

Analyzing Trends Towards Phasing Out Cheques in the Namibian Banking Sector

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Abstract

The paper analyzed trends towards phasing out cheques in Namibia using a quantitative approach consisting of time series/trend analysis, mean, tables, graphs and correlation coefficient. Findings show that cheques are falling domestically and globally and are associated with huge drawbacks. Although the correlation coefficient is -0.73 between domestic cheque volume and global cheque volume, global cheques are decreasing. In addition, although the United States is still the dominant user of the cheque payment instrument globally, the usage is declining year-on-year. It is recommended amongst others that the industry can consider further increasing the cost of using a cheque, further reduce the clearing cycle, allowing a depositor to have quick access of funds from a deposited cheque, introducing penalties on cheque float if it takes time to phase out cheques in Namibia.

Keywords: Cheques, Phase Out, Cheque Strategy, National Payment System

1. Introduction

Cheque is a very old payment instrument. Despite the entry of other methods of payments in the market, a cheque is still visible in many parts of the world. Cheques originated in the eastern Mediterranean during the first millennium as a convenient form of payment between local merchants (Quinn and Roberds, 2008). Roberds (1998) defines a cheque as an instrument that enables a buyer to instruct a bank or similar financial institution to transfer the buyer's deposit claim on a bank in favor of a seller via the seller's bank. Seldon (1999) provides a distinction between on-us and not-on-us cheques by saying that some cheques are on-us meaning drawn on a given bank and payable to a customer of the same bank and do not enter the clearing system while not-on-us cheques do enter the system and are cleared through a central bank, correspondent bank or clearing house.

Due to disadvantages associated with cheques, countries around the world have put in place policies or initiatives to reduce the usage of cheques. Cheque volume has also been falling in Namibia and this resulted in the industry putting in place measures to manage the decreasing trend in cheque volume. Although the correlation coefficient is -0.73 between domestic cheque volume and global cheque volume, global cheques are decreasing. In addition, although the United States is still the dominant user of the cheque payment instrument globally, the usage is declining year-on-year.

This paper is arranged as follows. Apart from the introduction, section 2 presents the Namibian cheque payments market while section 3 touches on the literature review. Section 4 is on the methodology and section 5 provides the analysis before the conclusion and recommendations are discussed in the last section.

2. Namibian Cheque Payment Market

Discussion around the Namibian cheque payment system is incomplete without touching on major reforms that were initiated within this part of the banking sector. Matongela (2010) indicates that it was until late 1990s when it became apparent that a reform of the country's National Payment System (NPS) was necessary to address certain inefficiencies that required attention of the Bank of Namibia, Namibia's central bank. The NPS reform project started in Namibia in 2001 (Bravenboer, 2010).

There is a number of cheque payment system reforms that were initiated since 2003. These reforms are shown in table 1 below and are briefly discussed subsequently (Bravenboer (2010), Matongela (2010), Bank of Namibia (2016)).

Table 1: Major cheque payment system reforms in the NPS

Type of Reform	Year
Establishment of Payment Clearing House	2003
Implementation of Cheque Processing System	2005
Establishment of Payment Association of Namibia	2006
Reduction of cheque clearing cycle	2009
Initial cheque item limit reduction	2010
Second cheque item limit reduction	2016

Source: Bravenboer (2010), Matongela (2010), Bank of Namibia (2016)

- Payment Clearing House. The automated clearing house (ACH) in Namibia is called NamClear and is owned by four major banking institutions, that is, Bank Windhoek, First National of Namibia, Nedbank

Namibia and Standard Bank Namibia. It provides clearing services for cheques, amongst other streams, calculates settlement obligations of participants and submits settlement obligations to Bank of Namibia for settlement. NamClear is currently managed by a Chief Executive Officer who reports to a Board of Directors.

