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AN INVESTIGATION OF THE SCOPE OF ENHANCING BANK
EFFICIENCY THROUGH DYNAMIC CAPABILITIES

BY

JEREMIAH ETHREDGE BORERWE

PHDFIN1512949

SUPERVISORS:

PROF. EVARISTO NSENDULUKA

DR. ABEL CHOLA SHIMBA

A Thesis submitted to the School of Post Graduate Studies for the Degree of the
Doctor of Philosophy in Finance

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DECLARATION

I, Jeremiah Ethredge Borerwe, declare that:

- i. The thesis on “An Investigation of the Scope of enhancing Bank Efficiency through Dynamic Capabilities” is my original research under the guidance of Professor Evaristo Nsenduluka and Dr Abel Chola Shimba. The thesis is submitted to the University of Lusaka for the award of Doctor of Philosophy Degree in Finance.
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Signed..... this..... day of 2019

DEDICATION

This thesis is dedicated to my late mother, Victoria Borerwe, and late father, Reverend Canon Noel Borerwe for their unconditional love, support and inspiration.

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LIST OF ACRONYMS

ATM	Automated Teller Machine
BAZ	Bankers Association of Zimbabwe
BPR	Business Process Re-engineering
CAMELS	Capital Adequacy, Asset Quality, Management, Earnings Performance, Liquidity & Funds Management, Sensitivity
CEO	Chief Executive Officer
CFO	Chief Finance Officer
DCs	Dynamic Capabilities
DEA	Data Envelopment Analysis
DMU	Decision Making Unit
GDP	Gross Domestic Product
HRM	Human Resources Management
IFRS	International Financial Reporting Standards
MIS	Management Information System
MOU	Memorandum of Understanding
NPL	Non- Performing Loans
POS	Point of Sale
RTGS	Real Time Gross Settlement
RBZ	Reserve Bank of Zimbabwe
SFA	Stochastic Frontier Analysis

ABSTRACT

The goal of this study was to investigate the scope of enhancing bank efficiency through dynamic capabilities in the Zimbabwe dollarized environment. A qualitative approach based on purposive sampling was adopted. In-depth interviews were conducted with executive management at 4 (four) banks) based on a heterogeneously selected sample. This was complemented by documentary analysis. The study identified various idiosyncratic challenges that included strategic management flaws, notably; limitations in cognitive capabilities, strategic flexibility, agility and adaptability; hyperinflationary mind-sets as well as efficiency measurement flaws which distracted management attention from addressing value chain bottlenecks. The problem was aggravated by various environmental challenges that included working capital constraints; macroeconomic management flaws, supervisory and regulatory flaws. The study also identified serious gaps in one of the non-parametric efficiency technical efficiency measurement flaws i.e. the data envelopment analysis; which could have been used as an alternative efficiency measurement methodology, hence calling for further research in this area. Apparent from the study also, is the need to contextualise the applicability of dynamic capabilities in respect of bank efficiency enhancement by taking into account the particularity of contradictions presented by macrostructure and microstructure rigidities that characterise certain operating landscapes. In addition, by specifically linking dynamic capabilities to bank efficiency enhancement, while illuminating a macro-construct perspective to the efficiency concept, the study closes knowledge gaps in extant literature. The study concludes that while there is scope to enhance bank efficiency through dynamic capabilities, there is need to address the various idiosyncratic and environmental constraints that have characterised the Zimbabwean dollarized operating environment. In coming to this conclusion, the study provides practical insights into requisite bank strategic management capabilities required to navigate such an operating landscape, while bringing to fore vital issues that policy makers have to be alive to when designing macroeconomic and financial sector management policies.

CHAPTER 1

INTRODUCTION AND BACKGROUND TO THE STUDY

1.0 Introduction to the study

The dynamic capabilities construct has been subject of extensive research since the turn of the 20th century as scholars and researchers sought to explain how firm competitive advantage is gained and held. Popularised by Teece, Pisano and Shuen (1997), the construct explicitly focuses on conditions of environmental change (Eisenhardt and Martin, 2000) which enables firms to build and sustain successive temporary advantages in high velocity and hypercompetitive environments (Bareto, 2010; Ogunkoya, Hassan and Shobayo, 2014)).

At the core of the dynamic capabilities approach is the need for firms to *integrate, build and reconfigure* internal and external competencies to address rapidly changing environments (Teece *et al*, 1997) characterised by discontinuities and disequilibrium conditions (Hitts and Haynes, 2010). This, it is argued, is achieved by extending, modifying, and reconfiguring existing operational capabilities into new ones to better match the changing environment (Pavlou and El Sawy, 2011). Dynamic capabilities are also noted to facilitate improved effectiveness through systematic generation and modification of operating routines (Zollo and Winter, (2002).

Scholars (Zott, 2002; Kor and Leblebici; 2005; Kamoun, 2013) amplified the dynamic capabilities construct by specifically linking it to enhancement of firm performance, with particular reference to profitability. Lengnick-Hall, Beck and Lengnick-Hall (2011), on the other hand, highlighted the role dynamic capabilities could play in relation to resilience capability management. Noteworthy, however, is that the role dynamic capabilities can specifically play in enhancing efficiency, let alone, bank efficiency, remains under-researched.

With the foregoing in mind, and in light of the operational viability challenges that faced Zimbabwean banks at the onset of official dollarization on the back of reduced earning capacity at a time when operating expenses remained disproportionately high, the expectation had been that banks would have enhanced technical and profit efficiency through the development and application of dynamic capabilities. When banks the instead appeared to have predominantly relied on high lending rates and charges, as well as low deposit rates to address the viability problems, the researcher sought to determine the reasons behind such inexplicable developments. Of significance was that the preferred strategic thrust appeared to have had far

negative consequences on financial stability and economic growth, hence the need for a fundamental policy rethink.

Cognisant of the above-noted observations, and in light of scant literature on the role dynamic capabilities could play in enhancing efficiency, in particular, an opportunity arose to close this knowledge gap. While Wilhelm (2015) attempted to bridge this gap, the study was, however, confined to the role of dynamic capabilities in relation to the efficiency of the purchasing function only, and not overall firm efficiency. Extant literature has also tended to focus on micro-aspects of efficiency without considering its macro-construct perspectives.

The goal of this study, therefore, was to determine what could have militated against the utilisation of dynamic capabilities to enhance bank efficiency through dynamic capabilities, and the scope for doing so, going forward, as a sustainable way of managing the dollarized environment. By illuminating various environmental and idiosyncratic challenges banks faced and opportunities presented, the study bridges various gaps in current literature and identifies areas that require further research. In addition to enriching dynamic capability management capabilities at banks, the results of the study are envisaged to promote sound financial sector and macroeconomic management. The study's methodological thrust is grounded on theoretical and conceptual foundations of dynamic capabilities and efficiency constructs. Due regard is paid to the nature and characteristics of operational and dynamic capabilities, efficiency constructs and measurement, including traditional and non-parametric measures of efficiency.

The rest of the chapter outlines the background, statement of the problem, rationale/justification, objective, research questions, limitations, delimitations, assumptions, and study context, and definitions of key terms thereof. The background highlights the circumstances that preceded and continue to characterise the dollarized environment and how these could have invariably stalled the development and utilisation of dynamic capabilities required to enhance efficiency.

1.1 Background to study

The operating terrain immediately preceding adoption of dollarization by the Zimbabwe Government in February 2009, as well as key features of the dollarized regime, provided an ideal contextual setting for the investigation of the scope of enhancing bank efficiency through dynamic capabilities. This is premised on the impact the observation conditions in the operating terrain, particularly in respect of discontinuities and disequilibria, on the enhancement of bank efficiency through dynamic capabilities. Noteworthy is that

experiential knowledge provided by countries that had implemented dollarisation, including El Salvador and Ecuador, were test cases that could have informed proactive responses by relevant authorities in Zimbabwe.

The decision to dollarize was taken after the Country had been ravaged by hyperinflationary conditions experienced between 2004 and 2008, punctuated by annual inflation of 231,000,000% (ZIMSTATS, 2008), annual broad money supply (M3) growth rate of 9,018,026,803.37% (RBZ, 2008), and an estimated cumulative GDP decline of 50.3% (Medium Term Plan July 2011). The value of bank financial assets had been seriously eroded, forcing the institutions to be recapitalized through revaluation of fixed assets, thus triggering a wave of working capital constraints at various banks. Such a shock potentially stood to stall the development and utilization of dynamic capabilities in light of resultant cost and timing constraints issues Zott (2003).

The upside risks of official dollarization included; re-monetization of the economy, financial re-intermediation, fiscal discipline, and overall price stability (Kramenko et al, 2010), as well as improved industrial capacity utilization (from estimated levels of less than 10% in 2008 to 57.6% in 2012 (RBZ, 2013). Such developments invariably presented opportunities for utilisation of dynamic capabilities to enhance efficiency.

Notwithstanding the benefits of dollarization, Zimbabwe has experienced various discontinuities and disequilibrium conditions (Hitts and Haynes, 2010) with the potential to adversely affect bank efficiency enhancement through dynamic capability development, considering the construct's theoretical postulations. These are highlighted hereunder.

a) Macrostructure Rigidities

Official dollarization deprived the Reserve Bank of Zimbabwe (RBZ/the Bank) of critical macroeconomic levers such as exchange rate and interest rate policy management, a development that has severely constrained the Bank's ability to correct internal and external imbalances (RBZ, 2015).

In addition, an overvalued USD exchange rate against most regional currencies, notably the Rand, has had adverse consequences on the competitiveness of the Country's exports to major trading partner, South Africa (RBZ, 2015; Mhute, 2012). This has been aggravated by the manufacturing sector's inability to produce competitively priced products mainly due to general market illiquidity reflecting, in the main, the central bank's inability to print local currency or undertake open market operations; negligible foreign direct investments, as well as limited external lines of credit. Banks' liquidity positions were also adversely affected by

working capital constraints induced by the erosion of the value of financial assets due to hyperinflation, as well as low domestic savings.

The underlying liquidity challenges in the economy have in turn contributed to depressed aggregate demand with negative ramifications on corporate viability. With limited domestic sales and relatively low export earnings, the ability of most corporates to service bank debt became increasingly impaired. This, coupled with the granting of highly priced loans by banks at the onset of dollarization, created a bedrock for non-performing loans (NPLs) with ramifications on provisions for bad and doubtful debts, hence negatively impacting on technical and profit efficiency.

Another structural constraint with significance to the study was the inability to recapitalise the RBZ, which in turn affected the Bank's ability to perform open market operations and adequately conduct the lender of last resort function. The absence of open market operations, entailing trades in financial instruments such as Treasury Bills constraints the ability of banks to generate earnings, while the limited lender of last function deprives banks of a liquidity fall-back traditionally required in times of temporary liquidity challenges. In the absence of the liquidity fall-back, banks tend to scale back on lending, hence affecting their ability to underwrite business, in the process compromising technical and profit efficiency.

