perspective of the customer. In order to group and classify the individual services, we compiled a spreadsheet tool, the *ModelMatrix*, to allow comparison among a number of parameters so as to assign transformational capability values to each characteristic for each individual service, based on the defined basic need/service. The *Matrix* is not an objective tool, it is an attempt to create a form of consistent empirical profiling, based on the definition of what a basic service is.

The relative transformational value for each of the eight models is set out in the figure below. The values range from a low of 2.48 for the Bank Account Model to a high of 3.60 for the Grocer Model.

Models | Transformational Capability



According to our assessment, the most transformational of the models is the one that contains the most transformational services, the Grocer Model, followed closely by the Mobile Money Model and Smart Card Model.

Past, present and future | conclusions and recommendations

The eight retail payment services models described in the report provide a **snapshot of the current state of the market** and reflect the prevailing market conditions. The South African retail payment services landscape has changed markedly over the past seven years as existing and new bank and non-bank players started seeking commercial ways to serve the under- and unbanked markets. A number of factors have shaped the evolution of the market:

1. **Country conditions:** As can be learned from the well-documented Kenyan experience with M-Pesa, a number of conditions may be the incubator for large-scale take-off of innovative retail payment services that aim to go beyond the traditional branch-based model. These include very high levels of financial exclusion, low reach of the classic banking system, a flexible regulatory regime, high penetration of mobile telephony and a strong demand for a money transfer service. In South Africa, not all of these conditions hold. While mobile penetration is high and there does seem to be a strong money transfer demand, the banking sector is sophisticated and the majority of the population is banked. Nevertheless, a substantial part of the population has traditionally been excluded and uptake numbers would suggest that new, alternative ways of engaging with financial services are gaining traction³.

³ For example, FNB announced on 31 May 2011, based on a recent report by global market research firm TNS, that its cell phone banking and e-Wallet customers have now passed the 3 million marks. ABSA is close on its heels, reportedly now with 2.7 million cell phone banking customers. Nedbank and Standard are thought to add another 500,000 customers using cell phone banking (Business Day, 31 May 2011).

2. **New entry and convergence:** Market dynamics have changed over time, sparked partly by the entry of nimble technology-driven players, as well as the increasing interest of other entities that are traditionally outside the financial services space, but that have a large customer base that can be leveraged and that see a potential for diversification of income. Examples of such new players include retailer chains, technology companies and telecommunication companies. This has in essence led to a “convergence” across industries. This process has played off within a bank-based model, as mandated by the South African regulation, whereby all models involve a bank as partner. Nevertheless, the role of banks has changed somewhat from primary players or drivers in the partnership, to co-players along with partners such as retailers, telcos and technology firms. The telcos, retailers and technology companies are generally able to deliver certain services at materially lower costs than through the banking infrastructure, to the direct benefit of customers.
3. **Innovation by banks:** The innovation and increased movement in the non-bank space has enhanced competition that, in turn, has spurred innovation on the bank front. Banks are increasingly aware that there is scope for them to be disintermediated by entities that can do much of what they do, better, faster and at lower costs, and have close relationships with large chunks of the market. There is also a growing sense of competition *between* banks to gain the edge in the ‘new frontier’ provided by innovative retail payment services.⁴
4. **Increased awareness of demand-side needs:** The Financial Sector Charter had a clear demand-side orientation, sensitising suppliers to the particular needs and capabilities of entry-level customers. Banks and other financial service providers were galvanised into action, first producing collective (industry-wide) socially-oriented service solutions such as the Mzansi Account and Mzansi Money Transfer services, and then progressing to develop proprietary solutions for entry-level consumers. Many of the services that are reviewed in the report are ‘children of the post-FSC wave’. Financial service providers realised that the entry-level market could be served commercially by innovative solutions, such as retail-led transfer services or mobile banking.
5. **Global developments:** The South African financial services dynamics are very much aligned with financial service developments elsewhere in the world. South Africa continues to be an incubator for new ideas and practices in the domain of making financial services more accessible to a broader market place.

To summarise: the recent ‘step up’ in the retail payment services market and increased levels of participation has improved creative competition, which seems to lead to greater educational knowledge and appreciation of accessing and using financial services, e.g., via a mobile handset. As the converging

⁴ This trend is described in a recent quote by John Campbell, business development executive at Standard Bank’s *Beyond Payment*, who stated that there is no doubt that one senses “a ‘land grab’ is under way in SA’s cell phone and banking industries as big companies — retailers, banks and telecommunications operators — begin vying for a stake of the fast-emerging market for mobile payments. All the big banks and mobile operators are experimenting with different models, trying to find the one that will prove a massive success. There’s no question of the banks backing away, either, as they view mobile payments and commerce as core to their future strategies. That means the fight could soon turn into a full-scale war.” <http://www.techcentral.co.za/inside-sas-mobile-payments-land-grab/13674/>.

marketplace continues to break new ground it is likely that the range and depth of financial service providers will increase, enhancing financial inclusion across the board.

In future, it will be important to increase the **levels of collaboration** (e.g., sharing of distribution networks) and interoperability to broaden the depth and breadth of financial inclusion. The **regulatory regime** will continue to play a core role in facilitating such development. A responsive and adept regulatory regime is guided by market developments and allows the regime to evolve in such a way as to appropriately manage risk. While the South African regulatory regime has generally enabled competition and has effectively balanced risk with regulation, there is room for appraising both the impact of FICA (KYC requirements) and the duplicative requirements of RICA to ensure that there is a correct and consistent interpretation by all participants. This could lead to higher levels of financial participation on both the supply and demand sides.

1 Introduction

1.1 Objective

The primary objective of the project is to **map the landscape of retail payment (services) models in South Africa.**

The objective context is to **consider the roles that such models are playing and can play in the expansion of financial inclusion (and market development) in South Africa.**

While retail payment services (RPSs) models evolve as payment services (types) arise and develop, the intention is to create a wall-to-wall map of **transformational** payment services models as they exist at a specific time in South Africa.

The terms of reference set out five core **objectives** for the research, namely, to:

- i. **Scope the market** by identifying the retail payment services models that currently shape the market, with a view of those that may be imminent and those that have been discontinued;
- ii. **Profile the market** via the variety of models that prevail, from the availability of information to access services through to the pricing structures;
- iii. **Establish the demand for services**, by understanding consumer needs and matching these to services offered;
- iv. **Understand the role and impact of financial sector regulation**, by assessing the relationship between the regulatory regime and market dynamics; and
- v. **Establish what barriers may exist**, regulatory or otherwise, that may impede or constrain supply-side developments.

The essential thrust of the research concerns the link between retail payment services (RPS) as a particular type of financial service and their impact on the general matter of financial inclusion. While the notion of RPS 'models' is established in the scope of work, there are no inherent systemic models; they are merely an operational outcome of choosing a particular analytical approach to how the portfolio of existent RPS are examined.

1.2 Background

The macro-context for research into the prevailing retail payment service models in South Africa is consistent with FinMark Trust's aim of making financial markets work better for the poor. The poor tend to be systemically excluded from formal participation, largely due to the market simply not

Payment systems are critical to a well-functioning modern market economy. Despite a global history of extensive self-governance, payment systems are increasingly being asked to validate governance arrangements against key public policy requirements such as system stability, fair competition, system efficiency and innovation. Successful payment system self-governance now requires a co-regulatory partnership between industry and regulators.

International Council of Payment Association Chief Executives. *Principles of Payments Industry Self-Governance*. November 2007. P.1.

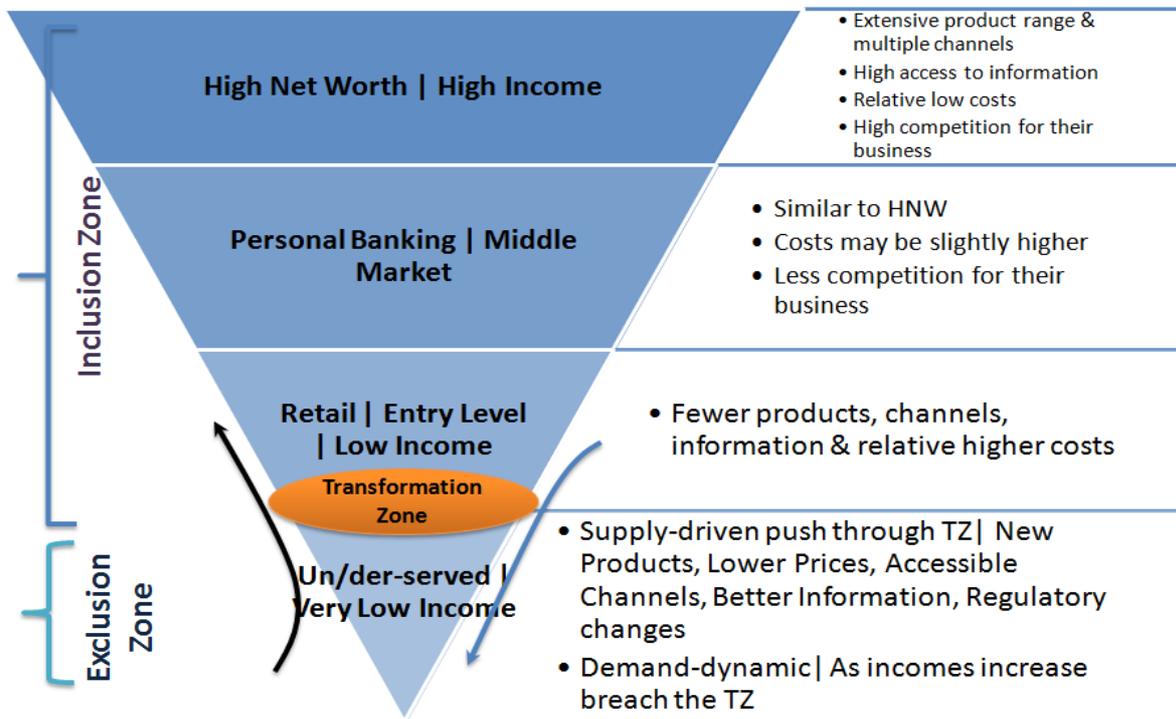
providing suitable services for their particular needs. While there are pockets of involuntary unserved markets in every country, often characterised by relatively low levels of poverty; in many developing countries large proportions of people are excluded from participating in the formal financial system, also due to relative poverty conditions.

In a hierarchy of financial service needs, one of the primary requirements, if not the most basic, is a simple payment or money transfer service, enabling a person to transmit (send) cash to another person through a safe, secure and low-cost service, with neither party having to ‘own’ a bank account; or to buy goods or services without the need for a bank account, but also without the need to use cash.

Evidence abounds that the formative driver of financial service needs is income, both the size of income and the nature and frequency thereof.⁵ There is a positive relationship between income and breadth and depth of financial needs. This inherent relationship is directly applied by financial service providers that tend to segment the market based on a person’s income and/or net wealth.

Figure 1 illustrates the relationship between low income and low levels of access.

Figure 1 | Inverted Pyramid: Access to Financial Services



The narrowing end of the pyramid indicates the relatively lower level of access to financial services that individuals have as a function of their economic status and income. Below the **Transformation Zone** (TZ) there are people who have no access or intermittent access; they exist in an **Exclusion Zone** (EZ). In South Africa the EZ is still material: 32% of adults do not use any kind of formal financial

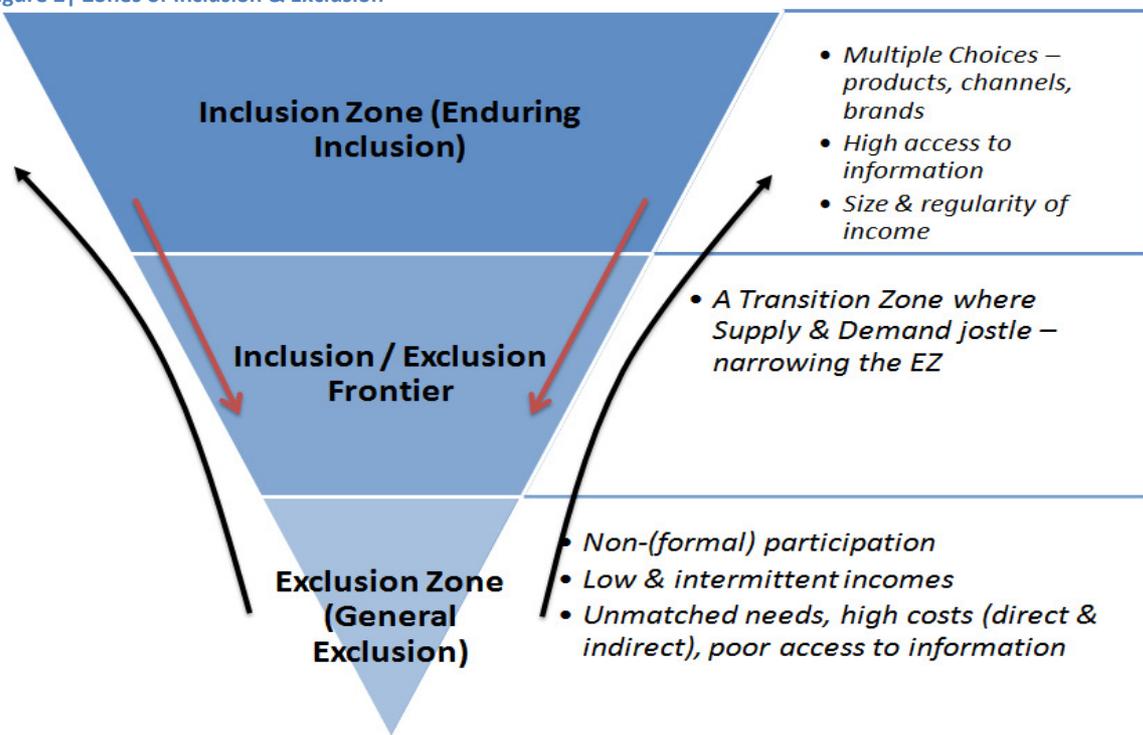
⁵ Financial Inclusion. *Concept, Issues and Roadmap*. Presentation by Dr. K C Chakrabarty. Chairman and Managing Director, Indian Bank, Chennai. At Institute for Development and Research in Banking Technology, Hyderabad. 02.09.2006. FinScope™ surveys all provide primary reason for non-inclusion as ‘no money’ or ‘no job’. Factors such as unsuitable products are secondary reason for lack of access.

services (FinScope™, 2010)⁶. On the demand side the factors that determine why a group of people are excluded from formal financial services includes self exclusion or simply their levels of poverty relative to the available services to match their needs. On the supply side, a reason for un- and under-served market segments is that the ‘right’ services or solutions have not yet been created, in other words the product-performance function is not suitable for entry-level segments in the EZ.

Over time, (*ceteris paribus*) as peoples’ economic circumstances improve they move up through the TZ and enter the formal financial system. In addition, supply-side developments via business innovation, regulatory changes or technology enablement are able to push the TZ itself downwards, resulting in a shrinking EZ. *Figure 2* attempts to capture these dynamics.

A key objective of the research is to better understand what combination of factors come together to move the **Transformation Zone** so that the EZ shrinks. The current set of RPS are a litmus test for how the TZ can be breached on an ongoing basis as new services, channels, service platforms and business models are developed, while regulatory adaptations enable such developments.

Figure 2| Zones of Inclusion & Exclusion



⁶ The notion of ‘excluded’ has a particular definition in the work of FinMark Trust and FinScope™. This does not necessarily tie in with the definition applied in this report. Thus, reference to a quantum of the excluded segment is only used as a point of orientation.

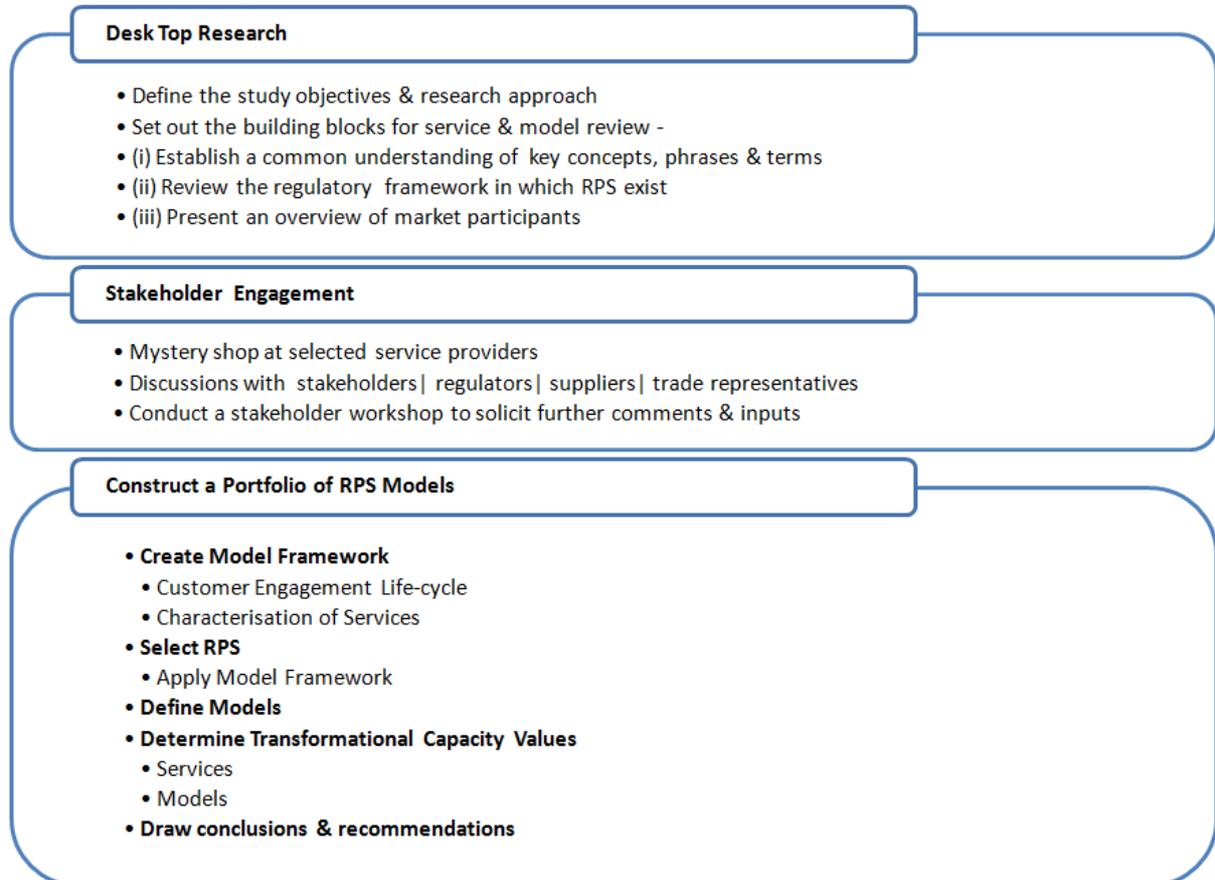
1.3 Research Approach| Report Structure

The research approach is qualitative. At its core is the mapping of current retail payment services into typologies of models.

The general prism applied to the subject is from the experience or position of the customer, i.e., a demand-side view as opposed to a supply-side, regulatory or institutional view. The client-centric approach serves to define what needs are being met, rather than just what is being supplied. The features of individual services are used to construct a portfolio of models that are juxtaposed with the basic needs of a typical entry-level customer.

Figure 3 below sets out the research components and process. Desk-top research provides the primary basis for the report. This is supplemented by a range of stakeholder engagements activities, including a mystery shopping exercise, personal discussions with service providers, regulators and others, and a mid-term stakeholder workshop.⁷

Figure 3| Research Components & Process



A central piece of the research is to create a common base for appreciating and applying key concepts. This is achieved through a characterisation exercise of each of the important concepts, phrases and terms, found in section 2. These elements also comprise building blocks towards the review of services and models.

⁷ Refer Annexure 2 for a list of stakeholder workshop attendees.

Between the aforementioned building blocks and the construction of the models, is a desk-top review of the current regulatory regime and market participants, found in sections 3 and 4. This is an essential environmental context that informs retail financial services.

The fourth element of the research involves the construction of an analytical tool to review and analyse the portfolio of RPS and models, the customer engagement cycle. The *ModelMatrix* also provides a way to gauge the transformational potential of different services and models, based on the previously defined basic need. This is set out in section 5.

Section 6 is the heart of the analysis. It provides an overview of each of the eight models identified through the research.

The final element of the report, section 7, draws conclusions and recommendations based on the results of the research and review of the services and resulting model typologies.

2 Constructing a Common Understanding| Key Elements

In the arena of financial services there are many fundamental concepts, phrases and terms. While the manner in which these are defined and interpreted are essential elements to a common understanding of the subject matter, there is no inherent universal interpretation of such matters. The stakeholder workshop convened as part of the research process reinforced the above point. Participants were adamant that a useful contribution to the field of financial services research and practice would be to build a common language set and interpretation thereof.

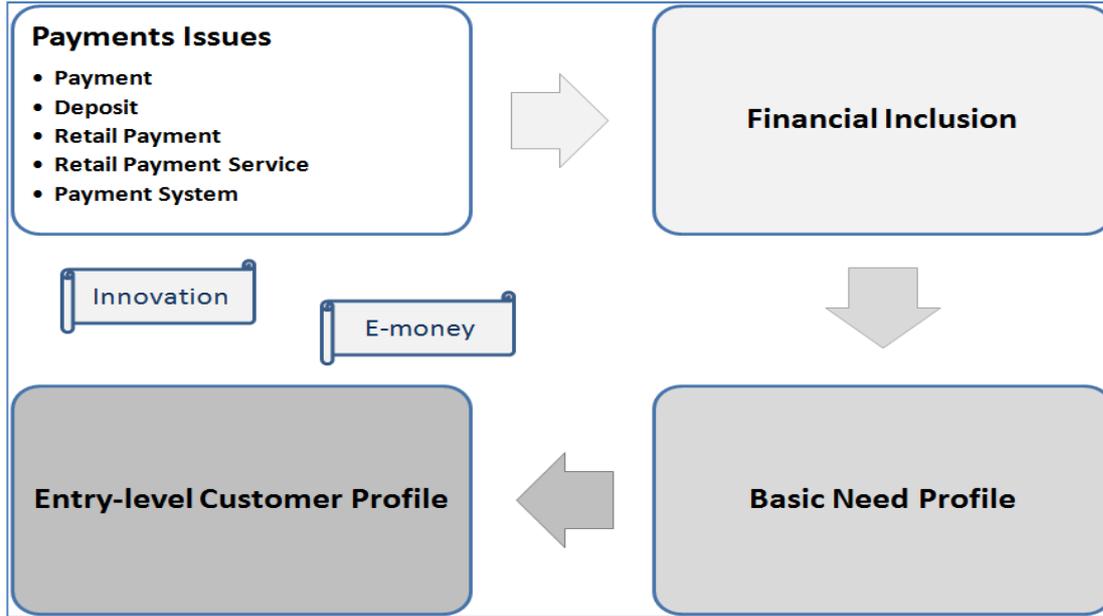
The body of research in the report includes many key terms that could become part of the common lexicon set, at least for South Africa. While the glossary covers a broad range of acronyms and terms associated with payment services, the essential ones are discussed and defined below as they give particular expression to the research scope covered in the report, and those that form the key customer-centric points of departure that will inform the rest of the analysis.

The core concepts discussed here will form the building blocks, along with the regulatory market participation framework as set out in section 3, for the subsequent main section of the report.

Figure 4| Constructing a Common Understanding| Key Elements sets out the scope and sequence of these conceptual building blocks:

- First up is a review of five closely associated terms; **'payments'**, **'deposits'**, **'retail payments'**, **'retail payment services'** and **'payment system'**.
- Following their review is a discussion of the notions of financial **inclusion** (and **exclusion**);
- This forms the basis, in turn, for creating a profile of a typical entry-level **customer need**; and lastly
- Lastly, a construct of a typical entry-level **customer profile**.
- In between, two other topical notions are discussed, namely **innovation** and electronic money (**e-money**).

Figure 4 | Constructing a Common Understanding | Key Elements



2.1 Payment-related Concepts

'Payments' vs. 'deposits'

A payment is not necessarily the same financial transaction as a deposit. In fact, by law, they are distinct.

A **'deposit'** is defined as follows in the South African Banks Act: "when used as a noun, (it) means an amount of money paid by one person to another person subject to an agreement in terms of which -(a) an equal amount or any part thereof will be conditionally or unconditionally repaid, either by the person to whom the money has been so paid or by any other person, with or without a premium, on demand or at specified or unspecified dates or in circumstances agreed to by or on behalf of the person making the payment and the person receiving it; et seq."⁸

Only banks may be in the business of deposit-taking, 'the business of a bank' means – "(a) the acceptance of deposits from the general public ...as a regular feature of the business in question; et seq."⁹

A **payment**, in contrast, is a more specific concept that sometimes, but not always, will entail a deposit and that

Political freedom is also an important ingredient. Because innovation often requires the exchange and expression of ideas, the freedom to dissent is particularly important. Also, since innovation is often encouraged by a desire for profit, secure property rights serve as an incentive by ensuring that innovators are secure in the fruits of their labor. Scientific, as well as artistic or philosophical, innovation tends to be greater in countries with greater political freedom. Moreover, political freedom requires an innovation to satisfy the consumer, rather than the political authorities, if it is to succeed.

<http://www.econlib.org/library/Enc/Innovation.html>

⁸ The Banks Act, 1990. Section 1.

⁹ *Ibid.*

therefore in certain instances may also be provided by a non-bank. The Bank for International Settlements (BIS) defines a **payment**¹⁰ as “the payer’s transfer of a monetary claim on a party acceptable to the payee. Typically, claims take the form of banknotes or deposit balances held at a financial institution or at a central bank.”¹¹ This is quite a narrow set of defining parameters.

In a South African context the word ‘claim’ excludes payments where no obligation (claim) exists, and is then regarded as a deposit. An ‘acceptable party’, either a bank or an approved payment provider (third party payment provider) must be the intermediary somewhere in the transaction if there is a claim, i.e., the payment is not a deposit. In instances where there is no latent claim, the payment is a deposit and only a bank can intermediate the payment. To summarise; if the transaction is a ‘payment’ it is associated with a claim against it and particular rules apply to how such payment is intermediated. The SARB applies the above definition.

Elsewhere, a broader definition is favoured. The Federal Financial Institutions Examination Council’s (FFIEC) examination handbook (2010)¹² defines a **payment** very simply as “a transfer of value”. This is a much more inclusive definition than that applied by the SARB.

For the purpose of this report we suggest a broad working definition of the term “payment”, rather than its narrow regulatory meaning, namely: **a transfer of value between two parties where an obligation may exist between the parties; and where value is defined as value in exchange**. Such a working definition bridges the gap between the two narrow definitions for ‘payment’ and ‘deposit’ in that it extends the concept of a payment to also include certain types of transfers that would, technically, qualify as a deposit.

‘Retail’ payments

While ‘payment’ as defined above is a generic or umbrella term, the report deals with a sub-set thereof, namely ‘retail’ payments. The ‘retail’ notion is explained as follows:

- The FFIEC describes **retail payments** as those that, “...usually involve transactions between two consumers, between consumers and businesses, or between two businesses. Wholesale payments are typically made between businesses. Although there is no definitive division between retail and wholesale payments, retail payment systems generally have higher transaction volumes and lower average dollar (*rand*) values than wholesale payment systems.”¹³
- The BIS defines **retail payments** as “all payments which are not included in the definition of large-value payments. Retail payments are mainly consumer payments of relatively low value and urgency”, and ‘large-value’ (wholesale) payments as “payments, generally of very large amounts, which are mainly exchanged between banks or between participants in the financial markets and usually require urgent and timely settlement.”

¹⁰ Bank for International Settlements. *A glossary of terms used in payments and settlement systems*. Revised Edition. March 2003.

¹¹ The SARB applies this definition. Discussion with member of the SARB, National Payment System Department. 10 April 2011.

¹² Federal Financial Institutions Examination Council. *Retail Payment Systems*. IT Examination Handbook. February 2010.

¹³ *Ibid.* P. 4.

From the above it is clear that there are three primary dimensions that define the notion of ‘retail’ versus ‘wholesale’ payments, namely, (i) the size of the value involved (which is about level of risk from a regulatory point of view¹⁴), (ii) the aggregate volume of transactions, and (iii) transactional timing. There may be an additional aspect that concerns the transacting parties, which generally implies an individual on at least one end of the transaction, but not necessarily if the transacting parties are small- or micro businesses. Perhaps an order of precedence can be implied for these dimensions too. The essential factor that separates retail from wholesale payments is size, and thus level of systemic risk.

Building on the previous working definition for ‘payments’ and consistent with the three dimensions set out above, the working definition for a ‘retail payment’ applied in this report is: **a transfer of relatively small value between two parties where an obligation may exist between the parties; and where value is defined as value in exchange.**

In summary, the working definition of a ‘retail payment’ used here includes instances where there is a ‘no obligation transfer of value’ between parties. This essentially includes payments and deposits (money transfers) in a single definition, something that is not usual practice in regulation. The landscape of retail payment services considered in the report, however, includes both types of transactions and there is often little if any difference between the two from the customer perspective.

Retail Payments ‘Services’

The fourth element in this initial building block encompassing key terms and concepts is the notion of retail payment ‘**services**’.

The South African Reserve Bank defines ‘**payment services**’ as “...being the services whereby a **bank** enables its clients to:

- (a) Make third-party payments by providing its clients with the means to issue payments to the clients of another bank or the other bank itself, through direct access to their (the bank’s clients’) bank accounts.
- (b) Receive payments directly into their (the bank’s clients’) accounts from clients of another bank or the other bank itself.

¹⁴ It is of interest that the SARB makes specific reference to the matter of value size and sets specific limits to what it believes are ‘retail’ size values for various payment instruments. Refer the SARB Document. *Oversight of the South African National Payment System*. “This resulted in a limitation on item values for specific payment instruments in the retail payment system (e.g., cheques, EFT credits and ZAPS have an item limit of ZAR5 million, while EFT debit transactions are limited to ZAR500 000). EFT credits originate whenever a customer of a bank issues a payment instruction to his or her bank via various delivery channels to make an electronic payment to a third party, accepting that such payment will not be made immediately, but either later that day or on a future date. The ZAPS system is a SWIFT-based payment stream used for electronic credit payment instructions (a payment stream is an environment created to clear and settle instructions emanating from a specific payment instrument). EFT debit is a facility in terms of which somebody can collect money from another person’s bank account, without that person having to do anything other than to give such person written or recorded voice approval to do so.”

(c) Withdraw cash at another bank.”¹⁵

The essential elements contained in the above expression are set out below.

- i. The **institutional dimension** | A service rendered by a **bank** to a person or entity that is a client of the bank. Non-banks cannot be involved in payment services, other than through a particular kind of relationship with a bank, i.e., as third party payment providers that have been sponsored by a bank.
- ii. **Making payments** | The bank provides enabling capability to its clients so that they can **make payments** to other people or entities who are also that bank’s clients or clients of another bank, or simply to another bank.
- iii. **Bank account access** | The enablement is done through **direct access to the various parties’ bank accounts**. It is assumed that clear rules and protocols govern the accessing of bank accounts.
- iv. **Receiving payment** | The converse of initiating a payment is **to receive a payment** from another client of the bank, or the client of another bank, or another bank itself.
- v. **Cash may be withdrawn** | From a client’s account, via another bank.

In our view, while a ‘payment’ could include two individuals exchanging cash, a ‘payment service’ excludes a direct cash to cash exchange as there is no intermediation in the exchange.

In any instance where cash enters the formal banking system and becomes either (i) a deposit – as defined by the Banks Act, or (ii) or passes through the banking system directly or indirectly, it is a ‘payment service’. This is the working definition applied for the purpose of this document. Where there is no formality of a ‘service’, there is essentially no interest in the activity as far as this report is concerned.

To aid a practical appreciation of what the above definitions imply, a range of illustrative retail payment services are set out in *Table 1 | Illustration of Retail Payment Services*. These examples test the application of the working definition adopted for the purpose of this report.

While there are a number of non-bank players hovering in and around the system, the retail payment system has been and continues to be viewed as a privileged banking space since banks are the only organisations with immediate and unmediated access to official clearing and settlement systems. Historically, this has to do with their role in the monetary transmission process, their ability to create credit and the fact that they are regulated as deposit takers.

The National Payment System and Competition in the Banking Sector. A report prepared for the Competition Commission Executive Summary and Synopsis March 2006. Feasibility. P 2.

¹⁵ SARB. National Payment System Department. Bank Models in the National Payment System. Position Paper number 01/2007. Emphasis added.

Table 1 | Illustration of Retail Payment Services

Item	Transaction	Is this a Retail Payment Service?
1	Person 'a' physically hands over a R100 note to person 'b', it is a gift	N
2	Person 'w' sends R100 in value to person 'h' via airtime on a mobile phone; it is part repayment for a loan	N
3	Person 'e' buys pre-paid electricity from a local reseller operating a roadside kiosk	Y
4	Person 'e' on-sells some of their prepaid electricity to a neighbour	N
5	Person 'd' obtains their weekly wage in the form of airtime – mobile phone to mobile phone	N
6	Person 'd' resells the airtime he received as wages to fellow taxi commuters on the way home, he doubles his earnings for the week	N
7	Person 'd' is paid in cash for the resale of his airtime	N
8	Person 'x' pays their clothing electronically account via a third party payment provider (TPPP) at a retail store	Y
9	A township shop owner ('homeshop' or 'spazashop') pays their assistant's (person 'j') weekly wage via a mobile e-money service – owners' mobile phone to the assistant's mobile phone. The owner has a bank account linked to the e-money function. The assistant has no bank account	Y
10	Person 'j' sells part of their weekly wage, in form of airtime, part to buy bread and part to buy cash to give to their child	N
11	Business 'k' (an airtime reseller) pays their wholesale airtime provider via their own PoS device	Y
12	Person 'z' uses their biometric smart card to buy groceries and draw cash from a retailer	Y
13	Person 'f' does an EFT for R100 from their current account to a family member's savings account	Y
14	Person 'v' pays for a movie ticket at an electronic device via credit card	Y
15	Business 'm' pays its staff via a TPPP who specialises in payroll processing	Y
16	Person 's' uses the internet channel to transfer R1,2 million from their money market account to the car dealer where they have bought a new SUV	Y
17	A hospital consortium makes an EFT to a supplier for new medical equipment to the value of R25 million	N

For example, item 1 is tagged as not being a payment service. It may be a payment but it is not a 'service' as it does not touch the payment system at all as described in the NPS Act. It is simply a cash-to-cash P2P payment outside the 'formal financial system'.

To conclude this section, the report is concerned with **retail payment services**, which are (i) small value payments, (ii) made through formal intermediation, (iii) whose backbone is the banking (payment) system, and (iv) include 'no obligation' payments (money transfers aka deposits).

The next section considers the concept of a 'payment system' in more detail, as the backbone to retail payment services.

The Payment 'System'

According to the NPS Act, a payment system is "...a system that enables payments to be effected or facilitates the circulation of money and includes any instruments and procedures that relate to the system".¹⁶

The FFIEC states that it is the "mechanisms, rules, institutions, people, markets, and agreements that make the exchange of payments possible"¹⁷.

The BIS states that "...a payment system consists of a set of instruments, banking procedures and, typically, interbank funds transfer systems that ensure the circulation of money." This is the definition used by the SARB.¹⁸

The Payment Association of South Africa (PASA) unpacks the term into digestible bits as follows: "In order for a payment stream to function, it requires customers to access it via instruments and channels, such as bank cards, branches, Automated Teller Machines (ATMs) and Point of Sale terminals (POSs). A payment stream combined with these access mechanisms and channels, as well as its technical specifications, legal and business agreements and the related risk mitigation procedures that enable the end-to-end transfer of funds as well as the origination and finalisation of non-value transactions (e.g. balance enquiries), jointly form a payment system."¹⁹

The report essentially understands the payment system as the **collection of regulations, rules, institutions, processes, payment instruments, channels and so forth that make it possible for payments to take place in a secure, predictable and auditable manner.**

...despite political and strategic imperatives to reduce cash usage, and the fact that it accounts for a falling proportion of retail payments, cash is still the predominant retail payment method in Europe. It accounted for 78% of the 388 billion retail payments in the continent in 2008, or nearly 301 billion transactions.

There are opportunities for greater levels of cash substitution in an "accelerated" scenario, but it is forecast that cash would still represent 56% of retail payment transactions in Europe in 2014...

EPC Newsletter. SEPA for Cash. Significant Growth in Cashless Payments in Europe. Yet cash will remain predominant payment method in 2014. Rob Walker. 29 April 2010. P1, 3.

¹⁶ NPS Act (No. 22 of 2004), *op cit*.

¹⁷ Federal Financial Institutions Examination Council, *op cit*.

¹⁸ SARB. *Oversight of the South African National Payment System, op cit*, P 1.

¹⁹ PASA. *Overview of the payments environment*. May 2008.

Innovation in financial services | What is it?

During the course of the stakeholder workshop a point was made that the financial sector, and perhaps the banking industry in particular, had not been terribly innovative in its endeavours to improve supply-led inclusion. The following discussion and examples provide content to this discourse.

A sub-text of the report's enquiry touches on the question of 'innovation' in retail payment services, i.e., what new, original or advanced services, products, business models, channels, processes, platforms, technology or information have been developed and deployed in the realm of RPSs, which have led to improved levels of inclusion?