- **Cheque Processing System.** The cheque processing system (CPS) is a service within NamClear through which transactions arising from cheque payment instrument are processed, cleared and subsequently channeled to Bank of Namibia for settlement.
- **Payment Association of Namibia.** The Payment Association of Namibia (PAN) was created by Bank of Namibia and members to manage certain aspects of the NPS. It is a delegated self-regulatory authority and the Bank of Namibia is still the principal regulator of the NPS. Specifically it: registers service providers, monitors participation in the NPS, provides a meeting place for members to discuss matters of common interest in a co-operative manner, and sets standards. PAN is currently managed by a Chief Operating Officer who reports to PAN Management Council.
- **Reduction of Cheque Clearing Cycle.** This reform was meant to reduce the cheque clearing cycle from 7-21 days to 5 days. When a person who is called a payee deposits a cheque, value should be in this person's bank account with 5 days from the day of deposit.
- **Initial Cheque Item Limit Reduction.** One was able to write a single cheque up to the value of NAD5 million in the past and the objective of this reform was to reduce this threshold to NAD500, 000. This policy consequently restricted the value of a single cheque written to this new threshold with the aim of reducing risks such as insufficient funds and fraud within an environment characterized by declining cheque volume.
- **Second Cheque Item Limit Reduction.** This latest reform became effective from 1 February 2016 and led to the further reduction of cheque item limit to NAD100, 000 from NAD500, 000. The key driver was falling cheque volume. Discussion on transactions trends will follow shortly in this section. The industry agreed that cheques should be phased out in Namibia from 31 December 2017. This means that after this date a cheque will cease to be a payment method in Namibia and clients of banking institutions are expected to use alternative payment instruments such cards and electronic fund transfers. Such a policy was not arrived at in the vacuum but based on domestic and international developments within the cheque payment system.

The volume of interbank cheques has been falling down consistently during the last 10 years (see table 2 below). This volume stood at 5.5 million cheques in 2006 before decreasing to 2.7 million and 1.6 million in 2011 and 2015 respectively. However, the value per cheque showed a U-shaped movement to level at NAD13, 260, NAD11, 475 and NAD16, 666 during the same period respectively. This shows that despite a falling trend, clients had an appetite to write higher values per cheque.

Table 2: Selected trends related to the usage of cheque payment instrument

Year	Cheque Volume ['000']	Cheque Value to Cheque Volume [NAD]	Cheque Volume to Total Non-Cash Volume [%]	Cheque Volume Growth [%]
2006	5490	13,260	14.88	-
2007	5163	14,753	13.62	(6.0)
2008	4534	18,009	10.26	(12.2)
2009	3721	20,600	6.82	(17.9)
2010	3088	15,136	4.16	(17)
2011	2687	11,475	3.86	(12.9)
2012	2268	13,572	3.08	(15.59)
2013	2128	14,353	2.84	(6.17)
2014	1822	15,439	2.26	(14.38)
2015	1607	16,666	1.8	(11.80)

Source: Bank of Namibia (2010), Bank of Namibia (2015), Own Calculations

Other ways of looking at declining cheque volume is to use cheque volume as a percent of non-cash volume as well as the growth rates in cheque volume.

Chart 1. Growth rates in cheque volume over the years



Source: Bank of Namibia (2010), Bank of Namibia (2015)

Table 2 above shows that the importance of cheques in the NPS has been falling overtime. As a percentage of total non-cash volume, cheques only accounted for 15 percent, 4 percent, and 2 percent in the years 2006, 2011 and 2015 respectively. Table 2 and chart 1 show that the volume of cheques declined by 6 percent, 13 percent and 12 percent in 2007, 2011 and 2015 respectively. These figures show that clients of banks are adopting electronic means of making payments as close substitutes.

3. Literature Review

The literature review is approached by answering five specific questions. First, where does a cheque as a payment instrument originate? Second, what is a cheque? Third, what are the advantages and disadvantages of a cheque? Fourth, what is the payment, clearing and settlement process of a cheque? Fifth and last, why has cheque volume been falling globally? The rest of the literature review follows next.

Cheque is a very old payment instrument. Although it is old, it is the most common instrument known to men today based on when this instrument was first used in the payments market. Other payment methods available in people's pockets today are a recent phenomenon. Despite the entry of these other methods of payments in the market, a cheque is still visible in many parts of the world.