In the light of macro-financial linkages (Tetanco, 2016) the banking sector also faced specific challenges linked to the macrostructure rigidities. These are highlighted hereunder.

b) Operational Viability Challenges

Due to underlying liquidity challenges, the banking sector has experienced low and transitory deposits in the dollarized environment., attributed by Mphambela (2013) to, in the main, short-term "pay-ins" of salary and wage deposits effected once a month, and invariably completely withdrawn either on the same day, or at most within a day or two after pay day. Mphambela (2013) also attributes the low savings to lack of confidence in the banking system by depositors who lost their Zimbabwe dollar bank balances during the changeover to the multicurrency regime without compensation.

Another microstructure bottleneck with implications on banking sector efficiency was the subdued nature of secondary money market trading in financial instruments (including treasury bills) mainly arising from absence of monetary policy tools such as open market operations. This deprived banks of interest income from such trading (Kachembere, 2013).

Table 1 shows the impact of the structural constraints which, in the researcher's view would have motivated bank management to employ dynamic capabilities to enhance bank efficiency.

Table 1: Banks Financial Indicators 2005- 2013

%	2005	2006	2007	2008	2009	2010	2011	2012	2013
Operating expenses / Operating Income	33.00	28.72	32.56	3.43	95.06	83.40	78.52	87.56	98.56
Non - Funded Income/ Operating Income	32.17	18.32	42.07	31.81	87.78	72.49	60.28	64.75	59.58
Salaries/ operating income	19.46	2.513	45.34	42.27	39.73	42.26	47.66	39.73	42.26
Other operating expenses / Operating Income	13.46	9.92	12.26	0.87	41.23	35.04	33.29	36.53	43.35
Net Interest Income/ Operating Income	67.82	81.67	57.92	68.18	12.21	27.50	39.71	35.24	40.41
Salaries / Net Interest Income	24.35	20.81	31.59	3.58	256.63	133.93	82.65	76.49	80.06
Operating Expenses/ Interest Income	N/A	20.25	38.52	4.81	351.63	155.07	102.90	95.63	96.97
Operating Expenses/ Net Interest Income	N/A	34.09	52.87	4.88	538.04	264.23	163.34	158.48	165.56
Net Interest Income / Operating Expenses	N/A	293.2	189.13	2045.63	18.58	37.84	61.22	63.09	60.39

Source: Reserve Bank of Zimbabwe Annual Reports

The financial indicators provided useful insights into operational dynamics that took place at the onset of dollarization. Noteworthy is that the traditional key efficiency ratio i.e. *operating expenses to operating income*, which oscillated around **30%** from 2005 to 2008, suddenly surged to **95.06%** in 2009 when the Country dollarized. This could have been an attestation of the unsustainability of operating expenses on the back of diminished revenue sources – a clear red flag that should have set the alarm bell in terms of the need for appropriate strategic responses, including efficiency enhancement. Put differently, banking sector efficiency had drastically diminished as it was on average, costing about 95 cents to produce \$1 of operating income, compared to 33 cents in 2005.

The sharp rise in the non-funded income to operating income ratio, from **32.17%** in 2005 to **87.78%** suggests that banks had increasingly become reliant on fees and commission, compared to the traditional core net interest income. This was also shown by a corresponding decrease in the net interest income/ operating income ratio, from **67.82%** to **12.21%**. By implication, this was an indication of the fact that banks were straying away from core business of lending. What was not clear at that stage, though, was whether the increase was as a result of increased charges or diversification of income (profit efficiency).

Based on the sharp decrease in the net interest income to operating expenses ratio, from **293.2%** in 2005 to **18.58%** in 2009, it can be inferred that, for the first time banks lacked the critical mass to cover operating expenses from interest income, hence exerting pressure to augment earnings through non-funded income to at least break-even. Against this background, it can be hypothesized that the relatively high levels of lending rates, fees and commissions, as well as low deposit rates that characterised the onset of dollarization, could have been attempts by banks to compensate for reduced interest income through increasing reliance on income from non-core banking business. Begging an answer, therefore, was why the banks did not rigorously pursue efficiency enhancement as an alternative strategic response. Extant literature had not filled this gap.

Interestingly also, is the fact that banks have maintained more or less the same level of average *salaries to operating income ratio* since 2005, giving credence to the view that management has not made concerted efforts to realign salaries and perquisites to the reality of diminished revenues.

To the extent that most of the traditional dynamic capabilities theoretical and conceptual constructs attribute the development of such capabilities to, inter-alia, heightened competition, product and technological innovation, it is important to note that the structural nature of discontinuities that characterised the dollarized environment potentially stood to negatively impact on cost efficiency¹ and profit efficiency² enhancement. For instance, the ability of banking institutions to undertake resource configurations (Eisenhardt and Martin, 2000; Pavlou and El Sawy, 2006) became a topical issue, particularly in light of timing and cost issues (Zott, 2003).

c) **Bank Internal Governance**

Of significance to the study also, was the fact that most of the small locally owned banks were characterised by deep-rooted structural anomalies, including inadequate risk management systems, poor corporate governance practices, which contributed to liquidity and solvency problems (RBZ, 2015). The deficiencies were mainly a manifestation of the overbearing influence by the institutions' owner-managers (RBZ, 2014) which, in most cases, resulted in gross abuse of depositors' funds. Poor risk management practices were manifested by excessive

¹Measure of how close a bank's cost is to what a best practice bank's cost would be for producing the same output bundle under the same conditions.

²Measures how close a bank is to producing the maximum possible profit given a particular level of input prices and output prices

risk taking and failure to align strategic management imperatives, notably; corporate goals, internal resources and capabilities, business strategies in the context of developments in the operating environment. Such deficiencies would invariably impact on the ability of the banks to develop and utilise dynamic capabilities to enhance efficiency.

Of significance to the study also, was that most foreign controlled banks, to the contrary, had strong risk management systems and internal governance arrangements. This bred depositor confidence in such banks, particularly in the light of bank failures experienced in 2004, a development that culminated in the foreign banks benefiting from the flight of deposits from local banks perceived to be weak. On the balance of probability, the foreign owned banks would have stood a better chance of developing and applying dynamic capabilities to enhance efficiency.

The significance of such internal governance arrangements are discussed in detail under Literature Review in the context of resilience capability management theories (Lengnick *et al*, 2011), particularly in respect of their impact on the development and utilisation of dynamic capabilities to enhance bank efficiency. Much, however, would depend on the ability of the institutions to sense and seize opportunities based on various theoretical postulations and empirical literature.

1.2 Statement of the problem

The fundamental problem facing the Zimbabwe banking sector stems from the consequences of bank strategic responses taken by banks as they sought to address operational viability challenges occasioned by reduced interest income at a time when operating expenses remained inordinately high when the Country migrated to dollarization in 2009. Contrary to the expectations of the dynamic capabilities construct, which would have advocated for technical and profit efficiency enhancement under the circumstances, the banks instead opted to pursue pricing strategies underpinned by high lending rates and bank charges, as well as low deposit rates. This has inadvertently contributed to various underlying vulnerabilities that have characterised the banking sector, including asset quality, earnings and liquidity challenges, to the detriment of financial stability and economic growth.

Unfortunately, instead of addressing underlying environmental and idiosyncratic shocks, the Reserve Bank of Zimbabwe, as regulator of banks, and Government, appeared to have focused on the symptoms and hence, continued to influence the level of lending rates and bank charges, in the process exacerbating the problem. It is, therefore, the researcher's contention that, unless the current logjam is addressed and some enlightenment provided on

how to holistically deal with the factors that have stalled efficiency enhancement, financial stability will continue to be threatened to the detriment of economic growth and development.

Against such a background, the study sought to determine factors that could have motivated bank management to pursue pricing strategies instead of enhancing efficiency; the precise nature of challenges faced and opportunities missed in respect of development and utilisation of dynamic capabilities to enhance bank efficiency in the dollarized environment, at both idiosyncratic and environmental levels. Clarity on these issues was envisaged to provide much needed guidance to relevant stakeholders on these topical matters.

1.3 Main objective of the study

The main objective of this study was to establish the scope of enhancing bank efficiency through dynamic capabilities in the Zimbabwe dollarized environment in the light of possible idiosyncratic and environmental challenges.

Specific -objectives

- a) To establish the nature of challenges and opportunities that could have affected the pace of bank efficiency enhancement through dynamic capabilities in the Zimbabwe dollarized environment.
- b) To determine what could have motivated bank management to resort to pricing strategies and bank charges in a bid to address the revenue/expenses mismatch that had arisen, instead of enhancing efficiency through reconfiguration of business models and operating systems.
- c) To determine the effectiveness of efficiency measurement methodologies in use and the extent, if any, to which deficiencies could have militated against efficiency enhancement.
- d) To develop the scope for enhancing bank efficiency through dynamic capabilities, as well as the nature of capabilities required.
- e) To explore ways of enriching the dynamic capability and efficiency constructs in light of conceptual and definitional ambiguities that have characterised them.

1.4 Research questions

Guided by the need for research questions to provide guidance in respect of, inter-alia, literature research, data collection, and data analysis (Bryman, 2008), the research questions are indicated hereunder.

- a) What challenges and opportunities did Zimbabwean banks face at the onset of dollarization in February 2009 and how did this affect the pace of efficiency enhancement?
- b) What could have motivated bank management to mainly rely on pricing strategies and non-funded income to address the net interest income/operating expenses gap, instead of pursuing the efficiency enhancement route?
- c) What is the effectiveness of efficiency measurement methodologies currently in use and to what extent could any deficiencies have militated against efficiency enhancement?
- d) Is there scope for enhancing bank efficiency through dynamic capabilities, and if so, what is the nature of capabilities required?
- e) In what way can the dynamic capabilities and bank efficiency constructs be enriched in light of the conceptual and definitional ambiguities that have characterised them?

1.5 Propositions

The decision to take the Proposition route was premised on the qualitative nature of the research which would not require the administration of structured questionnaires and quantitative testing.

Proposition 1

Zimbabwean banks resorted to pricing strategies and non-funded income as primary instruments of managing the net interest income and operating expenses disconnect/gap that emerged at dollarization, instead of reconfiguring and re-aligning business models, processes and operating systems based on the dynamic capabilities construct. This proposition is premised on the relatively high lending rates and charges that banks have been charging and continue to charge in the dollarized environment with no apparent meaningful attempts to reconfigure business models and operating systems with a view to rationalise costs, suggesting that various factors would have mitigated against this.

Proposition 2

Strategic responses adopted by banking institutions to manage the interest income/operating expenses gap created underlying asset quality, earnings, liquidity and solvency vulnerabilities with far reaching ramifications on efficiency enhancement, financial stability and economic growth. The proposition is based on the role high lending rates and bank charges, as well as low deposit rates would have played in creating such vulnerabilities.