This begs the next question, namely: what defines 'innovation'? Here are some suggested definitions:

- *...the creation and implementation of new processes, products, services and methods of delivery, which result in significant improvements in outcomes, efficiency, effectiveness or quality.*

(<http://innovationunit.wordpress.com/2009/08/19/171/>. 13 April 2011)

- *Innovation is not invention: To innovate, you need to develop working models in practice as well as good ideas in theory. Innovation is not improvement: To innovate, you need to create qualitative rather than incremental shifts in performance.*

(<http://innovationunit.wordpress.com/2009/08/19/171/>. 13 April 2011)

- *Technically, 'innovation' is defined merely as 'introducing something new'; there are no qualifiers of how ground-breaking or world-shattering that something needs to be—only that it needs to be better than what was there before.*

(http://www.businessweek.com/innovate/content/jan2006/id20060131_916627.htm. 13 April 2011)

Innovation | South African RPS

To give some sense of practical application in a South African context, reference is made to a view expressed by National Treasury in a recent publication, *A safer financial sector to serve South Africa better*. It states that, "Across the world, there has been an explosion in new technologies and innovative approaches towards banking. South Africa is no different. By reducing costs, and taking banking to all corners of the country, many of the previously unbanked have benefited." Furthermore the document lists eight instances where "technology and innovation" have been used to "expand access to banking":

- **Domestic money transfer systems.** For example, national-scale retailers facilitate P2P transfers and third party payment services. Innovation is about distribution networks, regulatory changes and systems integration;
- **Prepaid cards** – innovation is in product platform and funding;
- The '**community banking mobile-banking account**', such as M-PESA. Innovation is in the arena of technology applied to new business models;
- **Virtual payments** (mimoney). E-money offerings are in technology and regulatory changes;
- **Cash and cash-back at point of sale.** Innovation in distribution and technology;
- **Transaction notification services** arises through technology enablement;
- **Real-time Clearing** (RTC) of transactions is also technology enabled; and
- **Early debit orders** (EDOs) have become possible due to technology developments and processing capability.

All of these innovations could be deemed to impact retail payment services, particularly from the customer's experience. Technology, particularly the power of the customer-owned mobile phone handset and the integration of large retail computer systems networks with banking IT infrastructure, has had an enormous influence on the customer experience.

2.2 Financial Inclusion| Exclusion

The notion of ‘financial access’ is about the states of financial inclusion and exclusion, i.e., if a person has access and uses a service they are deemed included. In general this condition applies to individuals, although the principles apply to business entities too. In the report the focus is on individuals, but by implication, however, many micro- and small businesses are included in the domain of individuals as these are often one-person enterprises.

As the case has been with the other concepts discussed in section 2.1, there is no universal definition describing ‘financial inclusion’, but there are two general categories of definitions. The first can be termed the ‘narrow’ definition, and suggest that access is simply the availability or not of ‘suitable’ financial products and services.

The second is much broader and tends to include a range of factors beyond simply whether there are services ‘on the shelf’, as it were.

The broad definition is consistent with the notion of ‘functional inclusion’ and the narrow one with ‘formative inclusion’. Functional inclusion represents on-going and sustainable (financial) inclusion, i.e., there is actual service usage on an on-going and sustainable basis as there is an inherent link between the needs of the customer and the service provided. A mismatch between the need and inappropriate service supply results in the kind of dynamic where hundreds of thousands of entry-level accounts are opened, seldom or ever used, go dormant and are then closed by the supplier. This is a ritual that banks in particular go through.

Cenfri defines financial inclusion in a similarly broad manner, noting that it is “...achieved when consumers, particularly low-income consumers, can access and on a sustainable basis use financial services that are appropriate to their needs. The aim of financial inclusion is not only to ensure that users are not excluded from the formal sector, but that they actively use financial services”.

To design effective policies and track progress policymakers need to measure financial access. While a growing number of countries collect data on the availability and use of financial services, there is no consistent set of global financial access indicators to allow comparison across countries and over time... A basic challenge in measuring financial access is differentiating between the access to and use of financial services. Individuals may choose not to open a bank account or to borrow even if these services are available, reducing use relative to access. Such voluntary exclusion is difficult to measure... What are the best indicators of financial access? In a perfect world they would be the numbers of people, households, and firms saving, receiving credit, making payments, and using other financial products from various sources, both formal and informal.

CGAP. *Measuring Access to Financial Services around the World*. 2009. P. 5. For the World Bank.

South Africa has its own peculiar circumstances that influence the concept of financial inclusion. The Financial Sector Charter (FSC) is a product of these circumstances and has played a role in driving improved access to financial services.²⁰ The FSC has established a representative Council and associated fora to assist in its work. One of the outputs of the Council was to define and institute so-called access standards. The Council's interpretation of financial (banking) access is summed up below²¹:

- i. Provision of products and services should be directed to the designated target market, 80% of which should have effective access by 2008;
- ii. Appropriate physical and electronic banking infrastructure to be made available to the designated market, within a radius of 20 kilometres²²;
- iii. There should be sufficient choice or product range available to the target market. The product range should include:
 - a. Transactional products and services to access and transfer cash on a daily basis;
 - b. Savings products and services to accumulate funds over time; and
 - c. Credit for low-income mortgages and poor households (personal loans).
- iv. No discriminatory practices should exist;
- v. Products and services should be priced appropriately for the target market;
- vi. Business processes need to be client friendly and include specific consumer education programs aimed at ensuring the target market is in a position to make informed decisions on its financial needs and purchases.

The FSC definition is also broad and inclusive.

While the South African perspective is appropriate for the context of the report, it is informative that a broad-based understanding of financial access is a familiar approach adopted elsewhere. A

...providing access to finance is a form of empowerment of the vulnerable groups. Financial inclusion denotes delivery of financial services at an affordable cost to the vast sections of the disadvantaged and low-income groups. The various financial services include credit, savings, insurance and payments and remittance facilities. The objective of financial inclusion is to extend the scope of activities of the organized financial system to include within its ambit people with low incomes.

Financial inclusion may be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost.

http://www.nabard.org/report_comfinancial.asp. Preface. P 1.

²⁰ http://www.fscharter.co.za/page.php?p_id=1. 18 March 2011.

²¹ *InsightWorx. Densification of Banking Infrastructure for the Provision of First-order Banking Products & Services. A Review & Analysis of Densification as an Access Standard for Consideration by the Sector Access Committee & Charter Council. Draft Report. The Sector Access Committee & the Financial Sector Charter Council. 1 May 2006. P. 10.*

²² The banking industry voluntarily moved the 20 kilometre radius to 15 and 10 kilometres for CAT 1 and CAT 3 infrastructure. Refer Annexure 7 for a definition of infrastructure categories.

program of financial inclusion adopted in the Sheffield City Council (UK), a so-called developed country context, defines an aspect of its intervention strategy as follows:

*The first element in the (strategic) framework is **Financial Capability**. This is about:*

- i. ensuring that citizens have the skills needed to feel in control of their money, whether through the school curriculum, adult education or self-help materials.*
- ii. ensuring access to, and regular use of, mainstream financial products such as basic bank accounts (which provide an alternative to extremely high cheque cashing services, and cheaper utilities through direct debit payments), and savings and insurance which allow them to plan for the future.²³*

The preferred general definition of inclusion is a broader one that recognises sustainable access to any particular service at any time.

However, there is a view that surfaced at the stakeholder workshop, namely that the only credible form of inclusion is for everyone who is eligible (everyone who is legally bankable, i.e., 16 years of age or older) to have a (an affordable) *bank account*. The implication of this position is that both the opening, on-going administration and usage of an account will be affordable to the poorest of the poor, and that other forms of financial engagement would not qualify for the notion of inclusion.

The view expressed in the report is that the bank-account definition of inclusion, though perhaps a milestone on an inclusion journey is surely not the first-level of entry, and may belie a future where traditional bank accounts are an artefact of history. For the purpose of this document, the broader, functional definition of financial inclusion is therefore applied.

Table 2 | Illustration of Services Representing Inclusion below illustrates examples of financial services that test the broad definition of inclusion:

Table 2 | Illustration of Services Representing Inclusion

Item	Service Financial Activity (<i>it is assumed that the illustrated service stands alone</i>)	Inclusion or Not
1	Weekly cash purchase at spazashop [the purchaser?]	N
2	One person gives another person R100 in cash – on occasion [either party?]	N
3	A business pays its employees via mobile airtime vouchers [the employees?]	Y
4	A person makes monthly cash contributions to a burial society [the member?]	N
5	A person pays cash on monthly basis for micro-insurance [the payer – assume same as insured]	Y
6	A person opens an Mzansi Account, and does 2 balance enquiries in 12 months	Y/?
7	A person has a rolling 9-month personal loan that is redeemed monthly in cash [the debt-holder?]	Y/?
8	A person has a social benefits smart-card (that cannot be used at banks or their infrastructure) [the beneficiary?]	Y/?
9	A person receives R100 in cash via a retail-based money transfer service – on occasion [the receiver?]	Y/?
10	A person buys pre-paid electricity from a vendor on an as-required basis – with cash [the purchaser?]	N/?
11	An unemployed person receives regular airtime top-ups from an employed friend [recipient?]	Y/?

²³ Sheffield City Council. Cabinet Report. *Financial Inclusion in Sheffield: Current Activity and Strategic Direction*. 24 March 2010. P.13. Underlining added.

It is challenging to be categorical about whether some of the above transactions result in inclusion or not. An Mzansi accountholder who lives in hope that there will be money in their account and checks their account balance twice over a 12-month period is deemed not functionally banked. A person who makes a formal money transfer twice a year, without a bank account, through a retail network may be 'more included' than merely 'owning' a bank account.

As far as actual RPSs are concerned, the ability to safely and securely transfer money between parties who have no bank account, or make low value non-cash payments for airtime or groceries would be considered included. No time dimension is applied here as these are services that occur on an 'as needed' basis, rather than permanent ownership of a service.

Having established what defines inclusion, the next step in the process seeks to define what the most basic service need is. Understanding the basic need helps to build an answer for what the most suitable inclusive service solutions may be.

2.3 Basic Service Needs

This building block has a slightly different context to the preceding ones. It has two objectives. The first one is common to the others; it provides a general understanding for a particular notion, in this instance what a basic service need is. The additional objective is to define what a basic service need is as a comparator for assessing the retail payment services and models reviewed in the rest of the document for their transformational capability. Essentially, the basic need informs the question of suitable supply-side offerings.

If one examines how customers in the EZ live their financial lives, then they have particular sorts of basic financial services needs²⁴. These result from their economic condition where they have small value, low volume and intermittent incomes (almost totally in cash) and their spending patterns are similar; being small value, low volume, cash based expenditures on basic necessities. Families are often geographically separated with some members earning income and others not. Micro-loans are also often used to provide for income-smoothing or funding subsistence micro-businesses.

The literature on financial access overwhelmingly finds that within a country or a region, poorer households are significantly less likely to be banked. For example, over 35% of low income households in the US do not have a bank account (Washington (2004). Relative to a national mean of 50%, 73% of low income households in South Africa are without bank accounts (Paulson and McAndrews (1999). Caskey et al. (2006) find that 90% of the urban unbanked in Mexico City and 79% of the urban unbanked in the US have below median income.

Simeon Djankov, Pedro Miranda, Enrique Seira and Siddharth Sharma. *Who are the unbanked?.* February 2008. P 2.

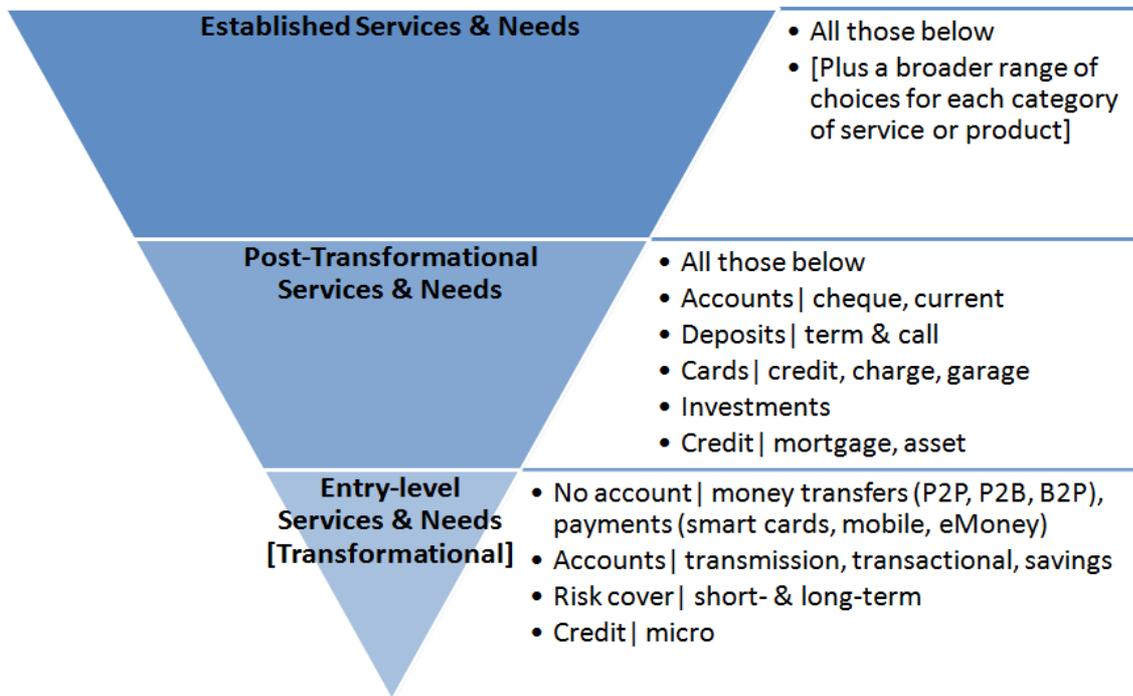
²⁴ Refer to section 2.4 that deals with the demand-side profile.

A customer that resides in the Exclusion Zone (i.e., classed as permanently excluded) may cross the Transition Zone to be sustainably included in the entry-level market segment for financial services if there is a (formal) service that satisfies their particular need, which may include the following:²⁵

- i. To make affordable, intermittent transfers or payments, either in cash or non-cash forms, in small values, without a bank account;²⁶
- ii. To intermittently receive value in cash, or if it is in a non-cash form to be able to apply it as non-cash, or encash it easily, in small values;
- iii. [Save or store value in cash or a non-cash form – in small values and low volumes (does not apply to RPS); and]
- iv. [Have access to small personal loans that can be settled on an *ad hoc* basis (does not apply to RPS).]

Figure 5 below illustrates the portfolio of entry-level needs that should map to an equivalent portfolio of services. Within the aggregate portfolio of needs there is a subset that falls within the ambit of retail payment services. Note that the diagram should be read from the bottom upwards:

Figure 5 | Levels of Service & Need | The Transformational Portfolio



Even in the domain of entry-level financial services the portfolio contains services that are more basic than others. For example, in Figure 5 above a basic transmission account like the Mzansi Account is regarded as representing a relatively more ‘sophisticated’ need than a non-account based service such as a cash-to-cash transfer of money, although both are regarded as transformational services. Within the RPS subset the report establishes a further subset that is defined as ‘basic’.

²⁵ The clarification term ‘formal’ implies that the need is not to hand over cash directly, for example. A cash payment for mobile airtime is not formal and is not compatible with the aforesaid definitions of payments, RPS, inclusion or basic services.

²⁶ Items (i) and (ii) may have a time component, where real time is of some value to entry-level customers. Subsumed here is that transactions happen in real time, even if off-line.

The entry-level (basic) needs are translated into four basic RPS, namely:

- i. A non account-based *ad hoc* P2P value transfer or
- ii. A non-cash, non-account based bill payment (P2B) or
- iii. A non-cash, non-account based purchase (P2B) or
- iv. An institutional transfer of value to an individual, in cash or non-cash (cash onto a smart device - smartcard or mobile which may include e-money) (B2P).

The above RPS qualify as basic or primary entry-level services that would meet the most basic criteria for a customer to be considered 'included'. In other words, they are typically the most transformational and provide the comparative base to assess all other potential transformational services.

More sophisticated RPS are not excluded from the portfolio of services; they just generally service more complex needs beyond the Transformation Zone. If they are not potentially transformational then they are safely ignored for the purposes of this report, other than one typical non-transformational service that will be included as a comparator.

The next and last section setting up the building blocks for the review of retail payment services and models is the profiling of a 'typical' entry-level customer. This profiling was to an extent already started in the above review of the 'basic service need'. What is done now is to better understand why an entry-level customer is likely to have a particular type of need.

2.4 A Demand-side Profile| A Typical Entry-level Customer

The customer is the primary prism through which the report looks at payment services. It is their experience and their needs that form the basis for assessing the activities of the supply-side of the market.

Entry-level Customers| Who are they?

Somewhere in the midst of the gamut of payment services, associated payment models and all the techno-speak of the industry are folk who have need of financial instruments other than cash; people who simply use as best they can what is in the market space. Where there is market failure, they resort to their own devices; they send cash from Mamelodi to KwaMhlanga or Pongola via long distance taxi drivers, friends and family – perhaps it arrives, perhaps not. People spend R20 to take public transport to a place where they can buy airtime for R10. High cost and high risk cash is used to buy groceries on the way home. These potential financial services customers represent the poorest of the poor - both income-wise and with regard to access to basic social and economic infrastructure. These people inhabit the twilight zone of exclusion.

The principal objective of this section is to profile a typical customer to better appreciate their demand for entry-level or transformational financial service, as defined in the report.

There are financially unserved and under-served individuals across the globe, from the most economically developed to the least developed countries and communities.²⁷ In most developed countries the ratio of served to unserved is high, with about 80% to 99% of individuals in the formal system. In developing economies, on the other hand, the ratio is in the order of 20% to 55% served, with a range of between 5% and 60%-odd.²⁸

Even the USA, which clearly is in a different development state to South Africa, faces the challenge of 'unbanked' people and communities. The following quote considers who these 'unbanked' people are in the USA²⁹:

The most common groups of unbanked people in the United States include low income individuals & families, those who are less educated, female-headed households, young adults, families living in rural communities as well as select urban areas, and immigrants. It is estimated that African Americans are 4 times more likely to be unbanked than European Americans.

If this quote is altered slightly for South Africa, it read as follows and is just about dead right:

The most common groups of unserved people in **South Africa** include low income individuals & families, those who are less educated, female-headed households, young adults, and families living in rural communities as well as select urban areas, and immigrants. Black Africans are considerably more likely to be unbanked than other groups³⁰. Below, two data sources are used to build a profile of the underserved in more detail.

Nearly all of the 2.5 billion unserved adults live in Africa, Asia and Latin America. For these regions, the total percentage of unserved adults climbs to 62% of the adult population. The greatest number of unserved adults, almost 1.5 billion, reside in East and South Asia. In Sub-Saharan Africa 80% of the adult population, 325 million people, remains unserved, as compared to only 8% in high income OECD countries.

Financial Access Initiative. *Half the World is Unbanked*. October 2009. P. 5.

²⁷ References to 'unserved' and 'under-served' should be read as levels of 'access to financial services' and not necessarily in a narrow sense of 'having a bank account.

²⁸ Financial Access Initiative. *Half the World is Unbanked*. October 2009. P. 10 *et seq.* Note. There are major definitional challenges around banked/unbanked data, but no matter, these data are useful as orders of magnitude measures.

²⁹ <http://www.extension.umn.edu/distribution/familydevelopment/components/8434-Unbanked.pdf>. 17 March 2011.

³⁰ This definition is slightly adapted from a description unbanked market in the USA (<http://www.extension.umn.edu/distribution/familydevelopment/components/8434-Unbanked.pdf>. 17 March 2011). Though the development situation is starkly different in the the USA than in SA, the similarities in the unserved market are striking.

FinScope™

FinScope™ is a product of FinMark Trust FinScope.³¹ . It is an annual survey conducted in South Africa to review the status of financial inclusion. It is based on a country representative survey of 3,900 adults (16+ years old). The 2010 study establishes the following macro-profile of financial inclusiveness in South Africa:

- 77% of adult South Africans are financially included (25.1 million individuals), leaving 23% of adults financially excluded (i.e., using no financial products, formal or informal, to manage their financial lives).
- Of those that are financially included:
 - a. 68% are formally included (22.2 million individuals) whereas 9% use only informal financial services (note that a significant number of the 22.2 million with formal financial services *also* use informal services);
 - b. 63% are banked (20.5 million individuals); and
 - c. 47% have or use non-bank financial products and / or services (most of this group will also be banked).

As far as payments or remittances are concerned 12% of respondents indicated they send money to someone in a different part of the country. Of these, 65% send money via a bank account, 20% via friends or relatives, 6% through formal payment services such as *MoneyGram* and 2% via taxi's and buses.

The 32% of individuals who are not formally included in financial services reside in the Exclusion Zone. A general profile of individuals in the EZ are characterised by the following factors:

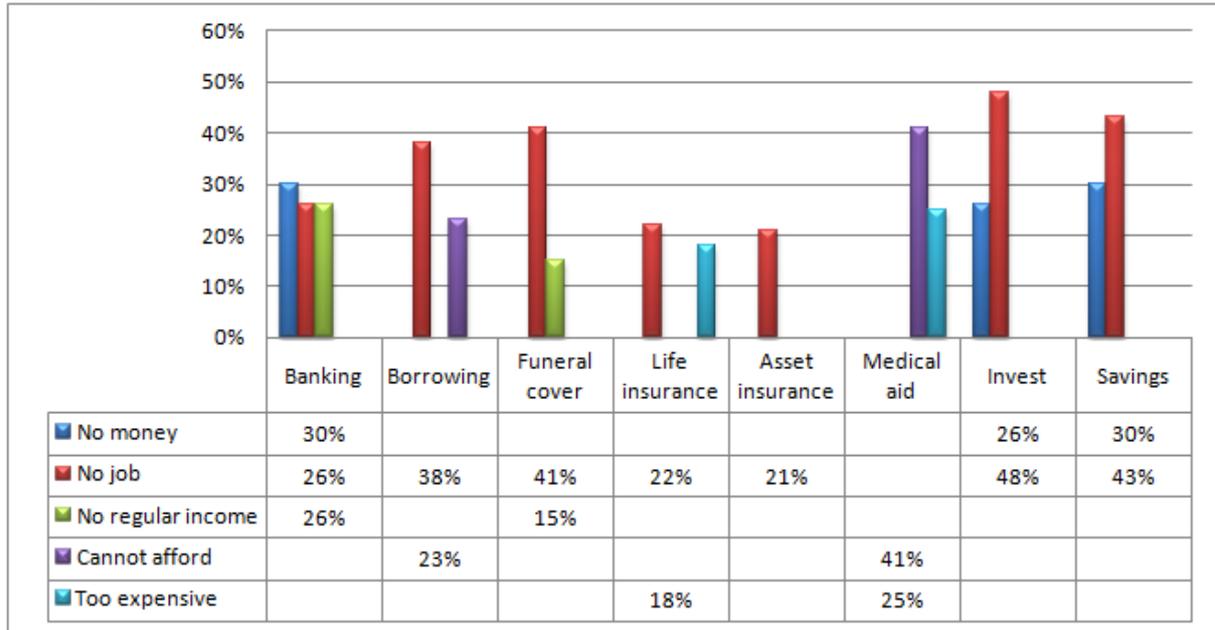
- i. Their source of income is likely to be either family or government social benefits rather than salaries and wages or formal pensions;
- ii. They are more rural (45% unserved) than urban (26% unserved);
- iii. As far as transactional products are concerned, that would include payments, a similar pattern emerges in that income drives the inclusion/exclusion dynamic. Individuals who receive income via,
 - a. Family support – 49%;
 - b. Government-style social benefits – 66%; and
 - c. Salaries or wages – 92%, use such services and are more likely to be included than where incomes are lower and or more erratic.
- iv. Their income levels are relatively low. Their low income (often received erratically), the particular sources of income and their unemployment status are mutually reinforcing factors trapping individuals in the EZ.
- v. Respondents provided feedback regarding barriers to their use of formal financial services, illustrated in Figure 6 below.

The common factor across all the illustrated financial engagement elements is '**no money**' or a variation thereof, which is assumed to mean the person has low income, probably intermittent income, from a variety of informal sources and is probably unemployed or informally self-employed in a survivalist mode. As illustrated in *Figure 6* below, drawn from the FinScope 2010 survey findings,

³¹ FinScope™ (2010). FinMark Trust.

no money or a no money equivalent is the highest single factor determining a person’s inclusion/exclusion status.

Figure 6| Barriers to Formal Financial Inclusion



This confirms that a person’s, household’s or micro-enterprises’ income level is the primary segmentation factor determining where they may be located in the market pyramid, and whether they are financial included or not.

Financial Education Fund survey

In a survey conducted amongst un- and under-served South Africans in 2009 and 2010 the following group profile was elicited from the survey data.³²

³² InsightWorx. *The Financial Education Fund: Financial Literacy Project. Monitoring and Evaluation*. January 2011. During 2009 and 2010 almost 11, 000 under- and unbanked South Africans were part of a formal face to face, classroom based financial literacy training program. As part of the project access was granted 10,000 Postbank bank accounts, almost exclusively Mzansi Accounts of customers from the regions in which the training was conducted. Researchers were able to track account usage over an eight-month period for both trainees and a control group of non-trainees. The objective of the project was, “to bring about measureable financial engagement behaviour change via a low-cost, high return, replicable, face-to-face financial literacy program”. The evaluation of the program objective was via analyses of customers’ bank account behaviour.

Figure 7 | Profile of Un- & Under-served

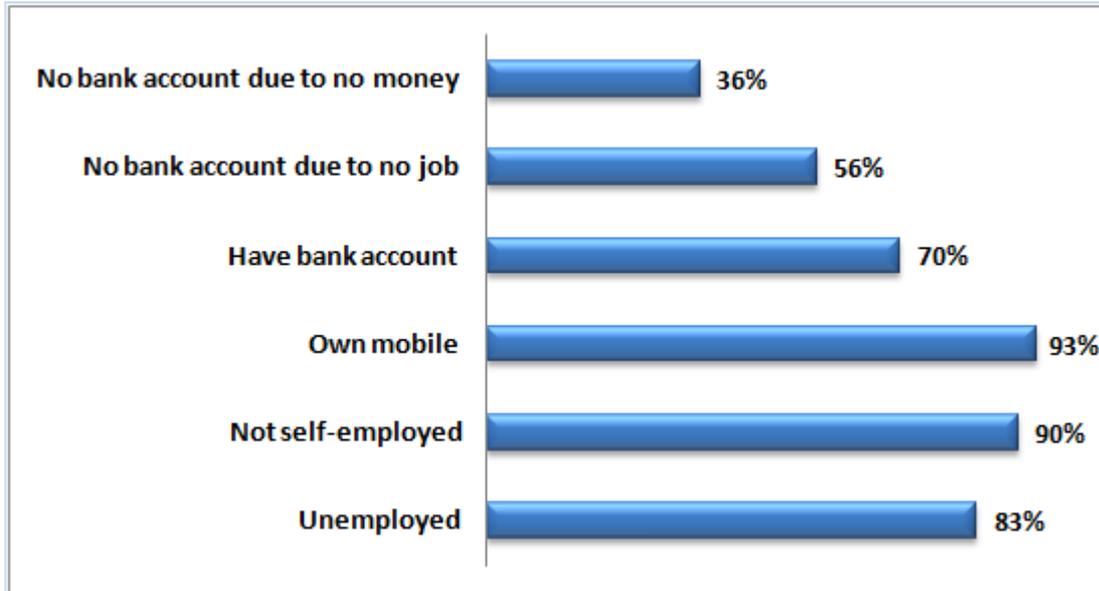


Figure 7 reinforces and adds further dimensions to the FinScope profile sketched above.

The same piece of research examined actual account usage patterns and discovered that very few of the 10,000 customers used their accounts at all, and of those who did, their monthly transaction volumes were very low, ranging between 1 debit card PoS purchase every 3.5 years, 1 PoS withdrawal per 6 months and 1 ATM withdrawal every 4 months. The value of withdrawals ranged from R67 to R89 per month for ATMs and cash-back respectively.

A number of in-depth interviews were conducted with trainees post their training. The views expressed by the interviewees typify individuals who were involved in the training, but can also be generalised to those who in the main occupy the exclusion zone:

- i. They are largely unemployed and rely on government grants, family and friends for economic resources;
- ii. Even if unemployed, almost all have mobile phones, they use them as and when they have airtime. One can conclude that they are familiar with the technology and the interviewees said they would try mobile banking given the opportunity;
- iii. Many seem to have a bank account, but do not use it. It is opened at a time when there is a need or perceived need, but as personal circumstances change or the costs of account ownership and usage are realised, it is left unused, or used very infrequently;
- iv. For those who do not have an account, the reason for this condition is income related – no money or no job; and
- v. Those who do have bank accounts, even one that requires no administration fee and is essentially a pay-as-you-go product (Mzansi Account), do not use it much.

In conclusion, both of the above South African-based experiences confirm that a South African that occupies the exclusion zone is likely to have the following profile:

- i. Relatively poor, with low and intermittent income;
- ii. Unemployed, seasonally employed or self employed in a survivalist form;
- iii. Rural rather than urban and if urban then newly urbanised;
- iv. Black or coloured rather than Indian or white;

- v. Less formally educated;
- vi. Keen to participate in the financial system but feel they are unable to;
- vii. Quite financially illiterate;
- viii. Own and use mobile phones;
- ix. Decisions on financial matters influenced by family and friends, and catchy marketing campaigns;
- x. Appreciate transactional costs and use close-by suppliers, but may prefer alternative suppliers if given the choice;
- xi. Are very brand conscious and aspirational; and
- xii. Unafraid of making loans, at any price.

Having now completed the building blocks relating to the core payments concepts, the notions of financial inclusion, the basic customer service need and the profile of customers likely to display this need, the report turns to the next contextual element underlying the model building exercise, namely the **regulatory regime and system participation** framework that underlies the RPS landscape in South Africa.

E-money| What is it?

According to the SARB e-money is, “monetary value represented by a claim on the issuer. This money is stored electronically and issued on receipt of funds, is generally accepted as a means of payment by persons other than the issuer and is redeemable for physical cash or a deposit into a bank account from the issuer on demand.”

(SARB. National Payment System Department. *Position Paper on Electronic Money*. NPS 01/2009. November 2009.)

The Bank for International Settlement’s version states that, “e-money is value stored electronically in a device such as a chipcard (card-based e-money) or a hard drive in a personal computer (software-based e-money), which is used to make payments by transferring value from one storage vehicle to another. In most existing arrangements, e-money is intended primarily as a means of making low-value consumer payments.”

(BIS. Settlement Systems Policy. *Issues for central banks in retail payments*. March 2003. P. 44)

The two above definitions distil the following salient characteristics of e-money:

- i. An issuer swaps value (money or funds) for electronic value;
- ii. The electronic value created is stored on some device – e.g., (smart)card, mobile handset;
- iii. Electronic value can be moved from one storage device to another – as e-money;
- iv. The electronic value (e-money) is accepted as (normal) payment by third parties;
- v. E-value can be redeemed for cash or paid into a bank account, on demand from the issuer; and
- vi. It is (currently) primarily a means to make retail payments.

Examples of e-money are *eWallet* and Net1’s smartcard.

3 The Regulatory and Market Participation Framework

The regulatory framework for (retail) payment services is defined as the laws, regulations, directives and associated rules created by governing authorities and industry bodies.

The regulatory framework is essentially the ‘rules of the game’ that establish the parameters in which payment services take place at any particular time. The rules are not immutable and change as circumstances change, such as technology, new business models, global dynamics and so forth.

There are multiple layers of regulations that influence retail payment services and that affect the supply-side of the market, as well as the client experience (demand side).³³ The discussion of the applicable regulatory framework is a core component of the report, as it is a critical contextual element for the review of retail payment services, the construction of models and the determination of associated transformational capacity.

As a general rule, the level of regulatory sophistication and complexity increases in concert with the level of development of the financial system. A more evolved financial system that incorporates both broad and deep financial market participation of necessity requires a regulatory framework that is suitably more aligned to its level of sophistication and complexity.

South Africa has a unique socio-economic profile that spills over into financial markets and the payments system. In one realm it includes a highly developed financial sector consistent with the characteristics of a developed country market place. Existing in parallel with the developed market is a typical developing world market segment. About half the population is either not participating in the formal financial system at all, or is at the periphery thereof.

The inherent complexities of a regulatory regime required to manage the developed market place and the associated compliance costs may unintentionally hinder effective market development in the under-served market. This happens if regulation, through compliance requirements, indirectly increases transaction costs. Where requirements suitable to the complexity of a regulatory regime necessary for managing a developed financial-services market are imposed at the bottom end of the market, it may have material costs implications, especially given the often low margins of entry-level products. In some instances it may even preclude certain services from being offered.

As profit-maximising entities seldom absorb such attendant costs, especially in a market that has sluggish competitive dynamics, they pass them on to customers. In addition to the suppliers passing on costs to clients, there are direct costs incurred by customers as they fulfil regulatory obligations. The costs range from the provision of requisite documentation to the necessity of travelling to points of service and time spent conducting business that could possibly be done remotely.

In essence, a prevailing regulatory regime is not neutral in respect of service provision, or costs to both supplier and customer. For example, a particular service may flourish in one regulatory regime, and not be permitted in another, or if permitted, flounder due to compliance obligations.

The report acknowledges that it is not solely the level of development of the financial sector and the regulatory regime that either enables or impedes the growth of the financial sector market; there are additional country-specific conditions that play a role too. These conditions include the macro-

³³ The term ‘regulation’ is used generically in the report to describe the body of laws, regulations, directives and associated rules.

economic model in which the country functions, the condition of the telecommunications industry and the general state of technology development and sophistication, other economic infrastructure, the efficiency of the public and private sectors and levels of general global integration.

With reference to the latter point, the more globally integrated a country's financial system is, the more likely it is to require a strong regulatory regime, dictated by the most demanding (developed) countries' regulatory requirements. This may militate against domestic market imperatives, especially in transformational markets.

3.1 The Regulatory Building Blocks

The range of statutes, regulations, directives, policies and rules that comprise the regulatory regime governing payment services in South Africa comprise the regulatory building blocks that collectively or individually influence the nature, scope and character of the retail payments services market place.

The overview of the regulatory regime is not intended to be a legal interpretation; rather, it seeks only to provide a context for the market space in which RPS are supplied and used.

The building blocks are set out below, starting at the outer orbit of South Africa's constitutional character, and then unveiling each layer towards those that most closely affect the customer experience.

Figure 8| The Regulatory Regime Applicable to RPS (see below) sets out the various layers or tiers of regulations that comprise the building blocks of the South African regime. It places the customer at the centre of the universe, which is the consistent theme of the report.

3.1.1 Tier 1| The Constitution of the Republic of South Africa, 1996

At the highest order of the regulatory regime is *The Constitution of the Republic of South Africa, 1996* (Act 108 of 1996) (the outer ring of *Figure 8*) that establishes the Central Bank (the South African Reserve Bank [SARB]) via Section 223, and provides for the South African Reserve Bank's mandate or objective. Its primary object is set out in Section 224(1), which is "...to protect the value of the

Key Success Factors

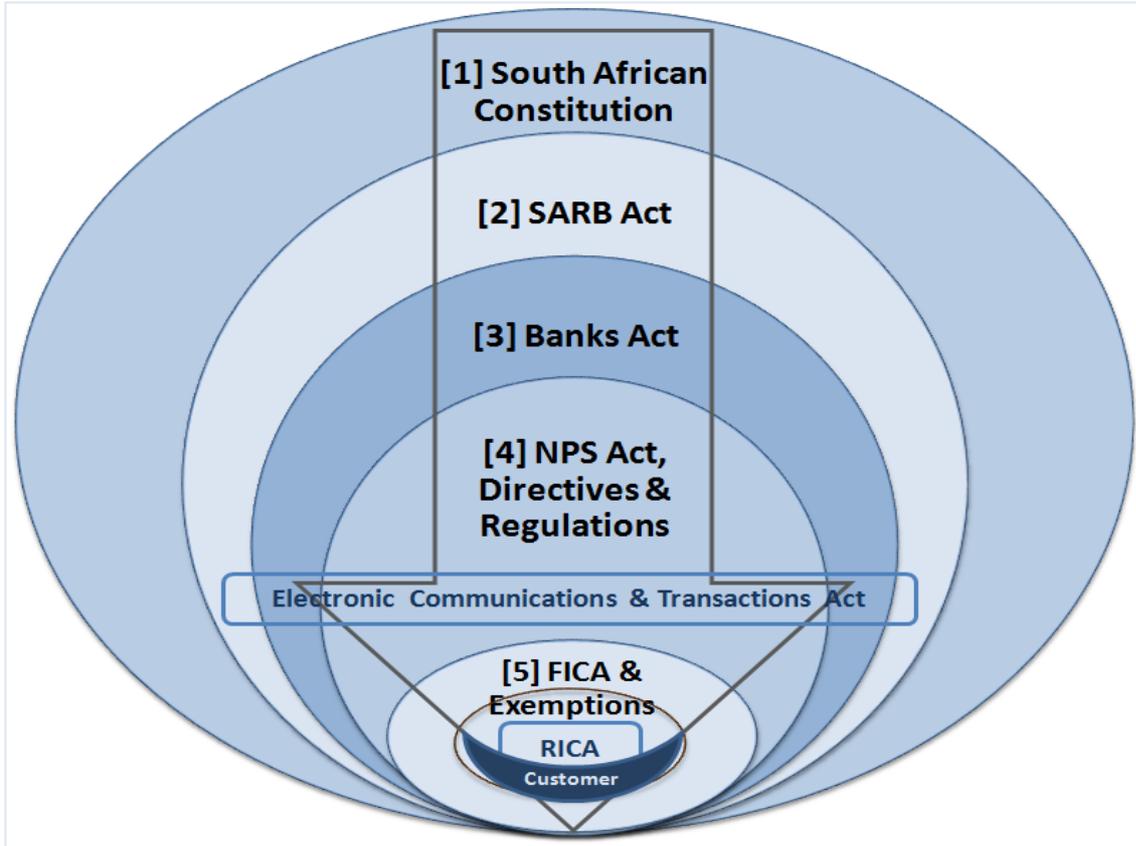
Having an Appropriate Regulatory Framework

Vodafone and its mobile network operators seek to work with regulators, either the central bank or other government officials, to build an appropriate regulatory framework for a successful service. It is important that the national regulators are fully briefed about how the Money Transfer system works and the way in which Vodafone addresses issues, such as money laundering and counter terrorist financing. For example, each national mobile phone operator employs a designated anti-money laundering officer to brief outlets on what to look for in terms of criminal behavior, to monitor transactions, and to report suspicious activities.