Cheques originated in the eastern Mediterranean during the first millennium as a convenient form of payment between local merchants (Quinn and Roberds, 2008). The authors point out that the suppression of banknotes in eighteenth-century England further promoted the use of cheques and nineteenth-century legislation in the United States discouraged other payment methods and eventually led to the nationwide cheque payment system. Further to this, the researchers indicated that under the Federal Reserve's leadership in the twentieth-century in the United States, cheques expanded rapidly and became the nation's default payment method. This is in line with the work of McAndrews and Roberds (2000), which shows that only the United States, among developed countries, remain dependent on the use of cheques.

Roberds (1998) defines a cheque as an instrument that enables a buyer to instruct a bank or similar financial institution to transfer the buyer's deposit claim on a bank in favor of a seller via the seller's bank. Seldon (1999) provides a distinction between on-us and not-on-us cheques. "Some cheques are on-us meaning drawn on a given bank and payable to a customer of the same bank and do not enter the clearing system. Not-on-us or off-us cheques do enter the system and are cleared through a central bank, correspondent bank or clearing house." The automated clearing house (ACH) is a network regularly used by banks for clearing cheques and by extension other payment instruments (Wright, 2002). Quinn and Roberds (2008) have a good overview on how correspondent banks or correspondent relationships work.

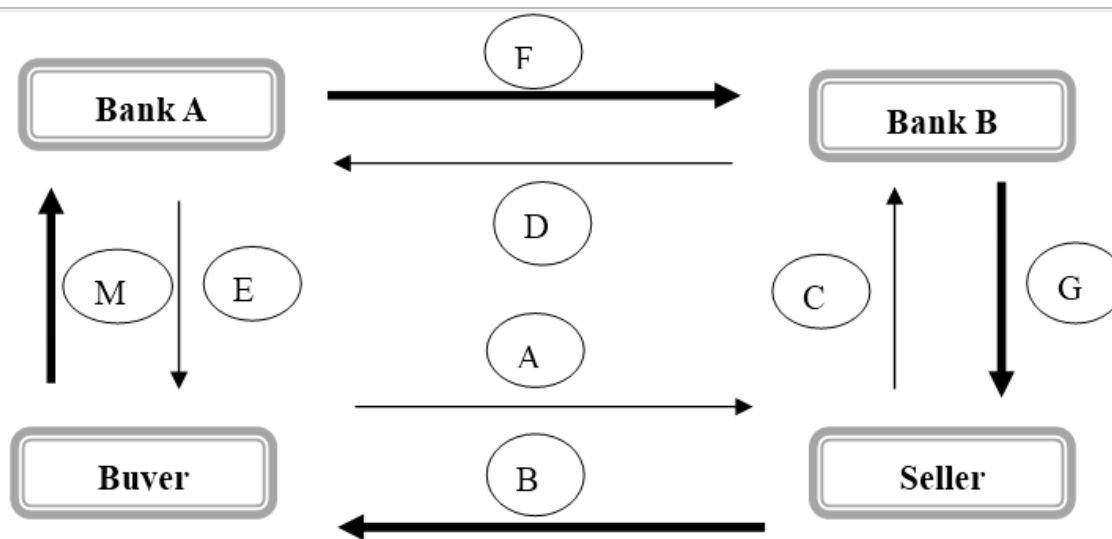
Cheques are associated with several benefits as mentioned by Chakrovorti and McHugh (2002). First, cheques are easy to use. Second, some consumers feel cheques give them greater control over the timing of their payments. Third, cheaper electronic payment alternatives at the point of sale have only recently flourished. Fourth, the potential revenue from cheques, especially in the form of non-sufficient-funds fee income, is difficult for financial institutions to forgo. McAndrews and Roberds (2000) point out that people prefer cheques because of the existence of cheque float earned by the writer of the cheque between the time a cheque is received as payment and the time it is settled. Flannery (1996) says that when paying by cheque, an individual promptly discharges his obligations, but only loses control of the funds a few days later.