Proposition 3

Failure by banks to put in place effective efficiency measurement tools and methodologies contributed to delays in business model and process realignment. This is premised on the observation that continued reliance on financial accounting ratios (such as the cost to income ratio) give a false impression of high efficiency while detracting management attention from adopting more holistic technical and profit efficiency strategies.

Proposition 4

There is scope to enhance bank efficiency through dynamic capabilities. This is informed by constrained lending by banks, on the back of high operating cost bases, which should motivate banks to implement cost rationalisation through reconfiguration of business models, operating systems and processes.

1.6 Assumptions

The study assumptions, based on in-depth interviews to be conducted, were as follows:

- a) The respondents would be truthful with their responses, in light of sensitivities surrounding the strategic nature of issues to be discussed.
- b) The respondents would be knowledgeable about issues relating to dynamic capabilities and efficiency enhancement and that their views would generally be a reflection of what exactly happened.

1.7 Rationale / justification for study

The study is timely in that it provides useful insights into various knowledge gaps considering that current literature mainly focuses on the role dynamic capabilities plays in creating competitive advantage and enhancing firm performance. The role of dynamic capabilities with specific reference to efficiency enhancement in general, let alone bank efficiency, remains under-researched. By exploring why Zimbabwean banks in the dollarized environment failed to develop and utilise requisite dynamic capabilities to enhance efficiency when objective conditions called for it, the study fills in that yawning knowledge gap.

The study also provides useful insights into how the enhancement of bank efficiency through dynamic capabilities could reinforce financial stability through obviating the need for high lending rates and bank charges, as well as low deposit rates.

To the extent that status quo pointed to idiosyncratic and policy undertones, the results of

the study were envisaged to provide an opportunity for deep reflection on matters to do with bank strategic management, monetary and macroeconomic policy management, as well as financial stability reinforcement. The various options proffered in terms of holistic resolution of the challenges facilitates informed scholarly discourse and practical guidance on how to deal with serious impediments to financial stability and economic growth.

By focusing on bank efficiency enhancement, considered by the researcher to be a moderating and/or moderating variable to the various performance outcomes of dynamic capabilities interventions, as espoused in existing literature, the study contributes to the development of both dynamic capability and efficiency constructs, while shedding light on the longstanding theoretical and conceptual controversies therein.

The study also interrogates one of the technical efficiency measurement techniques, data envelopment analysis, which could have been used as an alternative to accounting ratio methodology, and identifies methodological flaws that provides scope for future research.

In particular, the study stands to benefit specific key stakeholders as highlighted hereunder.

a. Banking Institutions/ Banking Sector

Results of the study are expected to facilitate active application of strategic management techniques, notably the dynamic capabilities construct, as banks navigate the operating environment through proper alignment of corporate goals, business strategy, internal resources and capabilities, in light of developments in the operating environment (Grant, 1996). By enhancing efficiency, guided by robust efficiency measurement methodologies as proposed herein, banks are not only likely to improve earnings performance, but improve financial intermediation through sustainable lending and deposit rates, as well as bank charges. Apart from minimizing bank failures, such interventions are also likely to enhance financial stability.

The positive spin-offs from envisaged cost re-alignments resonate with the observations by (Berger and Humphrey, 1992) that high-cost banks experience a higher rate of failure than more efficient banks.

Efficiency enhancement is also likely to provide a platform for banks to formulate suitable strategies to competitively reposition themselves in the market.

b. Reserve Bank of Zimbabwe

Results of the study stand to benefit the Reserve Bank of Zimbabwe, as the supervisory authority, in terms of increased supervisory focus on bank value chain issues. This, in turn could improve overall bank management. Insights into bank efficiency also enhance

assessments of the health of banks, as well as provide a sound platform for appropriate supervisory interventions that minimise systemic risk and promote financial stability. The current exclusive focus on the CAMELS³ supervisory methodology, might have inadvertently diverted attention from the underlying banking sector challenges highlighted in the Background Section of this paper, to the detriment of efficiency and financial stability enhancement.

c. Researchers

Theoretical and conceptual issues illuminated in this study provide a sound platform for further research on dynamic capabilities and efficiency measurement theories by both practitioners and academics. The paradox where some banks appear technically efficient when certain inputs are excluded in the data envelopment analysis financial intermediation approach, and inefficient when the same inputs are included, for instance, represents one of the cases that require further research.

d. Policy Makers:

Results of the study stand to provide invaluable input to macroeconomic policy management in light of policy misalignments and inconsistencies highlighted herein.

1.8 Delimitations of study

To enable exclusive focus on the problem under investigation, the study setting was based on the Zimbabwe banking sector in the dollarized environment. The sector comprised 13 commercial banks, five (5) building societies and a Peoples' Own Savings Bank (POSB) all of which were deposit-taking. The study population, however, included five (5) failed banks, bringing the total population to 24 institutions. The period of study was from February 2009, when the multicurrency regime was adopted to June 2018 when the study was completed.

1.9 Study context/ setting

The commercial banking sector dominated the sector, with assets accounting for 75.07% of total assets as at 31 December 2016. Building societies came a distant second with assets constituting 23.03%. The sector was oligopolistic, with five (5) banks holding \$5.13 billion of the assets, accounting for 58.82% (Reserve Bank of Zimbabwe (2017). Nine (9) banking institutions had been closed during the dollarized environment after facing serious

³ CAMELS is an acronym of Capital adequacy, Asset quality, Management, Earnings, Liquidity & funds management, and Sensitivity to risk.

solvency and liquidity problems.

Key functions of the banking sector include financial intermediation through deposit mobilisation and lending, as well as facilitating the national payments system. Due to the absence of monetary policy levers in the dollarized environment, the banking sector was not performing one of its core functions of facilitating monetary policy implementation.

The study was conducted at a time when the operating environment had remained difficult mainly due to high inherent credit risk, underlying liquidity problems, and acute cash shortages. Although the majority of banks depicted safe and sound operations from a micro-prudential perspective, most institutions had scaled down on lending, invariably triggering a wave of financial disintermediation, to the detriment of bank efficiency and financial stability. The Reserve Bank had increasingly adopted interventionist measures aimed at maintaining lending rates and bank charges at what was considered to be sustainable levels with a view to protecting the banking public and promoting productivity. The control of interest rates had limited revenue generation capabilities, in turn forcing banks to increasingly interrogate their value chains, hence creating objective conditions for efficiency enhancement. This created an appropriate setting for interrogating the scope for enhancing bank efficiency through dynamic capabilities going forward.

1.10 Definition of key terms

- *Macrostructure induced shocks*: shocks relating to underlying constraints imposed by the macroeconomic environment
- *Microstructure constraints*: sector specific challenges which, for the banking sector include recapitalisation challenges, subdued money and capital markets.
- *Micromanagement/idiosyncratic*: bank specific management factors such as risk management and other internal governance matters.
- *Non- Performing Loans*: loans that are past due for more than 90 days or have qualitative characteristics that may impair repayment.
- *Lender of Last Resort Facility*: short term loan facility availed by Central Banks to solvent banking institutions that may be facing temporary liquidity problems.
- *Financial stability*: state in which the financial system, comprising key financial markets, financial institutions, financial infrastructure (payments systems), is resistant to economic shocks and is able to smoothly fulfil its basic functions:

including financial intermediation, management of risks and oiling the national payment systems.

- *Financial intermediation*: a productive activity in which an institutional unit incurs liabilities on its own account for the purpose of acquiring financial assets by engaging in financial transactions on the market; the role of financial intermediaries is to channel funds from lenders to borrowers by intermediating between them (OECD, 2011).
- *Official dollarization*: an arrangement where a country adopts as legal tender, another country's currency, in this case the US dollar. The adopted currency takes over all functions of domestic currency: a unit of account, medium of exchange, and store of value. The country's policy makers give up the possibility of monetary exchange and exchange rate policies (Quispe- Agnoli and Whisler, 2006.)

1.11 Organisation of Thesis

The Thesis is organised as follows; Chapter 1 discusses the general background to the research, incorporating the introduction, justification of the study, aim and objectives, research questions, study propositions, rationale and justification for the study, and definitions of key terms. Chapter 2 analyses literature review wherein theoretical and conceptual underpinnings relating to dynamic capabilities and efficiency are discussed. Definitional and conceptual ambiguities pertaining to dynamic capabilities are illuminated, while factors affecting bank efficiency are distilled. Chapter 3 addresses theoretical and conceptual frameworks underpinning the study.

Chapter 4 highlights the methodology, incorporating the philosophical approach, research design, sampling and data collection techniques, data analysis, reliability and validity issues, as well as ethical considerations. Chapter 5 covers data analysis and findings, while the discussion of results is undertaken in Chapter 6. Chapter 7, concludes and proffers recommendations.

CHAPTER 2

LITERATURE REVIEW

2.0 This Chapter provides the theoretical basis of the study through evaluation of what other scholars have already done or discovered in relation to the role dynamic capabilities plays in enhancing competitive advantage and firm performance, as well as efficiency. It also outlines empirical literature, and presents a critique thereof.

While attempts are made to refer to current literature, reliance was also placed on non-current literature, where illumination of critical definitions and concepts was warranted.

Straus and Corbin (1998) define theory as a set of well-developed concepts related through statements of relationship, which together constitute an integrated framework that can be used to explain or predict phenomena. The authors posit that theorising is the act of constructing from data an explanatory scheme that systematically integrates various concepts through statements of relationship. Although this study is largely qualitative in nature, the researcher relied on some quantitative concepts, particularly in relation to validity, as well as the measurement of efficiency.

According to Joppe (2000), validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. Construct validity, for instance, is the initial concept, notion, question or hypothesis that determines which data is to be gathered and how it is to be gathered. In this regard, the researcher extensively reviews dynamic capabilities and efficiency theoretical constructs while acknowledging their distinct roots. This was designed to ensure that the study focuses on the exact variables that were meant to be investigated. The extensive discussion on the grounding of dynamic capabilities is also meant to provide a platform to analyse their scope for enhancing bank efficiency in a dollarized setting.

2.1 Origins and Concepts of Dynamic Capabilities Construct

The dynamic capabilities concept emerged as an off-shoot of the resource based view (RBV) of strategic management which had focused on the link between a firm's internal characteristics and performance. The RBV conceptualises firms as bundles of resources that are heterogeneously distributed across firms, the resource differences of which are assumed to persist over time (Barney, 1991; Amit and Schoemaker, 1993; Mahoney and Pandian, 1992). The resources, which form the basis on which organizational-specific capabilities are built, are

deemed to be *valuable, rare, inimitable, and non-substitutable* [VRIN] (Eisenhardt and Martin, 2000).