<http://www.businesscalltoaction.org/case-studies/2010/10/innovations-in-action-expanding-access-to-financial-services/>. 18 March 2011. P 5.

currency in the interest of balanced and sustainable growth...". Furthermore it is required to perform its functions "...independently, and without fear, favour or prejudice..."³⁴

Figure 8 | The Regulatory Regime Applicable to RPS



3.1.2 Tier 2 | The South African Reserve Bank Amendment Act, 1997

While the Constitution formally establishes and mandates the Central Bank, the SARB existed pre-the new Constitution as the Central Bank under the South African Reserve Bank (Act 90 of 1989). The South African Reserve Bank Amendment Act, 1997 (Act 39 of 1997) revised certain responsibilities including "...to further regulate the powers and duties of the said Bank with regard to the establishment, regulation and supervision of, and participation in, **payment**, clearing and settlement systems..."³⁵

The Act confers on the Reserve Bank a range of powers and duties, which include those covering the payment system in which retail payment services exist. Connected with the payment system are clearing and settlement systems, without which payments cannot function.

³⁴ <http://www.info.gov.za/documents/constitution/1996/a108-96.pdf>. 22 January 2011. Bold type-face added.

³⁵ [http://www.reservebank.co.za/internet/Publication.nsf/LADV/7DC59462E47AFDDF42256ED60038AE5C/\\$File/S+A+Reserve+Bank+Act.pdf](http://www.reservebank.co.za/internet/Publication.nsf/LADV/7DC59462E47AFDDF42256ED60038AE5C/$File/S+A+Reserve+Bank+Act.pdf). 22 February 2011. Bold type-face added.

3.1.3 Tier 3| The Banks Amendment Act, 2003

At the third tier of the regulatory structure is the Banks Act, 1990 (Act No. 94 of 1990). There have been a number of amendments to the Act since 1990, but as it stands, its objective is: *To provide for the regulation and supervision of the business of public companies taking deposits from the public; and to provide for matters connected therewith.*

The content that impacts directly on the character of payments includes definitions that are critical to determining what institutions are deemed banks and what their scope is relative to non-banks. Section 2 above sets out definitions for **a deposit** and **the business of a bank**, both of which are intrinsic elements in understanding the payment system. In the context of payment services, a deposit is a 'particular type of payment' and can only be intermediated by an entity that is defined as a bank. In other words, a 'non-bank' cannot accept deposits, unless sponsored by a bank.

Guidance Note G6/08| Cell-phone banking

On the 7 May 2008 the Registrar of Banks, as an agent of the SARB, issued Guidance Note G6/08 in terms of section 6(5) of the Banks Act, dealing with cell-phone banking. The guidance note establishes the following matters pertinent to cell-phone banking:

- i. A cell-phone banking service is covered by Exemption 17 of the Financial Intelligence Centre Act, 2001 (refer the section below dealing with this Act);
- ii. A cell-phone banking service may be offered via non face-to-face processes, as long as offering banks take adequate steps to verify customer identification and provide for enhanced transactional scrutiny of such accounts' activity;
- iii. Low-value transactions and debits from such an account may not exceed R1,000 per day;
- iv. Full Exemption 17 verification is required if a customer wishes to exceed the above limit;
- v. Full compliance is required if the client wishes to exceed Exemption 17 parameters; and
- vi. Only one such account may be opened per customer.

Guidance Note 6 has substantially lowered the compliance bar for new forms of remote banking, particularly for transformational banking. While the financial limits may seem low, they are generally significantly higher than what would be required at the Transition Zone. The positive and balanced response by the regulators to technology innovation and both supply and demand side needs is encouraging.

Banks in some countries are introducing alternatives to the iconic magnetic stripe ATM card, encouraging mobile phones and other technology for cash access.

Such methods may help to reduce fraud, enable consumers to make person-to-person payments and bring banking to underserved areas where many consumers have a mobile phone but not a bank account.

An increase in mobile-based payments is one major factor prompting the changes in how consumers may access automated teller machines, but rising availability of contactless cards also is a factor,

American Banker. 20 May 2011. *Advances in cash access strip out the mag stripe.* Stephanie Bell. Vol 176 No. F319. P. 9.

3.1.4 Tier 4| National Payment System Amendment Act, 2004

The fourth layer in the regulatory configuration is the National Payment System Act, 1998 (No. 78 of 1998). The objective of the NPS Act (NPSA) is “To provide for the management, administration, operation, regulation and supervision of **payment**, clearing and settlement systems in the Republic of South Africa; and to provide for connected matters.”

An amendment to Act 78 of 1998 was enacted as the National Payment System Amendment Act, 2004 (Act No. 22 of 2004) and a further amendment in the Financial Services Laws General Amendment Act (Act 22 of 2008). The objectives of the amended act (2004) were to essentially provide for four changes to the original Act. The changes relevant to the report are; (i) the withdrawal of recognition of a **payment system management body**, (ii) the enablement of **payments to third persons**, and (iii) provision for the issuance of directives by the South African Reserve Bank.

The NPS Amendment Act may be considered the ‘operational handbook’ guiding retail payment services matters. The Act sets out definitions that are important to an understanding of the key terms associated with the payment system and payment services. Section 1 of the Act defines, amongst others, system participants, which are covered in the subsequent section of the report.

A payment system management body³⁶

The establishment and functioning of a ‘payment system management body’ is set out in Section 3 of the Act. Essentially this entity is as an extension of the **administrative role and responsibilities** of the SARB. Policy and strategy are uniquely the domain of the SARB. In practice the Payment Association of South Africa (PASA) existed prior to the amended Act, but is fundamentally the same body that is re-established to manage the operational side of payment services on behalf of the SARB, and for its members.³⁷ PASA, as a ‘recognised payment system management body’, came into being on 15 August 2006.³⁸

The object of the ‘payment system management body’ – in this instance PASA - is to organise, manage and regulate participants (members) in the payment system. The body so established is required to be equitable in its admission of members, to represent all its members fairly and act transparently in its decisions. PASA comes into existence through the SARB, is beholden to in its functioning and may have recognition withdrawn if it fails to act in terms of its mandate. While the NPS Department of the SARB has final oversight responsibility of the NPS, it has delegated selected powers of ‘self-regulation’ to PASA, who in turn has been mandated to ‘organise, manage and regulate’ members with regard to payment matters.

36 For a full explanation of the role of the Payment System Management Body (PASA) vis-à-vis the National Payment System Department within the SARB, see the June 2011 SARB paper NPS 02/2011 titled “Position paper on access to the national payment system”. Available at: [http://www.resbank.co.za/RegulationAndSupervision/NationalPaymentSystem\(NPS\)/Legal/Documents/Position%20Paper/PP2011_02.pdf](http://www.resbank.co.za/RegulationAndSupervision/NationalPaymentSystem(NPS)/Legal/Documents/Position%20Paper/PP2011_02.pdf)

³⁷ The review of the payment system is based on various material produced by the Payment Association of South Africa (PASA).

³⁸ Refer the PASA Constitution at <http://www.pasa.org.za/Documents/PASA%20Constitution.pdf>.

PASA membership includes the SARB, banks (both local and foreign branches) and designated entities as may be approved PASA and the SARB. Such approved entities may be granted only limited membership. Furthermore, banks that seek to 'clear' must be members of PASA.

The PASA Council is the body responsible for strategic leadership and ensures that PASA carries out its mandate. It functions as a typical company board and is composed of members both appointed by and representing PASA members. The PASA Council is comprised of a non-voting chairperson and Councillors appointed on the basis of; (i) a members' size of payments above a given threshold, determined by value and volume – of which there are four, namely the so-called big four retail banks, (ii) three members are elected by the balance of Association members, (iii) the SARB and (iv) the CEO of PASA who is a non-voting member. There are a number of Payment Clearing House (PCH) entities that are managed through the PASA Executive Committee, which reports to the Council.

Who may provide payment services?

PASA membership is essential for any entity that seeks to conduct third-party payments. It was established earlier that the prime requirement for a payment service provider is to be **a bank, or sponsored by a bank**; the secondary requirement is to be a **member of PASA**. A bank must be a first-line or primary member (a settlement or clearing bank) or at least an entity (bank or non-bank) that is either sponsored, mentored, or is an agency member supported by a first-line member.³⁹ The 'highest order' of bank is one that has settlement authority, of which there are 23 currently participating⁴⁰. Next in line is a 'clearing' bank. At the time of drafting the report, PASA listed 25 member (clearing) banks, with only the South African public sector bank, the Postbank, a non-clearing member.⁴¹

The implication of the rules governing the provision of payment services is that any entity not meeting both requirements cannot be involved in the payments business. Furthermore, section 7 of the NPS Act establishes that if 'payment is due', such payment is not a deposit and non-banks may participate as third party payment providers in the NPS. The means by which a non-bank is able to engage in payments that are 'not-due' is to have bank sponsorship, as is the case with retailers and telcos that are enabled to conduct person-to-person money transfers or bill payments. The sponsoring bank and the third party payment provider have to apply to the SARB for authorisation to conduct such business. Directive 1, issued by the SARB and discussed below, provides the formal rules for such third party payment providers.

Retention of records

The NPS Act (section 13) also requires participants in the payment system to retain records for a period of five years. This is a compliance requirement that incurs costs for the payment service provider, much as the requirements for record-keeping in FICA. Any compliance costs are likely to be largely shifted to customers, thus impacting cost of access to payment services. Where service providers use costly paper-based recording and storage systems, and the entity applies fully-absorbed accounting principles, the costs are likely to drive up materially the cost-to-client of the

³⁹ South African Reserve Bank. National Payment System Department. *Position Paper – Bank Models in the National Payment System*. Position Paper number 01/2007. Date: 2007-06-01.

⁴⁰ SARB. *Position paper on access to the national payment system*. June 2011. P.7.

⁴¹ Refer Annexure 5 for an overview of PASA membership as at September 2010

service. For low value-high volume and concomitant low-risk transactions compliance costs can be debilitating for commercial business models.

However, Section 13(3)⁴² allows electronic retention of records as envisaged under Section 16 of the Electronic Communications and Transactions Act (25 of 2002)⁴³. In instances where electronic recording and retention of information are used the operational cost-burden is likely to be lower.

Directive No. 1 of 2007

Directive for Conduct within the National Payment System in Respect of Payments to Third Persons

On 6 September 2007 the SARB published Directive No. 1 that deals with so-called third party payment providers. The Directive sets the conditions for non-banks making 'payments due' as permitted under Section 7 of the NPS Act as discussed above. It allows for two types of third party payment providers, namely:

- The first is where an entity (called a *beneficiary service provider or BSP*) acts on behalf of another party, as intermediary, to collect payments from multiple payers on behalf of the service provider on the basis of some obligation that the payer has to the service provider. An example of a beneficiary service provider is a retail chain that collects payments for utility bills or traffic violation fines. The structure is 'many payers (obligators) to one beneficiary'.
- The second category of payment service providers is where an entity (called a *payer service provider or PSP*) acts on behalf of another party, as intermediary, to make payments to multiple recipients or beneficiaries on the basis of some obligation between payer and beneficiary. An example of a payer service provider would be payroll processing – a single employer pay its multiple employees through a so-called PSP. The structure is 'one payer to many beneficiaries'.

Both categories of agents are required to abide by rules similar to what apply to a bank, namely, the keeping and retaining of payments (transaction) records. In instances where the agent also provides systems operator services, the internal business entities must be kept separate. Also, systems and processes may not 'introduce risk' into the NPS and the entities' banker must be informed of its third party payments business. The bank, in turn, must inform PASA, which must be in a position to supply such information to the SARB.

There are currently 57 third party payment providers listed on the PASA site.⁴⁴

⁴² (3) *The retention of records in terms of subsection (1) may be effected as envisaged in section 16 of the Electronic Communications and Transactions Act, 2002 (Act No. 25 of 2002).*

⁴³ Electronic Communications and Transactions Act, Section 16.

(1) Where a law requires information to be retained, that requirement is met by retaining such information in the form of a data message, if—

(a) the information contained in the data message is accessible so as to be usable for subsequent reference;
(b) the data message is in the format in which it was generated, sent or received, or in a format which can be demonstrated to represent accurately the information generated, sent or received; and
(c) the origin and destination of that data message and the date and time it was sent or received can be determined.

(2) The obligation to retain information as contemplated in subsection (1) does not extend to any information the sole purpose of which is to enable the message to be sent or received.

⁴⁴ <http://authorisation.pasa.org.za/Reports.aspx>. 17 April 2011.

Directive No. 2 of 2007

Directive for Conduct within the National Payment System in Respect of Payments to Third Persons

Directive 2, also issued by the SARB in 2007, deals with the conduct of ‘system operators’ (SO) in the NPS.

A systems operator is defined in the NPS Act as an entity that ‘provides payment instructions’ (acts as an intermediary for the receipt and/or delivery of payment instructions) for a bank or payment clearing house (PCH) system operator. The SO acts as an intermediary on behalf of a range of institutions, including banks, beneficiary service providers, payer service providers and clients of banks. An example of a SO is Altech Card Solutions that “provides systems services across six payment streams, namely, ATM, AEDO, NAEDO, Credit Card, Debit Card and EFT Credit”. Others such as Profile Software International (Pty) Limited provide a service for a single payment stream, namely, EFT Credit. There are 65 system operators listed on the PASA site.⁴⁵

As is the case for beneficiary service providers and payer service providers, systems operators need to operate within a set of rules. Systems operators are required to comply with the rules established by PASA, including the need for written agreements between the systems operator and its clients, keeping service information confidential and making payments into and out of its client’s bank account/s on its instructions. The same business separation and record keeping rules apply as in Directive No. 1. An additional rule is that no offsetting of mutual obligations between multiple clients may be made.

The next section tackles the fifth tier of the regulatory regime, and the one perhaps most tangible to customers, the so-called know your client (KYC) requirements of the Financial Intelligence Centre Act.

3.1.5 Tier 5| The Financial Intelligence Centre Act, 2001

The first four tiers of the regulatory regime govern the supply-side. They cover who may do what, with whom and how to provide retail payment services. There are, by implication, demand-side consequences flowing out of the supply-side structures, but they are secondary.

At tier five, the Financial Intelligence Centre Act (Act 38 of 2001) (FICA), which came into effect on 1 July 2003, touches the demand-side directly, by requiring users of payment services to provide personal information before certain services may be used. There are also supply-side requirements, such as the collection of client data and the safe-keeping thereof. The *Regulations in Terms of the Financial Intelligence Centre Act, 2001* should be read in conjunction with the Act as it sets out the regulations that govern the operationalisation of the Act. Much of the detail that is required for the execution of the Act is found in the Regulations.

Specific areas that still need to be focused on during the next year, include:-

PASA is also still very concerned about the unlevel playing fields between bank and nonbank payment system providers in the area of FICA compliance. Consideration will be given to the conditions of participation to improve access for non-banks in the NPS.

PASA. Office Bearer Annual Report 2010. P 5.

⁴⁵ *Ibid.*

The Act provides for the establishment of an anti-money laundering regulatory body and various processes aimed at preventing money laundering. It enforces compliance on institutions that might be exploited for money laundering purposes due to the nature of their business.

Accountable institutions

The Act includes Banks as 'accountable institutions'.⁴⁶ Schedule 1 contains the list of accountable institutions. Should it make money transfers (regarded as deposits), a non-bank sponsored by a bank will also be regarded as an accountable institution.

Part 1 of the Act sets out the duty for all accountable institutions to identify clients. An accountable institution must establish and verify the identity of a prospective client before it may engage in a business relationship with the client. A number of identification obligations apply, which include:

- i. Identifying all customers against some official identification document. This is to happen at the commencement of a business relationship;
- ii. Seeking to ascertain the permanent residential address of the customer, via some formal document that validates such address;
- iii. Verifying all information gathered in the identification process;
- iv. Keeping records of the information and supporting documentation. Records of documentation are required to be kept for five years, and must be retrievable for analysis by the authorities; and
- v. Formal internal business processes must be designed and implemented to ensure the Act's requirements are implemented within the business.

The compliance requirement exists even for a 'single transaction'. This impacts directly on, for instance, a cash-to-cash transfer.

At the time of FICA coming into operation, the various accountable institutions provided introductory information to their clients and prospective clients. Annexure 4 is an extract from an ABSA client communication setting out what is required from clients as far as the provision of information is concerned.⁴⁷

Recordkeeping requirements

Part 2 of the Act goes hand in hand with the first requirement in that the information obtained in terms of Part 1 and any other business information relating to the transaction (payment or transfer) must be retained and kept for a period of five years from the date of transaction. Such records may be kept by third parties and also stored in electronic format. These compliance requirements have both direct and indirect cost implications for the service provider and customer.

Part 4 of FICA requires accountable institutions to implement internal measures to promote compliance with the need to identify and verify clients' identity, record keeping and reporting procedures.

⁴⁶ In most cases where legal references are made to 'banks' such references generally include 'mutual banks' and the state-owned Postbank and any other exempt entity.

⁴⁷ <https://www.fnb.co.za/downloads/fica/complete.pdf>. 23 February 2011. Other banks have also provided accessible information to their clients and the market in general regarding FICA. The URL reference attached refers to an FNB site.

FICA was amended by the *Financial Intelligence Centre Amendment Act, 2008*. There appears to be no material change to the key elements that have a bearing on retail payment services matters as set out in the original Act.

FICA: Exemption 17

On 1 November 2004 the Minister of Finance promulgated an exemption in terms of FICA that repealed the original exemption 17 of the Act and replaced it with an amended Exemption 17, which currently applies.

The essential thrust of Exemption 17 is to adjust the intensity of compliance for both service provider and consumer in instances where risks are deemed to be lower (associated with lower transaction sizes and volumes). A second tier of compliance is created that aligns compliance requirements with lower risk.

The primary driver for the amendment came via the banking industry that was involved in the design of the 'national bank account', in compliance with the emerging Financial Sector Charter (FSC). One of the material drivers of costs on the supply side was banks' compliance with 'full' FICA requirements. The banking industry argued that by amending compliance requirements for entry-level banking products, the cost-to customer would be lower and thus more affordable. In addition, millions of aspirant customers in practice simply cannot verify formal addresses. A core objective of the FSC was to improve access to formal retail financial services, with pricing being a major element of improved accessibility. Thus, Exemption 17 was a step in this direction.

Exemption 17 exempts accountable institutions from the requirement for verifying the identity of customers against proof of address. A person's identity still needs to be established via a green bar-coded South African identity book and recordkeeping is still required, but no proof of residence is required as verification of identity. This concession is subject to certain **transaction parameters** being met on a qualifying service or product (defined as a single or ongoing arrangement between service provider and customer):

- A withdrawal, transfer or payment may not exceed R5,000 per day or R25,000 per monthly cycle;
- No cross-border payments or transfers may be made from South Africa, unless it is a point of sale purchase or withdrawal in the Rand Common Monetary Area (CMA);
- If the service includes an account structure (e.g., a deposit account), the balance may not exceed R25, 000 at any time; and
- Only one such service (account) may be held at any one institution at a time.

As discussed in the Tier 3 discussion above, Guidance Note G06/08 (as a supplement to the Banks Act), further enhances the lower regulatory requirement of Exemption 17 in cases where non face-to-face services are established and transactions conducted on mobile phones.

Government Regulation No. R. 454 - Exemption in Terms of FICA, 2001 (pre-paid instrument exemption)

On 28 May 2010, a further exemption in terms of FICA was issued by the Minister of Finance. It deals with a 'prepaid instrument', which is defined as "an instrument that functions as an electronic surrogate for coins and banknotes, representing a claim on the issuer, which is stored on an

electronic device such as a chip card or computer memory and which is accepted as a means of payment by persons other than the issuer.”

This is electronic money or ‘e-money’, as defined by the SARB.⁴⁸ The exemption has the following parameters:

- i. Banks are the focus of the exemption;
- ii. Exempt ‘accountable institutions’ are exempt from (a) obtaining personal information, and (b) verification of that information; and
- iii. The keeping of records as pertaining to (ii) above.

The profile of the ‘instrument’ must subscribe to the following parameters:

- i. Individual transactions may not exceed a value of R200;
- ii. The available balance of the instrument may not exceed R1,500 at any time;
- iii. The turn-over or through-put of the instrument may not exceed R3,000 in a monthly cycle;
- iv. It may not perform cross-border transactions;
- v. Only so-called on-line systems that require PIN authentication may be used for reloading or topping up the instrument; and
- vi. Remittances, cash withdrawal or cash-back (as part of a purchase) are not permitted.

Obligations are also placed on providers (issuers) of such instruments, which include:

- i. The implementation of enhanced tracking measures that will effectively identify transactions that may possibly contravene the Act;
- ii. The establishment and verification of the identity of any third party that issues the instrument on its behalf; and
- iii. The implementation of similarly enhanced tracking measures for the third party issuer, which will effectively identify transactions that may possibly contravene the Act.

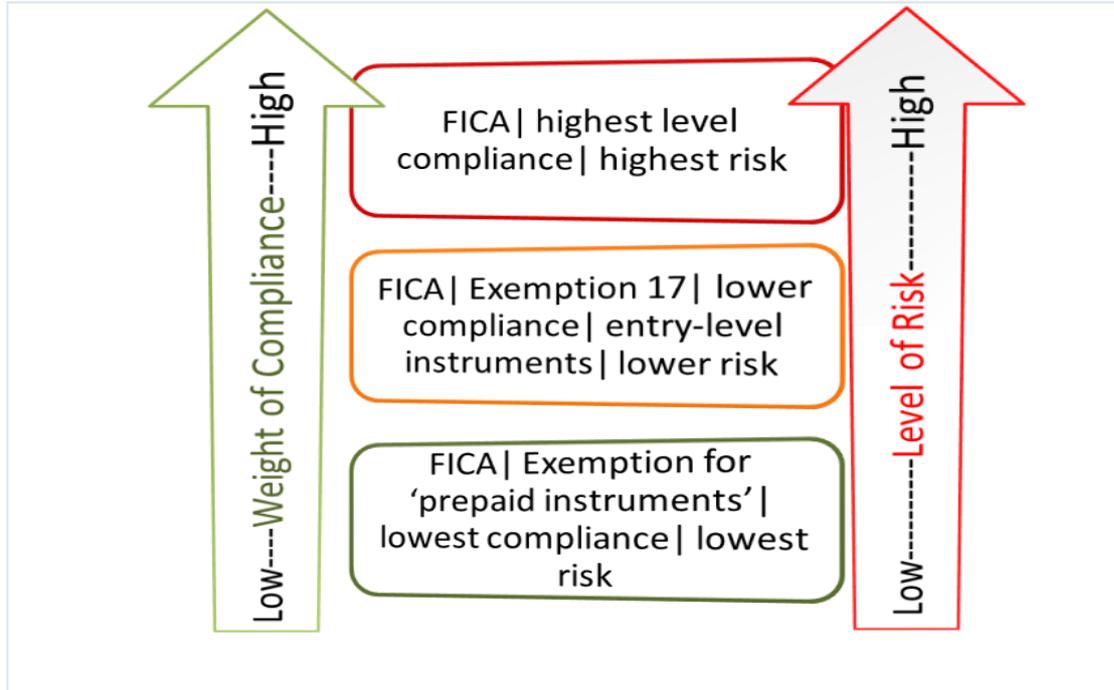
The objective of this Exemption is to provide for a variety of electronic payment instruments, particularly mobile handset payments, but would include near field communication (NFC) devices too, whether loaded on a handset or a card.

FICA and its Exemptions / Impact on Payments

In summary, there are three FICA compliance levels associated with three tiers of risk as illustrated in *Figure 9 / Tiers of Risk & Compliance*. Essentially, the regulatory authorities have given practical expression to the principle of modulating the weight of compliance with the level of associated risk. Within Exemption 17 there has been further amelioration of compliance requirements for non-face-to-face account-opening procedures for certain low limit, mobile-based services (as per Guidance Note 6 discussed above).

⁴⁸ SARB. Position paper on e-money. *Op cit.* “...monetary value represented by a claim on the issuer. This money is stored electronically and issued on receipt of funds, is generally accepted as a means of payment by persons other than the issuer and is redeemable for physical cash or a deposit into a bank account from the issuer on demand”.

Figure 9| Tiers of Risk & Compliance



This style of modulation is particularly useful to facilitate market development on both the supply and demand side of the market. On the supply-side, novel services using newly harnessed technology can be deployed, such as mobile handsets, smartcards or NFC devices. On the demand-side services more fitting to the needs of aspirant financial participants are facilitated and transaction costs may be lowered materially.

The view of the report is that the above tiered compliance structure finds a suitable balance between risk and compliance relative to the transaction size and volume needs of the typical entry-level customer. Nevertheless, there is a view in the market place that compliance is still an inhibitor to product development and meeting customer needs. This relates particularly to the legal interpretation of certain compliance requirements, which are not interpreted in a standard manner amongst participants (for example, some deem it necessary to make paper copies of ID books; for others a photo of the ID taken by mobile phone suffices). There seems to be need for even greater clarity on exactly what is permitted and in what way.

3.1.6 RICA| Impact on Financial Services?

The Regulation of Interception of Communications and Provision of Communication-related Information Act, 2002 (RICA) requires the same information set from individuals who use or own a cellular phone or SIM card as is provided for accessing financial services. On the supply side, suppliers of cellular services are required to collect the information, store such data and be in a position to retrieve it for evidential purposes.

There is a further requirement placed on users (and owners) of mobile phones, that in the event of a loss of a cellular phone or SIM card, such loss must be reported to the South African Police Services.

It seems that the drafters of RICA took note of the FICA requirements. However, the requirements are not fully aligned and further differences are introduced by the actual RICA processes that are followed by RICA agents. These differences, coupled with questions regarding the reliability,

integrity and currency of the data will make it difficult for banks that offer mobile banking services to leverage off the RICA data. The most unfortunate result of the introduction of RICA is, however, the fact that the face-to-face identification and verification requirements under RICA undermine the non face-to-face account origination model that the South African Reserve Bank introduced for low value mobile banking (Guidance note 6/08) (De Koker, 2010)⁴⁹.

3.1.7 Regulatory Matters| in Conclusion

The South African Reserve Bank's formal recognition of e-money and mobile banking are two powerful signposts that mobile phones and the telecommunications infrastructure are becoming integral elements of nouveau financial services. Such recognition tends to follow market pressure, which is the first signal that market dynamics are changing. Furthermore, evidence suggests that mobile-based financial services are properly suited for transformational banking.

3.2 The Framework for Market Participation

Essentially, regulation of the financial sector is to manage the inherent risks that are contained in the nature and reach of this economic sector. Filtering and managing market participation is one element of risk mitigation arrangements.

Risk is managed by defining the character of the commercial entities that are permitted to participate in this sector, and what they may or may not do; their roles, responsibilities and obligations. This brief section builds on the regulatory review preceding.

The two parties on either end of the transaction are not the only retail payment services participants. There are a range of intermediaries that facilitate safe, secure and effective transfers between the two parties; between payer (or sender or debtor) and receiver/recipient (or beneficiary or creditor).

At an aggregated level, payment system participation is established though various categories of

In certain circumstances the provision of services relating to payment instructions by persons other than banks adds value to the users of the NPS in a broader market. The NPSD recognises this fact, provided that risk emanating from such services in the NPS is controlled. During 2007, system operators (SOs) and third-party payment service providers (PSPs) were formalised into a new category of participants in the NPS.

Prior to 2007, SOs and PSPs had operated largely without being regulated. Owing to the increase in the volume and value of payment instructions being processed by such persons, the NPSD found it essential to set minimum criteria for participation in this environment.

In September 2007 two directives were issued to lay down minimum criteria that should be applied by such non-bank participants.

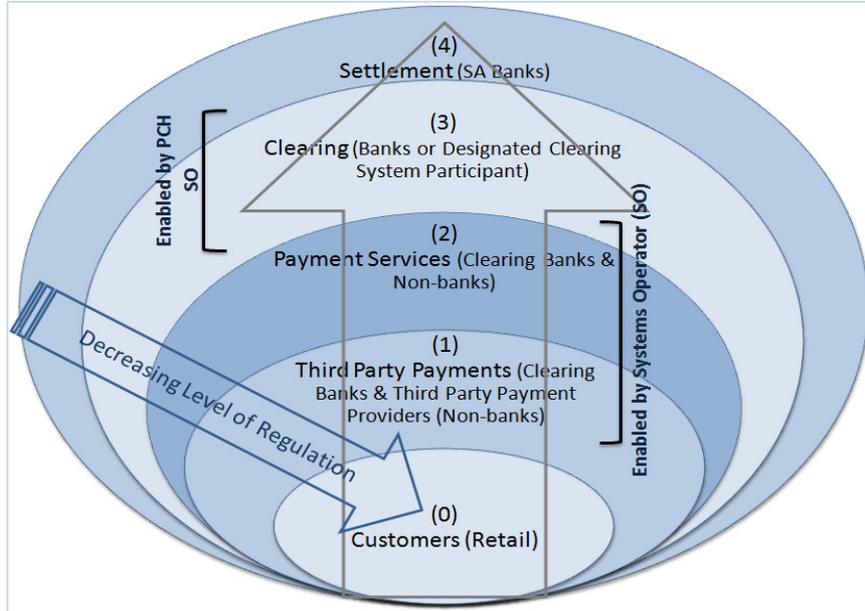
By the end of 2008, 40 SOs and 22 PSPs had registered with PASA. These non-bank participants form an important link between the payment and customer networks, and enhance the efficiency and footprint of the payment system..

SARB. *Oversight of the South African National Payment System.* ISBN (print): 978- 0-9814465- 2- 3 (No date).

⁴⁹ For a full overview of the interplay between RICA and FICA and the potential impact of RICA on mobile financial services, see De Koker, L., 2010. Will RICA's customer identification data meet anti-money laundering requirements and facilitate the development of transformational mobile banking in South Africa? An exploratory note. Available at: www.finmark.org.za. Paragraph in text quoted directly.

intermediating services, defined by the National Payment System Act, and given expression by the Payment Association of South Africa (PASA). Refer to *Figure 10* below that describes the four layers of participation, starting at the layer closest to the customer experience and working outwards to the most regulated; layer 4 – the so-called settlement activity and its associated authorised participants.⁵⁰

Figure 10| Framework for Market Participation



Source: http://www.pasa.org.za/nps_key.html. Adjustments made by IX.⁵¹

In general, banks may operate at all levels of the payment system, although as all banks are not equal, they cannot necessarily perform all payment functions. For example, at the most regulated level (4) only South African registered settlement banks may conduct settlement functions. The same banks (if clearing banks) could be found at layer 3 providing clearing services, at level 2 providing payment services and also level 1 doing third party payments.

Between the layers of participation are two kinds of enabling entities, so-called payment clearing house system operators (PCHSO), and system operators (SO). The former, of which there are four, conduct **clearing operations** on behalf of bank and designated clearing system participants (that may be non-banks). In terms of Directive 2 of 2007 (as discussed in the previous section), a system operator is a non-bank and provides electronic capability for two or more entities to make payments and/or to receive the proceeds of payment instructions. System operators facilitate electronic enablement across layers 1 and 2.

⁵⁰ http://www.pasa.org.za/more_nps_keyroleplayers.html. 16 February 2011. The following descriptive section is largely based on the material sourced from PASA.

⁵¹ The original illustration has the five layers as set out above reversed; i.e., 'Settlement Participants (Banks)' is at the centre, as item 1 and 'Customers' as item 5. The original configuration also represents the order of regulatory intervention, the highest at the core and decreasing outwards. The amended configuration establishes the customer at the core, and the highest intensity of regulation at the outer rim.

Types of Banks | Clearing & Non-clearing⁵²

A **clearing** bank:

- (a) Is regulated by the Registrar of Banks.
- (b) Is required to be a member of PASA in terms of the NPS Act.
- (c) Is a settlement system participant as defined in the NPS Act, and therefore **has to**:
 - i. Operate a SAMOS account at the Bank, unless operating by the arrangement with the Bank as a sponsored clearer.
 - ii. Be a member of one or more PCH participant groups (PCH PGs).
 - iii. Provide, to its clients, one or more of the payment services defined hereunder in section 5, Payment services, and recognised by the PCH PG of which it is a member.
 - iv. Clear domestic payment instructions to and/or from other banks as a normal part of its business.
 - v. Be a signatory to a clearing agreement and, consequently, be a member of a PCH and be subject to the entry and participation criteria of each applicable PCH.

A **non-clearing** bank:

- (a) Is regulated by the Registrar of Banks.
- (b) Is not a settlement system participant as defined in the National Payment System Act, (Act No 78 of 1998, NPS Act) and **may not**:
 - i. Provide to its clients, any of the payment services defined hereunder in section 5, Payment services.
 - ii. Clear domestic payment instructions to, or from, other banks as normal part of its business.
 - iii. Be a signatory to any payment clearing house (PCH) agreement.
 - iv. Operate a South African Multiple Option Settlement (SAMOS) account at the South African Reserve Bank (the Bank).
 - v. Enjoy membership of PASA.

Clearing Banks | Types of Clearing⁵³

A bank may (select to) operate in any one of the following categories of clearing bank, provided that such operation is in accordance with laid down rules:

Direct clearing

This is the model for a bank that provides all or some of the payment services defined above and which will belong to applicable PCH PGs by participating in the applicable PCHs in its own right.

Sponsored clearing

This is the model for a bank that, in a specific PCH, provides some of the payment services, as defined above, by virtue of an agreement with a direct clearing bank, in terms of which agreement the sponsored clearing bank's settlement obligation within the PCH is fulfilled by the sponsoring bank on behalf of the sponsored clearing bank.

Mentored clearing

This is the model for an entrant bank into a particular PCH. The bank will participate as a direct clearer, but will have a contractual arrangement with another direct clearing bank for purposes of guidance and assistance when problems are experienced and/or skills that are not available within the entrant bank are required.

⁵² South African Reserve Bank. National Payment System Department. Bank Models – Position Paper P. 5-6.

⁵³ South African Reserve Bank. National Payment System Department. Bank Models – Position Paper P. 5-6

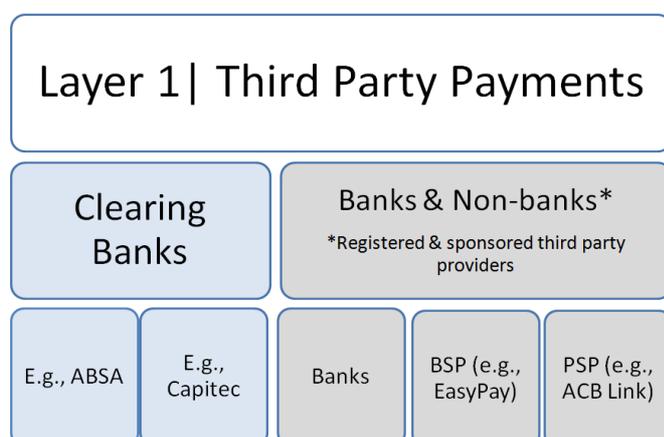
Agency clearing

Only a direct clearer may conclude an agency clearing arrangement with any other clearing bank in order to provide clearing services to the clients of the other bank via the practice of credit transfers. This means that facilities are offered to other clearing banks in order to allow clients of such other clearing banks to make deposits with such banks and to transfer the funds so deposited to the clients' banks. This service must be covered by a specific PCH agreement approved by PASA.

Technical outsourcing

Any bank can provide operational facilities to process payments or manage settlements for another participant bank in any PCH (or all PCHs) within any payment stream (or in all payment streams). The participating bank, however, remains the principal for all clearing and settlement agreements into which it enters.

Below, we give a brief description of each layer of market participants as it relates to the regulatory framework set out in Section 3.1:

3.2.1 Layer 1| Third Party Payments (by Banks and Non-banks)

It is the inner layer that most directly touches RPS and by implication customers. The primary function these participants perform is to affect payments in their various guises. Until recently non-banks were informally involved in providing payment services, alongside the formality of bank provision. Non-bank participation was formalised via SARB Directive 1 in 2007.

As stated in the regulatory section, two types of 'third-party payment providers' (TPPP) have been catered for, namely, (i) beneficiary service providers (BSP) and (ii) payer service providers (PSP). Third-party payment providers are required to be sponsored by a clearing participant and registered with PASA and at least one payment clearing house (a PCH, such as BankserveAfrica). The rationale for sponsorship is to ensure that risk mitigating rules and procedures are complied with.

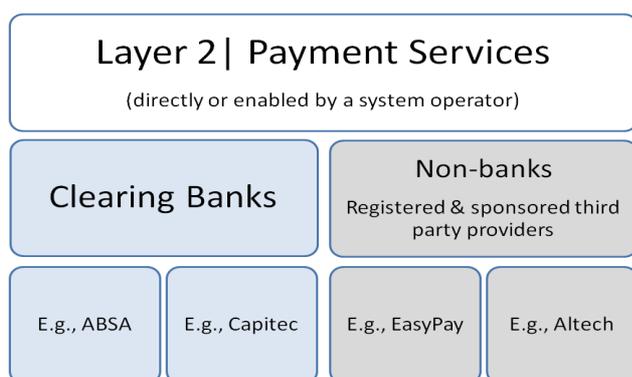
A TPPP is typically enabled by a systems operator (SO), who provides technology enablement but does not accept the transferring funds into their own account for on-payment to the other party. There are currently 65 system operators listed on the PASA membership list⁵⁴. Systems operators include Altech Card Solutions a division of Altech, EasyPay (Pty) Limited and Tutuka Software (Pty) Ltd. There is an association that seeks to look after the interest of SOs, the Association of System Operators, which currently has 26 members⁵⁵. An authorised SO may provide payment instruction services to two or more of the following entities:

⁵⁴ <http://authorisation.pasa.org.za/Reports.aspx>. 9 March 2011.