Despite the advantages, cheques have drawbacks too. Cheques are a natural target for fraud as they can be written for large amounts, are relatively easy to alter or forge, and can be difficult or costly to verify at the

point of sale (Roberds, 1998). Other disadvantages mentioned by Roberds (1997) are that cheques do not constitute good funds unless they have been cleared and settled and that the clearing and settling of cheques entails substantial costs. Phillips (1998) also highlights drawbacks of a cheques versus alternative payment instruments.

Initiation of payment by check including its clearing and settlement is at the core of a cheque payment system. How does this happen? How is the seller of goods and services receive their money if a buyer presents a cheque as a means of payment in their shop? The following chart adopted from Roberds (1997), and Roberds and McAndrews (2000) is useful in describing this process.

Chart 2. Payment Initiation, Clearing and Settlement Process



Source: Roberds (1997), Roberds and McAndrews (2000), Own Adjustments

In the above highly simplified chart, the Buyer, who is a cheque holder, is a client of Bank A. Bank A is a paying bank. The seller provides goods and services to his or her client and has a relationship with Bank B. Bank B is a collecting Bank.

Let us assume the Buyer wants to buy a TV set costing NAD15000 and writes a cheque in favor of the Seller (point A). The Seller provides this good to the Buyer upon receipt of a cheque (B) and deposits the instrument with Bank B (C) and this financial institution requests Bank A (D) to honor it. Bank A debits the Buyer's account (E) if there are sufficient funds and settles with Bank B (F) who now credits the Seller with NAD15000 (G). This ends the transaction process and in this process both the Buyer and the Seller have received what is due to them. If the Buyer has excess funds at any point in time he or she can always deposit funds with Bank A (M). In this entire process an automated clearing house (ACH) is used between banks for clearing arrangement as is the central bank as far as settlement portion is concerned.

Due to the drawbacks of cheques as indicated above, countries around the world have put in place policies or initiatives to reduce the usage of cheques. Seldon (1999) points out that the Swiss write virtually no cheques at all. In Scandinavian countries the price of cheques vis-à-vis other payment options has been increased to support decreasing cheque usage while in Canada banks give payees immediate credit and availability of their funds and in addition to this there are charges associated with float (Chakravorti and McHugh, 2002). The United States introduced Magnetic Ink Character Recognition (MICR) in 1956 and to manage decreasing cheque volume two initiatives such as cheque conversion and substitute cheques have been considered (Quinn and Roberds, 2008).

4. Methodology

This study is a quantitative approach because it is based on time series data. The mean is calculated from the data set. Graphically analysis is done to understand if there is a relationship between international volume of cheques and domestic volume of cheques. A scatter plot is plotted in this regard to do correlation analysis. Appropriate annual data was obtained from Bank of Namibia and Bank for International Settlements on cheque payment instrument. The relevant time period for the purpose of calculating the mean and plotting a scatter chart is 2007 through 2014.

5. Analysis

There are five questions that are answered in this article from an analytical point of view. These questions follow

next. Do global developments warrant the elimination of cheques in Namibia? Is there a correlation between the global cheque volume and domestic cheque volume? Is the industry ready to phase out cheques domestically? Are there close substitutes if cheques are eliminated? What is the outlook of cheques domestically during the next five years? Discussion on these five questions follow next.

5.1 Do global developments warrant the elimination of cheques in Namibia?

Cheques are falling internationally as can be seen from table 3 below. In 2007, cheque volume stood at 42 billion and reached 31 billion in 2011 before falling to 22 billion in 2014. The mean is 32 billion transactions. Growth in the number of transactions in these countries stood at (7.5) percent, (8.3) percent and (10.7) percent during the same period respectively. The mean growth rate in cheque volume is (8.5) percent.

Table 3: Selected trends related to the usage of cheque payment instrument globally

Year	Cheque Volume [Mil.]	Cheque Volume Growth [%]
2007	41,586	(7.5)
2008	38,840	(6.6)
2009	36,465	(6.4)
2010	33,611	(7.9)
2011	30,814	(8.3)
2012	27,927	(9.5)
2013	25,070	(10.9)
2014	22,376	(10.7)
Mean	32,086	(8.5)

Source: Committee on Payments and Market Infrastructure (2013), Committee on Payments and Market Infrastructure (2015)

These 23 CPMI countries are shown in table 4 below. The CPMI of the Bank for International Settlements normally collects payment, clearing and settlement figures from these countries. Such figures are used to measure global developments in cheque transactions.

