

Preface

Are you an employer in the financial services industry, that includes banking institutions and non-bank financial institutions, whose drive is to provide financial and payment services to a wide range of customers and stakeholders? Are you a student at a university or any other institution of higher learning who would like to pursue banking or payment systems as a career in future? Are you an employee working for a financial services provider who needs to upgrade knowledge and skills around payment systems and digital banking? Are you a researcher whose interest is to understand what is happening in the field of payment systems? Are you a policy maker interested in payment systems going forward? Are you an entrepreneur who is interested in selling books related to the financial services industry to the general public? Or are you a training provider with special interest in the financial services industry? This guide is for you if you have answered “Yes” to at least one of the above questions.

Banking has long been known to include components such as savings, investments and lending. These three components relate to moving money from surplus units or those with surplus cash, to deficit units or those with a shortage of cash. Recent and available knowledge is that banking is more than these elements that you have known for a long time. Banking now includes the provision of payment services to as many stakeholders as possible. This implies that next time you hear of someone referring to banking they will be talking about savings, investments, lending and also payment services.

This book will help you to understand the inner workings of payment systems, sometimes called “payment, clearing and settlement systems”,

“payments” or “the national payment system”. It is a branch of banking that is evolving and the time to understand this field is now, in order for you as a reader to have appropriate knowledge and skills in this very important area.

The scope of this guide has been carefully selected to make sure that the inner core of payment systems is well understood. Presentation is at a fairly basic level with every attempt having been made to avoid some technical words or jargon, and to explain it where required. Core and special topics are covered so that you as a reader can have total understanding of payment, clearing and settlement systems not only in Namibia but also around the world. These topics include those related to payment streams, regulation, domestic payments, regional payments, international payments and related topics.

The undersigned here-below has every trust that you will enjoy reading this book on digital banking and payments, and that the information that you will accumulate will be useful in your sphere of life and future endeavours.

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CHAPTER 1

Introduction

Payment systems are not easily understood in our society. What are they? Is it wrong to just say “payment system”? What then is the national payment system? Is there a difference between payment, clearing and settlement systems? The list of questions is endless, but useful and important if one is to understand the differences or similarities between these concepts that are sometimes used interchangeably.

Three distinct illustrations can be used to provide more clarity on what payment systems are all about. The first illustration that can be used is a *canal*. This is a man-made waterway that can be used for transportation, recreation and for provision of water for human, industrial, agricultural and animal use. It is believed that the longest and oldest canal in the world is the Beijing-Hangzhou Grand Canal, which measures 1782 kilometres and connects several provinces and rivers in China. What a long canal! This distance is almost like from Aroab to Kongola in Namibia. Canals are common in Namibia as well. The common canal in Namibia is the 150-kilometre-long Calueque-Oshakati canal, which runs from Omahenene near to Onesi in the Omusati region all the way to Oshakati in the Oshana region. In this illustration, the canal itself can be referred to as a payment system with what moves on it referred to as funds or transactions.

A *river* can be seen as another illustration. This can be extended to a lake or ocean, as the three belong to the same collection system. While a lake fills up when there are good rains, the other two, a river and an ocean, are

perennial. The Zambezi River in the Zambezi region in Namibia always has water in it. This is not the same with respect to Lake Liambezi in the same region, which dries up every few years before it fills up again. Some lakes such as Lake Victoria, Lake Tanganyika and Lake Malawi are massive and contribute positively to economic activities in Uganda, Tanzania and Malawi respectively. The two longest rivers in the world are said to be the Nile River and the Amazon River measuring over 6500 kilometres each. A river can be thought of as a payment system, while what is moved on or through a specific river can be thought of as funds or transactions.

A garden is the last illustration that can be considered. Gardening can traditionally be thought of as an agricultural activity that can be done at school or at home. Those who have done agricultural science can recall that this activity was a must as part of school curriculum. This was because most families did back yard gardening, which refers to growing plants at the back of the house within the yard for household consumption.

Think about a situation where plants are grown on distinct raised beds, areas or plots as opposed to in-ground gardening. They might be within a yard as part of a school project or purely as a way of substituting things we often buy from the supermarkets. Raised garden beds of say 1,2 meters wide and a minimum of 0,15 meters high is good in terms of retention of moisture and improves the structure of the soil as well. Gardening with raised beds relates well to a payment system environment where closed loop systems are common as opposed to open loop systems. A closed loop payment system is an environment where payment systems of different providers don't communicate with each other, with an open loop payment system allowing communication.

The above illustrations – canal, river and garden – provide a solid basis for understanding what payment systems are all about. Which one of the abovementioned illustrations have you enjoyed or is appealing to you? Whichever one it is, the goal was to enable you as a reader grasp the concept of payment system.