⁵⁵ The Association of System Operators (ASO): <http://www.aso.org.za/index.php>. 9 March 2011.

- i. **Banks, mutual banks, registered branches of foreign banks, co-operative banks and designated clearing service providers:** An example of a designated clearing service provider is Bankserve Africa;
- ii. **Beneficiary service providers:** There are currently 57 BSPs and PSPs approved by PASA⁵⁶. The vast majority of BSPs are sponsored by one of the major full service banks, such as ABSA and First Rand Bank. Example of BSPs include Pick 'n Pay Retailers (Pty) Limited, EasyPay (Pty) Limited and Shoprite Checkers (Pty) Ltd. These are the typical 'many to one' payment intermediaries that collect, say, utility bill payments from many payers and transfer to one beneficiary;
- iii. **Payer service providers:** Examples of PSPs include ACB Link (Pty) Ltd, DMC Debt Management (Pty) Ltd and Profile Software International (Pty) Ltd. These are the 'one to many' payment intermediaries that process, for example, salaries from an employer to multiple employees; and
- iv. **Clients or customers of banks:** As payment end-users.

3.2.2 Layer 2| Payment Services (Clearing Banks and Non-banks)

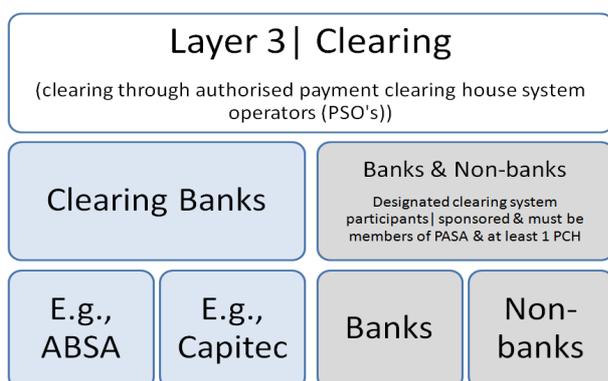


The second layer provides for payment services, either by clearing banks or non-banks sponsored by a clearing bank. Payment services may be provided directly (if it is a bank) or via a system operator if it so chooses.

The difference between Layer 1 and 2 hinges on the nature and regulatory enablement of the non-bank entities; i.e., they are able to process payments in their own right, and not

via a third party payment provider.

3.2.3 Layer 3| Clearing (Bank or Designated Clearing System Participants)



Clearing is the second highest regulated activity in the payments system. Only clearing participants may operate here, whether they are banks or so-called 'designated clearing system participants' (who may be non-banks). Both types of participants must be members of PASA and at least one payment clearing house.

There are currently 11 PCHs.⁵⁷

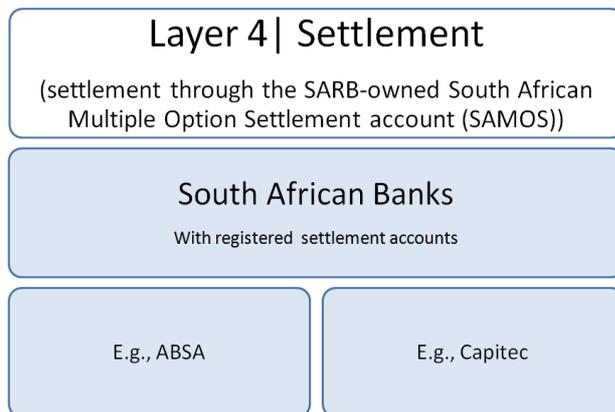
Unlike the first two layers where processing of instructions or enablement can be facilitated via system operators, clearing of payment instructions

⁵⁶ <http://authorisation.pasa.org.za/Reports.aspx>. 9 March 2011.

⁵⁷ http://www.pasa.org.za/more_pchpg.html. 12 March 2011. In the PASA organisational structure there is a reference to "PCH PG's x 13", but in the list of PCHs there are 11.

amongst participants in layer 3 is achieved through PCH system operators (PSOs). There are four authorised PSOs, namely, BankservAfrica, STRATE Limited, and the two card associations, Visa and MasterCard. Settlement of clearing obligations is achieved either directly if the participant is also a settlement participant or else via a settlement bank sponsorship (refer below for explanation of settlement).

3.2.4 Layer 4| Settlement Participation (Banks and Non-banks)



At the heart of the payment system is the process of settlement, what the BIS describes as the “act that discharges obligations in respect of funds or securities transfers between two or more parties”. Settlement participants all have a settlement account with the Reserve Bank. Settlement of payment obligations between participants is achieved through the South African Multiple Option Settlement system (SAMOS), which is owned and operated by the Bank. Currently only

South African registered banks can hold settlement accounts. Banks or designated participants who do not have settlement accounts may be sponsored by settlement participants.

3.2.5 Market Participation| in conclusion

The institutional profile of the payment landscape has evolved as new types of payment services participants have arisen and been accommodated within the system. It would appear that the expansion in recent years of the number of service providers, the types of services they offer, as well as the introduction of new service-channels and technology enablement platforms have all contributed to supply-side development and facilitated improved payment services accessibility, within a well-regulated risk environment.

The next section (4) explores a portfolio of retail payment services suppliers. They range across banks and non-banks and have been selected on the basis of the transformational payment services that are presented in section 2.3.

4 Providers of Retail Payment Services| the Supply-side

This section builds on the two sub-sets of the previous section, namely, the regulatory regime and the framework for participation. It describes a selected portfolio of suppliers of retail payment services. It is these selected participants that provide the portfolio of services that give expression to the payment models that follow in section 6.

It has been a tradition to categorise the two primary kinds of retail payment services suppliers as either ‘banks’ or ‘non-banks’. The history of this usage is probably founded on the fact that when payment systems originally became regulated, banks enjoyed a monopoly of that space. As the market-place has changed over time new, non-bank suppliers of RPSs and various support functions thereto have become involved. The regulations governing payment systems have provided scope for these new players as they have pushed into the market looking to compete with and/or complement existing players.

The following two sub-sections deal sequentially with bank-suppliers and non-banks.

4.1 Banks| as suppliers of RPS

The South African banking industry is made up of 19 registered banks, 2 mutual banks, 13 local branches of foreign banks and 41 foreign banks with approved local representative offices.⁵⁸

Each of the four major banks (ABSA, FirstRand, Nedbank and Standard Bank) offer full-service banking covering personal, commercial and corporate customers. Their services include accepting deposits for transactional, savings and investment purposes and offering lending products both for secured and unsecured assets. Additionally they offer their services, both the aforesaid and more complex solutions to a variety of market segments.

Some smaller banks, such as Capitec, are growing towards full-service banking, at least in the retail context, from being specialist credit banks to start with.

An element of the South African banking industry that is quite unique and can have a material influence on market inclusion is the level of customer-facing systems interoperability⁵⁹. South Africa

Major challenges for the years up to 2010 are to:

*increase the accessibility of the payment system by, inter alia, **providing for new types of participants**, but at the same time maintaining the safety and efficiency of the payment system by adhering to sound internationally accepted payment system risk principles. It is critical to the safety and efficiency of the payment system to identify and address potential payment system risks (settlement risk, liquidity risk, operational risk, legal risk, credit risk and reputational risk) on a pro-active basis. **Increased accessibility by new participants will also facilitate wider usage of the payment system by the public. One of the objectives would be to address further the payment needs of the unbanked Community***

SARB. *The National Payment System Framework and Strategy Vision 2010*. 2006. P. 1. Emphasis added.

⁵⁸ <http://www.banking.org.za/getdoc/getdoc.aspx?docid=1129>. 11 March 2011.

⁵⁹ “Interoperability is defined as the ease of interlinking different systems on a business and a technology level. A more detailed description of interoperability on a technology level is the ability of different types of computers, networks, operating systems, applications and other infrastructure of different banks and relevant

has one of the most progressive positions and highest levels of interoperability within comparable payment systems. All major retail banks' ATM networks are connected via a local switch called SASWITCH and all merchant PoS devices are VISA, Master Card and increasingly EMV compliant. This arrangement offers a wide and deep infrastructure footprint for customers, particularly important to entry-level customers.

This facet of banking channel development has been recognised by the Reserve Bank and appears to be receiving deserved attention as part of the general debate on supply-side development and innovation.⁶⁰

The banks are not listed in any particular order.

4.1.1 ABSA⁶¹

Absa Group Limited is the largest banking group measured by assets and has the largest retail client base of 11.3 million customers, of which approximately 6.5 million are categorised as 'entry level' by Absa. Absa's distribution infrastructure includes 898 branches and 7,000 ATMs⁶². At the time of writing, mobile banking clients were estimated to be 2.5 million.⁶³

According to the Absa Annual Report 2010, the retail division's second top priority for 2011 is to; "...broaden inclusivity in the entry level market". A manifestation of this intention could be the extension of their distribution network by installing fifty so-called '1234' branches, named for the simplicity of the four services they offer, namely, transacting, savings, lending and life assurance. These four service areas are supposedly designed to meet the needs of what Absa defines as the entry-level segment.⁶⁴ Their intention is to install up to 100 '1234' branches by the end of 2011, all largely in locations much closer to where the target market lives, commutes and works. Noticeably, these branches are following what could be termed 'the Capitec model' of being cashless, keeping costs of infrastructure low, encouraging clients to use Absa's extensive ATM network and focusing on providing financial education services.

Whereas several of Absa's other initiatives are under wraps till mid-year (2011), a successful 18-month pilot in 2010 saw the launch their new 'near field communications' (NFC) pre-paid Maestro debit transport-fare card, 'PayPass'. It is contended that this will revolutionise the transport fare industry in South Africa.

In addition to this initiative, several features are to be added to their successful 'Cash Send' product that enables a transactional account holder to send value to a mobile handset, which can be realised as cash at an Absa ATM or Absa outlet without the recipient having a bank account. Material changes are planned for the Absa retail 'sales and service' business model too.

stakeholders to interlink and work in partnership effectively, without interruption, explicit communication or translation prior to each event, in order to enhance the efficiency of the payment system." National Payment System. Vision 2010.

⁶⁰ SARB. National Payment System Department. Position Paper on Interoperability. NPS 01/2011.

⁶¹ ABSA Group Limited. Annual Results. 31 December 2010. Presentation.

⁶² <http://www.absa.co.za/Absacoza/Security-Centre/ATM-Security/ATM-Security>. 13 January 2011.

⁶³ <http://www.fm.co.za/Article.aspx?id=134010>. The respective numbers for the other three large retail banks are FNB (2.6m), Standard Bank (1m) and Nedbank (between 600,000 and 1m). 17 April 2011.

⁶⁴ <http://www.moneyweb.co.za/mw/view/mw/en/page292516?oid=534701&sn=2009+Detail&pid=292654>. 21 April 2011.

4.1.2 Capitec Bank⁶⁵

Capitec is a 'second tier' (i.e., materially smaller and offering a much narrower range of services than the large full-service banks) retail bank that is increasingly expanding its presence in the retail banking market. It has a client base of 2.1 million and a distribution network 401 branches and 417 ATMs.

Although a fairly new entrant in the full service retail banking arena, Capitec has made strides in addressing the entry-level market segment by offering innovative easy-to-use, low-cost banking services largely in micro loans, and by placing its distribution network in easily accessible areas. It does not offer any money transfer services directly (yet), rather operating in partnership with leading retailers such as Shoprite-Checkers and Pick 'n Pay. In these instances it offers a money transfer service, such as from one Shoprite Checkers Money Counter to another, where neither sender nor recipient requires a bank account and the funds are transferred and available immediately using a reference code and release password that is communicated via SMS.

4.1.3 First National Bank (FNB)⁶⁶

First National Bank is a franchise bank of the First Rand Group and is the third largest of the so-called Big Four full-service banks, as measured by assets. FNB has 6.5 million retail clients and a distribution network of 750 branches and 5,557 ATMs and 127, 000 PoS devices.

According to FNB, their newest contribution to transformational banking is the 'strikingly successful *eWallet* service', launched in late 2009. It is intended to meet the market need 'to send cash to someone without a bank account', but who has a mobile handset. *eWallet* allows FNB customers to send money to anyone with a valid South African cell number. The money is transferred instantly and can be used to buy prepaid airtime, send the e-money to another cellphone or redeem the *eWallet* funds as cash via any FNB ATM. The *eWallet* has seen significant growth since its inception from a modest start of 30,000 (January 2010) to 370,000 (January 2011) users, with a current daily average of R1.5 million being paid into *eWallets*; bearing in mind the daily limit per *eWallet* is R1,000⁶⁷.

4.1.4 Nedbank⁶⁸

Nedbank is South Africa's fourth largest banking group with a client base of 4.8 million and a distribution network of 452 branches, 144 'outlets', 2,283 ATMs, 379 Self Service Terminals (SSTs) and 6,419 PoS devices with cash-back facilities.

M-PESA, a money transfer service, is South Africa's version of the Kenyan M-PESA experience and was launched by Nedbank and Vodacom at the end of August 2010. For this service neither the sender nor the recipient requires a bank account, but both parties require mobile handsets. The sender (initiator) needs to be both a Vodacom customer and a registered M-PESA user. Through its two partners, M-PESA combines the financial risk and money management of a bank and a telecom's

⁶⁵ Capitec. Annual Report. Key Performance Indicators. 2010.

⁶⁶ FNB. Annual Report 2010.

⁶⁷ <https://www.fnb.co.za/news/archive/2011/20110214ewallet.html> 14 February 2011.

⁶⁸ Nedbank. Annual Results. Presentation. 2010.

low unit-cost technology and distribution capability. According to Ilse Wagner from Nedbank, "...the South African partners are working as equal partners to create the ideal two-sided market that hailed M-PESA's resounding success in Kenya".

The jury is still out whether M-PESA (South Africa) will rival the success of Kenya, as the two countries' financial services markets are vastly different. Cognisant of this, M-PESA South Africa states it has tailored the technology and distribution approach to meet the demands of the South African financial regulatory and technology environments.

As at January 2011, M-PESA had established 2,700 accredited outlets ranging from spaza shops (homestores) and community containers to full service Nedbank banking halls. There is also potential to access Vodacom's existing 4,000 'container' outlets set largely in rural and township areas, as well as a variety of retail and homestore outlets. At the time M-PESA had more than 65,000 registrations signed up. The initial measure of success has been set at a million registered users. There is scope for significant further growth into the 26.2 million-strong Vodacom subscriber base, using a significantly broadened range of M-PESA financial services and the number of outlets.

4.1.5 Postbank⁶⁹

Postbank is currently a member of the Post Office Group, but is in a process of corporatisation. With its extensive footprint of 1,539 Post Office branches and 927 agencies, it is well placed to reach under-served markets as many of these points of presence are in commercially underserved areas. Postbank was a participant in the Mzansi Account and Money Transfer initiative with the big four commercial banks. It offers a range of entry level financial services, but lacks new-style leading edge initiatives in the payment services arena, such as mobile platforms and channels.

Details regarding Postbank's immediate future with regard to retail payment services are not in the public domain and Postbank did not engage in the research and consultation process.

4.1.6 Standard Bank⁷⁰

Standard bank is the second largest bank of the big four with a client base of 8.5 million and a physical distribution network of 1,257 branches and 6,816 ATMs.

Standard Bank was one of the early adopters of large-scale mobile banking, recognising the value and simplicity of accessing banking using a mobile phone. A joint venture, called 'MobileMoney', was set up with mobile network operator MTN in 2005. MTN has the second largest mobile client base in South Africa with 18.8 million clients. The MobileMoney service gained a fairly insignificant number of clients initially, reportedly 16,000, and has largely been seen as a failure. This appears to be a consequence of the exclusive nature (closed loop system) of the service. Clients are required to effectively open a Standard Bank account to participate. Customers need to be registered as MTN users, with the mobile number applied as the account number. Coupled with the fact that MobileMoney services offer little more than conventional banking, this explains its limited appeal in South Africa. It has proven far more successful elsewhere in Africa where the leading success story has been in Ghana, with over 1.8 million customers.

⁶⁹ Postbank. Annual Report 2010.

⁷⁰ Standard Bank. Annual Financial Results. Presentation 2010.

In its 2010 Annual Report, Standard Bank highlights its recently implemented ‘dedicated *Inclusive Banking* offering’ where it has installed and activated banking infrastructure in 7,500 ‘bankshops’. The so-called bankshops are community based outlets that are set up as authorised Standard Bank retailers. It is intended that they act as facilitators of financial services, much like the Brazilian-style ‘correspondent banks’. All the bankshops offer airtime sales and money transfers where neither party requires a bank account, but the recipient requires a mobile phone.

Apparently, about 1,000 bankshops have been set up as *full-service* shops offering money transfer, airtime sales and basic banking services such as cash-in, cash-out, balance enquiries and purchasing of goods⁷¹. Standard Bank also offers a money transfer service in partnership with Spar, akin to that offered by Capitec through Shoprite-Checkers and Pick n Pay.

4.1.7 WIZZIT⁷²

Wizzit Payment Systems (Pty) Ltd is a division of The South African Bank of Athens Ltd. It is a provider of basic financial banking services for the unbanked and under-banked. Its services are based on the use of mobile phones for accessing bank accounts and conducting transactions such as transfers between Wizzit account holders, third party payments, and the purchase of pre-paid airtime and electricity. Registered users are issued with a Maestro debit card to enable them to make purchases and secure cash back at point of sales terminals. Wizzit has no branch or outlet infrastructure of its own, partnering with Absa and the SA Post Office to enable clients to deposit funds. This provides a branch and agency distribution network of close to 10,000. Clients also have access to all ATMs and PoS devices that accept Maestro Debit Cards.

Wizzit’s innovative ‘branchless banking’ model is achieved through 2,500 “Wizz Kids”. Wizz Kids are typically young, formerly unemployed individuals from rural and low-income communities that Wizzit employs, trains, and educates to promote and sell their ‘mobile banking’ product in their communities. They receive commission for opening an account and further commissions depending on the transactional activity on the accounts opened. This approach of community members recruiting, servicing and educating their peers potentially gives Wizzit a better reach into the unbanked community than a traditional bricks and mortar bank, but from take-up volumes it seems that there are other challenges in reaching a material customer base.

The next section covers a review of the non-bank payment service providers.

4.2 Non-banks| as Suppliers of RPS

While defining anything as a ‘non-something’ is not terribly descriptive, this is the current convention and is therefore employed as such in the report. There are two types of non-bank retail payment service providers in the domain of ‘third party payment providers’ (TPPPs), namely, beneficiary service providers (BSPs) and payer service providers (PSPs). These TPPPs have been legitimised by Directive 1 (SARB), discussed above in section 3.1.4.

⁷¹ It must be noted that this information has not been verified by Standard Bank in consultation, but is drawn from their Annual Report. Although Standard Bank representatives attended the stakeholder workshop, they too were not in a position to contribute formally; indicating that Standard Bank did not want to compromise its current business initiatives in the domain of entry-level banking.

⁷² http://www.bankofathens.co.za/alliancepartners_wizzit.html. 13 March 2011.

The non-banks that form part of the review below are not the universe of such entities; they are the ones that are suppliers of payment services that comprise the portfolio under review in section 6 following.

The bulk of the information presented below is almost exclusively based on public information and covers matters of relevance to retail payment services rather than a general profile of the entities concerned.

Like the banks, the non-banks are not listed in any particular order.

4.2.1 POCit⁷³

POCit is part of the Tradebridge Group and is registered as a payer service provider at PASA. Mercantile Bank Limited South Africa is its sponsor bank. POCit states that its purpose is “[to] transform industries and people’s lives by democratising transactions”⁷⁴.

POCit’s primary retail payment service is offered via mobile handsets and mobile networks allowing a person with a bank account at any bank to make and receive payments. Neither sender nor receiver needs to know the other party’s bank account details to participate in the transaction. All payments and the virtual value store or ‘POCit Money’ have as their basis an underlying bank or credit card account. This is different to both FNB’s *eWallet* service and Absa’s CashSend. In the scenario of sending money all three abovementioned services require the sender to hold a bank account. In the cases of CashSend and *eWallet*, however, the recipient does not need to hold a bank account; whereas for POCit the recipient is required also to have a bank account to redeem the cash by accepting the value store on their handset. This is done by registering as a POCit user, in so doing linking their bank account to their POCit ‘account’, then using their own bank account or card to withdraw the cash.

In essence, POCit users elect POCit as their agent to make and receive payments on their behalf. It is similar to the PayPal online payment model that also acts as an agent to make and settle payments between people and merchants without needing to know the details of the recipient’s or merchants bank account.

Other retail payment services offered by POCit include a range of small to medium size merchant solutions and electronic bill (invoice) presentment (electronic bill delivery). In all instances POCit services are underpinned by a bank account for both sender and receiver. POCit acts as a facilitator and notification channel of payment service action due and taken.

4.2.2 Flashcow

Flash Home Shop Savings and Credit Primary Co-operative markets itself as a ‘community co-operative savings bank’ and contends that it is close to fulfilling and attaining its cooperative banking licence in terms of the Act. Flash is currently registered as a member of the Savings and Credit Co-operative League of SA (SACCOL) and its intention to register as a cooperative bank is to place itself in a better position to provide financial services to its members.

⁷³ <http://www.tradebridge.co.za/about-us-purpose.html>. 14 March 2010.

⁷⁴ Ibid.

Flash has its origins in a company called 'Take-it-Eezi' that provided community-service payphones and sold airtime and pre-paid electricity through a network of reportedly over 40,000 homeshops.⁷⁵ The business has evolved and expanded into a form of 'cooperative banking' known as 'Flash Cash' where the homeshop owner enables customers to withdraw cash, to make small deposits into a monthly (collective) savings scheme, or to borrow small amounts of cash based on their membership and access to the community's collective savings schemes. As a collective savings scheme, the cooperative's profits from the community's savings and loans are paid back to the cooperative of homeshop owners and the families who are members of the cooperative.

In addition to its cooperative homeshop community banking service, Flash has an extensive network of community stores and homeshops to market the sale of airtime and cash by registering as a user of Flash.

Flash accounts require the user to acquire a Cell-C SIM card that holds the Flash financial (bank) services application and enables the user to deposit cash (including having funds paid or transferred from other bank accounts) into their Flash account, receive Flash money, send money and realise cash at other Flash outlets. Non-members are able to collect cash at any homeshop using a reference number generated by the Flash banking application at the time the sender and owner of a Flash account requests the 'Pay Now' function. The recipient (payee) is sent an SMS message with the 'Cash Reference' details. The sender then needs to communicate the 4 digit PIN to the recipient. The recipient will have to get a FLASH SIM to redeem the cash that has been sent to them.

The Flash account money transfer is free for the user. Other sales and purchases attract a low fee. The system facilitates and tracks both person to person (P2P) and person to business (P2B) payments. The Flash account is provided in alliance with Absa that holds a bulk account.

For competitive reasons Flashcow declined to provide any service performance numbers but indicated that they have aggressive expansion plans to treble their 40,000 odd outlets in mostly the Eastern Cape and Western Cape.

4.2.3 WiredLoop

'WiredLoop Pre-paid', a subsidiary of Sandulela Telecom, is a virtual prepaid voucher distribution services company focusing on what they refer to as the 'township' market. Spaza shop (homeshop) owners were initially recruited to distribute insurance products and to collect premiums by using a mobile PoS device. Their range of services using a mobile PoS device has since been extended to other pre-paid services such as prepaid electricity, prepaid mobile airtime and national lottery tickets. Choosing not to branch into the money transfer market due to what they term the "uncomfortable prevailing banking regulations", WiredLoop remains purely a third party payment intermediary offering P2B but not P2P transfers or payment services.

4.2.4 Net1 - Universal Electronic Payment Systems (UEPS) Technologies and EasyPay⁷⁶

Net1 UEPS Technologies, Inc is a Nasdaq listed technology company that has strong historical links to South Africa specifically through their acquisition of Net1 Applied Technologies Holdings Limited

⁷⁵ <http://www.mediaupdate.co.za/?idstory=20720> September 2009.

⁷⁶ www.net1.com. Net 1 UEPS Technologies, Inc. Second Quarter Results JOHANNESBURG, 3 February 2011.

(Aplitec), a South African technology company listed on the JSE Limited in June 2004. At the time, Net1 Aplitec specialised in the development of advanced technologies in the field of transaction processing and held the license and exclusive marketing agreements to the US Funds Transfer System (FTS)⁷⁷ patent for South Africa, Namibia, Botswana and Swaziland. The acquisition by Net1 UEPS Technologies of FTS was to consolidate their intellectual property rights relating to the FTS and the universal electronic payment system (UEPS) technology. This provided the platform to focus on market opportunities in developing economies.

Net1 is both a third party payment provider (beneficiary service provider), and a provider of alternative payment systems that leverage its so-called Universal Electronic Payment System (UEPS). The latter system makes use of a biometrically secure, real-time electronic transaction processing system, based on a smart card that can function in online or offline environments.

Net1 has over 25 million cardholders in more than 20 developing countries such as Ghana, Iraq, Botswana, Namibia and Nigeria. Originating in South Africa it has over time acquired interests and developed opportunities within Europe, Africa and the Eurasian area. Its target market is, as specified by Net1, the “unbanked and under-banked populations of developing economies around the world”⁷⁸.

Although Net1 has other key transactional services, for example MediKredit, a health care claim and transaction processing service, only the three seen as pertinent to RPS are summarised below.

Cash PayMaster Services

Net1’s ‘Cash PayMaster Services’ (CPS) distributes social benefits payments on behalf of the South African Social Security Agency (SASSA) to over 3.5 million recipients in five of South Africa’s nine provinces. During 2010 CPS processed 18.4 million social grants through Net1 smart-card enabled PoS devices with a total value of ZAR 11.7 billion.

CPS’s social benefits payout service offers an unconventional alternative to bank and telco payment service providers. It uses its unique biometric authentication smart-card solution combined with a distribution network of enabled retailers and community stores in rural areas. The system’s potential drawback is that it operates in a ‘closed loop’ eco-system providing mainly services to social grant recipient through participating merchants.⁷⁹ Thus, while the platform has many distinctive features that are favourable for inclusivity, the current drawback is lack of general interoperability.

As at June 2010 the infrastructure comprised 4,794 PoS devices located at 2,513 participating retail locations, largely in extremely rural areas. The value of transactions processed through the PoS devices for Quarter 1 (2010) was ZAR2.9 billion. As part of its expansion programme for 2011, Net1 is to enable their cards to be compliant with international EMV standards which will then allow their

⁷⁷ “Funds Transfer System (FTS) patent defines how funds may be transferred from one smart card to another in a secure and offline manner. The term “offline” refers to transactions that are effected without the need to contact or communicate with the issuer when the transactions occur, as the smart cards themselves perform the authorisations required. The FTS also describes how smart cards can be loaded or re-loaded with funds and how these can be redeemed for value in either banking or non-banking environments.”

⁷⁸ *Ibid.*

⁷⁹ The notion of ‘open’ and ‘closed-loop’ systems are relative. There is no real open-loop system. All RPS systems are closed, on a continuum of size of closed. While the Net1 system is closed relative to classic banking systems, it services a material number of customers, significantly larger than many classic banking services.

cardholder base to purchase goods and services at all merchant PoS devices that currently accept VISA and Master cards. This will significantly improve the range of infrastructure points that Net1 (CPS) customers can access.

Net1's unique card-based service has at its centre the smart card whose characteristics enable payment processing to be moved from a centralised point to the chip embedded on the smart card. Unlike traditional (bank) cards where the transaction processing occurs via a central computer that manages each party's specific details, each Net1 smart card operates as a localised individual 'bank' account. All the relevant client details, funds available and biometric fingerprint identification are stored on the card. At the time of making the financial transaction, e.g., a purchase, cash withdrawal or money transfer, the two smart cards (initiator and retailer or recipient) communicate via a smart card reader-enabled PoS device, exchanging the relevant transaction details between the two smart cards. The transfer of money and information to the host mainframe computer may happen immediately if the device is on-line, or in batch processing at a later stage. When going on-line, a central database of transactions and full audit trail is managed and controlled, enabling full recovery and management of the process. Essentially, the smart card is like having cash, but without the safety and security concerns of physical cash.

Central to Net1's success in serving outlying non-traditional markets is the much lower cost of delivering the technology, the robustness in terms of security and flexibility, and its on-line / off-line ability. The system flexibility also caters for the design of financial services that seem to meet the individual client's financial needs, such as low interest loans, funeral policies and savings/store of value. The benefit for merchants is that they are able to reduce their cash handling costs and administrative overheads of transaction management via the centralised store of auditable transaction logs.

A complete installation of a fully integrated NET1 system consists of the following elements:⁸⁰

- i. A central transaction switch, including a set of software modules on the switch to manage and monitor the transaction flows;
- ii. Clients issued with several types of smart cards and merchant, employers and agents issued with merchant or agent smart cards;
- iii. Card personalisation equipment;
- iv. EFT POS terminals for off-line card to card transactions and also daily on-line transaction settlement;
- v. Transaction terminals connected to the switch to allow on-line funds load transactions;
- vi. Enrolment equipment;
- vii. Connections to other Financial Institutions and their sets of accounts (optional); and
- viii. Optional Net1 ATMs ('kiosks' currently in pilot phase and mobile ATMs)

EasyPay

Net1's 'EasyPay Service' is the largest bank-independent (non-bank) transaction processing service in South Africa. It is registered as a third party payment provider under the beneficiary service provider label. First Rand Bank is the sponsoring bank.

⁸⁰ Net1 UEPS Technologies Inc. Annual Report 2010.

In addition to its core transaction processing services, EasyPay processes a wide range of value added payment services such as mobile top-up transactions, prepaid utility purchases, bill payments and money transfers. The payment services enable people to settle accounts online (internet), at retailer till-points that are integrated with EasyPay systems, PoS and kiosks (ATM-style devices), using cash or accounts. During 2010, EasyPay processed 655.2 million transactions with a total value of ZAR143.8 billion.

It is reported that the range of EasyPay services is to be extended to include money transfer services from kiosks to mobile handsets and mobile phone to mobile phone. During the consultations for this report, EasyPay demonstrated a live pilot of how the proposed money transfer service will work. The sender uses an EasyPay ATM-style device⁸¹ to input value (cash) into the system, creating a store of value on the sender's or recipient's mobile phone. The value may be redeemed as cash, used to purchase airtime or pay bills using EasyPay's kiosks or vending machines.

EasyPay has a strong brand presence and Net 1 has a highly developed distribution capability to deep rural areas. It is envisaged that the expansion of its services is likely to be well-received and utilised in entry-level markets.

Net 1 FHRST

Net1 FHRST Holdings (Proprietary) Limited is the largest provider of third party payroll payments in South Africa. It conducts salary payments for over 750,000 (banked) employees on behalf of approximately 700 employers. In this instance Net1 FHRST is sponsored by Standard Bank as a payer service provider third party payment provider.

4.2.5 Blue Label Telecoms Group (BLT)⁸²

The Blue Label Telecoms Group (Blue Label Telecoms - BLT) was founded as Blue Label Investments (BLI) in 2001 when 'The Prepaid Company' (TPC) acquired a national licence to distribute Telkom fixed line prepaid cards. From the outset BLI realised the value of owning and developing a distribution network that could distribute large volumes of secure electronic 'tokens of value'.⁸³ Several telecommunications acquisitions later, notably in 2003 when BLT acquired a 35% holding in Oxigen India, now a leading electronic distributor of prepaid airtime for Indian telecom operators, BLI re-structured around its core telephony assets and listed on the JSE Limited in 2007 as 'Blue Label Telecoms'. At this time, Microsoft acquired a 12% equity stake in BLT and set up "...a variety of strategic collaboration agreements to jointly pursue preferred partnership initiatives in developing countries", the first of these being with Oxigen India in 2008⁸⁴.

⁸¹ <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9ODAyMzd8Q2hpbGRJRD0tMXxUeXBIPtM=&t=1>

"In September 2010, the Company launched its EasyPay Kiosk, or EP Kiosk, pilot project at select locations in the Gauteng province of South Africa. The EP Kiosk enables users to purchase prepaid electricity and airtime and perform any post paid bill payment service requirements using the interactive user-friendly touch screen kiosk interface. The user will also be able to transfer prepaid voucher value to other mobile phone users. Users can register their own prepaid voucher wallet on the EP Kiosk, with access to the wallet guaranteed via biometric identification of the user at time of registration. A five digit personal identification number, or PIN, is also required by the user so as to facilitate transactions done via mobile phone or internet."

⁸² Blue Label Telecoms (BLT). Annual Report. Presentation. 2010.

⁸³ http://www.bluelabeltelecoms.com/au_brief_history.php

⁸⁴ *Ibid.*

BLT's operates "...around the premise that any product or service that can be digitised, can be distributed and paid for through its footprint and, according to its mission statement, focuses specifically on the entry level market (middle and bottom of the economic pyramid)⁸⁵. BLT has established a distribution network for processing such transactions through various points-of-presence, including individual merchants, single entity retail outlets, national chain stores and petrol station forecourts. Currently BLT processes approximately 60% of South African prepaid airtime and about 11% of the prepaid electricity market.⁸⁶ Aside from South Africa, their key markets are India, Mexico and Nigeria. BLT has over a million points of sale devices globally.

BLT Services

BLT's core business is to provide 'an intelligent switch'. It facilitates the neutral aggregation of products and services, enables open-loop transactions, and is hardware-, product- and services agnostic, i.e., it is essentially a service wholesaler that enables retailers of every size and shape to on-sell a collection of services that it aggregates. In its Annual Report, BLT contends that its solution is "scalable, robust and transferable proprietary technology, beyond bricks and mortar (i.e., provides for banking the un-banked), and caters for mobile enablement". To do so, it uses a range of aggregation points

Although the primary retail payment service is the sale of airtime and pre-paid vouchers through kiosks, mobile PoS devices and outlets, BLT are intent on broadening their range of "sale of cash and payment services for the goods of community vendors".

BLT owns its switching channel, and in so doing it bypasses the Payment Clearing Houses, and is able to control its costs end to end. Although BLT was unable to share service performance data and infrastructure distribution, they confirmed that they have over 140,000 points of presence, from side-of-the-road vendors, to spaza shop owners and Pick 'n Pay stores. For large retail outlets, each store rather than each point of sale device is referred to as one point of presence. This implies that the individual number of infrastructure points of presence is significantly larger than the 140,000 mentioned.

Hardware options at points of presence are diverse and can be as easy as having a standard mobile handset to more bulky integrated and costly till points with cash drawers and printers. BLT's core transactional switch processes 400 million transactions per month, mostly airtime, electricity and taxi fares. BLT recognises that there are ultra low margins to be made on micro payments, which translates into their business model that has "three key vectors, namely, (high) velocity, (high) volume and (low) value" (David Fraser, CTO).

In an interview with Dr David Fraser, Chief Technology Officer, he stated that the existing payment eco-system in South Africa is vendor not customer driven and that this needs to change. He sees the key to success for existing and future payment service offering is looking at the nature of transactions (in this case various payment services) in conjunction with the underlying psychology of the targeted customers. For example; transport costs are a significant consideration in the underserved markets. When looking at ways to formally include them in the payment systems, provide an easy to use, low-cost solution for this need. Current demand is for a universally open-

⁸⁵ BLT Annual Report 2010

⁸⁶ *Ibid.*

loop payment solution with full inter-operability between payment participants and payment solution providers so that money, value, transfers or payments can behave as close to cash as possible.

4.2.6 Fundamo⁸⁷

Fundamo is a specialist technology company. It develops and provides a range of mobile financial services platforms for third party financial services entities.

Fundamo's technology solutions cover four areas, namely:

- i. An 'Enterprise Edition', which is a mobile financial services enterprise platform that enables clients to leverage their activity in the mobile financial service arena. This is done through a set of transactional and payment capabilities conducted via a mobile phone. Other Fundamo products can be integrated onto the Enterprise Platform;
- ii. A 'Mobile Wallet', which according to Fundamo, offers 'transformational banking' capability to mobile network operators and financial services providers that seek want to service market segments with differentiated offerings. The Mobile Wallet offers a typical transactional account system. The Mobile Wallet is a stand-alone banking solution that caters for a range of transactions conducted from their mobile handset; such as local and international money transfers, airtime purchases (own and third party), bill payments, and account management options such as balance enquiries, and card and pin management;
- iii. A 'Mobile Banking Package' that provides banks and other financial institutions with a mobile banking channel as an additional access point to existing accounts; and
- iv. A 'Mobile Money Transfer' platform, used by Enterprise Platform enabled vendors, which enables the transfer of value between consumers.

Fundamo operates in 40 countries, through offices across Africa, the Middle East, Europe and Asia and via partnerships in North and South America and Southern Asia. It has over 50 active financial services' deployments in these countries, with 5 million registered customers . While its primary target market is developing economies as they are deemed to be most receptive to mobile services take-up, it also serves developed markets as they too will become more active in the mobile financial services market.

Fundamo's portfolio of products would touch a number of the models defined in the report, depending on the user application of the particular product. For example, the Mobile Wallet will fit the 'Mobile Money Model' if it is applied by a bank independently of bank account ownership, and facilitates e-money enablement. On the other hand, the Mobile Banking package is a typical additive-channel facilitator and would align with the 'Mobile Banking Model'.