Table 4: CPMI Countries

CPMI Countries	Hong Kong	Netherlands	Turkey
Belgium	India	Russia	United Kingdom
Canada	Italy	Saudi Arabia	United States
China	Japan	Singapore	Brazil
France	Korea	South Africa	Switzerland
German	Mexico	Sweden	Australia

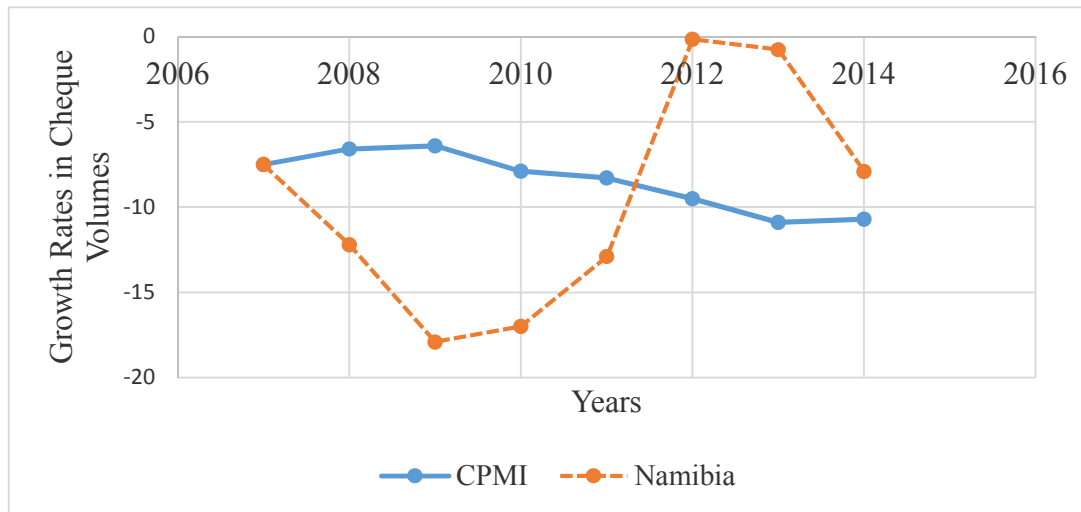
Source: Committee on Payments and Market Infrastructure (2015)

Consequently, there are global developments that warrant elimination of cheque in Namibia. It is clear from the literature review that the Swiss write virtually no cheques at all (Seldon, 1999). Although the United States remain dependent on the use of cheques (McAndrews and Roberds, 2000), statistics show that cheque volume has been falling as well, for example, from a decline of 9 percent in 2011 to a fall of 12 percent in 2014 (Committee on Payments and Market Infrastructure, 2015).

5.2 Is there a correlation between the global cheque volume and domestic cheque volume?

There seems to be a negative relationship between global cheque volume (CPMI) and domestic cheque volume (Namibia) as per chart 2 below especially before 2012 and after 2013.

Chart 3. Correlation Analysis



For example, when CPMI transactions decreased at a slower rate during 2007 – 2009, Namibian transactions decreased at a faster rate. When CPMI transactions fell at a faster rate during 2009 – 2012, Namibian transactions decreased at a slower rate. When CPMI volume fell at a slower rate during 2013 – 2014, Namibian transactions indicated a steep fall. A positive correlation only appears during 2012 and 2013. This leads to a surprising correlation coefficient of -0.73. This statistic shows that there appears to be a negative relationship between global cheque volume to domestic cheque volume. In other words, when CPMI volume moves in a certain direction, Namibian volume moves towards a different direction. The result can be ascribed to the fact that some countries such as the United States still regard cheques as one of the preferred payment instrument even-though cheque volumes are decreasing.