The terms “payment systems” and “the national payment system” are normally used interchangeably. The national payment system is a collective term that includes such things as payment systems, clearing

systems, settlement systems, legal and regulatory framework, participants and institutions. You might be wondering about an automated teller machine (ATM) or the payment card in your pocket. They all form part of payment systems and the national payment system. An ATM is a delivery channel normally used for dispensing cash, depositing cash and other services, while a card is used for purchases at point-of-sale and online as well as making cash withdrawals at a payment channel such as an ATM.

The above provides a glimpse of what is to come as you continue to enjoy reading this book. Reading until the end will make you feel empowered in terms of the knowledge you are going to accumulate for the future. This is like doing an investment now with the goal of reaping the benefits at some point later on. The effort and time spent in reading this book is your investment, while the benefits include knowledge gained as well as the opportunity to apply what has been learned.

Several stakeholders are expected to benefit from the content of this useful guide. These stakeholders include students, banking professionals, finance professionals, researchers, regulators and the general public. They are highly likely to benefit in a number of ways. The question is, “How?” This depends on the stakeholder in question.

Students are some of the stakeholders that this guide is targeting. Some students are pursuing banking related courses while others are in the science, technology, engineering and mathematics (STEM) field. This guide covers all student types including those studying banking related courses and others who might be interested in learning about this particular field of banking: payment systems. The bottom line is: don't pass-by this book while seeing it on the shelf or online simply because it might seem to be written for banking and finance professionals. Life is such that there is a need to break away from familiar territory to an area that might seem to be unfamiliar to us. In this way we get to learn both horizontally and vertically in order to embrace a complete approach to learning.

This book will be useful to banking professionals as well. The banking profession covers different areas such as project management, lending, investment, operational support with respect to payment queries and other payments related matters, legal, compliance, information technology,

relationship management and several other areas. Knowledge of payment systems can therefore empower a banking professional to be aware of the universe of payment systems. It is good at this juncture to say that awareness or knowledge accumulation is not enough. Applying what has been learned is key and is a differentiator. Besides, it is like faith. Faith implies not only to believe, but also to do something. Believing that one can pass an exam without opening a book to study is not enough. Using the knowledge gained in this book in everyday discussions and possibly implementing something is a way to go.

Finance professionals need to learn about payment systems. There are differences and similarities between mainstream banking and finance. Banking is a subset of finance and not the other way around. Other sub-sectors that can be found in finance include insurance, retail, investment, development banking and agricultural banking. One finds system operators and a host of service providers in this sub-sector as well. System operators and service providers are traditionally called non-bank financial institutions (NBFIs). Some NBFIs traditionally provide payment services and lending while others provide services, including insurance and other products.

It is therefore imperative for NBFIs to have a good grasp of payment systems as well. Knowledge of payment systems enables these entities to: know the payment solutions their bankers are implementing, be familiar with payment solutions to offer to their customers, assess if direct participation in the payments environment is an option, and understand key developments in payments that relate to policies and standard that apply.

Researchers will also find this book useful. These can be individuals associated with academic institutions, commercial entities, banking institutions, professional associations, other organisations or even individuals who are doing research on their own. There are different reasons why research is crucial in every-day life. Research is done to create and extend knowledge, aid in decision making, create general awareness on market trends, and serve as basis for product development. Research is a basis for any development endeavour. One cannot think of anything

that was created without a research component as input, be it a small or big research activity that was involved. Research should be viewed as a necessity and not as something that is optional.

What about regulators? This material will be beneficial to them too. Regulators come in a number of forms. These include principal regulators, self-regulators, banking regulators, non-bank regulators, telecommunication regulators, competition regulators, and other regulators that have a stake in payment systems. Essentially, regulators put in place legal and regulatory frameworks that they use to oversee environments they are responsible for, with the view to protect the general public from unfair practices and also achieve certain public policy objectives. It is easy to conclude that regulation leads to an increase in cost. The other side of the coin can also be true: to say that lack of regulation also leads to an increase in cost. Does it matter which side one looks at? Certainly not. Regulation is important in our daily lives to make sure that the interests of all stakeholders are protected. This aspect of regulation will be expanded upon ahead.

The general public is not left out as far as this book is concerned. In this regard, the general public includes all stakeholders not included above. Stakeholders included above are students, banking professionals, finance professionals, regulators and researchers. The general public should therefore include businesses, other organisations, and individuals with a vested interest in payment systems. Armed with payments knowledge, these stakeholders are able to understand both domestic and international trends as well as using the information to make important decisions that affect their operations and daily lives.

Consequently, this book dovetails different aspects in the inner core of payment, clearing and settlement systems in a clear and concise manner. It provides answers to common questions in digital banking and payment systems while at the same time covering diverse topics including but not limited to payment instruments, payment streams, regulation and supervision, special topics and other matters you need to know in your everyday interactions around payments. All stakeholders will find the book useful.