⁸⁷ Note. Fundamo was not originally covered in the report. This was not an omission; it was merely an instance of not including the universe of retail payment services providers in the report. However, the recent acquisition of Fundamo by VISA (http://www.fundamo.com/in_the_media.html. 30 June 2011.) has provided a new rationale for providing an overview of the business and its product portfolio. This discussion was therefore added ex post, though no Fundamo services are explicitly included in the models

4.3 Payment Service Suppliers| in Summary

While the above review of suppliers by no means covers all 25 clearing banks, the 57 third party payment providers and 65 systems operators, it does provide representative coverage of the scope of involvement in the payment system, with a focus on transformational services offered. Combined with the preceding sections on conceptual clarification, the regulatory regime and the associated participatory categories, a complete systems framework has now been established to better understand how the basic needs of marginalised customers are appreciated by transformational-style payment services.

The study identified 30 individual retail payment services that form the basis of establishing a portfolio of models in the sections to follow. These 30 services are products of the above suppliers, and represent transformational payment services on a continuum of transformational capability. A schedule of the services can be found in Annexure 8.

The National Lottery| A Financial Services Enabler?

The national lottery system processes a high volume of small value transactions across about 7,500 distribution points. The system is mostly on-line for real-time processing. Lottery players trust the system. It thus seems an ideal distribution system on which to piggy-back entry-level financial services, such as payment services.

One of the perceived opportunities of the lottery is to facilitate distribution of entry-level financial services, in particular payment and transfer services. It would, therefore, be preferable if the distribution points were located in areas poorly serviced (in terms of depth and breadth of infrastructure) by existing physical (banking) infrastructure. Poorly serviced areas are generally places where financial service providers calculate a poor return on (individual) infrastructure investment, i.e., places where poor people live. While this approach may perhaps have merit on an accounting basis, it results in the townships and rural areas being infrastructure-poor.

The number of active lottery points ranges between 7,300 and 7,500 depending on prevailing administrative matters. At a provincial level, the lottery points of presence are more closely aligned to population sizes than the rates of poverty:

# Lotto Points / Province	Active Points	% / Province	Provincial Population %	Poverty Rate*
Total	7 336	100%	100%	47%
GAUTENG	1 920	26%	22%	25%
KWAZULU NATAL	1 218	17%	21%	52%
EASTERN CAPE	867	12%	14%	58%
LIMPOPO	496	7%	11%	65%
WESTERN CAPE	1 174	16%	10%	29%
MPUMALANGA	431	6%	7%	50%
NORTH WEST	520	7%	6%	52%
FREE STATE	447	6%	6%	39%
NORTHERN CAPE	263	4%	2%	50%
*% based on consumption level. The higher the rate the higher the poverty.				
Correlation: Lotto Pop:: 89%				
Correlation: Lotto Poverty:: -64%				

Source: Ngikwazi and SSA

This means that the lottery footprint could potentially complement that of the financial sector rather than duplicate it. Much as retailers have teamed up with banks to provide highly effective money transfer services,

so the lotto infrastructure could be applied to improve transformational access by sharing suitable infrastructure to better serve the needs of entry-level customers.

But if the lottery distribution system is attractive on so many fronts, why is it not leveraged for financial services in practice?

Over the past ten years at least two of the four South African big retail banks have recognised the potential opportunity and made concerted efforts to engage with the lottery management companies in this regard, without success.

The reasons for lack of success appear to be both corporate (institutional) politics on the part of the lottery management companies (both the current and previous companies) and the business models set forth by these companies. The licensing arrangements and ownership structures may also be inhibiting factors.

From a pure technical perspective most lottery systems have the capability to process non-lottery transactions. Unofficial arguments put forward by lottery insiders suggest that operational obstacles include additional costs incurred for system enablement and staff training (to comply with financial transactions processing), and the perceived negative impact on the volume of lottery business if it is combined with other transactions. A material change in the volume of money coming in and going out of the lottery agents' tills is also cited as a problem.

The business case, or lack of one, is the largest apparent stumbling block. Researchers have been informed that the margins for the various business entities involved are simply too thin to warrant small value financial transactions. It is the same argument that classic banking offers for lack of delivering entry-level solutions. Without having access to the business case of the current lottery managers it is not possible to verify this claim.

A result of the impasse between lottery management and banks is that one of the big four banks has embarked on an infrastructure building project to install and integrate bank systems across a range of both formal and informal (homestore style) retailers. This has effectively replicated the lotto service points, but perhaps at more appropriate places and importantly under the control of the bank and its risk management systems.

5 Establishing Models of Retail Payment Services

Having considered the conceptual building blocks and framework for analysis, as well as provided an overview of the regulatory and market participation framework and the service providers active in the retail payment space, the report now considers a number of models that seek to describe and capture the key features of the retail payment services landscape in South Africa.

During the stakeholder workshop the question was posed by a bank representative what the value of 'models' are as opposed, it is assumed, to simply focus on individual retail payment services without attempting to conjure up hypothetical models. This is a substantive argument, if it is assumed that any commonality or difference between and amongst individual RPS is either insufficient or enough to make each one unique to the point of excluding some form of grouping or collective characterisation. The approach adopted in the report, however, is that it is possible and useful to group services according to substantive common characteristics.

The general utility of a model is to understand and explain reality. It is no different for RPS models that, in this instance, are conceived from an examination of reality and then constructed according to how similar or different each service is to others. The customer-based model design used in the report is likely to exhibit a particular slant that is different to an approach that focuses on 'technical service design parameters' or a 'technology enablement/platform' view. It is the intention of the report to add another perspective to these views.

It should not be assumed that there are neat universal model structures representing any particular view of the retail payment services world. There are as many opinions of 'models' as there are people who are asked the question.⁸⁸ Thus a model structure needs to be purpose-built to represent a particular view, namely, for the purpose of this report, that of transformational capability - there is no existing model framework to plug the range of services into to determine their transformational capability.

This review shows the complexity of introducing a successful new mobile money service. The success of M-PESA in Kenya was due to both the efforts of Safaricom and their exploitation of an advantageous country context. To date, the fast growth of M-PESA in Kenya may have been the exception and not the rule. A mobile operator considering the launch of a mobile money service must carefully judge the unique country context before creating a tailored solution that can be clearly articulated to potential users.

GSMA: *Mobile Money for the Unbanked. What Makes a Successful Mobile Money Implementation? Learnings from M-PESA in Kenya and Tanzania.* P 10.

⁸⁸ Nowhere was this more apparent than in the informal survey conducted at the stakeholder workshop. At the commencement of the workshop participants were asked to jot down examples of four models and an example of one RPS per model. Responses ranged from an institutional view (e.g., bank-, retailer-, and mobile network operator-centric 'models'), to payment instrument (e.g., mobile-, card-, electronic- or virtual wallet-models) to the more abstract models of an institutional view such as 'direct', and a variety of 'indirect' (intermediated) models including from payment platforms to agency models. The point is; there is no single notion of 'models'.

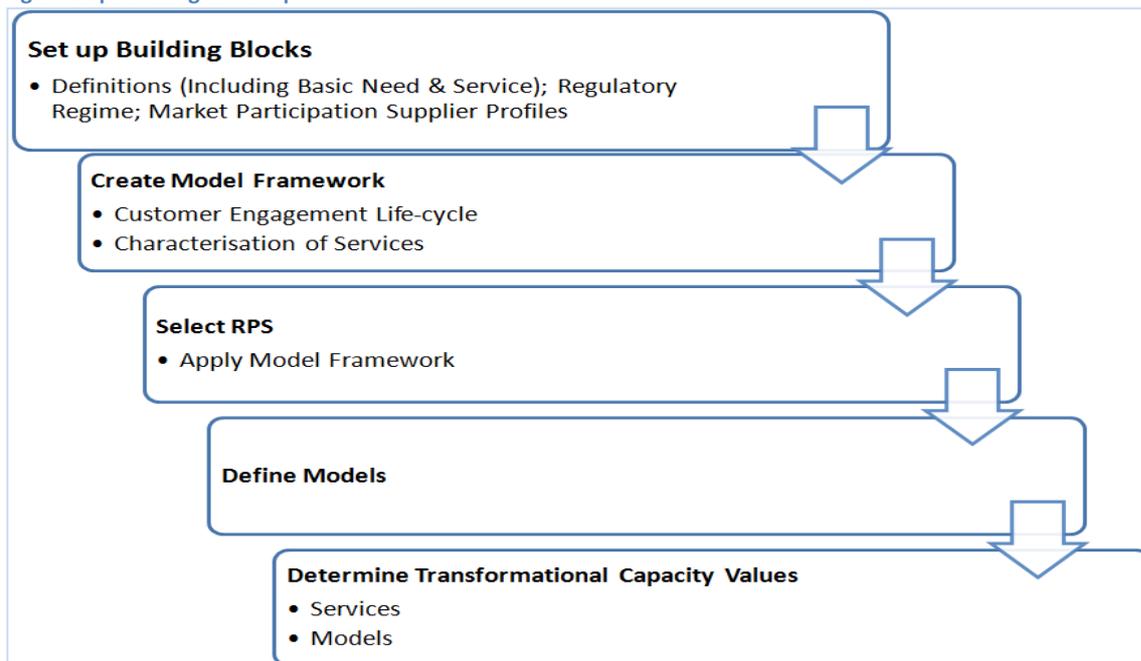
The most cogent payment models are to be found in the mobile and ‘smart’ payments arenas. Here, there has been substantial and progressive research and development by a variety of institutions, at both individual and collaborative levels, to define a variety of models. Included here are multi-lateral non-profit research organisations such as, the ‘Smart Card Alliance’⁸⁹ and ‘Mobey Forum’,⁹⁰ as well as independent researchers who are pro-actively attempting to make sense of potentially sustainable business models in the ever-changing mobile telecoms and mobile financial services environments.⁹¹

5.1 Models| Designing a Framework

The purpose of this section is to describe the framework that is used to create the customer centric models that will be the subject of section 6. In the absence of any established model template, especially from the perspective of a customer’s experience, it is necessary to build such a framework.

Figure 11 below sets out the process of arriving at a set of models:

Figure 11| Distilling Models| the Process



Sections 2 to 4 above covered the first step, namely the setting up of the building blocks (from creating a common understanding of key concepts, to explaining the regulatory regime and market participation, through to a profile of service suppliers). The next step is to establish a model framework, followed by the selection of retail payment services for review, distilling the models based on shared characteristics and, lastly, determining the services’ and models’ transformational capability.

⁸⁹ A multi-industry association working to stimulate the understanding, adoption, use and widespread application of smart card technology.

⁹⁰ A non-profit organisation, driven by the finance industry, including banks and leading mobile device manufacturers and semiconductor vendors, payment processors and mobile service providers.

⁹¹ For example ‘MobeyForum’ defines ‘three operating models’ for ‘mobile remote payment systems’, namely; (1a) Common infrastructure – centralised implementation scenario, (1) (ib) Common infrastructure – distributed implementation scenario, (2) Intermediary interoperability, and (3) Direct interoperability model.

The **model framework** is based on two elements: (i) a typical customer-service engagement cycle (refer *Figure 12* below), and (ii) the characterisation of a portfolio of individual retail payment services through such a cycle.

5.1.1 The Customer Service Engagement Life-cycle

Figure 12| Typical Customer-Service Engagement Cycle

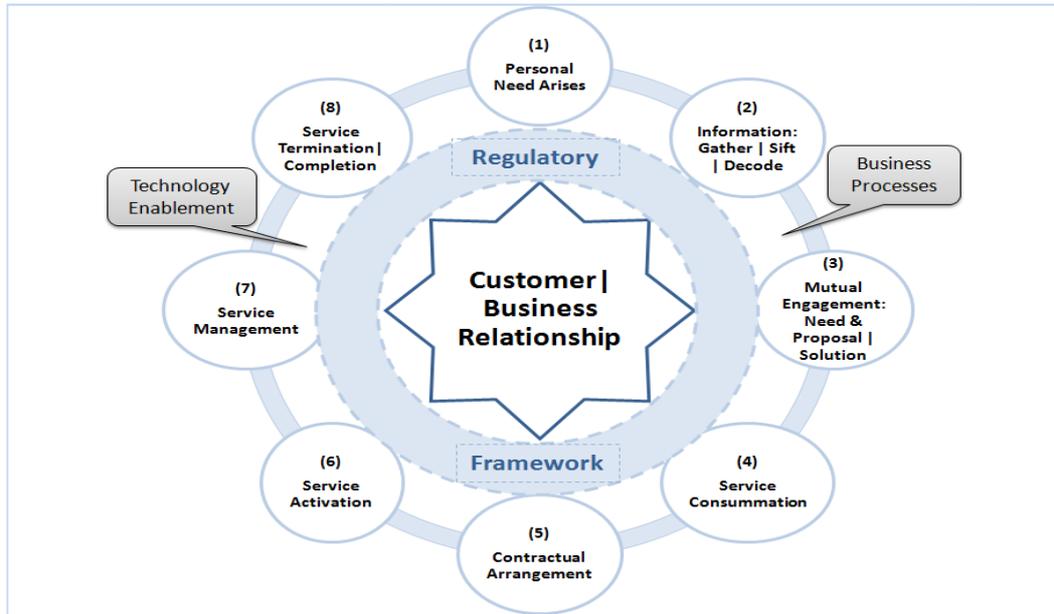


Figure 12 above sets out a typical customer experience in fulfilling the basic need for a payment service. The customer engagement life-cycle is used as the prism to interrogate the customer-centric variables that characterise each service. There are eight steps or phases that cover a typical customer's engagement with their need and possible solutions to that need (these 'steps' should not be seen as discrete or mechanical and they are also generally applicable across a variety of payment service types):

1. **A need arises.** The first step is that the (basic) need arises to send, pay or receive cash or non-cash in small values without a bank account (the basic need is defined as non-account based), on an intermittent basis, at an affordable cost. Refer section 2.3 *Basic Service Needs*.
2. **Gather, sift and decode information.** The second step, after the realisation of a particular need, is to seek a solution to that need. This will lead the customer to gather, sift and decode information to inform their decision about the optimum solution for their need. Information gathering at the Exclusion Frontier (refer *Figure 2 | Zones of Inclusion & Exclusion*, page 3) is likely to be through associates (face-to-face social networking) and various advertising media. Brand and product neutrality is likely to be low. It is also possible that any decision-making information will be exchanged only at the moment of 'purchase'. The customer is likely to engage with a service provider that they are familiar with for some other commercial reason (a previous experience) and will hence anticipate that the financial need will be suitably met. If this is the case, national retail brands and telco providers have appeal.
3. **Mutual engagement: Between the need and a proposal or solution.** Step three, which may mould with step two, is the actual engagement with the potential service – the 'purchase' action. The customer sets out the need to the vendor and if satisfied that it can be fulfilled, takes up the service.

4. **Service consummation.** In step four, if the engagement in step three is successful, the relationship is consummated via actions by both parties. These could range from regulatory procedures all the way through to the actual handing over or transmission or receipt of cash or other value.
5. **Contractual arrangements.** Step five is closely aligned with step four. In some cases where the relationship is not a single transaction, a formal contract may be entered into between the parties for an ongoing relationship. While the latter situation is not the norm for the defined basic needs illustrated here (no account required, but could be registration of a service on a mobile handset or the programming of a smart card), it covers alternative ways of meeting the need if there is no exact matching service solution.
6. **Service activation** is the sixth step. A product rule in some cases requires that a PIN be set up, or a finger print be provided to activate the service.
7. **Service management** refers to those arrangements that are ongoing and where certain responsibilities and obligations exist for both parties during the life-span of the relationship, for example the service provider communicates the balance to the client on a monthly basis.
8. **Service completion.** In a single transaction, like a once-off non-account P2P transfer between parties, step eight may cut out steps five, six and seven. In an ongoing relationship either party may formally end the relationship, by commission (active account closing) or omission (dormancy or non-use).

Governing the relationship between the customer and the servicing entity is the regulatory regime or framework that establishes rights, rules, obligations and responsibilities for the parties involved. As discussed in section 3, the regulatory framework also determines the nature of the servicing entity, i.e., what type of commercial institution may or may not provide what kinds of solutions. While the customer may have little or no idea about the supply-side regulatory matters they do influence the customer experience and some, like KYC requirements, touch them directly.

In addition to regulatory matters, the business processes and technology environment enclose the overall customer-based experience envisaged in the above arrangement.

5.1.2 Characteristics Underlying the Models

The second element of the model framework is the characterisation of a portfolio of retail payment services (through the customer service engagement life-cycle).

The models are constructed via a process of induction (*a posteriori* reasoning, i.e., going from specific observation and analysis to the general). The models are built by examining the principal characteristics of a range of potentially transformational RPS. Those that exhibit key common characteristics are grouped together as a model. In other words, a broad sample of individual RPS is examined to identify their principal characteristics, and where there are sufficient essential common characteristics, such RPS define a particular model, each of which is thus distinctly different from the others on at least one front.

The models of payment services that come into being are a function of the variety of services that exist and which continue to grow as the payment system develops and evolves via innovations such as new business models, regulatory and technological changes, institutional arrangements and so forth. At a specific time there may be a single 'new' payment service type that defines a new model,

in other words, a service arises that reflects a material change from those that currently exist, and thus represents a new model.

The particular characteristics that define a model also determine the transformational impact of the model. Classic payment models unique to banks and executed, for example, via cheques or debit cards and branch networks are less likely to have a transformational impact than, say, non-account based models that use mobile telephony as the platform for financial engagement. It is the inherent character of classic-style services and models that seem to have inhibited inclusion.

What, then, are the key characteristics there were used to typify the models? The characteristics were chosen based on the customer experience cycle and relative to the notion of the 'basic service need' and 'basic service solution' (refer section 2.3). The following parameters were used to determine the key characteristics of services so as to assess whether services have sufficient commonality to form a model:

- i. **The need that triggers the process:** It is assumed that the defined basic need triggers the customer-driven process. The service provider's offering relative to the basic need establishes the first characteristic. For example, while the need is to transfer funds without any form of account being required, the service offering may only have an account-based solution. Thus, at the first level of service characterisation, the fact that the solution is account-based or non-account based establishes two different service profiles.
- ii. **The availability and access to decision-making information:**
 - a. While it is difficult to assess this feature, it is acknowledged that there is value in entry-level clients having access to suitable information that informs their financial capability. At best it is possible to get a sense of whether material is generally available in a manner that can easily be accessed and understood, from brochures or pamphlets to language complexity and so forth. In an ideal world this should be measurable.
- iii. **The service provider (intermediary):**
 - a. *The type of intermediary.* This refers to the institution that is the prime provider of the service and likely to be the primary entity that the customer engages with, such as bank or retailer or telecommunications provider.
 - b. *Regulatory parameters.* This supply side element talks to the regulatory obligations required of the intermediary, such as finding a sponsor bank, or registering as a TPPP.
- iv. **The nature of the service to meet the need (matching need with the service offering):**
 - a. *Service type.* There are many permutations of service type that could qualify for a basic RPS and beyond.
 - b. *Target market.* Is the service targeted at entry-level customers?
 - c. *Access mechanism (sender or payer).* The device required to initiate or access the service, such as a credit card, bank account, mobile or smart card.
 - b. *Access mechanism (recipient or beneficiary).* The device required to access the service, such as a credit card, bank account, mobile or smart card.
 - c. *Service Platform* that embraces the simplicity⁹² of how the customer initiates or receives money transfer/payment, including supporting administrative processes required by the supplier and user.

⁹² Low literacy levels and minimal to no financial knowledge required.

- d. *Access verification.* What is used to verify that the individual making the payment or receiving the transfer is the legitimate person? For example, PIN or biometric means.
- e. *Access points (distribution footprint – breadth and depth)* for both sender/payer and recipient/beneficiary. The nature of access points, their whereabouts, numbers, operating times and so forth were all considered. This also covers transactional or indirect costs of service use.
- f. *Service dimension.* Single or multi-function, e.g., a typical non-account-based money transfer versus an account-based payment solution.
- g. *Service qualifying criteria.* Age or nationality restrictions.
- h. *Customer compliance requirements (KYC).* The application of the various levels of FICA requirements, depending on the nature of the service – for customers and the intermediating parties on the supply side.
- i. *Termination procedures.* The basis on which the service is terminated, if applicable.
- j. *Costs (direct) – pricing structure.* A primary factor in determining inclusion is the cost of the service, over and above its suitability to meet a defined need.

5.2 Selected Services & Resulting Models

On the basis of the above framework thirty retail payment services were selected for review. Following the process of induction, a portfolio of eight retail payment services models were constructed out of the features of the thirty services reviewed.

The services range from classic bank account-based services such as FNB's Smart Account, to electronic voucher-style services such as Absa's pre-paid debit card, to mobile payment services such as M-PESA.

The eight models are distilled from the services review process. Both the services profiled and the models distilled are set out in section 6 below. A full list of services profiled is contained in Annexure 8.

5.3 Determining Transformational Capacity

As discussed in section 2.3, the basic service is defined to be the most likely to lead to financial inclusion (the highest transformational capacity). Therefore the larger the gap between the basic needs/service profile and the examined payment service, the less transformational it would be. Conversely, the closer the service is to the basic service/need, the more potential it has to be transformational.

In order to provide a sense of the relative transformational potential across the services and models, a second layer is added to the examination of their characteristics as set out in section 5.1.2, namely a relative measure of their level of transformation. The report assigns relative transformational capacity (TC) values to each of the characteristics that a service exhibits. The closer a service's

characteristics are to meeting the basic need (aligned with the basic service), the higher the TC value assigned⁹³.

For the purpose of calculating the TC values an excel-based model matrix was built, comprising the universe of retail payment services characteristics. These variables facilitate comparison of all the services. Each applicable variable is either assigned a positive value (5) to a zero value, based on whether the variable is aligned or not with the basic need/service profile. For example, if the service is based on an account rather than the basic need/service that is non-account based, i.e., it is significantly less transformational on that variable; it would get a zero value for that variable. On another variable, such as distribution, it may receive a positive value. The resulting values range between 5 (highly transformational) and 1 (low), and are calculated on a simple weighted average across all the variables.

The TC score or value for each model is simply the average for the services that they contain. Refer to section 6 below Retail Payment Services Models| a Review.

6 Retail Payment Services Models| a Review

All that has gone before culminates in the establishment of a set of customer-oriented models. These models are nothing more than groups of individual RPS tied together on the basis of their common customer-facing characteristics. The models illustrate the manner in which entry-level customers interact with the market, seeking ways of meeting their basic RPS needs.

The 30 retail payment services interrogated to establish common variables and models and their associated transformational capabilities give rise to eight retail payment services models:

1. The Grocer Model
2. The Poor Person Model
3. The Mobile Money Model
4. The Smart Card Model
5. The Electronic Voucher Model
6. The Buy & Pay Model
7. The Mobile Banking Model
8. The Bank Account Model

The use of mobile telephones to deliver basic financial services to the financially excluded poor represents an unprecedented opportunity. With mobile phones now in the hands of billions including those at even the lowest income levels, the world is poised to bring unprecedented numbers into the formal economy. The mobile phone's ability to serve as a universal banking platform can provide stability in the lives of those with very limited means while unlocking new efficiencies in underserved segments of developing economies.

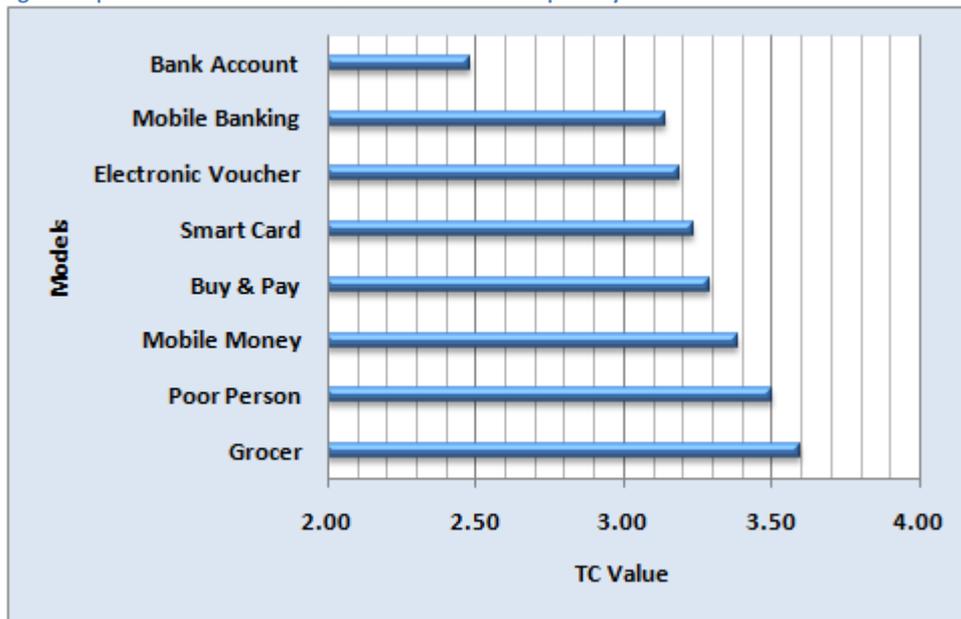
The Mobile Financial Services. World Economic Forum. Development Report 2011. P vii.

⁹³ The TC scores should therefore be regarded relative to the framework and customer needs judgment as applied in this report, rather than as absolute, objective scores making any judgment on the models or their features more broadly.

Three principles largely guide the model naming: (i) the primary institutional interface point for service fulfilment, (ii) the primary platform for service fulfilment and (iii) the levels of customer-experienced complexity.

Figure 13 illustrates the eight models according to their relative transformational capability, as determined for the purpose of this report. The Bank Account Model is least transformational, while the Grocer Model the most transformational. It should be kept in mind that these relative positions are a consequence of the analytical framework used in the report. Other analyses may come to different conclusions, although the relativity is likely to persist:

Figure 13 | RPS Models & Relative Transformational Capability



In the sub-sections to follow, each of the models that emerge is introduced by way of an introductory summary of its nature and salient features. This is followed by a summary table of the model and its constituent individual retail payment services. Each summary table starts by listing the transformational score of the model and the key differentiators that distinguish it from other models, as well as by summarising the main features of the model according to a number of parameters. It then provides an overview of the defining characteristics of the individual services in the model, their transformational characteristics and transformational scores. Further detail on the model’s characteristics, the customer’s experience and the transformational capacity is presented in the text below each summary table.

Model and service lists have no particular order.

6.1 1| The ‘Grocer’ Model

The first of the models is the ‘**Grocer**’ Model, so called as the customer experience in this model is akin to buying groceries at a retail store.

The customer’s primary interface point on both ends of the transaction is with a retail chain store. While there may be a designated counter for pure financial transactions, the customer essentially

deals with the retail store staff, 'pays their money' and buys a service to transfer value to another person.

The service offers customers cash-based money transfers via a national base of retail or home shops. The user costs are typically low: less than R10 is charged for any size money transfer up to the limits set by FICA (R5,000 per day), with a low level of administration and compliance as no bank account is required by either party.

There are currently five pure money transfer retail payment services on the market, namely: Shoprite-Checkers' Money Transfer, Pick 'n Pay's Money Transfer, Spar's Instant Money, Standard Bank Shops' Money Transfer and Blue Label Telcoms/U-Bank's MobiMoney. The first three are typical national retailer led, bank sponsored arrangements. Little is known about the Standard Bank 'correspondent, agent banking' service as it is new and the bank did not engage in the research. However, it deviates in one respect from the others by being bank-led and using a mix of retail outlets rather than a single national retailer. The fifth service is currently in pilot phase and is also slightly different from the preceding four in that it uses two partners (BLT and U-Bank), neither of which are retailers. However, it would appear that the client experience will be similar in that payment and transfer services would be accessed predominantly via retail shops, but U-Bank (formerly Teba Bank) may offer the service through its infrastructure too, which would also depart from at least the first three services described. These differences were not regarded as material enough to warrant a separate model.

6.1.1 The Grocer Model| Profile

The summary profiles of each individual RPS comprising the Grocer Model are set out in the tables below, namely:

- i. Money Transfer | Shoprite and Capitec [3.47]
- ii. Money Transfer Solution | Pick 'n Pay and Capitec [3.47]
- iii. Instant Money | Spar and Standard Bank [3.65]
- iv. Money Transfer | Standard Bank and 'Bank Shops' (correspondent banks?) that may include individual (independent) retail stores (home stores) [3.7]
- v. Money Transfer (in pilot phase) | Blue Label Telecoms and U-Bank [3.69]

The name of the service is followed by the two supplying enterprises in the sequence of their prominence in the customer experience. The figure in parenthesis is their transformational capacity score obtained through the model building exercise.

Table 3 | Profile | The Grocer Model & Services

1. The Grocer Model Defining Characteristics						
Transformational Capacity: 3.60						
<i>Key Differentiator: Retailer Distribution – Cash, no account required – Flat fee irrespective of value to R5,000</i>						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer	No account required by either party: Cash 2 Cash; Option exists: Account to cash & cash to account	Retailer led with sponsoring bank providing regulatory cover and carrying risk.	Cash over-the-counter, Cash code (Cash voucher number) & PIN	FICA Ex.17	Flat Fee of R8.50 - R10.00 per transaction up to R5,000	<u>Total Number of distribution points:</u> Approximately 20,000 national retail stores, independent retail stores, home-shops and spaza stores. <u>Operating hours:</u> Range: 08h00 to 20h00, Mondays - Sundays

Individual RPS that Comprise the Grocer Model Defining Characteristics						
1.1 Shoprite & Capitec (Money Transfer)						
<i>Transformational Capacity: 3.47</i>						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer	No account required by either party: Cash 2 Cash; Option exists: Account to cash & cash to account	Shoprite stores	Cash over-the-counter	FICA Ex.17; No physical copies of ID stored. Scanning of bar code & storage for re-use	Flat fee of R9.99 per Money Transfer up to R5,000	<u>Number of distribution points:</u> 1,166 Shoprite stores as at 30 April 2011. <u>General Operating hours:</u> 08h00 to 17h00, seven days a week

1.2. Pick 'n Pay & Capitec (Money Transfer)**Transformational Capacity: 3.69**

Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer	No account required by either party: Cash 2 Cash; Option exists: Account to cash & cash to account	Pick 'n Pay stores	Cash over-the-counter	FICA Ex.17; No physical copies of ID stored. Scanning of bar code and storage for re-use	Flat fee of R8.50 per Money Transfer up to R5,000	<u>Number of distribution points:</u> 750 Pick 'n Pay stores <u>General Operating hours:</u> 08h00 to 17h00, seven days a week

1.3. Spar Instant Money & Standard Bank (Money Transfer)**Transformational Capacity: 3.47**

Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer	No account required by either party: Cash 2 Cash; Option exists: Account to cash & cash to account	Spar Stores	Cash over-the-counter, Retail System sends cash code and sender selects own secret code or PIN to send to recipient to release the cash	FICA Ex.17; No physical copies of ID stored. Scanning of bar code and storage for re-use	Flat fee of R9.95 per Money Transfer, up to R5,000	<u>Number of distribution points:</u> 850 Spar Stores <u>General Operating hours:</u> 07h00 to 20h00, seven days a week

1.4. Standard Bank Shops & Standard Bank (Money Transfer)

Transformational Capacity: 3.71						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer	No account required by either party: Cash 2 Cash; Option exists: Account to cash & cash to account	Standard Bank Home Shops & Spaza outlets	Cash over-the-counter, Retail System sends cash code and sender selects own secret code or PIN to send to recipient to release the cash	FICA Ex.17; No physical copies of ID stored. Scanning of bar code and storage for re-use	Flat fee of R9.95 per Money Transfer, up to R5,000	<u>Number of distribution points:</u> 7,500 Standard Bank 'Shops', largely in rural areas <u>General Operating hours:</u> 07h00 to 20h00 (some much later) Mondays to Sundays

1.5. Blue Label Telecommunications & U-Bank (formerly Teba Bank) (MobiMoney)

Transformational Capacity: 3.47						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer	No account required by either party: Cash 2 Cash; Option exists: Account to cash & cash to account	U-Bank & spaza, home stores	Cash over-the-counter, Retail/Blu System sends cash code and sender selects own secret code or PIN to send to recipient to release the cash	FICA X17, No copies of ID stored. Scanning of bar code and storage for re-use	Not available	<u>Number of distribution points:</u> not available, potentially several thousand given BLT's <i>circa</i> 140,000 points of presence in home stores

6.1.2 The Customer Experience

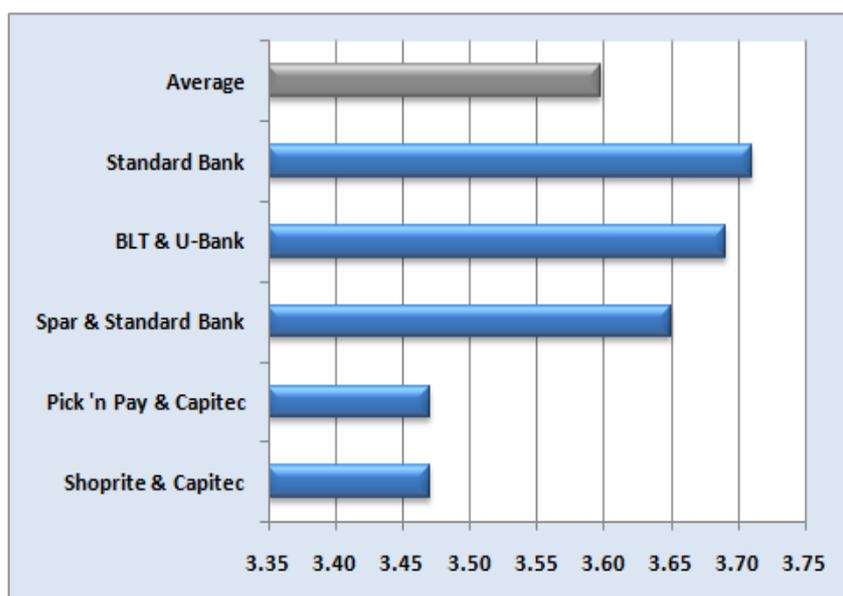
The customer experience illustrates the typical service process that the user would follow to access the service (at least for the first three services):

- i. It is a cash-to-cash payment service;
- ii. A single purpose service;
- iii. The sender pays in a cash amount at an institution, its agent or its infrastructure;
- iv. The recipient is able to receive cash at an institution, its agent or its infrastructure;
- v. There is a low level compliance requirement by both customers and service provider;
- vi. The service may be accessed by sender or recipient using a client selected PIN;
- vii. The service is available on an *ad hoc* basis;
- viii. The underlying technology and business processes are simple to understand and use;
- ix. It is a closed loop service in that it is not cross institution;
- x. Value is transferred in real time;
- xi. Funds must be collected within 3 to 7 days, and in full. If not collected it is held to be returned to the sender. For this reason the sender is generally required to provide contact details; and
- xii. The sender normally pays a flat fee irrespective of the transfer size (as long as Exemption 17 applies).

6.1.3 Transformational Capacity

The aggregate TC of the Grocer Model is 3.6, refer *Figure 14*. The Grocer Model scores highest on TC when compared to the other models.

Figure 14| TC Values| Grocer Model



There is no material difference amongst the individual services, although it is not yet clear what the infrastructure situation is for the two newer services, implying that their TC score may still change.

6.2 2| The 'Poor-Person' Model

The second model is called the 'Poor-Person' Model and is comprised of a single service, the Mzansi Money Transfer (MMT).⁹⁴ It is sufficiently different from the rest of the services to warrant a model of its own.

While the principles for determining model naming are generally based on the three selected drivers of the customer experience, namely, the primary institutional interface point for service fulfilment, the primary platform for service fulfilment and the levels of customer experienced complexity, this model deviates from the convention and is rather based on entry-level customers' service perceptions and supply-side behaviour. 'Mzansi is seen as a service for poor people, for those who have little money, for Black people.' These sorts of comments abound in respect of the Mzansi Account⁹⁵; they no doubt also exist for the Mzansi Money Transfer, perhaps even more so.

The MMT followed the delivery of the Mzansi Account as an even lower order service for the entry-level market. MMT enables individuals without a bank account to send money to another person who also has no bank account, across the branch infrastructure of the four big retail banks and Postbank. This typical entry-level need was accurately identified and a potentially appropriate service designed and taken to market.

Despite its potential, one need look no further than the product performance data to ascertain that it has not been successful. A dedicated payment clearing house (PCH) within PASA diligently tracks its non-performance. Month by month there are only a hundred or so transactions that are conducted via MMT in aggregate across all suppliers. MMT had 113 transactions in January 2011, while one of the Grocer Model services processed 880,000 payments in a single month. The number of MMT transactions for the year, January 2010 to January 2011 ranged from 20-odd to 120-odd.⁹⁶ In 2007 the usage started off at between 500 and 600 transactions a month, steadily declining that year and thereafter to the current negligible use. Average transaction values are quite large, being in the order of about R600 for the aforesaid period. This is on a par with a Grocer Model money transfer service that has an average of about R500 per transaction.

Pricing for MMT and the other pure money transfer services of the Grocer Model are not comparable. It is not clear why it costs for example a R10 flat fee to transfer from R100 to R5,000 from a retailer, while it costs R14 to send R100 and R100 to send R5,000 via MMT from a bank that is also the sponsoring bank for the selfsame retailer. The argument may be that the cost of the (human) intervention via banking infrastructure is higher than a retailer. This kind of pricing structure is what causes banks to be dis-intermediated and be perceived as 'expensive'.

It is of interest that of the four commercial banks, only Standard Bank has the MMT easily accessible on its banking website. The other three banks do not list it or it is so well hidden that it is not

⁹⁴ It could also be called the 'Corporate Social Responsibility' model, as a result of the perception in the market that it was a non-commercial response to the Financial Sector Charter's requirements.

⁹⁵ Evidenced by responses in the demand-side interviews conducted by *InsightWorx* and in the project, *The Mzansi Bank Account Initiative in South Africa*, Bankable Frontier Associates, March 2009.