5.3 Is the industry ready to phase out cheques domestically?

The industry is ready to phase out cheques in Namibia based on developments described in section 2. It is clear from that section that the cheque limit was reduced in 2010 and again in 2016. The industry adopted a reduction approach first before cheques are eventually phased-out in Namibia with the view to prepare clients of financial institutions and the general public of what is coming. However, this is not going to be a smooth ride or a walk in the park. A huge education campaign needs to be carried out by everybody that needs to be involved to sensitize clients of financial institutions and the general public of the end goal of the cheque strategy, that is, the phase out.

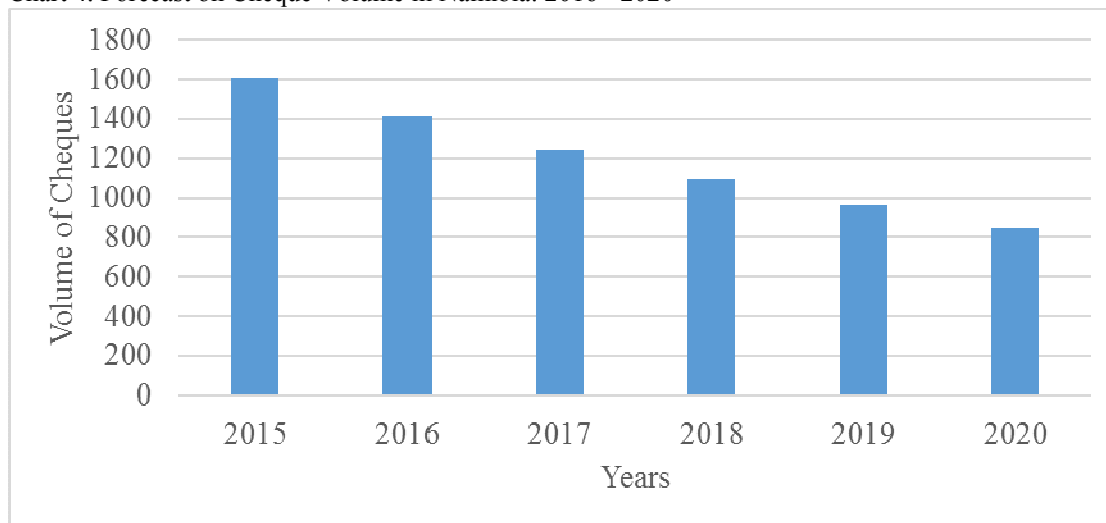
5.4 Are there close substitutes if cheques are eliminated?

Economic theory in general and price theory in particular show that quantity demanded is negatively associated with the price of a good and that if good A and good B are substitutes, an increase in the price of good A leads to an increase in the demand of good B. Parkin (1990), and Mohr and Fourie (2000) are some of the good authors with respect to the price theory. It costs a lot to write a cheque nowadays not forgetting if it bounces or sent back to the collecting bank or writer of a cheque due to insufficient funds. There are substitutes for cheques in Namibia including non-cash payment instruments and channels such as credit cards, debit cards, mobile banking and internet banking. All these are available for all to use.

5.5 What is the outlook of cheques domestically during the next five years?

The mean decrease in cheque volume in Namibia during 2007-2015 is recorded at (12.66) with volume of cheques in 2015 at 1,607,000. If cheques decrease by 12 percent year-on-year from 2016 through 2020, this will result in the total decline of 668,000 transactions and a mean decline of 143,000 transactions during this period under review as per chart 4 below.

Chart 4. Forecast on Cheque Volume in Namibia: 2016 - 2020



The above chart shows that cheque volume will go down to 1,414,000 by the end of 2016 and 1,093,000 and 848,000 in 2018 and 2020 respectively. This is a huge decline and it will not be economical to keep the cheque processing system as a result of this decline.