Firm resources, according to RBV, include all assets and capabilities, organizational processes, firm attributes, knowledge, etc. controlled by the firm, which enable the firm to conceive of and implement strategies that improve efficiency and effectiveness (Daft, 1983). The resources are broadly classified into three categories: (i) physical capital resources, including technology, plant and equipment (Williamson, 1975); (ii) human capital resources, incorporating training, experience, judgment, intelligence, relationships, and insight of individual managers and workers (Becker, 1964); and (iii) organizational capabilities, including formal reporting structures, planning, coordinating and monitoring processes (Tomer, 1987). In this connection, the study explored the role such idiosyncratic factors could have played in the dollarization environment, particularly in the context of bank efficiency enhancement.

The emergence of the dynamic capabilities concept in the 90s came at a time when empirical research had begun to question the ability of firm resources and capabilities to sustain competitive advantage over time (Wiggins & Ruefli, 2005), particularly in hypercompetitive (D'Aveni, 1994) or high-velocity environments (Bourgeois and Eisenhardt, 1988). According to Teece and Pisano (1994), winners in such an environment needed to demonstrate timely responsiveness as well as rapid and flexible product innovation, based on management capability to effectively coordinate and redeploy internal and external competences.

The dynamic capability construct was, thus, designed to address the fundamental question of how firms could build successive temporary advantages in hypercompetitive environments (Bareto, 2010) ordinarily characterised by discontinuities and disequilibrium conditions (Hitts and Haynes, 2010). This, argued Koponen and Pohjola (2007), could be achieved through the process of resource development and adaptation to the external environment. The emphasis on “hypercompetitive” and “high velocity” is significant considering the nature of the discontinuities that characterised the migration to dollarization in Zimbabwe, which were largely structural.

Teece and Pisano (1994) make a distinction between the “dynamic” and “capabilities” components, with the former referring to the shifting character of the environment, underpinned by accelerating innovation and the nature of future competition and markets. “Capabilities” on the other hand, emphasize the key role of strategic management in appropriately adapting, integrating, and reconfiguring internal and external organizational skills, resources, and functional competences toward the changing environment.

Based on the dynamic capabilities theoretical construct, therefore, the expectation was that Zimbabwean banks would have reconfigured existing resources based on the VRIN concept to recover from the effects of dollarization shocks. Easterby-Smith and Prieto (2008), however, make an important qualification that could have been instrumental in determining the course of events in Zimbabwe. They argue that the capacity to reconfigure operations in line with the shifting operating environment depends on the firm's dynamic capabilities which reside largely in the domain of top management and impacted by organizational systems and structures. This was one of the observations that shifted the research focus on to such idiosyncratic factors.

Eisenhardt and Martin 2000 elucidate the dynamic capabilities concept by considering the environmental dimension of matching or even creating market change through processes to integrate, reconfigure, gain and release resources. While this distinction was important, the authors did not elaborate on what exactly was meant by "matching" or "even creating market change", an amplification which would have been useful in guiding the banks to navigate the dollarization terrain. Dynamic capabilities, according to Eisenhardt and Martin (2000) are thus organizational and strategic routines by which firms achieve new resources configurations as markets emerge, collide, split, evolve, and die. The other definitional ambiguity was that Eisenhardt and Martin (2000) did not provide detail as to what exactly is involved in the process of integrating, reconfiguring, gaining, and releasing resources. In addition, no amplification is provided in exactly what is entailed in the collision and evolvment of the markets, given that the particularity of the shocks may determine the ability of the entities to reconfigure their operational capabilities.

Noteworthy, is that contributions to the dynamic capabilities debate by the above-noted "classical" theorists, remained general, focusing on broad issues such as "resource development, adaptation to change, and creating market change", without much elaboration. .

In an attempt amplify and clarify the definitional ambiguities surrounding the concept, Zollo and Winter (2002), defined a dynamic capability as a learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness. Pavlou and El Sawy (2006) identified various processes that constitute dynamic capabilities. These relate to; inter-alia, new product development, reconfiguration of resources to better match the environment, as well as sensing opportunities in the operating environment.

The views by Pavlou and El Sawy (2006) are significant in that on the backdrop of constrained lending capabilities, banks could have developed new products in the dollarized

environment to augment income streams, rather than merely resort to price increases. In the same vein, leaning and sensing capabilities would have provided agile and flexible banks with the ability to make sense of the new operating landscape and leverage on opportunities presented, particularly in light of pointers provided by financial indicators highlighted in Table 1 of this paper.

More clarity is provided by Helfat *et al* (2007), wherein dynamic capabilities are defined as the capacity of an organization to purposefully create, extend, or modify its resource base. In a further amplification, Acikdilli and Ayhan (2013) defined dynamic capabilities as the creation of difficult to imitate combinations of resources including effective coordination of inter-organizational relationships on a global basis.

Notable in most of the definitions, however, was the failure to define what “capacity” meant. Most glaringly also was the absence of the efficiency concept. These are gaps which this study sought to bridge.

In a further clarification of the ambiguities, Wang and Ahmed (2015) explained that dynamic capabilities are not simply processes, but embedded in processes. Processes, the authors argue, are often explicit or codifiable structuring and combination of resources and thus can be transferred more easily within the firm or across firms. The question that arises from this is why Zimbabwean banks would not have deemed it necessary to reconfigure business operating processes in light of possible cost savings that could have been derived from, for instance, business process re-engineering.

The contention by Kamoun (2013) that volatile and dynamic economic environments not only compel organizations to become more flexible and adapt to a changing business landscape, but impose stringent pressures to maintain low cost structures in order to meet investors’ demands, raises fundamental questions on whether peculiarities in the dollarized environment could have imposed some inertia in respect of efficiency enhancement through dynamic capabilities.

Zott (2003) identifies critical dimensions of dynamic capabilities which were of relevance to this study, in light of the seeming delays in reconfiguration of resources and efficiency enhancement. These are (i) the timing of resource deployment to effect adaptive change via imitation and experimentation, (ii) the cost, and (iii) the learning of such resource deployment. According to Zott (2003), the timing of capability deployment depends on deliberate attempts to move fast or from the reluctance of firms to take action which may be due to organisational inertia. With regard to the cost of deploying DCs, Zott (2003) contends that since dynamic capabilities are embedded in routine processes that entail, inter-alia, the

acquisition, creation, modification and transfer of resources and capabilities, their costs are important to consider when discussing their performance implications.

While the aspect of organisational inertia raised by Zott (2003) is quite topical, unfortunately, no guidance is proffered on the precise nature of the inertia, from a cognitive point of view, or otherwise. The author also fails to elaborate external circumstances that would affect the cost and timing of capability deployment, a critical aspect of this study, in light of the structural constraints a dollarized environment would have imposed. The study, therefore, sought to illuminate these issues and evaluate the extent to which they could have contributed to the drag in efficiency enhancement.

Other identified capabilities with implications on this study include; the impact of: organisational learning (Pettus, Kor and Mahoney, 2005), managerial capabilities (Mahoney, 1995; Adner and Helfat, 2003), strategic flexibility (Grant, 1996), and dynamic strategic fit (Itami and Roehl, 1987). The managerial capabilities paradigm sees managers as the basis upon which firms grow, renew and differentiate themselves (Penrose, 1959; Barney, 1991). Given the abruptness and completely different nature of the operating landscape presented by dollarization, the issue of knowledge management would have been quite topical during the transitional period. Experiential knowledge from Ecuador and El Salvador in terms of dollarization would also have come in handy.

In light of the observation by the Reserve Bank that the failure of one of the banks in the dollarized era was attributable to inability to align business strategy and internal resources and capabilities (RBZ, 2012), there was also need to interrogate this. This study, therefore sought to bridge these gaps in current literature.

In a postulation that provides useful insights into both profit and technical efficiency enhancement for Zimbabwean banks, Daneels (2002) identifies customer, technical, and managerial competencies as functional competencies that could have facilitated the development of requisite products. Customer competence for instance, involves understanding customer preferences, evaluating competing products, and formulating customer incentives. This, it is argued, requires proficiency in designing product sales, distribution, pricing, and advertising. In this regard, the study sought to establish why bank management would not have leveraged on such capabilities and introduced new products and services in the face of the interest income/operating expenses disconnect, while pursuing cost containment and revenue generating initiatives not necessarily based on price increases.

2.2 Distinction between Operational & Dynamic Capabilities

An important distinction that has been made in extant literature in respect of firm capabilities relates to dynamic capabilities and functional or operational capabilities. Helfat *et al* (2007) considered a dynamic capability as a high-order ability to sense and address a need for change in an organization's competence base threatened by persisting rigidities. As highlighted in the Background section of this paper, dollarization brought about various rigidities that called for the need to develop requisite capabilities to effectively change a firm's business model (Aspara *et al*, 2011). The fact that this did not happen created a knowledge gap yearning for closure.

Teece (2007) posits that dynamic capabilities enable the creation, extension, and modification of a firm's resource-base, hence creating long-run competitive success, while operational capabilities facilitate sustenance of an organization's technical fitness by ensuring its day-to-day operational efficiency. The author, however, fails to provide guidance on how the reconfiguration process can enhance efficiency.

According to Protogerou, Caloghirou and Lioukas (2012), operational capabilities help a firm to perform basic functional activities, while dynamic capabilities entail the transformation and reconfiguration of functional capabilities. This view is reinforced by Winter (2003), who argues that firms possessing operational capabilities would be confined to producing and selling the same product, on the same scale and to the same customer population over time, while in contrast, firms equipped with dynamic capabilities constantly renew their operational capabilities and therefore achieve long-term competitive advantage. Such postulations provided useful pointers as to whether continued reliance on operational capabilities in the Zimbabwean scenario would have in any way inhibited the reconfiguration that was required to enhance efficiency.

Winter (2003); Zahra *et al* (2006) consider dynamic capabilities as high-order abilities that can manipulate resources and capabilities used to produce tangible or intangible outputs.

This distinction between dynamic and operational capabilities is significant to the Zimbabwean scenario given that various banks, notably foreign controlled that had established sound operational capabilities to manage the pre-dollarized environment appeared to have faltered when it came to the development and utilisation of dynamic capabilities to enhance efficiency. It, therefore, became imperative to unmask what could have happened.