⁹⁶ BankservAfrica. Monthly Performance Report. Data approximate as read from graph.

possible to find. This supports the contention that the service is simply not on banks' promotion radar.

Based on its performance it could be assumed that the MMT service is a poor solution, not fit for typical entry-level banking needs, but perhaps its current dormancy is a function of its history rather than the merits of the service. The MMT was designed as a banking industry solution to its Financial Sector Charter (FSC) obligations. From the suppliers' point of view and their absent promotion of the service, it appears that the MMT was foisted on them by the FSC, rather than a service designed and implemented of their own volition and for commercial rationale.

Initially it was thought to include the Mzansi Money Transfer with the Grocer Model as it has many similar characteristics, but on review it has been moved into its own model. Like the Grocer Model, it requires no account on either end of the transaction, is subject to FICA Exemption 17 only, and has a large national infrastructure footprint (through an interoperable inter-bank system). However, there are three key factors around the customer experience that distinguish it from the Grocer Model:

- i. The primary intermediation point is a bank with all that goes with it, such as operating hours, queues, complexity and so forth;
- ii. Perceptions of the Mzansi brand, by both banks (suppliers) and customers; and
- iii. Costs.

The relative product performance as indicated above is a vivid indicator of the difference between the Grocer Model services and MMT. If product use and performance is an indicator of its value to customers, there is clearly a problem with the MMT. However, it is not the view of the report that the challenge lies in the service, but in how it is offered to the market (or perhaps rather how it is *not* marketed). It would appear that despite MMT not being used (demand-side) or serviced (supply-side) it has potential to fulfil many of the requirements for transformational services. Customers already have a significant breadth of infrastructure to access the service. This could be supplemented by increasing infrastructure depth and breadth by enabling all interoperable ATMs and PoS devices to at least receive cash (many ATMs cannot accept cash). This would create the largest loop-system at this level. Furthermore, consideration could be given to how the MMT could be linked to mobile devices, enabling e-money transfers to be made across banks and telco networks.

The resuscitation of the MMT would, however, require banks to regard it as a feasible, marketable product offering that they can tailor to their competitive advantage rather than just offer as a standardised product across banks. Clearly, it is not regarded in this light at present.

6.2.1 The Poor Person's Model| Profile

The summary profile of the Model is set out in *Table 4* below.

Table 4 | Profile | The Poor Person's Model

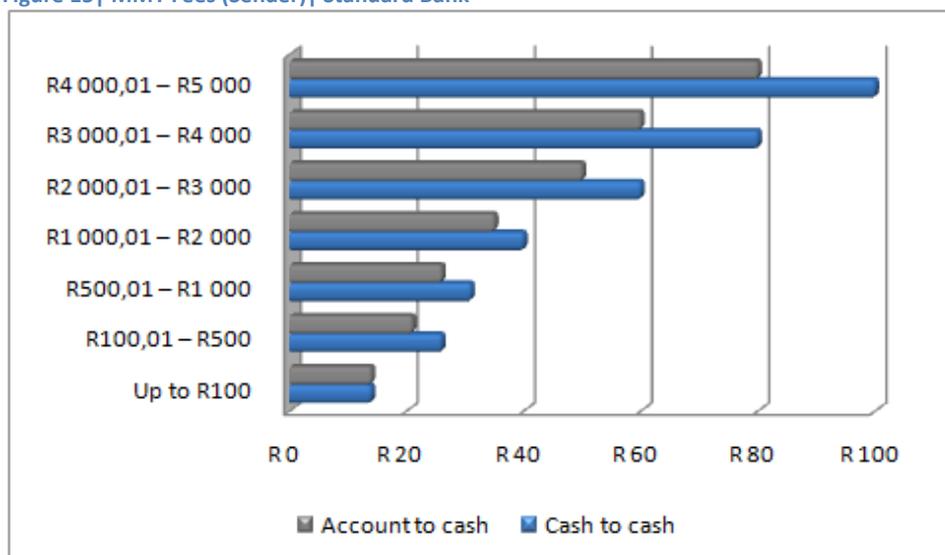
2. The Poor Person's Model Defining Characteristics						
Transformational Capacity: 3.50						
Key Differentiator: Banks and Postbank Branch Distribution - Cash, no account required- tiered fee structure to R5,000						
ABSA, First National Bank, Nedbank, Standard Bank, Postbank - (Mzansi Money Transfer)						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer	No account required by either party: Cash 2 Cash; Option exists: Account to cash & cash to account	Bank or Postbank. Bank carries the risk.	Cash over-the-branch or Postbank counter; Cash Code (Cash Voucher number) and PIN	FICA Ex.17, copies of ID are made and stored for sender and receiver. Sender is required to pre-identify and provide recipient's ID number.	Since a common fee structure was originally set up at the time of service introduction each supplier has since created their own structure and fee rates. Fees differ depending on whether the transaction is cash or account based and the size of the transaction. Materially higher than the Grocer Model fees.	Total Number of distribution points: 5,823 ABSA: 898 FNB: 750 Nedbank: 452 Postbank: 2,466 Standard Bank: 1,257 <u>Operating hours:</u> Mondays - Fridays 09h00 - 15h00 & Saturdays 08h00 - 13h00

6.2.2 The Customer Experience

A customer using the MMT service will follow the following typical service process:

- i. No bank account required – cash in and cash out (although provision is made in some services, e.g., Standard Bank, to use a bank account if available – this option follows a different process, not illustrated here);
- ii. Sender and beneficiary provide FICA Exemption 17 information;
- iii. The sender provides the beneficiary's name and ID, and only this person may collect the funds;
- iv. The bank generates a reference number – provided to track the transaction. The reference number is provided to the sender;
- v. The sender selects a (secret) PIN;
- vi. The transaction reference number with PIN are sent to the beneficiary by the sender – via sms or any other customer convenient method;
- vii. The beneficiary provides their FICA Exemption 17 information, reference number and inputs the PIN to receive the value;
- viii. Value is transferred in real time;
- ix. Funds are held by the particular bank from which they were sent if not collected; and
- x. The sender pays, normally according to a sliding scale. Refer *Figure 15| MMT Fees (Sender)| Standard Bank* below that sets out this particular bank's MMT fees.⁹⁷

Figure 15| MMT Fees (Sender)| Standard Bank



6.2.3 Transformational Capacity

The MMT has a TC of 3.5, relatively lower than found in the Grocer Model, but not by much (refer *Figure 21* and *Figure 22* above that illustrate the relative values for the eight models and their individual services).

⁹⁷ http://www.standardbank.co.za/pdfs/pricing2010/Mzansi_Blue_Account.pdf. 21 April 2011.

The prime reasons for the relatively lower score are: the poor to no marketing, the fact that the administrative process is more cumbersome as the recipient's ID number is required (KYC processes), the nature of the distribution outlets, the hours of opening and the inability to perform the service on infrastructure other than bank branches.

6.3 3| The 'Mobile Money' Model

The **Mobile Money Model** (M³) represents services that offer customers a bank-account based, or registered-user based range of payment service offerings using their mobile handsets. Once the customer has transferred funds or deposited money onto their handset either from an account or from a cash deposit, the SIM card on the cell phone acts as an account and holds the deposited money as a value store on their phone.

This money is sometimes referred to as electronic or e-money. The full amount of e-money may be used by the customer and converted to cash or to buy airtime or the customer may continue to use parts of the money store for a variety of other payment needs until all the e-money has been spent.

The model naming is defined by the 'electronification' of the store of value, without it necessarily having to reside in a bank account. The value can exist and be intermediated as electronic cash. Furthermore, the chief customer-based characteristic of the M³ is that the customer-owned mobile phone handset is the primary access platform, no matter that at some point banks or telco outlets need to be visited to open an account, register or enable the service. The ongoing service usage is largely through the mobile handset, rather than physical infrastructure. Only the person who starts the process must have an account; it is not necessary for the chain of customer beneficiaries down the line from the registered user to have an account.

The closest comparable model to the M³ is the 'Mobile Banking' Model (discussed in section 6.6), which is differentiated on the basis of two factors. Firstly, the formalities of traditional bank account ownership are required on both sides of the transaction (for a money transfer), and the funds reside in these accounts rather than existing in the ether as e-money.

6.3.1 The Mobile Money Model Profiles

The summary profiles of each individual RPS comprising the Mobile Money Model are set out in the tables below. They are:

- i. *eWallet* by FNB [3.12];
- ii. *Flash* by Flash Cow [3.60];
- iii. *M-PESA* by Nedbank and Vodacom [3.44]; and
- iv. *MobiMoney* by Blue Label Telecoms (not yet in the market) [3.39].]

The name of the service is followed by the supplying enterprise/s. The figure in parenthesis is their transformational capacity score.

Table 5 | Profile | The Mobile Money Model & Services

3. The Mobile Money Model Defining Characteristics						
Transformational Capacity: 3.39						
<i>Key Differentiator: mobile handset -electronic money or store of value on phone not in an account, creating an e-money payment ecosystem</i>						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer; buy airtime; most used services are: (i) third party payments, (ii) pre-paid electricity	Customer required to register as a user of the mobile payment service, or hold a bank account and opt in to the e-money service	Mobile payment service provider or bank. Both Flash & M-PESA are brands in their own right. M-PESA promotes & clearly markets its partnership with a mobile network operator & bank. Flash has a similar relationship with a mobile operator & bank but chooses not to formally promote these relationships	Mobile handset. Once the client or payer (sender) has opened a bank account (or <i>eWallet</i> payment service) or registered as a user (e.g., M-PESA, Flash, BLT MobiMoney), the mobile handset is primary method of access and may hold a value store on the phone that moves between sender and receiver's handsets.	FICA Ex.17	Ranges according to service and product. P2P transfer ranges from free to R15 flat fee.	<u>Estimated Total Number of distribution points to register:</u> 30,000 <u>Potential Customers:</u> 35 million mobile handsets <u>Operating Hours</u> (except for registration) 24x7

Individual RPS that Comprise the Mobile Money Model Defining Characteristics						
3.1. eWallet - First National Bank						
Transformational Capacity: 3.12						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer (transfer from one eWallet to another eWallet); Balance Enquiries; ATM cash withdrawals; Buy Airtime; Pay for goods and services online (FNB's CellPay service); Planned services are:(i) third party payments (ii) buy pre-paid electricity	Sender or Payer is required to open an FNB transactional account. Once the account has been opened, the sender is able to create an eWallet (value store) to send money to anyone who has any type of cellphone. The recipient of the eWallet receives detailed instructions via SMS on how to withdraw part or all the money at an FNB ATM, buy airtime or on send the funds or part thereof to another cellphone holder. The <i>ewallet</i> is USSD based. The system generates all eWallet codes and PINs required to use the eWallet. If the eWallet is not used within 13 days it is returned to the original Sender. <i>eWallet</i> size limit of R1,000 at any one time, with a total of R25,000 moved to an <i>eWallet</i> on a monthly basis	First National Bank	Mobile Handset. The sender or initiator of first <i>eWallet</i> is required to have or open a transactional bank account at an FNB branch	FICA Ex.17, or full FICA depending on the nature of the underlying bank account. Hard copies made and retained.	Flat Fee structure; to create or set up an initial <i>eWallet</i> is R9; to send money (P2P money transfer) is free. ATM cash withdrawals free. Pre-paid purchases, e.g., airtime – are at variable rates of the third party service provider, currently R2.00 / transaction.	<u>Number of distribution points:</u> FNB branches: 750; <u>eWallet users:</u> 500,000 (May 2011); 40% Gauteng; 14% KZN; 12% Eastern Cape

3.2. M-PESA - Vodacom and Nedbank						
Transformational Capacity: 3.44						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
<p><i>P2P Money transfer:</i></p> <p>(i) transfer from one M-PESA account holder to another M-PESA account holder who can withdraw cash at a Nedbank ATM or continue to use as e-money, e.g., buy airtime.</p> <p>(ii) M-PESA user may send cash to non M-PESA user who has cell phone, the non M-PESA account holder is then able to draw the cash at an M-PESA outlet.</p> <p><i>Planned future services:</i> (i) third party payments (ii) buy pre-paid electricity</p>	<p>Sender is required to open an M-PESA account. Once opened the sender is able to send money to anyone who has any cellphone, who may then withdraw the cash at an ATM for no charge. The system will generate codes and PINs to release the cash, communicated via SMS</p> <p>Note: limits are differentiated based on a customer opting to be 'standard' or 'premium'. The latter limits are set at Ex.17 levels, and bank set limits for the former.</p>	<p>M-PESA branded Vodacom and Nedbank shops, branches and outlets</p>	<p>Mobile handset. Initial registration required as a M-PESA user at M-PESA accredited store, branch, spaza shop</p>	<p>FICA Ex.17, copies made of documentation and manual contractual forms completed, copied and stored. This is concluded at time of registration or opening of M-PESA account and at the time of redeeming cash for a non registered M-PESA user</p>	<p>Flat fee structure for P2P transfers, ranges from R10 (up to R1,000) to R15 (up to R5,000). ATM or other infrastructure cash withdrawals R6/R1,000 & R10/R5,000. Airtime free; balance enquiries 99 cents; transfers between registered users R2.45/R5,000. Note: limits are differentiated based on a customer opting to be 'standard' or 'premium'. The latter limits are set at X17 levels</p>	<p><u>Number of distribution points:</u> M-PESA outlets or service points: 2,000 <u>M-PESA users:</u> 120,000⁹⁸</p>

⁹⁸ Business Day. 30 May 2011. Nedbank lags in cellphone banking. <http://www.businessday.co.za/articles/Content.aspx?id=144220>.

3.3. Flash Cow (with Cell C & ABSA)						
Transformational Capacity: 3.60						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer (Flash to Flash accounts only); balance enquiries; ATM cash withdrawals; buy airtime; buy pre-paid electricity; make third party payments; other services: savings & micro-loans	Sender or payer is required to have a Flash Account and a Cell C SIM to send (Pay Now) cash and/or receive cash, buy air time, pre-paid electricity, items from home store Home store purchases a Flash PoS device through which all cash-in/cash-out transactions are made.	Flash, through various home stores/ spaza shops carrying Flash branding	Registering as a Flash User at a home store or shop by acquiring a Cell-C SIM card with the Flash menu embedded	FICA Ex.17, Flash states they request a hard copy of ID	All transactions are free, except pre-paid purchases of electricity, which is R1.50 per transaction	<u>Number of distribution points:</u> Flash outlets or service points: <i>circa</i> 40,000, largely in Western Cape but plans to expand nationally

3.4. MobiWallet (BLT)						
Transformational Capacity: 3.39						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
Full-featured mobile wallet; primarily for B2B market (small informal traders, home stores, street vendors); multiple top-up and payment methods; multiple products and services (buy airtime, electricity); money transfer and banking capabilities	Blue Label Telecoms proprietary back-end, with mobile handset as primary customer interface offering range of services through sundry retail outlets. Multi-channel access (Java, WAP, USSD & www)	MobiWallet (BLT)	Registering at MobiWallet accredited distributor	FICA Ex.17, hard copy of ID required for agent registration	Not available at time of preparing report	<u>Number of distribution points:</u> potentially 140,000 points of presence

6.3.2 The Customer Experience

The customer experience is sufficiently different across the three services to discuss them separately.

1. *eWallet*

The intention of *eWallet* is to create a proxy for cash in the form of e-money. It can be used to make money transfers or certain purchases. The e-money can be moved across multiple beneficiaries. Although *eWallet* is similar to adding a mobile channel to a bank account, it is the notion of creating e-money that resides on the mobile device and is transferred as such to non account holders that differentiates it – the mobile phone becomes the primary engagement platform and this places *eWallet* firmly in the domain of M³.

The process to become an *eWallet* user and make transactions is as follows:

- i. The intermediary operates under Guidance Note 06/08 (under the Banks Act) that deals with e-money regulatory parameters;
- ii. The initiator requires an FNB bank account to register *eWallet* – depending on the nature of the account; either Exemption 17 applies or full FICA. The e-money is loaded via the account and can then be transferred further;
- iii. The sender initiates send money to e-wallet request from their account via mobile, internet, ATM;
- iv. The non-registered M-PESA recipient receives an sms with details of the *eWallet* and how to redeem the funds as cash at an M-PESA outlet; and
- v. The registered M-PESA recipient receives an sms with details of *eWallet* how to redeem funds as cash via an ATM (by using a temporary ATM PIN) without a bank card, or they may hold the value store in the e-wallet to make other e-money purchases e.g., airtime or sending e-money to another e-wallet holder.

2. *Flash*

- i. The current focus of *Flash* is P2B and not money transfer;
- ii. It is a registered 'account'-to-registered 'account' e-money and cash payout service; where the users mobile numbers become their account numbers;
- iii. The initiator must register an account with *Flash*, aligned to FICA Exemption 17 requirements which operates
- iv. The mobile accounts are loaded via Absa branches, *Flash* outlets (multiple retailers in townships and peri-urban areas);or an EFT via bank beneficiary payments
- v. Only recipients who are registered users, can receive a store of value and encash it. If the recipient is not a registered user they cannot encash the funds until such time as they become registered.
- vi. The recipient accesses the store of value by their 'pay now' option on their banking menu;
- vii. The recipient may redeem all the funds as cash via a participating outlet, or they may hold the value store in the e-money store, to make an e-money purchases, e.g., airtime, or to send e-money to another e-money registered account holder;

- viii. The service may be accessed by sender or recipient using any mobile handset with the participating mobile network operator's SIM card and client selected PIN; both initiator and beneficiary require dedicated SIM cards for their mobiles;
- ix. The e-money exists in perpetuity until expended;
- x. The mobile-based eco-system exists only in the Flash world (apart from account loading); and
- xi. While the intermediary is not a bank, the processes are quite similar for the customer and the nature of the service is e-money on a mobile platform.

3. M-PESA|

- i. While customers initiate *eWallet* and Flash via a bank and retailers respectively, M-PESA can be registered or initiated via Nedbank branches, Vodacom outlets or licensed third parties;
- ii. A two page registration form must be manually completed by the M-PESA user requesting considerably more personal details than Flash users, and Exemption 17 applied;
- iii. A beneficiary need not be a registered M-PESA user or a Vodacom subscriber. Where the recipient is not a registered M-PESA user, though, this limits functionality so they are unable to make cash withdrawals at an ATM;
- iv. The sender initiates 'send money' to the recipient's cell-phone number (any network), who may redeem all the funds as cash if KYC verification has taken place at an M-PESA outlet;
- v. The sender may 'send money' to another M-PESA registered user who may then withdraw cash using a cash voucher code and sender selected PIN at any participating ATM or outlet to encash the funds;
- vi. The registered M-PESA recipient may redeem all the funds as cash via an ATM or M-PESA outlet, or they may hold the value store as an e-money store, to make a e-money purchases, e.g. airtime, or to send e-money to another e-money registered account holder;
- vii. It is a closed loop service in that it is not cross institution. However it has potential to have a broad and far reaching footprint through widespread outlet base; and
- viii. Once value is loaded, the primary engagement platform is the mobile handset, thus casting M-PESA into the M³.

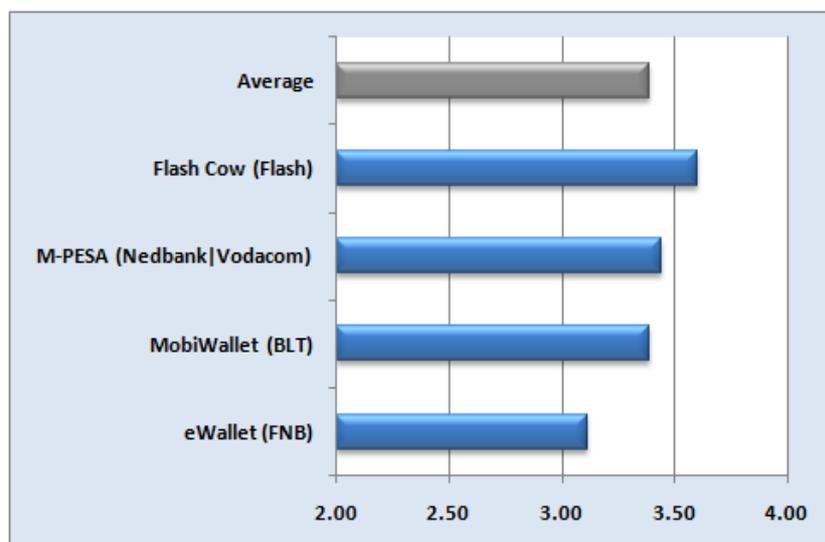
In summary, the defining feature of the Mobile Money Model is that however value is originated onto a mobile phone or cash is withdrawn; the mobile phone is the primary engagement platform for the customer.

6.3.3 Transformational Capacity

The Mobile Money Model has a TC of 3.39. This score is noticeably lower than both the Grocer Model at 3.6 and the Poor Person's Model at 3.55. The services within the model have TCs that range from 3.12 (*eWallet*) to 3.39 (Flash). Refer *Figure 16* below.

The prime reason for this relatively lower score to the Grocer and Poor Person's Models is: the fact that in order to get money into the system at least one of the parties has to have a bank account at a financial institution, or has to be a registered user of the Mobile Money Service through the institution that is offering the payment services via the mobile handset, e.g., M-PESA and Flash.

Figure 16| TC Values| Mobile Money Model



The process of opening an account or registering as a user places an administrative burden on the customer to provide documentary proof of their identity and sometimes proof of residence (where a bank account is concerned); for customers, with the exception of FNB's *eWallet* customers, to gain the benefit or ability to draw cash at ATMs (M-PESA

customers), or home stores (Flash customers), the recipient too is required to register to use the service. In the case of the Grocer Model services, customers are required to FICA only the first time they conduct a transaction, which is being done almost exclusively via electronic means (scanning of barcode and storing on retailers' systems).

6.4 4| Smart-card Model

The only smart-card in South Africa used for a variety of payment types and acting as an e-wallet is the Net1 Smart Card. It is therefore the only service in this Model. Its primary purpose is to disburse social grants to beneficiaries in the communities where they live.

For this service neither the sender (payer) nor the receiver (payee) needs a bank account. Both sender and/or receiver become registered users of Net1's Universal Electronic Payment Service (UEPS) and have either a smart card to receive and store money (if a welfare beneficiary), or a smart card with a smart card reader (if a participating merchant) that also accepts the introduction of money onto the card, or for purchases, and behaves similarly to a till point.

Further details of the card and its origins and capability have been discussed in section 4.2.4 above. Suffice to say that the Net1 card is smart due to a variety of characteristics: the internal chip that enables multiple wallets, the fact that it functions both on-line and off-line and uses biometric identification for user verification and transacting.

The administrative processes are simple, using chip technology and biometric client verification. Availability is high as participants have access to services whether the main system is off- or on- line. Costs for users are low. The recipient always pays the fee, unless in the case of a money transfer where the sender can opt to pay. Costs are R2 per transaction.

Although currently not as universally accepted as a bank card (it is not accessible via ATMs in the SASWITCH network), Net 1 has initiatives underway to gain EMV accreditation for acceptance of their smart cards at any EMV compliant ATM.

6.4.1 The Smart Card Model| Profile

Table 6 below sets out the profile of the Net1 Smart Card:

Table 6| Profile| The Smart-card Model

4. The Smart Card Model & Net1's Smart Card Defining Characteristics						
Transformational Capacity: 3.19						
Key Differentiator: chip-based smart card - biometric authentication - on- and off- line transactions						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer; buy airtime; buy electricity; buy goods & services from participating retailers, spaza shops & home stores; micro-loans; savings; third party payments (Limited term contract to provide social grant smart card expires mid-2011)	Net1's Cash Pay Master Services (CPS) smart card; built around the smart card & closed loop system of Net1 mobile ATMs, as well as suppliers (merchants) of products& services that have smart card readers linked to Net1's universal electronic payment system & so enable the processing of smart card transactions	Net1 Smart Card	Smart Card with biometrics (fingerprints)	FICA Ex.17	The principle is that the recipient pays. Fees unknown	Total Number of CPS Social Grantees: 3,500,000 Operating Hours: Store Hours (generally formal stores): 08h00 to 20h00 & ATMs 24/7

6.4.2 The Customer Experience

It would seem that typical customers would certainly know they have a card that is not a 'bank card' and has unique functionality as a result of its user-differences such as: independent infrastructure access points, non-functionality at bank-based PoS devices or bank-associated ATMs, and the application of finger print biometric access. The CPS smart card has the following customer user profile:

- i. It is a 'registered account-to-registered account' store of value (e-money) and cash withdrawal service;
- ii. The recipient may redeem all the funds as cash via a proprietary ATM network or they may hold the stored value in their smart card e-wallet to make e-money purchases such as airtime or goods at participating outlets or sending e-money to another e-money registered account holder;
- iii. There is a low level compliance requirement for sender and recipient;
- iv. The smart card is multi-purpose;
- v. The sender or initiator does not pay, the recipient pays, unless the transfer is from the social grants agency, in which case they cover the fee;

- vi. The service is available on an *ad hoc* basis;
- vii. The cash or e-money is available immediately; and
- viii. It is closed loop service in that it is not cross institution. However, it has potential to have a broad and far reaching footprint through a widespread outlet base that will include SASWICH enabled ATMs and PoS devices.

6.4.3 Transformational Capacity

The TC for the Net 1 Smart Card is 3.19. In spite of its rich functionality offering and low cost to users, its score is slightly less than the first two models as it currently has a closed loop around grant beneficiaries only. However, this does include 3.5 million people, a much larger group of entry-level customers than any other payment service. Once the EMV integration has been achieved, its coverage will be materially enhanced. This may lead Net1 to offer the service to a broader market than only welfare beneficiaries. Its TC would increase significantly once this takes place.

6.5 5| The Electronic Voucher Model

The key differentiator for the **'Electronic Voucher' Model** services is that they offer a *pre-paid* e-money or low-value payment store on a card, issued by a bank or card associations, that may be used for purchases or payments of services at any participating retail store or supplier. The model comprises two services by Absa and one by Nedbank.

A bank is involved at the outset to start the money flow. Administrative processes seem simple. The pre-paid cards services are limited to retail stores, suppliers or service providers that accept the pre-paid cards.

The card owner pre-loads funds via cash or account onto a chip enabled card to make purchases that the card supports. Such payment cards range from a narrow single purpose card such as for taxi fares (e.g., Absa's *PayPass*) to multi-purpose cards for general retail outlet purchases. It is reported that *PayPass* may become more broadly applied than only fare payment.

Absa's *PayPass* fare card, included in this model as a pre-paid (voucher style card), is governed by Regulation 454 (pre-paid instruments exemption), and in contrast to the other pre-paid cards requires neither proof of customer identity, nor PIN or password to access funds on the card. Once this low value payment card is loaded with funds it to all intents and purposes behaves as if it were cash within its domain of operation.

The cost structure of Absa's low value payment card is apparently different to the pre-paid VISA and Electron cards' offered by Absa and Nedbank, as intimated by Absa⁹⁹.

⁹⁹ The General Manager of consumer issuing, Simon Just, says costs have not been determined yet, but it is a low value - high volume offering and it is envisaged there will be a once-off load fee, with no charges for transactions thereafter. Absa has imposed certain limits on this payment solution which are aligned with the special exemption to control and manage these cards. Each transaction will be limited to R200 or less, a maximum load of R1,500 per load on the card and a total monthly transaction limit of R3,000. This is in line with the special exemption provided by the Financial Intelligence Centre Act ('prepaid instruments' refer section 3.1.5) which makes the issuing of contactless cards to under-banked consumers possible. <http://www.itssa.org/blog/2010/09/16/absa-issues-paypass-card/> (May 2011)

6.5.1 The Electronic Voucher Model Profile

There are three services that comprise the Electronic Voucher Model (EMV) model.

- i. Absa - *PayPass* (with MasterCard); in pilot, launch imminent; pay for transport fares using 'near field communications' [3.29]
- ii. Absa - pre-paid VISA debit card [3.18]; and
- iii. Nedbank - pre-paid VISA debit card [3.24];

The profiles of the EVM and services are established in *Table 7* below.

Table 7 | Profiles | Electronic Voucher Model & Services

5. The Electronic Voucher Model Defining Characteristics						
Transformational Capacity: 3.24						
Key Differentiator: pre-paid electronic store of value on a chip based Association card (Maestro or Electron - EMV compliant)						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
Buy goods and services at participating EMV compliant shop or service provider; ATM withdrawals; cash back at PoS (till points); buy airtime	Smart Card issued by bank & Card Associations – Master-Maestro or Visa-Electron	Bank & Card Association	EMV Chip Card with loading of pre-paid funds at bank	FICA X17 and Regulation 454 for 'Tap and Go' cards (new)	Card fee typically R30; free for purchases - costs paid by merchant s; low ATM cash withdrawal costs of less than R10 or free	<u>Estimated ABSA and Nedbank branch/agencies: 1,500</u> <u>Operating Hours: Normal store hours & ATMs 24x7</u>

Individual RPS that Comprise the Electronic Voucher Model Defining Characteristics						
5.1. Nedbank - Pre-Paid Card						
Transformational Capacity: 3.12						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
Buy goods and services at participating EMV compliant shops & service providers; ATM withdrawals; cash back at PoS (till points); buy airtime Planned services: (i) third party payments & (ii) pre-paid electricity	Card Association & bank issuer & acquiring merchant. Customer attains association card and selects own PIN, loads initial funds at bank.	Bank & Card Association	Visa Chip Card	FICA Ex.17, no need for SA ID, any form of identity document feasible	Once off card fee of R30. A 2.5% fee for deposit over counter, or free via an electronic funds transfer . A R6 fee for over the counter cash withdrawal or cash back at PoS; all other transactions at till points, Nedbank ATMs, petrol purchases, deposits, loading funds or balance enquiry are free	<u>Number of distribution points:</u> Nedbank branches: (for issuing) 452, all ATMs & compliant shops
5.2. Absa - Pre-Paid Card						
Transformational Capacity: 3.18						
Buy goods and services at participating EMV compliant shops & service providers; ATM withdrawals; cash back at PoS (till points); buy airtime; buy electricity	Card Association & bank issuer and acquiring merchant. Customer receives association card & selects own PIN, loads initial funds at bank.	Bank & Card Association	Visa Chip Card	FICA Ex.17	Once-off card fee of R30. A 2.5% fee for deposit over counter, or free via an electronic funds transfer All transactions at till points, Absa ATMs, funds transfer loads & balance enquiries are free.	<u>Number of distribution points:</u> Absa branches: (for issuing) 898; all ATMs & compliant shops

5.3. Absa - PayPass (Tap and Go) Transport Card						
Transformational Capacity: 3.29						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
Buy specialised service, e.g., transport fare card. Customers can load money on to the card from a bank account or via cash, using either a PoS, transit kiosk, internet banking or an ATM	<p>Bank based chip enabled card; no PIN required. Using chip card technology, the card is designed to provide consumers with the convenience of speed at the PoS (tap and go functionality – NFC), while offering retailers the benefit of faster till point processing.</p> <p>The balance on the card may not be over R1,500 at any time; not more than R3,000 a month may be loaded on the card. Each transaction is limited to a R200 threshold in line with Regulation 454.</p>	Bank & Card Association	Master Chip Card	Regulation 454, cell phone number and ID required to be presented at an Absa branch	Charges to be finalised.	<u>Number of distribution points</u> : TBT

6.5.2 The Customer Experience

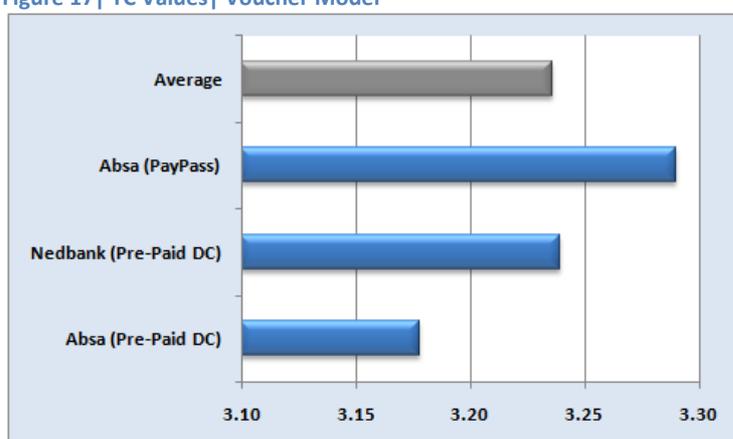
The typical customer user experience would include the following points:

- i. The user may use the card to withdraw cash, purchase goods and services at any EMV compliant outlet;
- ii. There is generally a low level compliance requirement for customers using these services. In the instance of the *PayPass* low KYC requirements are consistent with Regulation 454; setting a maximum of R200 per transaction and a maximum load of R1,500 per load with a total monthly transaction limit of R3,000;
- iii. The service may be accessed by user's card and PIN, except for *PayPass* which behaves as if it is cash;
- iv. The service is available on an *ad hoc* basis;
- v. The store of value (e-money) is available immediately;
- vi. The technology and usage processes are simple to understand and use; and
- vii. It is a relatively open loop service in that it is cross institution and accessible via the broad footprint of EMV.

6.5.3 Transformational Capacity

The model has a collective TC score of 3.24, which is the third lowest, and has a range of between 3.18 (Absa pre-paid) and 3.29 (Absa PayPass), refer *Figure 17* below. Its main detracting features include high relative costs and the nature and number of access points.

Figure 17| TC Values| Voucher Model



6.6 6| The 'Mobile Bank Account' Model

The '**Mobile Bank Account' Model** services offer money transfers, payments and other banking services by using the mobile handset as the channel to access bank accounts. The mobile number is the key link to a bank account provided by the partnering bank.

The main differentiator to the earlier referenced Mobile Money Model, aside from its fuller range of services as a result of being directly linked to a fully fledged bank account, is that this model does not create and store value on the mobile handset; the value is always within the underlying bank account so no virtual store of funds are held on the ether of the handset. Also, the customer compliance requirements are potentially materially different (full FICA versus Exemption 454).

Costs for such services are materially higher as they include the costs for the management of the underlying account, and the payment service transaction fee. The latter fee is typically less than R5 per transaction; however, this is on top of any other account-based fees and costs.

The Mobile Bank Account Model offers payment services that enable both sender and receiver (payer and payee) to make payments (and other financial services in the case of Wizzit and Mobile Money), by using a mobile phone. The sender (payer) is required to hold a bank account either directly through a bank such as in Absa's CashSend or indirectly through 'Mobile Banking' offered by Wizzit and Standard Bank's Mobile Money, or POCit's 'Mobile Banking'. In all instances the sender is not required to know the recipient's bank account details but is required to know their cell phone number and in CashSend the recipient does not require a bank account. The latter is possibly most closely related to services in the M³.

The model derives its name from the two key characteristics of its resident services, namely, offering a mobile channel on top of a set of bank accounts. Mobile banking is akin to internet banking, an alternative channel bolted onto a classic bank account. No account, no mobile bank channel.

6.6.1 The Mobile Bank Account Model| Profile

Four payment services comprise the Mobile Bank Account Model, as listed below with their various TC values:

- i. Absa – CashSend [2.89]
- ii. POCit – mobile banking [3.34]
- iii. Standard Bank (Mobile Money) - mobile banking [3.09]
- iv. Wizzit - mobile banking [3.25]

Table 8 | Profile | The Mobile Bank Model & Services

6. The Mobile Bank Account Model Defining Characteristics						
Transformational Capacity: 3.14						
<i>Key Differentiator - bank account and mobile handset required to transact, no value is stored on the mobile handset (i.e. this is not e-money), no branch infrastructure required- use other parties)</i>						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer: ATM cash withdrawals: buy airtime; buy electricity; pay third parties; purchase products & services at Visa / Master participating merchants	Bank accounts, with customer's mobile number acting as a proxy for their bank account number. Debit cards are linked to the underlying accounts to enable purchases through participating merchants and cash withdrawals at ATMs	Mobile banking service provider in alliance or as part of bank	Mobile handset & Debit Card	FICA Ex.17	Flat fee; pay as you go. P2P transfers & payments approximately R2 per transaction	<u>Total Number of distribution points:</u> > 10,000 <u>Registration & operating hours:</u> Bank hours 9h00 - 15h00 Mondays - Friday & Saturdays 08h00 - 13h00; Wizzit & POCit extended registration hours and usage hours up to 24x7

Individual RPS that Comprise the Mobile Bank Account Model Defining Characteristics						
6.1. Wizzit - a division of Bank of Athens (BoA)						
Transformational Capacity: 2.89						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer: ATM cash withdrawals: buy airtime; buy electricity; pay third parties; purchase products & services at Visa & Master participating merchants	Customer registers for service via community-based Wizzkids; no formal banking infrastructure exists. Wizzkids manage all the paper work, conduct FICA requirements for customer authentication; Wizzkids process the initial 'activation deposit' of R70; customers need to go into a branch (BoA or Absa) to make further cash deposits	Wizzit Mobile Banking Provider as a division of the Bank of Athens	Mobile handset & debit card	FICA Ex.17, with capability to take a cellphone camera photo of the ID.	Pay per transaction, no monthly fees; from as little as R1 for airtime purchase to R5 for ATM cash withdrawals & P2P money transfers	<u>Number of distribution points:</u> 2,800 Postbank branches/agencies; 858 ABSA branches <u>Estimates of Wizzit users:</u> in order of 160,000 /300,000 ¹⁰⁰ <u>Number of Wizzkids:</u> 2,500

¹⁰⁰ Borg, F and. Persson, M. *Assessing Factors Influencing the diffusion of Mobile Banking in South Africa: A case study on Wizzit*. In part fulfilment of Bachelors Thesis in Industrial and Financial Management, University of Gothenburg, Sweden. 2009.