In this section about five questions were posed. These are the following. Do global developments warrant the elimination of cheques in Namibia? Is there a correlation between the global cheque volume and domestic cheque volume? Is the industry ready to phase out cheques domestically? Are there close substitutes if cheques are eliminated? What is the outlook of cheques domestically during the next five years? It is clear from the analysis that although the correlation coefficient is -0.73 , global cheque volume has been on the decline. Cheques in Namibia have been on the decline as well and according to the forecast for the next five years, cheque volume will be below a million by the end of the forecast period. It follows from this analysis that it will not be economical to keep the cheque processing system as a result of this decline.

6. Conclusion and Recommendations

The purpose of this article was to analyze trends in cheque usage overtime as the industry in Namibia moves towards the elimination of cheques. Quantitative research approach was employed in this regard. Trend/time series analysis using tables and graphs, mean values and correlation coefficient were used to fully understand trends domestically and globally. The results are clear. Cheque volumes are decreasing domestically and globally and this trend is predicted by the literature review. Although the correlation coefficient is -0.73 between domestic cheque volume and global cheque volume, global cheques are decreasing. In addition, although the United States is still the dominant user of the cheque payment instrument globally, the usage is declining year-on-year.

Based on the above, the following recommendations are made:

- Namibia should phase out cheques because it will be expensive to keep the cheque payment system due to declining volume as predicted in this paper. The literature review highlighted weaknesses of a cheque payment instrument.
- There should be a huge educational campaign to sensitize the general public of this phase-out as there will always be other members of the public who still have appetite for this instrument although there are close substitutes.
- The industry can consider further increasing the cost of using a cheque, further reduce the clearing cycle, allowing a depositor to have quick access of funds from a deposited cheque, introducing penalties on cheque float if it takes time to phase out cheques in Namibia.

References

- Bank of Namibia. (2010). Annual Report. Windhoek: Bank of Namibia.
- Bank of Namibia. (2015). Annual Report. Windhoek: Bank of Namibia.
- Committee on Payments and Market Infrastructure. (2013). Statistics on Payment, Clearing and Settlement Systems in the CPMI Countries. Basel: Bank for International Settlements.
- Committee on Payments and Market Infrastructure. (2015). Statistics on Payment, Clearing and Settlement Systems in the CPMI Countries. Basel: Bank for International Settlements.
- Bank of Namibia. (2016). Determination on the Reduction of the Item Limit for Domestic Cheque Payments within the National Payment System (PSD-2). Windhoek: Government Gazette of the Republic of

Namibia.

- Bravenboer, B. (2010). Celebrating 20 Years in Central Banking. Windhoek: Bank of Namibia.
- Chakravorti, S., & McHugh, T. (2002). Why do we use so many Checks? *Economic Perspective*, 26(3), 44-59.
- Flannery, M. J. (1996). Panel: Innovations in Money and Payments. *Journal of Money, Credit, and Banking*, 28(4), 965-970.
- Mohr, P., & Fourie, L. (2000). Economics for South African Students – Second Edition. Pretoria: Van Schaik Publishers.
- Matongela, A. M. (2010). Experience in Managing Payment System Reform in Namibia. *Management Perspective*, 8(2), 19-32.
- McAndrews, J., & Roberds, W. (2000). The Economics of Check Float. *Economic Review*, 85(4), 17-27.
- Parkin, M. (1990). Microeconomics. Reading: Addison-Wesley Publishing Company.
- Phillips, A. L. (1998). Migration of Corporate Payments from Check to Electronic Format: A Report on the Current Status of Payments. *Financial Management*, 27(4), 92-105.
- Quinn, S., & Roberds, W. (2008). The Evolution of the Checks as a Means of Payment: A Historical Survey. *Economic Review*, 93(4), 51-65.
- Roberds, W. (1998). The Impact of Fraud on New Methods of Retail Payment. *Economic Review*, 83(1), 42-52.
- Roberds, W. (1997). What's Really New about the New Forms of Retail Payment? *Economic Review*, 82(1), 32-45.
- Seldon, Z. A. (1999). Drawn on a U.S. Bank: The Curious Behavior of Retail Check Clearances in a Global Financial Environment. *Journal of Economic Issues*, XXXIII (4), 933-949.
- Wright, D. (2002). Comparative Evaluation of Electronic Payment Systems. *Infor Journal*, 40(1), 71-85.