The sections that follow analyse some of the dynamic capabilities and key issues that were identified by various scholars. This is important in that it provided an opportunity to assess

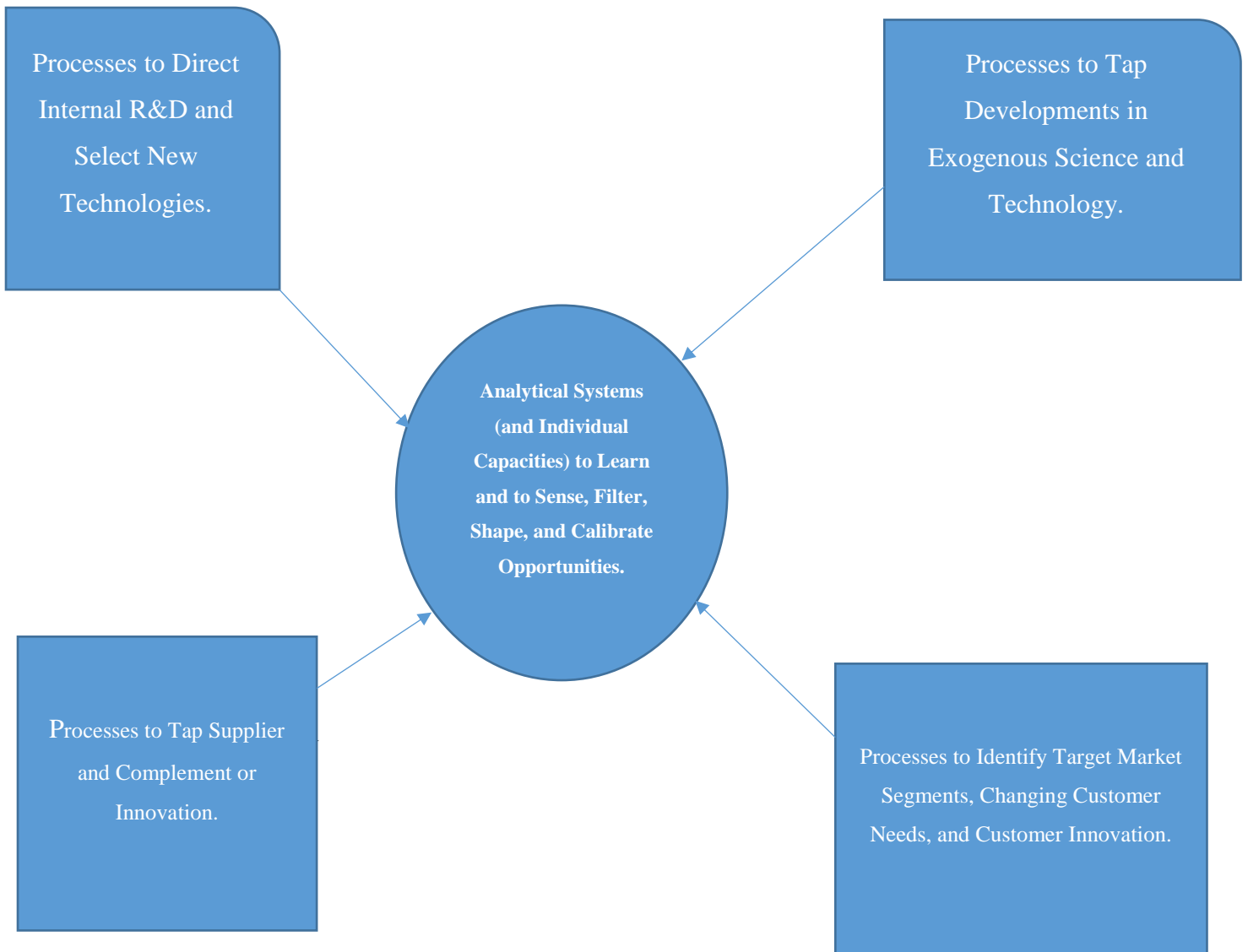
what could have gone wrong in the Zimbabwean context in terms of dynamic capability development and or utilisation.

2.3 Sensing and Seizing of Opportunities

Teece (2007) decomposed dynamic capabilities (DCs), for analytical purposes, into the capacity to: (i) sense and shape opportunities and threats, (ii) seize opportunities, and (iii) maintain competitiveness through enhancing, combining, protecting and where necessary, reconfiguring the business enterprises' intangible and tangible assets. Teece (2007) further states that DCs enhance the enterprise's capacity to shape the ecosystem in which it occupies, develop new products and processes, and design and implement viable business models. The foundations of enterprise success thus depend upon, inter-alia, the discovery and development of opportunities, efficient and effective technology transfer inside the enterprise; as well as the upgrading of best practice business processes, and invention of new business models.

The diagrammatic presentation of dynamic capabilities (Teece, 2007) as shown hereunder, provides useful insights into the elements of sensing market and technological opportunities, which Zimbabwean banks could have leveraged on.

Figure 1: Teece (2007) Dynamic Capabilities



Elements of an ecosystem framework for 'sensing' market and technological opportunities (Teece, 2007)

The theoretical propositions by Teece (2007) provide a plausible basis on which Zimbabwean banks could have responded to the operational viability challenge that emerged at dollarization, characterised by reduced earning capability and inordinately high operating cost base. These would have included product innovation, re-orientation of market segments and reconfiguration of business models and processes with a view to enhancing efficiency.

It is also noted that while the Teece (2007) framework provides clear guidance on the processes and capacities required to sense and seize opportunities and appropriately reconfigure business models, no guidance is given on how exactly the reconfiguration could translate to efficiency enhancement. Another notable gap in the Teece (2007) framework is that

it is silent on possible idiosyncratic and environmental constraints that could thwart attainment of the envisaged benefits. Such an analysis would have aided immensely to situations characterised by macrostructure and microstructure, such as the Zimbabwe dollarized operating landscape. The study was therefore, designed to interrogate why opportunities presented to the banks were not exploited as envisaged.

Tikkanen *et al* (2005) and Aspara *et al* (2011) underscore the importance of managerial cognition in sensing warning signs of decline and triggering action to stem asset erosion. The study, therefore, explored possible reasons that could have constrained the development of cognitive capabilities in the Zimbabwean banking sector.

2.4 Reconfiguration of Organisational Routines & Processes

It is the researcher's contention that the RBV and dynamic capabilities schools of thought provide a sound basis for efficiency enhancement through reconfiguration of organisational routines and processes. In this regard, the observation that management has a key role to play as definers and modifiers of the routines used by organizations (Nelson and Winter, 1982) provided appropriate guidance to this study. Management's role is seen as shaping the processes by which goods and services are produced through integrating people, technology, and routines/ processes. Based on this, the study focused on what banks were doing to enhance these processes through dynamic capabilities in a bid to enhance efficiency.

Kim and Mahoney (2006a) provide details on the crucial role managers can play in developing and maintaining processes shaping the development of organisational capabilities. With unique (subjective) perceptions and knowledge of the firm's resources and its business environment, including its customer base and competitive challenges (Kor et al., 2007), managers are noted to drive the development of firm-specific resources, envision the productive services the resources can offer and determine the specific opportunities a firm should pursue (Penrose, 1959). The expectation from these postulations, is that faced with a completely different operating terrain, Zimbabwean banks would have been alive to the competitive pressures and the need to reconfigure appropriate strategic responses, taking cognisance of limited lending capabilities. Against this background, the fact that reconfiguration of business models and efficiency enhancement, underpinned by product and technological innovation were not rigorously pursued during the early years into dollarization, would have meant that there was something terribly amiss from an idiosyncratic point of view. The study, therefore, sought to discover the missing phenomena.

Through an Enterprise Architecture Benefits Model which espouses a high-level view of an enterprise's business processes and IT systems, their interrelationships, and the extent to which these processes and systems are shared by different parts of the enterprise, Tamm, Seddon, Shanks and Reynolds (2011), provide useful insights into capabilities required to enhance operational efficiency. These are: *organisational alignment*, *information availability*, *resource portfolio optimisation*, and *resource complementarity*. While the model provided a sound theoretical basis to interrogate what could have gone wrong from a systems perspective, the authors fail to interrogate possible limitations to such reconfiguration initiatives.

2.5 Knowledge Management

Identified as a critical dynamic capability, knowledge management could have been instrumental in bank efficiency enhancement. For instance, Cohen and Levinthal (1990) consider knowledge management as an important cog of *absorptive capacity*, defined as an organization's ability to identify external information, recognize its value, assimilate it with existing internal information, and use it in a value creation process. Such a capability is noted to be critical to the innovative potential of a firm since knowledge capture and knowledge creation are the very essence of innovation. While this would have been extremely instrumental in determining the need to develop and utilise dynamic capabilities in a bid to enhance efficiency in light of the particularity of challenges facing banks at dollarization, Levinthal (1990) fails to give due regard to factors that may obstruct this ability. This would have provided theoretical guidance to the Zimbabwean scenario, for instance, where something appeared to have gone amiss. The researcher, therefore, sought to establish what could have militated against this capability amongst Zimbabwe's bankers when the operating terrain suddenly shifted.

A related concept that has found traction in terms of knowledge management is *ambidextrousness*, or the continuous iterative process linking product innovation and organizational transformation (Brown and Eisenhardt, 1997). Successful organizations in turbulent environments are expected to continually reinvent their future competitive advantage and not on protecting and defending existing ones. This requires organizations to interact with and within their ecosystems both by increasing the fit between their organizational components (structure, culture and processes) to sustain existing businesses while simultaneously increasing variation to evolve new business lines (Burgelman and Doz, 2001). This postulation, however, fails to take cognizance of factors that may inhibit the propensity to innovate under turbulent environments, a gap this study also seeks to bridge by establishing what could have

stalled establishment of strategic fit in the dollarized environment, particularly in respect of efficiency enhancement.

According to Cepeda and Vera (2007), knowledge management is a key success factor in dynamic capability management in that managers are expected to be aware of the economic structure of an industry and customers' needs in order to determine the knowledge required to ensure success. This is consistent with the knowledge-based SWOT analysis, in which firms can map their knowledge against their strategic opportunities and threats in the industry to better understand their points of advantage and weakness and identify knowledge gaps that need to be closed. This was critical to the study in light of the significant structural changes that had, not only changed from an industry perspective, but from a macrostructure point of view in the Zimbabwean context.

Noteworthy, however, is that Capeda and Vera (2007) ignore internal and external factors that could stand in the way of the expected moves by management, particularly in the context of historical specificities such as those obtaining in the Zimbabwean dollarized environment. Their thought process also mainly focuses on the preferences of customers, without paying due regard how operational efficiency on account of firms, could be improved.

According to Kogut and Zander (1992), organisational learning is a basis of dynamic capability that continuously generates economic value through development of new ideas and renewal of existing capabilities. Kor and Mahoney (2000), on the other hand, submit that without organisational learning capability, the firm can neither fully utilise the productive capacities of its resources, nor promote a continuum of firm-level capability accumulation, deployment and renewal that fuels innovation and growth. These are critical aspects of efficiency enhancement which Zimbabwean banks could have leveraged on as a strategic option. Noteworthy, however, is that Kor and Mahoney (2000) do not take into account idiosyncratic and environmental factors that could stall innovation and growth.

In a study on the impact of organisational capabilities with respect to Pakistan banks, Bashra and Masood (2017) found out that there is a positive relationship between learning capabilities and organisational performance. The postulation, however, appears to ignore moderating factors that could have contributed to the relationship.