6.2. POCit - any bank						
Transformational Capacity: 3.34						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer: ATM cash withdrawals; buy airtime; buy electricity; pay third parties; purchase products & services at merchants	Customer required to register as a 'user' of the POCit mobile payment service via their cellphone & then they may transact & send payments to any person, business with a cell phone or a bank account. Registration is conducted by downloading a POCit banking application service onto their cellphone & the client's identity details are verified via an online system check to POCit's Department of Home Affairs data base	POCit, third party payment intermediary	Mobile handset, & underlying bank credit or debit cards	FICA X17, or full FICA depending on nature of the underlying bank account	Prices range from as little as 35 cents to transfer money to a cell phone to R5 to pay a third party, e.g., traffic fine, with the general type of transaction being to pay accounts at R2 per transaction. Pay as you go basis plus minimal data fees depending on cell phone service provider. Any cash withdrawals through banking infrastructure will attract the standard bank fees for service used.	<u>Number of distribution points:</u> 35 million cell phone users with all those who are banked as potential customers

6.3. CashSend - Absa						
Transformational Capacity: 2.89						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer; ATM cash withdrawals; Planned services: buy airtime, buy electricity, pay third parties	Sender required to open an Absa transactional account. The recipient does not require a bank account. Once the account has been opened, the sender requests to send cash to any person with a cell phone number. The sender can initiate a cash send request from their cell phone, the internet or any Absa ATM, or branch. The bank system generates an SMS message to the recipient with a 10 digit cash access code. The sender then selects a six digit PIN code for the recipient to release these funds from an Absa ATM. This sender communicates the PIN code to the recipient who can then redeem the full amount in cash at an Absa ATM	Absa Bank & Absa ATMs	Mobile handset; sender requires an Absa transactional account	FICA Ex.17, or full FICA depending on nature of the underlying bank account	CashSend transactions are based on a fee structure: R6,90 + R1,05/R100, irrespective of channel	<u>Number of distribution points:</u> Absa branches: 898 Absa ATMs: 8,000 Reportedly on average 78,000 transactions per month on CashSend (May 2011) ¹⁰¹

¹⁰¹ <http://mobilemoneyafrica.com/?p=3525>, quoting Mobility 2011 research findings.

6.4. MobileMoney - Standard Bank						
Transformational Capacity: 3.09						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer; ATM cash withdrawals; buy airtime; buy electricity; pay third parties (bills); deposit funds at EasyPay outlets; purchase products & services at any MasterCard participating merchants	Customer need to be both registered user of MTN mobile network operator & have an underlying Standard Bank account; account is opened via a call centre using the customer's cell phone number as their bank account reference	MTN mobile network operator in partnership with Standard Bank	Mobile handset & Maestro debit card	FICA Ex.17	Pay per transaction; no monthly fees; pre-paid airtime & electricity purchases are free; person to person transfers are R3; up to R5 for ATM cash withdrawal at Standard Bank ATMs& R10 at non-STD Bank ATMs; deposits are free	<u>Number of distribution points:</u> Standard Bank branches: 1,257 <u>Mobile Money users:</u> 16,000 (estimate)

6.6.2 The Customer Experience

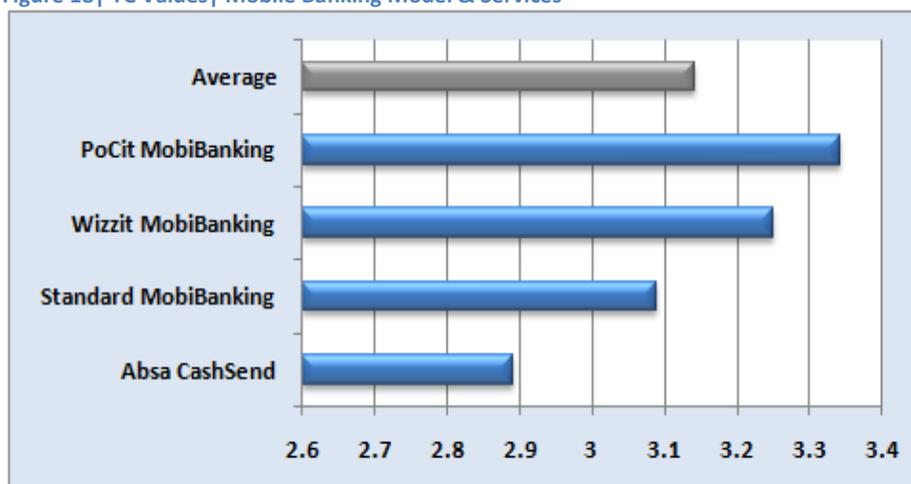
The customer experience is essentially a ‘bank experience’, even in instances where the recipient does not need a bank account, but must access funds via an Absa ATM. There are material bank-based intermediation elements to these services, as opposed to the M³ services.

- i. It is a registered ‘account’-to-registered ‘account’ service, with an underlying bank account associated with each registered account from which money may be moved in or out and redeemed as cash through the formal banking account systems and infrastructure, e.g., ATMs, internet and branches;
- ii. The sender (with a bank account) initiates ‘send money’ to any cell-phone number, who can register immediately to accept the funds and move to their own banking account for redemption as cash or they may hold the stored value, to make a purchases, e.g., airtime, or send value to another registered account holder, or withdraw cash at an ATM if they have no account (in the case of CashSend);
- iii. There is a high level compliance requirement for sender and recipient of the service. Both the sender and receiver are required to have a bank account (except CashSend);
- iv. The service may be accessed by sender or recipient using a mobile handset;
- v. The service is available on an *ad hoc* basis;
- vi. The cash or value is available immediately;
- vii. The technology and usage processes are fairly simple to understand and use; and
- viii. It is a relatively open loop service in that third party payments may be cross institution and broad footprint, although CashSend is only within the Absa domain.

6.6.3 Transformational Capacity

This Model has a TC score of 3.14, being less transformational than the M³ and Grocer Models as there is a need for an account on at least one end, whereas in the Grocer Model none is required; compliance is higher due to the formality of accounts being required and costs would be higher for the same reason. Although the *eWallet* (M³) requires the initial sender to hold a bank account, once created the *eWallet* can create many *eWallets*, provided the recipient has a cell phone account. The *eWallet* effectively is an e-money conduit that can be fed from a single compliant bank account. This differs from the Mobile Bank Model of say a CashSend where the recipient is required to withdraw the value as cash or use it to buy airtime; it cannot be forwarded to another mobile phone user to make further retail payments as is the case with *eWallet*. Refer *Figure 18* below for the TC scores.

Figure 18| TC Values| Mobile Banking Model & Services



6.7 7| The 'Buy & Pay' Model

The **'Buy & Pay' Model** is comprised of third party payment services providers, typically through entities such as EasyPay, for bills or account payments, or on-sellers of pre-paid services through a technology provider, such as Wiredloop. Customers typically buy mobile phone airtime top ups, prepaid electricity and lotto tickets, though the model also extends to other bill payments.

The administrative processes are minimal, no bank account is required and FICA requirements are not conducted. The customer only needs to know who they wish to pay and how much. For example, a customer can pay their TV Licence at Spar or Pick 'n Pay. The services open up the ability for customers in the unbanked environment to pay bills and purchase utility vouchers (pre-paid services) using cash at a variety of distribution points that are conveniently located.

The rationale for the name is that customers essentially use an electronic channel to buy or pay for a variety of services as they would for buying or paying for goods. The difference is that the electronic channel intermediates their payments to a third party and not the direct seller.

6.7.1 The Buy & Pay Model| Profile

There are three services comprising the Buy and Pay Model. The profile of the model and associated services are set out in *Figure 19* below.

- i. Easy Pay - third party payments [3.55]
- ii. Wired Loop – Prepaid Card [3.09]
- iii. Blu (MobiMerchant) – Blue Label Telecoms [3.23]

Table 9 | Profiles | The Buy & Pay Model & Services

7. The Buy and Pay Model Defining Characteristics						
Transformational Capacity: 3.29						
Key Differentiator: Pay Bills or Buy Services using cash or account (P2B third party payments through a third party payment provider or intermediary)						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2B third party payments; pay utility bills, accounts; buy airtime, electricity	Payer makes payment or buys utility service at a PoS or spaza shop, home store, mobile PoS device by presenting account details to pay & providing cash or card/account details to debit	Third Party Payment Provider	Retailer or other TPPP	No FICA required	Recipient pays	<u>Distribution Points:</u> Many <u>Operating Hours:</u> Retail & home store, typically Mondays - Sundays 08h00 - 20h00

Individual RPS that Comprise the Buy and Pay Model Defining Characteristics						
7.1. EasyPay (Net 1)						
Transformational Capacity: 3.55						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2B third party payments; pay utility bills, accounts; buy airtime, electricity	EasyPay third party payment service accepting cash, debit, credit or electronic transfer of funds	EasyPay, third party payment provider	Retailers such as Shoprite, Spar, Pick 'n Pay	No FICA required	Recipient pays	<u>Number of distribution points :</u> > 65% of all Retail outlets nationally offer EasyPay third party payment services

7.2. WiredLoop

Transformational Capacity: 3.09						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
Buy airtime, electricity, lotto	WiredLoop PoS devices accept cash, debit, credit or electronic transfer of funds	WiredLoop, third party service provider	Mobile Point of Sale voucher dispensers	No FICA required	< R2 per transaction	<u>Number of distribution points:</u> Unknown, but on much smaller scale than the others in the model

7.3 .Blu - Blue Label Telecoms						
Transformational Capacity: 3.12						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
Buy airtime & electricity	Buyer of pre-paid airtime makes purchase using cash or account or mobile handset using BLT's third party pre-paid voucher code and PIN or PIN-less service	BLT, third party service provider	Blu vending machines; home stores	No FICA required	< R2 per transaction	<u>Number of distribution points:</u> 140,000 points of presence

6.7.2 The Customer Experience

Customers would generally have the following type of transaction experience:

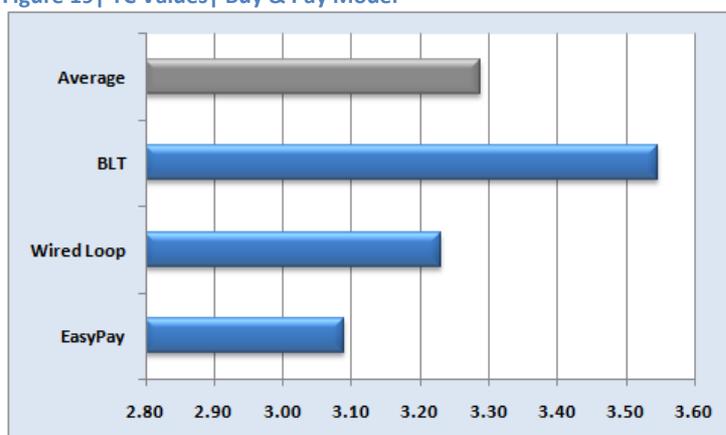
- i. There is no compliance requirement for user;
- ii. Low or no costs to for the initiator of the product or service;
- iii. The infrastructure is typically close to customers' work, home or commute as it uses retail outlets (formal and home/spaza shops);
- iv. The technology and usage processes are simple to understand and use; and
- v. It is an open loop service in that it is accessible across institution that are 'signed up' as service providers; i.e., the retailers or shops are required to be authorised agents for the retail payment service, whether it be Wiredloop or EasyPay.

6.7.3 Transformational Capacity

This model has a collective TC of 3.29 and is characterised by its broad reach in the retailer environment (refer *Figure 19*). Whereas not much is public knowledge in the way of actual numbers for distribution, it is known that EasyPay has more than 65% of the retail merchants signed up to provide third party payment services.

The BLT service has enormous transformational potential due to its ubiquitous distribution network, but currently has limited functionality in that money transfers are not possible. Once it is able to provide such a service it will be even more transformational than its current level.

Figure 19| TC Values| Buy & Pay Model



6.8 Model 8| The 'Bank Account' Model

The '**Bank Account' Model** is occupied by services that largely offer full retail payment and other banking services. All services, even those advertised as basic or entry level, fall within the traditional or classic bank account model where the customer holds a permanent bank account.

While some account-based payment services can make payments to non-account holders, the services are generally defined by both parties intermediating through bank accounts. The payment service enables customers to send and receive monies via their accounts through the full gamut of payment access mechanisms and financial services ranging from internet and cell phone banking, to credit cards, debit cards, cheques, electronic funds transfers and third party payments.

Administrative processes are burdensome with often full KYC procedures required to be followed, unless Exemption 17 has been applied. Costs are variable but tend to be higher than non-account based services. Monthly administration fees can be as high as R100 per month simply to hold the account, plus transaction fees which will vary depending on nature of underlying account.

Although several such products were reviewed, they are all largely similar and differentiate their products and services by pricing plans and offerings that are not universal and make comparison of like for like services impossible.

6.8.1 The Bank Account Model| Profiles

Nine bank account style services have been included in the Bank Account Model. They are all selected from the common understanding that they are targeted by their various suppliers at 'entry-level' customers:

- i. Absa Bank - Flexi Account [2.41]
- ii. **Absa - Current Account [2.37]**
- iii. FNB - Smart Account [2.42]
- iv. FNB - One Account [2.38]
- v. FNB - Life Start Student [2.40]
- vi. Nedbank - Transactor Plus (Bundle) [2.52]
- vii. Postbank - Flexi Pension [2.52]
- viii. Capitec - Global One [2.52]
- ix. Standard Bank - Mzansi Account [2.83]

In the context of the report these services are typically at the second or third tier above the defined 'basic' service. Refer section 2.3 above. In the interest of brevity and given the similarity between models, the general profile is be outlined only.

Table 10| Profile | The Bank Account Model & Services

8. The Bank Account Model Defining Characteristics						
Transformational Capacity: 2.48						
<i>Key Differentiator bank account required and may offer full banking services, all channels including card, cellphone, internet, ATMs, self-service terminals, mini ATMS, PoS devices</i>						
Nature of Service (Need Satisfied)	Service Platform	Primary (customer-facing) Institution	Primary Access Method	Lowest Compliance Requirement	Pricing Structure	Distribution Network
P2P Money transfer; ATM cash withdrawals; buy airtime, electricity; pay third parties; purchase products & services at Visa & Master participating merchants	Customer registers as a Bank customer and fulfils all associated compliance requirements when opening a transacting account. Based on the customer's life style and price tolerance a variety of channel offering and services are available from simple money transfers to processing multiple third party payments via the internet	Bank	Branch is required to register and initiate the transacting account. Thereafter the interface is the Customer's preference, ranging from branch, to card, internet, cellphone, ATM	FICA Ex.17 or Full FICA depending on the nature of the account	Full range of pricing structures. From pay as you use to monthly subscription, pre-paid, bundled and rebate models	<u>Total Number of branches:</u> 5,872, all SASWITCH ATMs, internet & mobile <u>Operating hours:</u> Bank hours (with limited exceptions) 9h00 - 15h00 Monday – Friday; Saturday 08h00 - 13h00; ATM, Internet, Cellphone Channels: 24x7

6.8.2 The Customer User-experience

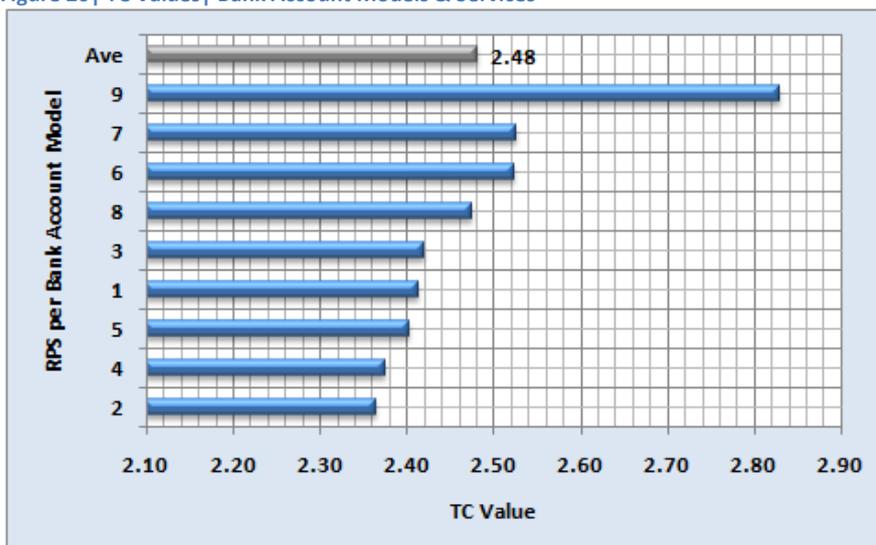
The typical customer experience would be of a classic banking relationship:

- i. It is a bank account to bank account transfer of funds where money is moved in or out of accounts or redeemed as cash through the formal banking systems and infrastructure;
- ii. Both sender and recipient hold bank accounts;
- iii. There is a high level compliance requirement for sender and recipient;
- iv. The service may be accessed by sender or recipient using full range of card, branch and internet channels and access mechanisms;
- v. The direct costs are high for sender and receiver;
- vi. The service is available on an ongoing/permanent basis;
- vii. The cash or value may be available immediately or within 48 hours for third party payments or across banks;
- viii. The technology, pricing and usage processes may be complex, depending on the payment instrument selected; and
- ix. It is an open loop service in that it is cross institution and has a broad footprint.

6.8.3 Transformational Capacity

These are your typical bank products and include a range of entry level banking services, e.g., FNB's Smart Account, Standard Bank's Mzansi Account and Capitec's Global One, refer *Figure 20*. The overall TC is the lowest of all the models at 2.48. This is reflected primarily in high relative costs, directly for service administration and fees, but also indirect transactional costs. The high level of compliance also undermines their transformational capacity. These are essentially second and thirds tier services that amongst other services enable payments.

Figure 20 | TC Values | Bank Account Models & Services



6.9 The Models| in Conclusion

The eight models that are the outcome of the review and model building process are summarised below:

- i. The **'Grocer' Model** – covers five services; is mainly a national retail store-led, bank sponsored money transfer service. The customer experiences the service as if they were grocery shopping. No bank accounts are required on either end of the transaction. It is most closely aligned with the defined basic need. KYC compliance requirements fall within FICA Exemption 17, i.e., medium to low.
- ii. The **'Poor Person' Model** – this is the Mzansi Money Transfer, also a pure no-account based money transfer service. It is a creature of the Financial Sector Charter and is treated poorly by both customers and suppliers. It has technical potential but seems to have the albatross of coercion around its neck. Compliance requirements are also Exemption 17 driven, but more complex than the Grocer Model services as both sender and recipient are impacted.
- iii. The **'Mobile Money' Model** – essentially those services that through some mechanism create e-money on a mobile platform and enable it to be used in an eco-system of e-money. The lowest KYC requirements pertain here, governed by the 'prepaid' FICA exemption if so compliant. A customer's primary interface point is their mobile handset, and this defines the model. There are four services in this model, including FNB's *eWallet* and Flash's Flash Cow services.
- iv. The **'Smart Card' Model** – the only really smart card in South Africa, Net1. It has high technology on the card platform, in the processing of on-line and off-line transactions and biometric customer verification. The customer experience is likely defined by the nature of the high-tech card and its dissimilarity to a bank a card. Currently it operates in its own closed loop proprietary system, much as all the bank services do through various levels of interoperability. Plans are afoot to integrate the Card into the EMV environment. Compliance (KYC) is also Exemption 17 based.
- v. The **'Electronic Voucher' Model** – this model is defined by a card-based prepaid platform, offered by banks in concert with the card associations, Visa and MasterCard. Services need to be FICA Exemption 17 compliant.
- vi. The **'Buy & Pay' Model** – services here typically provide purchases and payment intermediation for mobile phone tops up, prepaid electricity, utility television licenses, lotto purchases and the like. A customer view would be that they use the service to buy or pay for services without a bank account. KYC requirements do not prevail at all.
- vii. The **'Mobile Banking' Model** – is primarily different from the Mobile Money Model in that e-money is not created and stored on the mobile; it is accessed in an underlying bank account, at least on one side of the transaction, but often both. A customer's experience is likely to be that they have an additional channel attached to their bank account, albeit in a more convenient way via their customer-owned handset. KYC requirements range from full FICA to Exemption 17, depending on the nature of the underlying accounts/s.
- viii. The **'Bank Account' Model** – this is the stock standard two-sided bank account model where customers are intermediated through a bank via a range of channels, from branch to internet to mobile. These services also have compliance ranging from full FICA to Exemption 17.

The most transformational of the models is the one that contains the most transformational services, the Grocer Model, followed closely by the Mobile Money Model and Smart Card Model.

Refer to *Figure 21* and *Figure 22* below that are scatter grams illustrating the distribution of TC values.¹⁰² The former includes each model’s individual services and the latter the models on their own.

Figure 21 | Relative TC Values per Service per Model

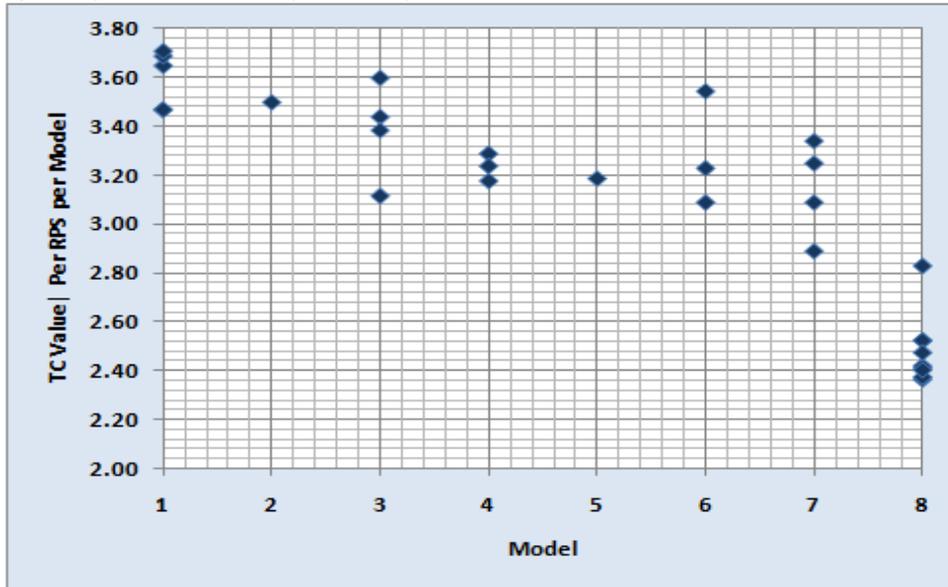
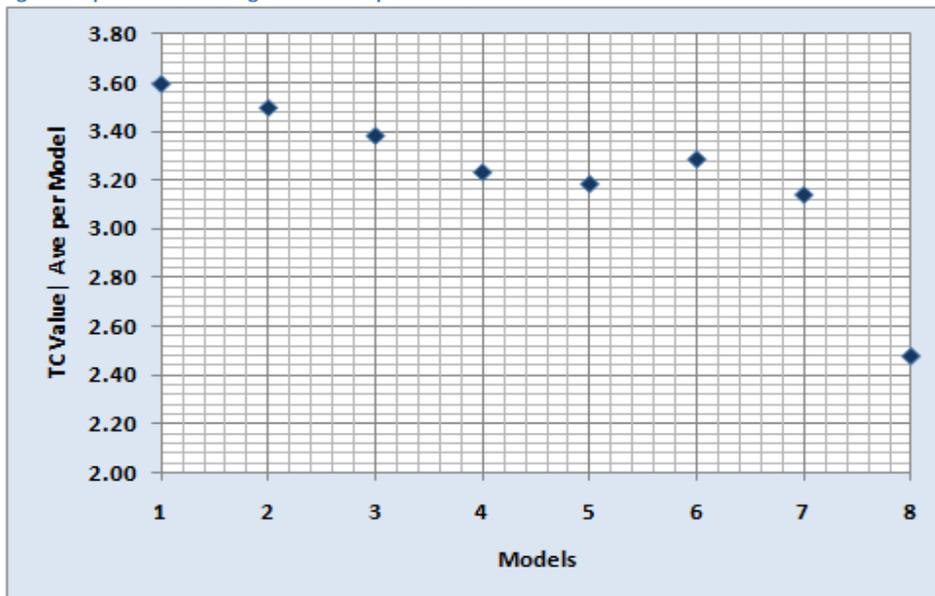


Figure 22 | Relative Average TC Values per Model



¹⁰² Model numbers in the graphs correspond with the model listing in the report.

The primary factors that drive the transformational capability of the models and their associated services are the ones that are most closely aligned with the basic needs of a typical entry-level client. They include:

- **No need for an account**, i.e., the ability to conduct *ad hoc* transfers and payments;
- Single function or purpose services that can be used and paid for on a '**pay-as-you-go**' basis;
- **Direct costs** that are cognisant of the target market's low and intermittent incomes;
- Low transactional costs (**indirect costs**), generally achieved via either **broad distribution** infrastructure in areas close to the target market's home, place of work or commuting routes, or **customer-owned infrastructure** such as a mobile;
- Low **compliance requirements** to reduce indirect costs and complexity;
- The more **open the service's access loop**, the better. This factor is aligned with broad distribution footprint; and
- Use of the service can be **packaged with other activities** or transactions the customer may have, which reduces transactional costs and/or improves familiarity with the service.

The models that exhibit the above factors best tend to be the ones that are most transformational, i.e., the ones that are most likely to offer a relevant service to customers who are not yet fully included in formal financial services.

7 Some Conclusions

The eight retail payment services models described in the report provide a **snapshot of the current state of the market** and reflect the prevailing market conditions. The South African retail payment services landscape has changed markedly over the past seven years as existing and new bank and non-bank players started seeking commercial ways to serve the under- and unbanked markets. A number of factors have shaped the evolution of the market:

1. **Country conditions:** As can be learned from the well-documented Kenyan experience with M-Pesa, a number of conditions may be the incubator for large-scale take-off of innovative retail payment services that aim to go beyond the traditional branch-based model. These include very high levels of financial exclusion, low reach of the classic banking system, a flexible regulatory regime, high penetration of mobile telephony and a strong demand for a money transfer service. In South Africa, not all of these conditions hold. This shows that transplanting a particular (successful) recipe from one jurisdiction to another with a materially different context does not necessarily guarantee success.¹⁰³ While mobile penetration in South Africa is high and there does seem to be a strong money transfer demand, the banking sector is sophisticated and the majority of the population is banked. Nevertheless, a substantial part of the population has traditionally been excluded and uptake numbers would suggest that new, alternative ways of engaging with financial services are gaining traction¹⁰⁴.
2. **New entry and convergence:** Market dynamics have changed over time, sparked partly by the entry of nimble technology-driven players, as well as the increasing interest of other entities that are traditionally outside the financial services space, but that have a large customer base that can be leveraged and that see a potential for diversification of income. Examples of such new players include retailer chains, technology companies and telecommunication companies. This has in essence led to a “convergence” across industries. This process has played off within a bank-based model, as mandated by the South African regulation, whereby all models involve a bank as partner. Nevertheless, the role of banks has changed somewhat from primary players or drivers in the partnership, to co-players along with partners such as retailers, telcos and technology firms. The telcos, retailers and technology companies are generally able to deliver

¹⁰³This is illustrated by the different initial experience of M-Pesa in South Africa as opposed to Kenya, as explained in the following press quote: “Mobile money platform M-Pesa has failed to live up to Vodacom’s expectations for the product in SA, Pieter Uys, the group’s CEO, has admitted. Vodacom has registered “more than” 100 000 M-Pesa users in SA since its launch in August 2010, but says this has fallen short of its expectations for the product. When it unveiled the product last year, Vodacom said it expected to sign up 10m M-Pesa customers within three years — an ambitious target given that SA has a total unbanked population of 13m.” Nedbank lags in cellphone banking. Mpho Lukoto. Business Day. 30 May 2011. <http://mobile-financial.com/node/14226/M-Pesa-disappoints-for-Vodacom-South-Africa>. 15 June 2011

¹⁰⁴ For example, FNB announced on 31 May 2011, based on a recent report by global market research firm TNS, that its cell phone banking and e-Wallet customers have now passed the 3 million marks. ABSA is close on its heels, reportedly now with 2.7 million cell phone banking customers. Nedbank and Standard are thought to add another 500,000 customers using cell phone banking (Business Day, 31 May 2011).

certain services at materially lower costs than through the banking infrastructure, to the direct benefit of customers.

3. **Innovation by banks:** The innovation and increased movement in the non-bank space has enhanced competition that, in turn, has spurred innovation on the bank front. Banks are increasingly aware that there is scope for them to be disintermediated by entities that can do much of what they do, better, faster and at lower costs, and have close relationships with large chunks of the market. There is also a growing sense of competition *between* banks to gain the edge in the 'new frontier' provided by innovative retail payment services.¹⁰⁵ The first 'mobile banking' services of the early 2000s were simply channel-additive, providing existing, mostly high-end customers, with another access channel. This approach did not initially prove terribly popular. Today, based on learning from experience and through visibly more marketing, the drive is to provide *entry level* transformational services via mobile communications systems. It is this re-positioning of the target market, based on serving the needs of those without ready access to other channels, that is proving a better recipe, or at least the start thereof. At the same time, from the banks' perspective, it serves as a cost-cutting measure by partially channelling customers out of branches and reducing the use of cash.
4. **Increased awareness of demand-side needs:** The Financial Sector Charter had a clear demand-side orientation, sensitising suppliers to the particular needs and capabilities of entry-level customers. Banks and other financial service providers were galvanised into action, first producing collective (industry-wide) socially-oriented service solutions such as the Mzansi Account and Mzansi Money Transfer services, and then progressing to develop proprietary solutions for entry-level consumers. Many of the services that are reviewed in the report are 'children of the post-FSC wave'. Financial service providers realised that the entry-level market could be served commercially by innovative solutions, such as retail-led transfer services or mobile banking.
5. **Global developments:** The South African financial services dynamics are very much aligned with financial service developments elsewhere in the world. South Africa continues to be an incubator for new ideas and practices in the domain of making financial services more accessible to a broader market place.

To summarise: the recent 'step up' in the retail payment services market and increased levels of participation has improved creative competition, which seems to lead to greater educational knowledge and appreciation of accessing and using financial services, e.g., via a mobile handset. As the converging

¹⁰⁵ This trend is described in a recent quote by John Campbell, business development executive at Standard Bank's *Beyond Payment*, who stated that there is no doubt that one senses "a 'land grab' is under way in SA's cell phone and banking industries as big companies — retailers, banks and telecommunications operators — begin vying for a stake of the fast-emerging market for mobile payments. All the big banks and mobile operators are experimenting with different models, trying to find the one that will prove a massive success. There's no question of the banks backing away, either, as they view mobile payments and commerce as core to their future strategies. That means the fight could soon turn into a full-scale war." <http://www.techcentral.co.za/inside-sas-mobile-payments-land-grab/13674/>.

marketplace continues to break new ground it is likely that the range and depth of financial service providers will increase, enhancing financial inclusion across the board.

Where to with Retail Payment Services?

The analysis in this report suggests that, in the authors' view:

- The retail grocer/shop – bank model will continue to grow, in depth and scope. Combined with non-retail infrastructure its reach will expand and additional services to the domestic money transfer will evolve. The transformational dynamics of such arrangements will drive the transition zone down on the supply side.
- Mobile money and banking (customer-owned devices) will follow an expansionary dynamic too. Non-supplier devices used as service channels and access platforms cater for ubiquitous and 24/7 access; important requirements for transformational clients.
- Near field communication (NFC) technology integrated with mobiles or on card platforms will become an additional technology driving quick, easy and low-cost payments in specific streams.
- It is likely that there will be an increase in the number of retail outlets that are mobile and/or NFC enabled to ensure that usage can be facilitated.
- It will be important to increase the levels of collaboration (e.g., sharing of distribution networks) and interoperability to broaden the depth and breadth of financial inclusion. A better understanding of where to compete and where to cooperate may enhance this.
- There are already signs that technology enabling firms proving wholesale platforms for retail distribution will add to their portfolio of services, including moving value between parties, independent of 'buying or paying'.
- The level of competition, at various levels, is set to improve; with greater customer choice for services, channels and platforms.
- Many of the above market dynamics will lead to lower costs to customers, both direct and indirect.
- There may be less distinction between 'who does banking' and 'non-banking'.

Comments and Recommendations

- The **regulatory regime** will continue to play a core role in facilitating such development. A responsive and adept regulatory regime is guided by market developments and allows the regime to evolve in such a way as to appropriately manage risk. While the regulatory regime has generally been an enabler of competition and has effectively balanced risk with regulation, there is room for appraising both the impact of FICA (KYC requirements) and the duplicative requirements of RICA to ensure that there is a correct and consistent interpretation by all participants, which is not always the case at present.¹⁰⁶ This could lead to higher levels of financial participation on both the supply and demand sides.

¹⁰⁶ While consistency of interpretation may be a desirable condition, it is not necessarily so. Variations in legal interpretation do help to test the veracity of the laws and how they may need to change to better accommodate market dynamics that always

- Following from the previous comment is the need for an effective central repository of personal identification data that would support both FICA and RICA, reducing complexity and compliance costs borne ultimately by customers.
- Furthermore, it is envisaged that more nuanced regulatory parameters will be needed to cater for degrees of risk given emerging market practices.
- There is always room for improved financial literacy amongst the most vulnerable customers who can least afford to make bad decisions. This is a national problem and as such there must be a public goods component to the solution. Private and NGO financial literacy programs will more likely develop if government takes the initiative to get a broad-ranging public solution going.

These results confirm that mobile telephone penetration can foster economic growth not only by facilitating financial inclusion, but also by consolidating the impact of financial inclusion on economic growth. Through higher mobile penetration, it becomes easier to have access to deposits and loans. Better information flows through mobiles improve information acquisition of both depositors and financial institutions, and enhance monitoring. Higher mobile penetration indeed reduces the physical constraints and costs of distance and time. Also, better ICT development reduces the cost of financial intermediation and contributes to the emergence of branchless banking services, therefore improving access to finance for households that would be credit constrained otherwise.

IMF Working Paper. *ICT, Financial Inclusion, and Growth: Evidence from African Countries*. Prepared by Mihasonirina Andrianaivo and Kangni Kpodar. April 2011. P. 19-20.

lead regulatory adjustments. Thus, while regulatory clarity is important, where certain suppliers push the envelope of interpretation, it may also be helpful.

8 ANNEXURES

8.1 ANNEXURE 1| Terms of Reference and Organizations Involved

FinMark Trust (FMT) issued terms of reference (ToR) for proposals to *map the landscape of retail payment models in South Africa. Specifically,...(considering) the role that these models can play and are playing in extending financial inclusion in the South African context.*

The research output contained in this report is a function of the above requirement.

FinMark Trust

FinMark Trust was established in March 2002. It is a non-profit independent trust, funded primarily by the UK's Department for International Development. FinMark Trust's purpose is, *Making financial markets work for the poor, by promoting financial inclusion and regional financial integration.* It does this by conducting research to identify the systemic constraints that prevent financial markets from reaching out to these consumers and by advocating for change on the basis of research findings.

Thus, FinMark Trust has a catalytic role, driven by its purpose to start processes of change that ultimately lead to the development of inclusive financial systems.¹⁰⁷

Role in the Project: Project commissioning and funding.

Cenfri

The *Centre for Financial Regulation and Inclusion* (Cenfri) is a non-profit think-tank based in Cape Town.

Cenfri's mission is to support financial sector development and financial inclusion through facilitating better regulation and market provision of financial services. It does this by conducting research, providing advice and developing capacity building programs for regulators, market players and other parties operating in the low-income market.¹⁰⁸

Role in the Project: Project management service and co-editors.

InsightWorx

InsightWorx (IX) was established in January 2005. It is a specialist research, consulting and advisory business. IX focuses on issues of market- inclusion, -expansion, -development and effectiveness. It conducts its work through the precept of – *Making Markets Work Better for All.*

Role in the Project: Conducting the research and drafting the report.

¹⁰⁷ <http://www.finmark.org.za/new/pages/default.aspx>. 12 December 2010.

¹⁰⁸ <http://www.cenfri.org/>. 12 December 2010.