Wang *et al*, 2015 highlight two types of learning perspectives that had a significant bearing on this study. These are “*exploratory learning*”, which involves, inter-alia, search, variation, risk taking, flexibility, discovery, and innovation; and “*exploitative learning*”, entailing refinement, choice, production, efficiency, selection, and execution”. Each learning type is considered inherently self-reinforcing, causing a 'success trap' (exploitative) or a 'failure

trap' (exploratory learning). Exploration, it is argued, often leads to failure due to the broad dispersion in the range of possible outcomes, which in turn promotes the search for even newer ideas and more exploration, thereby creating a failure trap. Conversely, exploitation often leads to early success, reinforcing further exploitation along the same trajectory and thereby preventing a firm from adapting to the changing environment. This distinction is vitally important considering the presence of banks in the Zimbabwean scenario that appeared to have been affected by some form of success traps, particularly foreign owned banks.

2.6 Dynamic Capabilities and Environmental Conditions

Central to the dynamic capabilities literature is the role played by different environmental conditions on the development and deployment of dynamic capabilities. In a postulation that was pivotal to this study, Eisenhardt and Martin (2000) posited that dynamic capabilities are more suitable for reconfiguring existing operational capabilities in environments with relatively predictable patterns of change and not in stormy environments with unpredictable change. The authors argue that when markets are moderately dynamic, dynamic capabilities are complicated, detailed, analytic processes that rely extensively on existing knowledge and linear execution to produce predictable outcomes. In contrast, in high-velocity markets, where industry structure is blurring, dynamic capabilities are considered to be simple, experiential, unstable processes that rely on quickly created new knowledge and iterative execution to produce adaptive, but unpredictable outcomes. Under such unexpected events, dynamic capabilities may not be easily deployed as they require prior planning, or they may be too costly to build and maintain in anticipation of unexpected changes.

The postulations by Eisenhardt and Martin (2000) were insightful in light of the abruptness of the transition to dollarization and challenges that were experienced. These would have required quickly created knowledge, though not exactly driven by high velocity markets in the traditional sense. It is, however, noted that while Eisenhardt and Martin (2000) highlighted the circumstances that could stall deployment of dynamic capabilities, they were limited to the planning aspect of strategic management, without taking cognisance of other idiosyncratic deficiencies such as cognitive flaws. The authors also failed to consider the impact of environmental constraints. The study therefore sought to establish whether radical changes in the dollarized environment would have affected the rate of adaptability, in the context of bank efficiency enhancement.

Reinforcing environmental propositions, Winter (2003); Pavlou and El Sawy (2010) posit that *improvisational capabilities* are best suited when the environment becomes highly

turbulent, where past procedures offer little or no guidance and spontaneity in identifying novel configurations. Pavlou and El Sawy (2010) define improvisational capabilities as the ability to spontaneously reconfigure existing resources to build new operational capabilities to address urgent, unpredictable, and novel environmental situations. The study, therefore, sought to determine the extent to which such theoretical underpinnings would have affected efficiency enhancement processes through dynamic capabilities, particularly in the light of macrostructure and microstructure rigidities that have characterised the dollarized environment.

Critical to the dynamic capability construct also is the ability to, not only effectively manage current resource bases, but also develop flexibility to change their resource positions Pettus, Kor & Mahoney (2009), if firms are to timeously respond to dynamic market conditions. This is significant to the Zimbabwean scenario given that it took up to nine (9) years for banks to seriously interrogate their value chains and meaningfully commence the efficiency enhancement agenda.

By underscoring the importance of organisational routines in the reconfiguration of a firm's resources to respond to specific environmental changes, Zollo and Winter (2002) raise vital issues relevant to this study. For instance, the process is noted to involve systematic and company-wide scanning of the external environment across various dimensions including customer preferences, competitive threats. Arising from this is why Zimbabwean banks would not have paid attention to such critical issues and enhanced efficiency in light of the challenges faced.

2.7 Resilience Capability Management

In discussing the concept of resilience capability management, Darnhofer, 2014; Folke *et al*, 2010; Balu, 2001 raise critical aspects of dynamic capabilities relevant to this study. In particular, the authors posit that the world is fundamentally unpredictable, and hence requires a radical departure from equilibrium-based approaches. Rather than seeking short-term optimal solutions, the concept emphasises the need to enable the adaptability and transformability of systems. Folke *et al* (2010) define resilience capability management as the capacity of a system to absorb disturbance and reorganize while undergoing change and still retain essentially the same function, structure and feedbacks, and therefore identity. It was, therefore important to determine why banks in Zimbabwe could have failed such a dynamic capability test in light of the disturbances brought about by dollarization.

According to Darnhofer (2014), resilience requires resourcefulness i.e. the ability to identify problems, establish priorities, mobilise resources in the face of disruption, and to

combine experience and knowledge so as to adjust responses to a changing context or to changing preferences. In what was critical to this study, a distinction is made between *marginal* and *radical* changes. Marginal or incremental changes implemented may cover new technologies, a change in product characteristics, the identification and establishment of new marketing channels, an increase in storage facilities, the new pooling of resources or making production processes more flexible. Radical or adaptive capability, on the other hand, relates to the ability to implement changes to create untried beginnings from which to evolve a new way of living (Walker *et al*, 2004).

The observations by Walker *et al* (2004) are significant. The structural dynamics that accompanied dollarization would have invariably required Zimbabwean banks to adopt the radical and adaptive approach and enhance efficiency based on the nature of viability issues that had arisen at the onset of dollarization. In this regard, the study sought to establish whether bank management were caught up in the trappings of marginal or incremental changes and preferred to merely enhance existing operational capabilities, instead of adopting the adaptive approach which could have seen them considering radical efficiency enhancement strategies.

In a reinforcement of the resilience capability management school of thought, Balu (2001); Dutton, Frost, Worline, Lilius, & Kanov (2002) consider the concept of organisational resilience from two perspectives: an ability to rebound from unexpected, stressful, adverse situations and to pick up where they left off. When organizational resilience is seen as bouncing back, the emphasis is generally on coping strategies and a quick ability to resume expected performance levels. Organizational efforts are designed to re-establish a strong fit between the firm and a new reality while simultaneously avoiding or limiting dysfunctional or regressive behaviours.

The second perspective of organizational resilience goes beyond restoration to include the development of new capabilities and an expanded ability to keep pace with and even create new opportunities. In this regard, organizational resilience is seen as thriving because of the ability to capitalize on unexpected challenges and change. It goes beyond returning to established benchmarks exploiting opportunities and building a successful future. The above-noted two perspectives had important dynamic capabilities undertones that warranted exploration during the investigation in light of the need for Zimbabwean banks to have quickly created new opportunities and kept pace with demands of the new environment. Prevailing literature does not, however, provide answers as to possible constraints to such abilities.

While providing an invaluable perspective to the study, the organisational resilience thrust appears to be exclusively internally focused, oblivious of possible environmental

constraints. It is therefore neoclassical in approach, assuming perfectly normal and fluid markets that do not take into account particularity of contradictions, such as those that were obtaining in the Zimbabwe dollarized environment during the study.

With these two perspectives of resilience capability management in mind, and given it took almost a decade for banks to vigorously pursue efficiency enhancement, notwithstanding reduced earning capabilities at dollarization, uppermost in the researcher's mind was WHY THIS WAS SO?

Notwithstanding the amplification provided by the resilience capability concept to the dynamic capabilities construct, factors that promote the afore-noted abilities are not explained. Most notable also about the resilience capability management concept is that agility, flexibility and adaptability are left at a general level and not related to efficiency enhancement. This is a void which the study aimed to close.

2.8 Other Dynamic Capabilities Theoretical Constructs

Other dynamic capabilities theoretical constructs relevant to this study were propagated by scholars such as Edwards (2001), who emphasize the multidimensional aspect of dynamic capabilities based on four distinct but related dimensions or facets (i.e., the propensities to sense opportunities and threats, to make timely decisions, to make market oriented decisions, and to change the firm's resource base. According to Rosenbloom (2000), firms with *high* propensity to change the resource configuration might show *low* propensity to make the required decisions in a timely manner. In the absence of clarity on what determines the said propensities, the study provides insights into what could have hindered the propensity to make reconfiguration decisions in the Zimbabwe dollarized environment.

Kanoun (2013) summarises key core components of dynamic capabilities which play critical roles in the application of dynamic capabilities, as shown in Table 2 hereunder.

Table 2: Core Components of Dynamic Capability

DC Component	Definition	References
Sensing Capability	Ability to sense the internal and external environments and understand market dynamics and changing customer needs better than competitors. ⁴	Amit and Schoemaker [2]; Galunic and Rodan [24]
Absorptive/learning Capability	Ability to recognize and assimilate the value of new external information, and transform it into embedded knowledge for internal use.	Cohen and Levinthal [14]; Verona and Ravasi [83]; Woiceshyn and Daellenbach [89]
Integrative/reconfiguring Capability	Ability to integrate disparate patterns of interactions through heedful contribution, representation and interrelation.	Okhuysen and Eisenhardt [55]; Grant [30]
Innovative Capability	Ability to develop new products, services, ways to organize business, and markets through innovative behaviours and processes. ⁵	Deeds, et al [15]; Lazonick and Prencipe [41]; Petroni [59]; Hekkert <i>et. al</i> [32]
Alignment Capability	Ability to align internal resources and capabilities with changing external environmental conditions; mostly enabled through strategic flexibility.	[Thornhill and Amit [80]

Source: Kamoun (2013)

In a submission that was relevant to this study, Kamoun (2013) further contends that during times of economic downturns, controlling costs and enhancing quality, among other initiatives, are no longer sufficient to sustain competitive advantage, at least in the long run, as success should instead, reside in the firm's ability to revitalize its entrepreneurial fitness through new organizational forms and business models. Achieving this would require entrepreneurial management skills to sense and capitalize on new business opportunities, and to find better ways to creatively coordinate and reconfigure organizational structures, resources and capabilities to generate economic surpluses over time. The critical test for this study, therefore, was to determine why it could have proved so difficult for Zimbabwean banks in the dollarized environment to utilise dynamic capabilities to enhance efficiency.

⁴This could be useful in promoting product innovation and profit efficiency.

⁵ Falls short of indicating preconditions for innovative behaviour.

In amplifying dynamic capabilities, Koponen and Pohjola (2007) note four (4) critical ideas on which the approach is premised upon:

- i. The ability to alter the resource base in relation to the changing environment (Teece *et al.*, 1997). This is an interesting postulation in light of the macrostructure and microstructure rigidities highlighted in the Background Section and the impact these would have invariably posed in respect of efficiency enhancement;
- ii. The ability to create market change and not only respond to it (Eisenhardt & Martin 2000). The study investigates why most banks appeared to have failed to leverage on immense efficiency enhancement opportunities presented by the dollarized environment which, incidentally mobile network operators capitalised on ahead of the banks; and
- iii. The resource base of the firm is path dependent and dynamic capabilities can alter these paths (Helfat 1997). This postulation, however, ignores other idiosyncratic and environmental factors that could stand in the way of dynamic capabilities. This would be relevant to banks such as Bank Conservative and other foreign banks such as Stanbic Bank, which appeared to have been prey to path dependencies and lacked behind in terms of innovation.