8.2 ANNEXURE 2| Stakeholder Workshop Attendees

Item #	Representatives	Entity
1	Tony Oyier	African Bank Investment Limited
2	Johann Bezuidenhout	Bankable Frontiers
3	Muzi Mialambi	Banking Association South Africa
4	Doubell Chamberlain	Centre for Financial Regulation and Inclusion (Cenfri)
5	Anja Smith	Centre for Financial Regulation and Inclusion (Cenfri)
6	Riaan Abdoll	Clickatell
7	Bruce Drawcard	Drawcard Pay Your Way
8	Pieter Alberts	Financial Intelligence Centre
9	Kamla Govender	Financial Intelligence Centre
10	Prenisha Jagganath	Financial Intelligence Centre
12	Derick Mostert	Financial Intelligence Centre
13	Poovindree Naidoo	Financial Intelligence Centre
14	Lize van Schoor	Financial Intelligence Centre
15	Ruqshana Hassan	FinMark Trust
16	Brendan Pearce	FinMark Trust
17	Kim Dancey	First National Bank
18	Alison Speedi	First National Bank
19	Mauro Mela	Genesis Analytics
20	Colin Donian	InsightWorx
21	Maire Eltringham	InsightWorx
22	Darè Okoudjo	MFS Africa
23	Ingrid Goodspeed	National Treasury
24	Shalona Latchman	Nedbank
25	Khathu Mathivha	Nedbank
26	Tiitso Matlabo	Nedbank
27	Gerhard Van Wyk	Nedbank
28	Leticia Mentz	Payment Association of South Africa
29	David Reynders	POCit
30	Günther Berger	SEG
31	Margaret Olivier	South African Reserve Bank
32	Gops Pillay	South African Reserve Bank

Item #	Representatives	Entity
33	Khatija Fakir	Standard Bank
34	Trishanie Govender	Standard Bank
35	Graham Seale	Standard Bank
36	Kwanele Zuma	Standard Bank
37	Brian Richardson	WIZZIT

8.3 ANNEXURE 3 | Glossary

Term Abbreviation Acronym	Definition Description
ABSA	absa bank limited
AEDO	authenticated early debit order
ACB	automated clearing bureau
access mechanism (payer sender) [payment platform] - bank & non-bank	how the service is accessed. Physical cash is sent and / or received, or e-cash is sent and / or received. An entry device is required to enter cash or e-cash into the payment system or exit cash or e-cash out of the payment system. Also referred to as 'delivery channel'
acquirer	the entity or entities that hold(s) deposit accounts for card acceptors (merchants) and to which the card acceptor transmits the data relating to the transaction. The acquirer is responsible for the collection of transaction information and settlement with the acceptors
ad valorem fee	a fee that varies according to the value of the transaction
agency relationship	a contractual relationship in which one party, the agent, acts on behalf of another party, the principal. The agent may execute trades for the principal but is not responsible for performance by the principal
agent	an entity, such as a fund manager or a custodian, that undertakes a securities loan and negotiates the terms with the borrower on behalf of a customer-owner
agency	in relation to a bank, means a right granted to a person by that bank to receive on its behalf from its clients any deposits, money due to it or applications for loans or advances, or to make payments to such clients on its behalf. As defined by the South African Banks Act, 1990 (Act No. 94 of 1990), As amended
ATM	an electromechanical device that permits authorised users, typically using machine-readable plastic cards, to withdraw cash from their accounts and/or access other services, such as balance enquiries, transfer of funds or acceptance of deposits. ATMs may be operated either online with real-time access to an authorization database or offline
automated clearing house	an electronic clearing system in which payment orders are exchanged among financial institutions, primarily via magnetic media or telecommunications networks, and handled by a data
availability	the ability of services and information to be accessed by users when requested
bank	a public company registered as a bank in terms of this Act. (Act No. 94 of 1990)
BankservAfrica	is South Africa's major automated payment clearing house operator
BASA	banking association of south africa
BCP	business continuity planning
B2P	business to person
biometric	refers to a method of identifying the holder of a device by measuring a unique physical characteristic of the holder, e.g., by fingerprint matching, voice recognition or retinal scan
BIS	bank for international settlements
BLI	blue label investments
BLT	blue label telecoms
cashback	a facility that allows a bank's account holders to use their payment

Term Abbreviation Acronym	Definition Description
	cards at a point of sale
BSP	beneficiary service provider
business of a bank	as a deposit taking institution, it is the business of a bank (banks act, no 94 of 1990)
card (ATM or cash card)	a card issued as part of a cheque guarantee system. This function may be combined with other functions in the same card, e.g., those of a cash card or debit card. Cheque cards are issued against demand deposit accounts (current account). When doing a transaction, the cardholder can be authenticated either by means of a PIN or signature
card (cheque)	card for use only in ATMs or cash dispensers
card (chip)	magnetic stripe chip card - also known as an IC (integrated circuit) card. A card containing one or more computer chips or integrated circuits for identification, data storage or special purpose processing used to validate personal identification numbers (PINs), authorise purchases, verify account balances and store personal records. In some cases, the memory in the card is updated every time the card is used (e.g., an account balance is updated)
card (close-loop open System)	a closed loop system is a network used for a specific payment purpose, such as a white label payment system, and to which access is restricted for general payments
card (combination magnetic stripe and chip)	a multi-functional card, which in addition to a stored value function, may include other payment facilities such as a debit or credit card functionality
card (contactless)	cards that do not require physical contact between the card and the card reader or terminal
card (credit)	a card indicating that the holder has been granted a line of credit. It enables the holder to make purchases and/or withdraw cash up to a prearranged ceiling; the credit granted can be settled in full by the end of a specified period or can be settled in part, with the balance taken as extended credit. Interest is charged on the amount of any extended credit and the holder is sometimes charged an annual fee. Even though credit card purchase transactions are mostly authorised by means of the account holders' signature, credit card cash withdrawals in an un-assisted environment, such as on an ATM, requires the transaction to be authorised by means of a PIN
card (debit)	a card enabling the holder to have his purchases directly charged to funds on his account (current account, savings or a transmission account) at a deposit-taking institution (may sometimes be combined with another function, e.g., that of a cash card or cheque guarantee card. Normally the cardholder needs to be authenticated by means of a PIN
card (magstripe)	a magnetic stripe that appears on the back of all payment cards issued by financial institutions. It contains essential customer and account information, most of which is usually also embossed on the front of the card
card (off-line on-line)	potentially different services arise if the card is in on- or off-line mode. On-line connectivity will enable synchronisation of card to back-end account. Off-line is an operating mode in which the electronic terminal does not connect to a central computer source. The purchase is authorised offline without checking with the Card Issuer or their agent. The transaction is later transferred to the processing system for

Term Abbreviation Acronym	Definition Description
	payment. On-line is an operating mode in which the electronic terminal connects to a central computer to check Cardholder and account details with the Card Issuer, or its agent, before authorising a payment. The transaction details are transferred automatically to the processing system, either immediately or later
card (petrol)	petrol cards are unique to South Africa and Namibia and were developed as a result of local fuel regulations. Authentication of petrol card transactions are normally done by means of the cardholder's signature, while the transaction can be authorised by the issuing bank or the POS terminal dependent on the transaction value and the applicable floor limit
card (voucher, pre-paid or e-purse)	prepaid cards are generally issued against a pre-loaded balance and are mostly distributed via retailers as gift cards. 'Know Your Customer' (KYC) checks are performed against the recipients of these cards if amounts above a certain threshold (R200 / R5,000) are involved. Money can be loaded onto a prepaid card by means of cash, bank transfer or even another payment card. E.g., gift card, stored value, electricity, telephone, fare-value
Cenfri	centre for financial regulation and inclusion
channel means of access	refers to any means of access to a bank account or store of value e.g. mobile handset, card, telephone, internet, ATM, self-service device
clearing and settling Institution	an institution which transmits information and funds through a payment system network. It may operate as an agent or a principal
clearing house	a central location or central processing mechanism through which financial institutions agree to exchange payment instructions or other financial obligations (e.g., securities). The institutions settle for items exchanged at a designated time based on the rules and procedures of the clearing house. In some cases, the clearing house may assume significant counterparty, financial or risk management responsibilities for the clearing system
clearing member	a member of a clearing house. All trades must be settled through a clearing member. A direct clearing member is able to settle only its own obligations. A general clearing member is able to settle its own obligations as well as those of clients. Variations of these two types of clearing member may also exist
client (customer)	usually refers to an individual engaged in non-commercial transactions
closed network	telecommunications network used for a specific purpose, such as a payment system, and to which access is restricted
contactless cards	cards that do not require physical contact between the card and the card reader or terminal
customer (client)	usually refers to an individual engaged in non-commercial transactions
customer to customer transfer (transferability)	in electronic money systems, the degree to which an electronic balance can be transferred between devices without interaction with a central entity
Deposit	'deposit', when used as a noun, means an amount of money paid by one person to another person subject to an agreement in terms of which - (a) an equal amount or any part thereof will be conditionally or unconditionally repaid et seq.
DR	disaster recovery

Term Abbreviation Acronym	Definition Description
EDOS	early debit order system
EFT	electronic funds transfer
electronic money	value stored electronically in a device such as a chip card or a hard drive in a personal computer
electronic wallet	a computer device used in some electronic money systems which can contain an IC card or in which IC cards can be inserted and which may perform more functions than an IC card
EMV	eurocard, mastercard and visa
EZ	exclusion zone
face to face payment	payment carried out by the exchange of instruments between the payer and the payee in the same physical location
FFIEC	the federal financial Institutions examination council
FMT	finmark trust
funds transfer system	a formal arrangement, based on private contract or statute law, with multiple membership, common rules and standardized arrangements, for the transmission and settlement of money obligations arising between the members
FAIS	financial advisory and intermediary services
FICA	Financial Intelligence Centre Act which imposes know your client obligations on banks and is aimed at combating money laundering
first tier bank	a full service commercial bank registered under the bank's act 1990
flat fee	a fee charged for a transaction that remains fixed at certain level regardless of the value of the transaction
FNB	first national bank
FRB	first rand bank
FSC	financial sector charter
FTS	funds transfer system
interoperability	as the ease of interlinking different systems on a business and a technology level. On a technology level is the ability of different types of computers, networks, operating systems, applications and other infrastructure of different banks and relevant stakeholders to interlink and work in partnership effectively, without interruption, explicit communication or translation prior to each event, in order to enhance the efficiency of the payment system. (Vision 2010)
Issuer	The entity which is obligated on a security or other financial instrument
Issuer stored value	in a stored value or similar prepaid electronic money system, the entity which receives payment in exchange for value distributed in the system and which is obligated to pay or redeem transactions or balances presented to it
IX	Insightworx
KYC	know your customer
limited pre-paid card	a prepaid card which can be used for a limited number of well defined purposes. Its use is often restricted to a number of well identified points of sale within a well identified location (e.g., a building, corporation or university). In the case of single-purpose prepaid cards, the card issuer and the service provider may be identical (e.g., cards used in public telephones)
Load	the action of transferring electronic balance from an issuer to a consumer's device

Term Abbreviation Acronym	Definition Description
MFS	mobile financial services
MM	model matrix
money laundering	the attempt to conceal or disguise the ownership or source of the proceeds of criminal activity and to integrate them into the legitimate financial systems in such a way that they cannot be distinguished from assets acquired by legitimate means. Typically this involves the conversion of cash-based proceeds into account based forms of money
m-banking (mobile banking)	mobile banking (m-banking) involves access by mobile device to a broad range of banking services, such as account-based savings or transactions products offered by banks
mini ATM	a cashless device supported by a float of funds at a merchant which provides basic transactions similar to those provided by an ATM. The device issues a slip which the merchant honours by paying the customer
NAEDO	non-authenticated early debit order
NBA	national bank account
NCA	national credit act
NFC	near field communication. This is a short range wireless connectivity technology that evolved from a combination of existing contactless identification and interconnection technologies
NPS	national payment system
NPSA	national payment systems act
NPSD	national payment systems department
Offline	in the context of payment and settlement systems, the term may refer to the transmission of transfer instructions by users, through such means as voice, written or telefaxed instructions, that must subsequently be input into a transfer processing system. The term may also refer to the storage of data by the transfer processing system on media such as magnetic tape or disk such that the user may not have direct and immediate access to the data
Online	in electronic money systems, indicates that a direct connection is made to a centralised computer system for authorisation or validation before a transaction can be executed
Online	in the context of payment and settlement systems, this term may refer to the transmission of transfer instructions by users, through such electronic means as computer-to-computer interfaces or electronic terminals, that are entered into a transfer processing system by automated means. The term may also refer to the storage of data by a transfer processing system on a computer database such that the user has direct access to the data (frequently in real time) through input/output devices such as terminals
P2B	person to business
P2P	person to person
participant member	a party who participates in a transfer system. This generic term refers to an institution which is identified by a transfer system (e.g., by a bank identification number) and is allowed to send payment orders directly to the system or which is directly bound by the rules governing the transfer system
PASA	payment association of south africa
payment	the payer's transfer of a monetary claim on a party acceptable to the

Term Abbreviation Acronym	Definition Description
	payee. Typically, claims take the form of banknotes or deposit balances held at a financial institution or at a central bank
payment instrument	any instrument enabling the holder/user to transfer funds
payment system	a payment system consists of a set of instruments, banking procedures and, typically, interbank funds transfer systems that ensure the circulation of money
payment (PASA)	means the execution of a payment instruction issued by a payer for the benefit of a beneficiary or payee, independent of any underlying obligation in terms of which the payment obligation may have been incurred (PASA)
payment service	being the services whereby a bank enables its clients to: (a) Make third-party payments by providing its clients with the means to issue payments to the clients of another bank or the other bank itself, through direct access to their (the bank's clients') bank accounts. (b) Receive payments directly into their (the bank's clients') accounts from clients of another bank or the other bank itself. (c) Withdraw cash at another bank
PCH	payment clearing house
PIN	personal identification number a numeric code which the cardholder may need to quote for verification of identity. In electronic transactions, it is seen as the equivalent of a signature
PoS	this term refers to the use of payment cards at a retail location (point of sale). The payment information is captured either by paper vouchers or by electronic terminals, which in some cases are designed also to transmit the information. Where this is so, the arrangement may be referred to as 'electronic funds transfer at the point of sale' (EFTPOS)
prepaid card	a card on which value is stored, and for which the holder has paid the issuer in advance. a stored value card for which the card issuer and merchant (card acceptor) are identical, thus representing a prepayment for specific goods and services delivered by the issuer
provider	operator who establishes the hardware and software conditions for the conduct of transactions with electronic money, without necessarily being the issuer of the electronic money units
PSP	payer service provider
RCMA	rand common monetary area
real time	the processing of instructions on an individual basis at the time they are received rather than at some later time.
retail payments	this term describes all payments which are not included in the definition of large-value payments. Retail payments are mainly consumer payments of relatively low value and urgency
RICA	the regulation of interception of communications and provision of communication-related information act (RICA)
RPS	retail payment services
RTC	real time clearing
SACCOL	savings and credit co-operative league of South Africa
SAMOS	south african multiple options system. The SARB provides an interbank settlement account service called SAMOS. Each settlement bank has a SAMOS account with SARB
SAPO	south african post office
SARB	south african reserve bank

Term Abbreviation Acronym	Definition Description
SARPIF	south african retailers payment issues forum
SASWITCH	south african ATM network switch owned by BankservAfrica
settlement bank	either a central bank or private bank used to effect money settlements
settlement system	a system used to facilitate the settlement of transfers of funds or financial instruments
SIM-card	the subscriber identity module which is an independent electronically activated device designed for use in conjunction with a cellular phone to enable the user of the cellular phone to transmit and receive indirect communications by providing access to telecommunication systems and enabling such telecommunication systems to identify the particular Subscriber Identity Module and its installed information (RICA)
smart card	an integrated circuit card with a microprocessor, capable of performing calculations
SIPS	systemically important payment systems
SO	system operator
SSD	self service device
stored value card	a prepaid card in which the record of funds can be increased as well as decreased. Also called an electronic purse
systemic risk	the risk that failure by one of the participant in the settlement to meet its required obligations will result in other participants being unable to meet their obligations when due. Such failure may cause significant liquidity or credit problems and as a result threaten the stability of the entire payment system. As defined above systemic risk is associated with settlement risk, but given that the payment systems risk is a network, other risks such as legal, liquidity, credit, operational or reputational risk can be transmitted through the payment system
SWIFT	society for worldwide interbank financial telecommunication: a cooperative organisation created and owned by banks that operates a network which facilitates the exchange of payment and other financial messages between financial institutions (including broker-dealers and securities companies) throughout the world. A SWIFT payment message is an instruction to transfer funds; the exchange of funds (settlement) subsequently takes place over a payment system or through correspondent banking relationships
TC	transformational capability
telco	telecommunications company (fixed or mobile operator)
ToR	terms of reference
TPPP	third party payment providers
transformation frontier	the threshold between being included or excluded in the formal financial system
transformational banking (financial services)	financial services that have a high propensity (capability) of meeting the financial needs of excluded customers and thereby including them in the formal financial system
TZ	transformation or transition zone
UEPS	universal electronic payment system
unbanked	have no bank account or do not participate in the formal financial system
underbanked	may have a bank account or other financial instrument, but have a low level of participation in financial services
user	payment system users comprise both participants and their customers

Term Abbreviation Acronym	Definition Description
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Sources. A variety of sources including, South African acts, BIS, PASA and IX.

8.4 ANNEXURE 4| Illustration of Communication with Clients: ABSA Bank (extracts)¹⁰⁹

When are the FICA customer identification and verification requirements applicable?

FICA requires Absa to implement controls relating to the establishment of business relationships. However FICA goes further in extending these controls to existing clients of Absa.

1. **NEW CUSTOMERS:** You (the prospective customer) will have to be identified, and the information you provide verified, before Absa may enter into a business relationship with you for the first time.
2. **EXISTING CUSTOMERS:** As the existing customer records at Absa do not fully comply with the requirements of FICA, you (the customer) will be requested to provide the bank with your identification details, which will be subjected to verification.

In order to minimise inconvenience to our customers, Absa has decided to utilise the opportunity presented when existing customers who have not previously been subjected to this exercise -

- ⇒ Apply for new products;
- ⇒ Renew existing facilities e.g. overdraft limits; and
- ⇒ Request a customer type or entity change e.g. changing from a Close Corporation to a Company.

How will your identity be verified?

By way of information supplied by you to the bank, where after such information will be verified to enable the bank to:

- ⇒ Establish and confirm your identity, i.e. to ensure that you are who you claim to be. (Full names, date of birth, identity number and income tax number where applicable.)
- ⇒ Establish and confirm your residential address (if you are an individual) and place of business (if you are a non-individual Close Corporation, Company, etc.)
- ⇒ If applicable, identify your authority to establish the business relationship or conclude a single transaction on behalf of another person / entity.
- ⇒ Confirm the identity of the person / entity who / that has given you authority to establish the business relationship.
- ⇒ Identify the principal signatories on your account or business relationship.
- ⇒ Identify intermediate parties, for example where an account is managed or owned by an intermediary or agent.
- ⇒ If you're an individual person (see table below), and Absa deems it appropriate taking your risk profile into account, you will be expected to specify your source of income and source of funds.

How does the FIC Act affect you, the customer?

CUSTOMER TYPE INFORMATION REQUIRED (Individual Person – South African citizens and residents) - VERIFICATION DOCUMENTATION

¹⁰⁹ <http://www.absacapital.com/Absa%20Capital%20Documents/FIC%20Act.pdf>. 21 February 2011.

1. Full names
2. Date of birth
3. Identity number (Green bar-coded identity document)
4. Residential address (any one of the following recent documents reflecting the customer's name and residential address. Documentation issued: monthly – not older than 3 months, annually - not older than a year):
5. Utility bill.
6. Bank statement from another bank
7. Recent lease or rental agreement
8. Municipal rates and taxes invoice
9. Telkom or cellular phone account
10. Official SARS document
11. Valid television licence
12. Mortgage statement from another financial institution
13. Long / short term insurance policy documents
14. Motor vehicle registration documents
15. Municipal councillor letter
16. Tribal Authority letter
17. Body Corporate/governing body letter or statement
18. Official University/technikon registration letter
19. Official employer letter for mine employees; or
20. Affidavit from co-habitant, property owner or your employer, if the above documents are unavailable.

8.5 ANNEXURE 5| PASA Membership as at September 2010¹¹⁰

1. Absa Bank Ltd
2. African Bank Ltd
3. Albaraka Bank Ltd
4. Bidvest Bank Ltd
5. Calyon Corporate and Investment Bank, SA Branch
6. Capitec Bank Ltd
7. Citibank, South Africa
8. FirstRand Bank Ltd
9. Grindrod Bank Ltd
10. Habib Overseas Bank Ltd
11. HBZ Bank Ltd
12. HSBC
13. Investec Bank Ltd
14. Mercantile bank Ltd
15. Nedbank Ltd
16. Postbank (SAPO) (**Non-clearing**)
17. SA Bank of Athens Ltd
18. SARB
19. Societe Generale, JHB Branch
20. Standard Bank of SA Ltd
21. Standard Chartered Bank, JHB Branch
22. State Bank of India, SA Branch
23. Teba Bank Ltd
24. The Royal Bank of Scotland, SA Branch
25. VBS Mutual Bank

Note: Only the South African Postbank is a non-clearing member, as listed here.

¹¹⁰ <http://www.pasa.org.za/Documents/Membership.pdf>. 8 March 2011.

8.6 ANNEXURE 6| Association of System Operators (ASO) Members¹¹¹

The Association of System Operators (ASO) was created at the beginning of 2007 in preparation for the new structure for participation by non-banks in the formal payment system processes introduced by the South African Reserve Bank (SARB) in conjunction with the issuance of the Directive for Payment System Operators.

The ASO is an independent body formed to represent the interests of all Payment System Operators in the RSA. The aim is to provide a non profit forum in which association members can address issues of common interest and interface with payment industry stakeholders, government and regulatory organisations. In this capacity, the ASO will be holding a seat on the South African Reserve Bank (SARB) National Payment System Advisory Board.

1. ACET Processing
2. ATM Solutions Group Pty Ltd & its sister companies
3. BDB Data Bureau
4. Capital Computer Software
5. Cypher Business software
6. Destiny Electronic Commerce
7. Direct Transact Pty Ltd
8. EasyPay Pty Ltd & TSS
9. Ecentric Switch
10. Fimgent Design Laboratories
11. FIHRST Management Services
12. First Data Resources
13. Information Technology Consultants (Pty) Ltd
14. Mycomax
15. Mygate Communications
16. NuPayment Solutions
17. Portal Universe
18. Premier Group Communications
19. Profile Software International
20. Q Link
21. Real People
22. Softy Comp
23. Traderoot Technologies Pty Ltd
24. Transaction Junction
25. Tutuka Software
26. Virtual Card Services

¹¹¹ http://www.aso.org.za/list_members.php. 8 March 2011.

8.7 ANNEXURE 7| Definitions of Banking Infrastructure¹¹²

CATEGORY 1 (CAT 1)

Point of Service

The types of transactions that must be possible at such infrastructure, or infrastructure directly associated therewith, must include:

1. Account opening at least 1 day/month (normal working hrs);
2. Cancel lost card daily & be able to transact within 5 working days of reporting the loss;
3. Deposit cash/cheque at least 1/week (normal working hrs);
4. Electronic balance enquiries & cash withdrawals daily, not requiring any purchases to obtain cash;
and
5. Provision of a share-call facility during 5.5 days/week.

CATEGORY 3 (CAT 3)

Point of Transactability

The types of transactions that must be possible at such infrastructure, or infrastructure directly associated therewith, must include:

1. Electronic balance enquiries & cash withdrawals daily, not requiring any purchases to obtain cash;
and
2. Provision of a share-call facility during 5.5 days/week.

¹¹² As applied by the Banking Association South Africa (BASA)

8.8 ANNEXURE 8| Schedule of Retail Payment Services Included in Report

#	Retail Payment Service	Prime Provider'	Bank Involved	RPS Model
1	Money Transfer	Shoprite	Capitec	Grocer
2	Instant Money	Spar	Standard Bank	Grocer
3	Money Transfer	PicknPay	Capitec	Grocer
4	Money Transfer	BLT	Ubank	Grocer
5	Money Transfer	Standard Bank Shops	Std Bank	Grocer
6	Mzansi Money Transfer	Bank	ABSA	Poor Person
7	Mzansi Money Transfer	Bank	FNB	Poor Person
8	Mzansi Money Transfer	Bank	Nedbank	Poor Person
9	Mzansi Money Transfer	Bank	PostBank	Poor Person
10	Mzansi Money Transfer	Bank	Standard Bank	Poor Person
11	eWallet	Bank	FNB	Mobile Money
12	Flash Cow	Flash	ABSA	Mobile Money
13	M-PESA	Nedbank Vodacom	Nedbank	Mobile Money
14	Mobi-Wallet	BLT	TBD	Mobile Money
15	PayPass	Bank	ABSA	Electronic Voucher
16	Prepaid Maestro	Bank	ABSA	Electronic Voucher
17	Prepaid Electron	Bank	Nedbank	Electronic Voucher
18	Social Grant Smart Card	Net1 Cash PayMaster Services	Grindrod	Smart Card
19	Blu pre-paid	BLT	TBD	Buy and Pay
20	EasyPay	EasyPay Net1	Multi-bank	Buy and Pay
21	Wired Loop pre-paid	WiredLoop	ABSA	Buy and Pay
22	Wizzit	Wizzit	Bank of Athens/ABSA	Mobile Bank
23	PoCit	POCit	All banks	Mobile Bank
24	CashSend	Bank	ABSA	Mobile Bank
25	MTN Mobile Money	MTN & Bank	Standard Bank	Mobile Bank
26	Flexi Account	Bank	ABSA	Bank Account
27	Current Account	Bank	ABSA	Bank Account
28	Smart Account	Bank	FNB	Bank Account
29	One Account	Bank	FNB	Bank Account
30	Life Start Student	Bank	FNB	Bank Account
31	Transactor Plus	Bank	Nedbank	Bank Account
32	FlexiPension	Bank	Postbank	Bank Account
33	Global One	Bank	Capitec Bank	Bank Account
34	Mzansi Account	Bank	Standard Bank	Bank Account

9 Bibliography

Abbound, L., 2011. Analysis: Telcos battle tech, banking titans in mobile payment. Available at <http://www.reuters.com/article/2011/02/14/us-mobile-fair-mobilemoney-idUSTRE71D1AF20110214>

Absa Group Limited , 2010. Financial results Presentation for the year ended 31 December 2010. Available at www.absa.co.za

Absa Group Limited, 2010. Financial results -for the year ended 31 December 2010. Available at www.absa.co.za

Absa Group Limited Optimising return on capital in a challenging new landscape Group Financial Director: David Hodnett UBS Conference 21 October 2010

Andrianaivo, M., Kpodar, K., 2011. ICT, Financial Inclusion, and Growth: Evidence from African Countries. International Monetary Fund (IMF) Working Paper WP/11/73. WP/11/73. Available at <http://www.mfw4a.org/resources/documents/documents-details/ict-financial-inclusion-and-growth-evidence-from-african-countries.html>

Banda, N., Mdwazika, F.H., 2005. Cash and Retail Payment Systems in developing countries, Opportunities and Challenges: The Case of Malawi

Bank for International Settlements (BIS), 2009. Statistics on payment and settlement systems in the CPSS countries Figures for 2009

Bank for International Settlements, 2003. Committee on Payment and Settlement Systems, A glossary of terms used in payments and settlement systems, This publication is available only on the BIS website (www.bis.org) 2003

Bank of Athens, Annual Report, 2009. Available at www.bankofathens.co.za

Bankable Frontier Associates LLC , 2008.The Environment for Transformational Mobile Banking in SADC Countries, based on a self-diagnostic exercise. Available at www.bankablefrontier.com 30 April 2008

Banking Association of South Africa (BASA), 2008. Overview of the payments environment

Banking Association of South Africa (BASA), 2008. Standardised Chip & Pin terminologies and educational messages, March 2008

Banking Association of South Africa (BASA), 2010. South African Banking Sector Overview, September 2010

Banking Enquiry Presentation, 2008. Presentation on the final report to the Banks and other Stakeholders by the Chairman of the Banking Enquiry, 25 June 2008

Bezuidenhout, J., 2010. Presentation: Mobile and Branchless Banking in South Africa for the Pakistan Microfinance Network, Bankable Frontier Associates. Available at www.bankablefrontier.com, October 2010

Blue Label Telecoms, Investor Day Presentation, 2010. 20 October 2010. Available at www.bluelabletelecoms.com

Bossuyt, M., van Hove, L., Mobile Payment Models and Their Implications for NextGen MSPs, (200&).The Journal of Policy, Regulation and Strategy, Vol. 9, No. 5, pp. 31-43, August 2007 Available at

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1007705

Bye, J., Kannianen, L., Romen, G., van Wezel, R., 2010. Mobile Remote Payments: General Guidelines for Ecosystems Version 1.0, For Public Review, June 2010

Bye, J., Kannianen, L., Romen, G., van Wezel, R., 2010. Presentation on Mobile Remote Payments General Guidelines for Ecosystems, Mobey Forum, Mobile Financial Services. Available at www.mobeyforum.org

Capitec Bank Annual Report ,2010. Available at www.capitecbank.co.za

Changes of the New Economy. The influence of new modes of Retail Payment. Pedro Hern´andez Pena Competition Commission, (2008). Banking Enquiry, Report to the Competition Commissioner by the Enquiry Panel, Executive Overview, June 2008

Consultative Group to Assist the Poor (CGAP), (2010). Innovation Sub-Group of the G-20 Financial Inclusion Experts Group, (2010). Notes on Regulation of Branchless Banking in South Africa, January 2010

Consultative Group to Assist the Poor (CGAP), 2005.Crafting a Money Transfers strategy: Guidance for pro-poor Financial Service Providers, Occasional Paper no. 10

Consultative Group to Assist the Poor (CGAP), 2008.Being Able to Make (Small) Deposits and Payments, Anywhere, Focus Note, no 45, April 2008

Consultative Group to Assist the Poor (CGAP), 2009. Banking agents – the key to successful mobilebanking services: M-Pesa and GCash Profiles (Part II) 18 February 2009. Available at <http://www.cgap.org/p/site/c/template.rc/1.26.5205/>

Co-operative Banks Act 40 of 2007, Government Gazette, Pretoria, Republic of South Africa

Davidson, N., 2011.The Mobile Money for the Unbanked Value Chain, January 17th, 2011

Falkena, H., 2001. Financial Regulation in South Africa. Available at www.resbank.co.za

Financial Advisory and Intermediary Services Act No. 37 of 2002, Government Gazette, Cape Town, Republic of South Africa

Financial Intelligence Centre Act (FICA) – Client Impact, ABSA, (No Date)

Financial Intelligence Centre Act 38 of 2001, Government Gazette, Pretoria, Republic of South Africa

FinScope, 2010. South Africa, Ask Africa, Final Questionnaire

First Rand Annual Report 2010. Available at www.firststrand.co.za

Goeller, G., Szymanski, M. 2005. Banking environment, South African Banking Survey, 2005, KPMG Services

Government Gazette, Cape Town, Republic of South Africa, 2008. No. 11 Financial Intelligence Centre Amendment Act, 2008. Regulation Gazette No 922 Vol. 518, 27 August 2008, No. 31365

Government Gazette, Pretoria, Republic of South Africa , 2009. R 712 in terms of Co-operative Banks Act, 2007, Regulation Gazette No. 9110, vol 529 1 July 2009, No. 32357

Government Gazette, Pretoria, Republic of South Africa , 2010 R. 454 Exemption in terms of Financial Intelligence Centre Act 38, 2001, 28 May 2010

Government Gazette, Pretoria, Republic of South Africa, 2004. R. 1353 and 1354 in terms of the Financial Intelligence Centre Act, 2001 (Act no 38 of 2001),Regulation Gazette No. 8103, Vol. 473, 19 November 2004 No. 27011

Government Gazette, Pretoria, Republic of South Africa, 1997. Government Notice no 498, volume 381, no. 17895. Designation of activities that are the business of a Bank, 27 March 1997

Government Gazette, Pretoria, Republic of South Africa, 2002. R 1595 in terms of the Financial Intelligence Centre Act, 2001 (Act no 38 of 2001), Regulation Gazette No. 7541 Vol. 450, 20 December 2002, No. 24176

Handbook Federal Financial Institutions Examination Council, 2010. Retail Payment Systems February 2010

Hawkins, P., Bertolidi, A. 2006. The National Payment System and Competition in the Banking Sector: A report prepared for the Competition Commission, Executive Summary and Synopsis March 2006, FEASibility (Pty) Ltd

Heyer, A., Mas, A., 2009. Seeking Fertile Grounds for Mobile Money, DRAFT, 3 September 2009

International Council of Payment Association Chief Executives,(2007). Settlement Systems Policy issues for central banks in retail payments. November 2007. Bank for International Settlements

Leinonen, H. 2000. IT Examination Developments in Retail Payment Systems

Leinonen, H., 2009.Financial Markets and Statistics. The Changing Retail Payment Landscape: An overview

Leinonen, H., 2010. Changing Retail Payment Landscape: Opportunities and Challenges for Central Banks, 22 March 2010

Levine, R., Zervos, S., 1996. Policy Research Working Paper 1690, World Bank Policy Research Department Stock Markets, Banks and Economic, December 1996

LIRNEasia and UP-NCPAG, (no date). Mobile banking, mobile money and telecommunication regulations, Available at www.lirneasia.mnet

Listfield R., Montes-Negret F., (no date). Policy Research Working Paper 13 3-6- Modernizing Payment Systems in Emerging Economies

Mas, I., Radcliffe, D., 2010. Mobile Payments go Viral: M-PESA in Kenya. Bill & Melinda Gates Foundation, March 2010

Memorandum on the Objects of the Dedicated Banks Bill, 2004

Mody, P. 2010. The future of Retail Banking: Mobile as a Core Delivery Channel, Financial Services in the Mobile Age, FinInsights. Available at www.infosys.com

National Payment System Act, 78 of 1998, Government Gazette, Pretoria, Republic of South Africa

National Payment System Amendment Act 22 of 2004, Government Gazette, Pretoria, Republic of South Africa

National Payment System Department, South African Reserve Bank. Available at www.resbank.co.za (no date)

National Treasury, Invitation for Public Comment, Draft Dedicated Banks Bill, 2004. 10 November 2004

Nedbank Annual Report , 2010. Available at www.nedbank.co.za

Nedbank Annual Report Presentation, 2010. Available at www.nedbank.co.za

Net 1 UEPS Annual Report 2010. Available at www.net1.co.za

Net1 , 2011. Fiscal 2011 Guidance Johannesburg, November 10, 2010 – Net 1 UEPS Technologies, Inc. (NasdaqGS: UEPS)

Oversight of the South African National Payment System

Overview of the South African national payment system, 2008. Financial Stability Review, September 2008

Payment Systems Development Group Financial and Private Sector Development Vice Presidency Payment Systems, (2008). Snapshot Outcomes of the Global Payment Systems Survey 2008, Financial infrastructure Policy and Research Series, World Bank

Payments Association of South Africa (PASA), 2010. Chairpersons Officer Bearers Annual Report 2010, Ref: 29822

Pereira, C. 2010. Payment Systems Development Group, The World Bank. Issues in retail payment systems: the World Bank perspective, Seminario internacional sobre cartoes de pagamento, Rio de janeiro, 17-18 de junho 2010

Pick and Pay Annual Report, 2010. Available at www.pickndpay.co.za

Porteous, D., 2006. The enabling environment for Mobile Banking in Africa, Department for International Development (DFID). Available at www.bankablefrontier.com, May 2006

Republic of South Africa, 2010. Banks Amendment Bill, as Introduced in the National Assembly as a Section 75-Bill; Draft 2, July 2010

SA Reserve Bank 2006 The National Payment System Framework and Strategy: Vision 2010, [www.reservebank.co.za/internet/Publication.nsf/LADV/DAA203A3059201E4422571570025D8F3/\\$File/Vision2010.pdf](http://www.reservebank.co.za/internet/Publication.nsf/LADV/DAA203A3059201E4422571570025D8F3/$File/Vision2010.pdf)

Sengupta, S., 2010. Mobile Money and Banking as a pivot for Financial Inclusion 25th March 2010 , KICC , Nairobi, KENYA

Shoprite Checkers Annual Report ,2010. Available at www.shoprite.co.za

Sinha, J., Subramanian, A., 2007. The Next Billion Customers, A road map for creating financial inclusion in India, The Boston Consulting Group. Available at www.bcg.com, November 2007

Smith, A., Smit, H., (2010). Case Study: Hollard Insurance and Take it Eezi, Part of the FinMark Trust series of case studies on innovative microinsurance models and products in South Africa, 16 July 2010 The Centre for Financial Regulation and Inclusion

Solidarity Bank Costs Report. (2010). A comparative analysis of the costs of personal transaction accounts at five South African Banks, October 2010

South African Post Office Annual Report , 2010. Available at www.sapo.co.za

South African Reserve Bank, 2010. Electronic Money the South Africa Perspective Presentation by South African Reserve Bank 5 October 2010. Available at www.sarb.co.za

South African Reserve Bank, National Payment System Department, 2007. Position Paper –Bank Models in the National Payment System, Position Paper number 01/2007

South African Reserve Bank, National Payment System Department, 2010. Electronic Money – The South African Perspective – 5 October 2010

South African Reserve Bank, National Payment System, 2009. Position Paper on Electronic Money Position Paper NPS 01/2009, Dated November 2009

South African Reserve Bank, Office of the Registrar of Banks, 2006. Bank's Act Circular, 6, 2006 Cell Phone Banking 13 July 2006

South African Reserve Bank, Office of the Registrar of Banks, 2008. Guidance Note 6, 2008, in terms of Section 6 (5) of the Bank's Act, 1990, Cell Phone Banking.

South African Retailer's Payment Issues Forum, (SARPIF), 2006. A Group of Merchants, Retailers and Retail Service Organisations who seek to address issues of common interest with respect to the banking industry (constituted in terms of the NPS Act) 27 October 2006, Competition Commission Banking Enquiry

Standard Bank Year End Results Presentation 2010. Available at www.standardbank.co.za

Standard Bank Group Annual Report 2010. Available at www.standardbank.co.za

The Banks Act No. 94 of 1990. As amended, including all amendments up to and including, the Banks Amendment Act, 2003 (Act No. 19 of 2003)

Tower Group, 2010. Presentation Mobile Banking Case Studies, Understanding the economics of mobile banking through a series of case studies, October 2010

U.E.P.S Technical Overview UNIVERSAL ELECTRONIC PAYMENT SYSTEM

Visa Annual Report 2010. Available at www.visa.com

Vuppala, S., Banerjee, S., Innovation in Retail Payments FINsights , Infosys. Available at www.infosys.com

Walker, R., 2010. EPC Newsletter, SEPA FOR CASH Significant Growth in cashless Payments in Europe yet cash will remain predominant payment method in 2014

Payment systems are moving from being a narrow channel for transferring funds to a much wider integrated network for transferring additional forms of value. Moreover, the creation of networks and systems for retail payments can have a substantial role in supporting financial access in developing countries. Indeed, modern retail payment technologies and innovative programs to channel recurrent payments efficiently can, and are already being used to, integrate the previously underserved and non-served population into the formal financial sector. A well-functioning infrastructure to efficiently and safely process modern payment instruments is necessary to successfully enhance a country's population access to, and widespread use of, such modern payment instruments

World Bank. Payment Systems Worldwide. A Snapshot. Outcomes of the Global Payment Systems Survey 2008. P V.