According to Winter (2003), dynamic capabilities are context dependent and hence it is not possible to generalize the performance or even existence of dynamic capabilities without taking into account the institutional, environmental and market context. This is a critical observation, particularly in view of the environmental constraints imposed by the dollarized environment in Zimbabwe and how this might have affected the deployment of dynamic capabilities in efforts to enhance efficiency.

Schoenberg, et al. (2013) contend that the resource-based view and dynamic capability perspectives provide insightful lenses to explore turnaround. It is argued that the concept of dynamic capabilities is of particular relevance for banks because they need to reconfigure the way they create and deliver value for survival and prosperity in highly volatile environments.

Mansfield (2016) highlights three (3) dynamic capabilities that could have had a significant impact on the pace of efficiency enhancement in the Zimbabwe banking sector. These are *flexibility*, *agility*, and *adaptability*, wherein flexibility is defined as the ability to change on relatively short notice and at low cost. McCann (2004) considers agility as the ability to develop and quickly apply nimble and dynamic competitive moves. Adaptability is seen as the ability to re-establish fit with the environment (Chakravarthy, 1982). Such abilities would

have been vitally important in enhancing the efficiency of banks in the light of the migration to dollarization.

2.9 Efficiency Theoretical Constructs

Overview

To the extent that this study's main focus was to investigate the scope for enhancing bank efficiency through dynamic capabilities, it was necessary to provide a synopsis of efficiency theoretical constructs, as well as key efficiency measurement techniques. This was intended to provide a sound conceptual basis for the assessment of the role dynamic capabilities could have played in enhancing efficiency. Important to the study, also, was the need to assess the level of efficiency in the in relation to the deployment of dynamic capabilities at sample banks.

The Commonwealth of Australia (2013) posits that maximum productive efficiency requires that goods and services be produced at the lowest possible cost. A productively efficient outcome uses the least cost input mix required to produce a given output of any good or service. This concept goes beyond technical efficiency, which is the lowest volume of inputs per unit output for each possible combination of inputs, as it takes into account the prices of the inputs. This distinction was critical in determining the efficiency of Zimbabwean banks.

In a seminal paper on efficiency, Farrell (1957) decomposed the overall efficiency of a production unit into its *technical* and *allocative components*. He makes a distinction between *technical (in) efficiency* and *allocative (in) efficiency* wherein the former arises when a productive unit obtains less than the maximum output from a determined group of inputs. The latter relates to a situation where the production unit fails to purchase the best package of inputs given their prices and marginal productivities.

The other aspect of efficiency, considered critical to this study, is profit efficiency, which measures how close a bank is to producing the maximum possible profit given a particular level of input prices and output prices (Berger and Mester, 1997). The question that arises from this, however, is whether a bank that maximises profitability based on higher prices, is considered as efficient.

The efficiency concept from a strategic management perspective mainly stems from the overarching objective of identifying top performers in an industry and their sources of competitive advantage (Chen, Delmas, and Lieberman, 2014). The profound changes in financial sectors, underpinned by deregulation of financial systems and liberalisation of external transactions, as well as advancement in information and communications technologies

(Kamberoglou, Liapis, Simigiannis and Tzamiourani, 2004) marked a turning point in efficiency enhancement, with significant implications on dynamic capabilities.

The dramatic changes in the financial sector operating landscape invariably forced banks to control their costs, minimise risk, as well as maximise welfare and generate higher returns (Naair and Vinod, 2015). In this context, there is a large body of literature analysing the efficiency of banks in US (Berger et.al., 1993; Berger and Humphrey, 1997; Berger, 2007). This has been complemented by other studies in the context of emerging economies (Drake et.al. 2006, Sufian 2007, Pasiouras 2008b). The analysis of bank efficiency, however, has been divorced from dynamic capabilities in the majority of cases.

Berger and Hunter (1993) make an interesting observation wherein banks are noted to have become more efficient, resulting in improved profitability, increased intermediation, better prices and service quality for consumers, as well as and greater safety and soundness of the banking system. These views appear to be contrary to the Zimbabwean situation where profitability has largely been driven by high lending rates and bank charges, particularly post 2014 when the banks have not been fully deploying their resources due to credit risk considerations. Arising from this is whether the assured profitability could have affected the development and utilisation of dynamic capabilities which would have been required to enhance efficiency.

Notwithstanding the substantial body of literature on the efficiency construct, there has surprisingly been no rigorous research efforts to determine the role dynamic capabilities could play in achieving the various observations (Berger and Hunter, 1993; Naair and Vinod, 2015; Berger and Humphrey (2007). This is a knowledge gap this study sought to close.

The sections that follow provide an overview of efficiency measurement methodologies as a prelude to the assessment of whether defective measurement methods could have detracted bank management from developing and utilising dynamic capabilities to enhance efficiency.

2.10 Measurement of Efficiency

a) Accounting Ratios

Traditional measures of efficiency have largely centred on accounting ratios, notably the cost accounting ratio, which is basically an expression of, operating expenses to operating income. Various income and expense items in relation to specified assets have also been used as measures of efficiency. The accounting ratios, however, have been noted to be misleading in that cross-sectional differences in input and output combinations and their prices are not

properly accounted for (Spony, Sullivan and DeYoung, 1995). Moreover, their interpretation requires great caution and extensive knowledge of the local bank conditions (Irsova, 2009).

In the Zimbabwean context, for instance, a lot of emphasis has been placed on this ratio, wherein set targets are achieved through a combination of higher prices and cost containment. The study, therefore, sought to establish whether such an approach could have distracted management attention from pursuing enhanced efficiency in preference for the *lazy approach* of higher lending rates and charges to achieve target cost income ratios and profitability.

Illustrating the flawed nature of accounting-based cost ratios, DeYoung (1995) argues that aggregate ratio of noninterest expenses to assets can distort the analysis. For instance, the upward trend in this ratio for the US commercial banking system from 1985 through 1994, would ordinarily have suggested that the banking industry had become grossly inefficient over time, spending over 20% more on labour, materials, and physical plant than they did before. The cost ratio, however, DeYoung (1995) contends, fails to provide for increases in fee-based activities and associated costs, which significantly alters the relationship between noninterest expenses and assets at banks. This is premised on the observation that fee-based activities (e.g. data processing, letters of credit, and financial advice) only generate noninterest expense, while adding nothing to a bank's asset base. The resultant increase in the non-interest expenses to total assets ratio, in the circumstances, would present a misleading picture of efficiency.

Sherman and Gold (1985) also note various challenges associated with accounting ratios as measures of efficiency. First, financial ratios fail to consider the value of management actions and investment decisions that will affect future as opposed to current performance. Second, financial ratios aggregate many aspects of performance such as operations, marketing and finance, hence failing to decompose the level of efficiency in the respective functional areas.

In addition to the deficiencies noted, the researcher contends that undue focus on the cost to income ratio could incline a bank to reduce the ratio by merely increasing lending rates and other charges, as well as depress deposit rates in search of what is perceived as efficiency. This is precisely what some banks have been doing as confirmed by some bankers during the pilot study.

In light of the efficiency measurement concerns raised with regard to accounting ratios, and in view of the emphasis placed by Zimbabwean banks on the cost to income ratio, the study explored the extent to which such reliance thereon could have impeded the efficiency enhancement agenda. Cognizant of the flaws of financial ratios, notably the accounting ratio, the researcher found it necessary to assess the effectiveness of one of the non-parametric

efficiency measurement techniques with a view to determining whether the alternative use of this could facilitate development and utilisation of dynamic capabilities based on accurate assessment of the level of bank efficiency. In this regard, the sections hereunder explore the Data Envelopment Analysis (DEA) in a bid to provide the necessary context.

b) Parametric and Non-parametric Measures of Efficiency

Parametric and non-parametric methodologies, which have been the hallmark of efficiency measurement beyond accounting ratios are rooted on the seminal paper on efficiency Farrell (1957). Key technical efficiency measures that have been extensively researched in current literature are the Stochastic Frontier Approach (parametric approach) and Data Envelopment Analysis [DEA (nonparametric approach)]

The pros and cons of these two approaches have also been articulated. Based on the arguments submitted (Charnes *et al*, 1978); Fare et al. (1982); Kuosmanen, and Kortelainen (2012), the DEA approach was used for purposes of this study, based on its benefits. These include its axiomatic, nonparametric treatment of the frontier, which does not assume a particular functional form while relying on the general regularity properties such as free disposability, convexity, and assumptions concerning the returns to scale. DEA is also, considered relatively easy to alter the specification of inputs and outputs and thereby the formulation of the production correspondence relating to inputs to outputs (Worthington and Hurley, 2002).

The DEA model also allows multiple inputs–outputs to be considered at the same time without any assumption on data distribution. In each case, efficiency is measured in terms of a proportional change in inputs or outputs (Murillo- Zamorano and Vega-Cervera, (2000). A distinction is made between an input-oriented component of the DEA which minimizes inputs while satisfying at least the given output levels, and an output-oriented model, which maximizes outputs without requiring more of any observed input values.

Weaknesses associated non-parametric approaches, including DEA, include the following assumptions: (a) there is no measurement error in constructing the frontier; (b) no luck that temporarily gives a DMU advantage; and (c) no inaccuracies created by accounting rules that would make measured inputs and outputs deviate from economic inputs and outputs (Berger and Humphrey, 1997). DEA is thus unable to provide for the types of bias resulting from environmental heterogeneity, external shocks, measurement error, and omitted variables, being non-parametric and non-stochastic (Worthington and Hurley, 2002). Consequently, the

entire deviation from the frontier is assessed as being the result of inefficiency. This may lead to either an under or over-statement of the level of inefficiency.

Additional weaknesses of DEA include; (i) few observations and many inputs and/or outputs result in many firms appearing on the DEA frontier, (ii) treating inputs/outputs as homogenous commodities when they are heterogeneous, which may bias the results, (iii) not accounting for differences in the environment may give misleading results, and (iv) failure of standard DEA to control for multi-period optimization or risk managerial decision making Coelli *et al* (2005). The authors, however, do not provide the precise details of how, for instance, homogeneity and heterogeneity may bias the results.

Noteworthy is that technical (in) efficiency propositions Farrell (1957), which have been widely applied in the measurement of bank efficiency face some limitations in the banking context. For instance, a given level of loans and advances (assuming these are the only assets), say \$10 million, can only be produced by the same amount of deposits. When two banks are compared, none can be envisaged to produce the same level of loans from a lower funding base. This is inherent in financial intermediation. The defining factor in terms of technical efficiency would, perhaps be determined on the mix of other inputs, including labour and other operating expenses associated with the production of the loans and other assets. The only determining factor in terms of the quantum of loans versus deposits would be the level of provisions for bad and doubtful debts, given that loans and advances are reported on a net basis (less such provisions). For instance, a bank with higher provisions would invariably report lower net loans. This has implications on the level of efficiency.

These observations provided useful insights in the assessment of the efficiency of Zimbabwean banks in relation to dynamic capability initiatives.

To the extent that both the DEA model is based on input and output combinations of banking institutions, the following sections analyses the various approaches to the selection of inputs and outputs into banking “production processes”. This theoretical underpinning is important in light of the empirical measurements of bank efficiency in Chapter 3 of this thesis as part of the methodology to determine the extent to which dynamic capabilities could have contributed to efficiency enhancement.

DEA Measurement Approaches

Two approaches used to select inputs and outputs for DEA, namely production and intermediation approaches, provide useful insights into the role dynamic capabilities could play in enhancing the efficiency of the loan production value chain. The production approach views

bank as providing services to its clients in the form of transactions with the objective of either minimizing the amount of resources it consumes or maximizing products and services for given levels of resources. The intermediation approach, on the other hand, views banks as channels of wealth transfer. This is premised on the notion that banks take funds from the saving surplus units in the form of deposits and other funds, transform them, and give them out to the savings deficit units in the form of loans and other assets such as investments to generate income (Adusei, 2016). The determination of efficiency, therefore, is done in the context of this value chain.

A key production approach espoused by Berger and Humphrey (1997) with relevance to the Zimbabwean scenario is the *asset approach*. The approach considers banks as financial intermediaries between liability holders and those who receive bank funds. Loans and other assets are considered to be bank outputs, whilst deposits and other liabilities are deemed to be inputs to the intermediation process. The inherent flaw with this approach, however, according to the researcher, is the seeming favour it ascribes to banks that are more into lending than those holding more of cash and near cash assets. It also ignores other production costs such as interest expenses and operating expenses which would provide a more realistic picture of how the production process is being undertaken. Understanding this approach is important in that it provides insights into the role dynamic capabilities could play in the transformation of the inputs into expected outputs.

The other flaw with the asset approach is that it ignores other sources of funds that are also used in the production of loans and other assets, notably equity; unless the presumption is that the use of equity is strictly limited to the funding of fixed assets and other infrastructural requirements. If one were to use the asset approach in its strictest sense, there would be need to isolate the portion of loans and advances financed by equity, unless this source of funding is presumed to be an internal liability. In the Zimbabwean context, operating expenses are a major component of inputs while equity is also used to generate loans.

Another bank input/ output measurement approach that has been identified by various scholars, with relevance to this study, is the operating approach (or income based approach), which views banks as business units with the final objective of generating revenue from the total cost incurred for running the business. Accordingly, banks' output is defined as total revenue (interest and non-interest income), while total expenses (interest and non-interest expenses) are considered as inputs. The operating approach, however, does not take into account one of the major costs of production in banking i.e. provisions for bad and doubtful debts, hence potentially distorting profit efficiency measurement. An understanding of this

scenario gives an indication of the types of dynamic capabilities that are required to augment interest income and non-interest income based on theoretical constructs.

The operating approach resonates with the other component of efficiency which is relevant to this study i.e. *profit efficiency*, given the assertion by various stakeholders that high the levels of profitability in the Zimbabwean banking sector are more of a reflection of profiteering and not profit efficiency. In this connection, the observation by Maudos *et al* (2000) that the objective of profit efficiency or maximisation of profits does not only require that goods and services be produced at a minimum cost, but demands that income generating capabilities be enhanced to the extent possible requires scrutiny in the context of dynamic capabilities.

The presumption by *Maudos et al* here is that apart from cost containment, profit maximisation can be achieved through diversification of income streams. In banking, this would imply an increase in non-funded income not necessarily based on price increases, but on inter-alia, product innovation. The expectation, therefore, would be that Zimbabwean banks would have enhanced profitability through income diversification, riding on the application of dynamic capabilities. Paradoxically, however, profitability in the Zimbabwe banking sector has been increasing, particularly 2016 and 2017, at a time when banks have been scaling down lending against the background of a high credit risk environment, without much product diversification taking place. It is in this connection that the study sought to establish the extent to which the so-called profiteering could have created a sense of false comfort, while stalling the development and utilisation of dynamic capabilities to enhance efficiency.

2.11 Bank Efficiency and the Operating Environment

The observation by Hughes and Mester (2008) that aspects of the operating environment could moderate the impact of dynamic capabilities on efficiency enhancement was significant to this study. This is premised on the fact that most of the factors highlighted in this respect, including government regulations and market conditions resonated with the Zimbabwean scenario, particularly in light of the impact dollarization discontinuities and Government policy would have had on the development and utilisation of dynamic capabilities to enhance efficiency.

Seelanatha (2012) identifies aspects of the operating environment have the potential to moderate the development and utilisation of dynamic capabilities that have a bearing on efficiency enhancement. These include microeconomic and macroeconomic factors. For instance, microeconomic aspects, including the choice of product lines, capital employed,

input utilization, people, business processes and operating systems, invariably have a critical bearing on efficiency enhancement. Missing from Seelanatha's (2012) analysis, however, is an analysis of factors that drives management to put in place specific business models, processes and operating systems.

By highlighting macroeconomic variables that include per capita income, inflation, gross national product, economic growth rates, and size of the population, Seelanath (2012) brings into focus critical aspects that could affect the rate of productivity and scale of business operations, with a bearing on efficiency. It is important to note, however, that the identified macroeconomic factors are made on the presumption of properly developed and smooth operating economies, with minimal or no structural rigidities, such as absence of monetary policy instruments and lender of last resort, as is the case in the Zimbabwe dollarized operating landscape.

Other aspects noted by Seelanath (2012), including regulatory factors such as capital adequacy, type of ownership, and problem loans, were also of critical relevance to bank efficiency enhancement through dynamic capabilities given the role ownership structures and regulatory interventions would have had in the Zimbabwe banking sector.

2.12 Empirical literature

As highlighted earlier in this Chapter, the prevailing literature mainly focuses on the impact of dynamic capabilities on overall firm performance, and rarely on efficiency, let alone bank efficiency. In this regard, the review hereunder focuses on both the possible link between dynamic capabilities on one hand, and overall firm performance and efficiency, on the other.

a) Dynamic Capabilities and Firm Performance

The link between dynamic capabilities and competitive advantage and firm performance has been extensively researched. In a study on fast food restaurants, Chukwumeka and Onuoba (2018) found out that some of the dimensions of dynamic capabilities do not significantly correlate with competitive advantage. In the study, dynamic capabilities were operationalised using 26 items based on three dimensions; sensing, learning and reconfiguration capabilities. To measure the dependent variable-competitive advantage, five items were adopted from Porter (1998), including superiority of products and services to competition. The study was based on structured questionnaires. Unfortunately, the study did not consider the moderating effects of efficiency, for instance, and the role dynamic capabilities would have played in this regard.

In a study to determine the type of relationship between sensing capability and the performance of selected commercial banks in Nigeria, Osisioma, Nzewi, and Mgbemena (2016) determined that there was a positive relationship between “sensing capability” and the performance of First Bank Nigeria Plc, as well as United Bank for Africa Plc in Awka. The study was also based on a structured questionnaire.

In an investigation on the relationship between technology orientation, dynamic capabilities and firm performance, (Rezazadeh, Karami and Karami, 2016) observed that a firm’s technology orientation associates with performance and that a firm’s dynamic capabilities positively mediate the relationship between technology orientation and firm performance. While such studies provide useful insights in terms of the roles played by dynamic capabilities and technology orientation, they fall far short of the details required on the efficiency with which the reconfiguration processes are done.

Slater, Olson and Hult (2006) determined, from a study of 20 US manufacturing and service firms, that strategic orientation influences the development of dynamic capabilities as it creates the path for knowledge-related processes and investment processes. This, the authors argue, is premised on the observation that strategic orientation impacts which learning mechanisms take place, while also moderating the trigger-relationship between environmental turbulence and internal change, and dynamic capabilities utilisation. Slater *et al* (2006) also argue that strategic orientation moderates the reconfiguration activities of dynamic capabilities on the resource base. These are critical observations to this study, particularly in the light of the risk aversion depicted by foreign banks in Zimbabwean and the impact this could have had on learning mechanisms in relation to dynamic capabilities development and utilisation in respect of efficiency enhancement.

The observation that inefficiencies arising from ineffective management of human resources as well as failure to create requisite competencies among core employees (Lengnick-Hall, Beck and Lengnick-Hall, 2010), is of critical importance to this study. This is premised on the view that the complexity associated with the banking value chain, as depicted under efficiency measurement, would invariably require effective and efficiency coordination and integration of competent staff if overall efficiency is to be achieved. The study, therefore, paid due regard to this.

In a study on SMEs Wang *et al* (2015) concluded that success traps had a significant, negative effect on dynamic capabilities ($\beta = -0.52$, $p = 0.005$); while dynamic capabilities had a positive but weak effect on financial performance ($\beta = 0.10$, $p = 0.042$), taking into account firm strategy and market dynamism. The authors argue that successful firms have a tendency to fall

into a “success” or “competence trap”, where success reinforces exploitation of existing competences and crowds out exploration of new competences, hence hindering the development of dynamic capabilities. These observations were instrumental in shaping the course of this study, particularly in light of the successes of foreign owned banks in the pre-dollarized environment, on the back of failure to quickly adapt to the shifted operating environment.

2.13 Environmental Factors and Firm Performance

Hopkins and Hopkins (1997) contend that environmental conditions influence organizational actions, including the extent to which management engage in the strategy making process. This was determined from a study that found out that the degree of involvement in the strategic management process may directly and indirectly be a reflection of the degree of the complexity of change in the competitive environment. This was significant to this study in light of the complexities of the dynamics and abruptness of the dollarized environment, developments that would have created objective conditions to test the conclusion by Hopkins and Hopkins (1997). The researcher took cognizance of this and sought to determine whether the development and utilization of dynamic capabilities in Zimbabwe would have affected the efficiency enhancement agenda.

2.14 Firm Performance and Ownership Structures

A study by Fries and Taci (2004) based on a sample of 289 banks from 15 East European, which determined that bank ownership structures impact on the relative cost efficiency, provided a sound basis for interrogating the extent the differential structures can affect the development and utilisation of dynamic capabilities to enhance efficiency. The observation that private banks are significantly more efficient than state owned banks, while privatised banks that are majority foreign-owned have the lowest cost inefficiencies, followed by newly established banks, both domestic and foreign banks, with majority domestically owned privatised banks ranking last, and that banks with a larger share of the deposit market were more efficient than other banks, was also significant.

The study by Fries and Taci (2004) was also significant in the sense that most foreign owned banks in Zimbabwe in the dollarized operating environment have not been fully deploying their resources on the basis of risk considerations, which would invariably imply lower efficiency. The results also provided an opportunity to conduct a litmus test on whether

indeed relatively larger banks in Zimbabwe have been depicting higher efficiency. Missing from the findings (Fries and Taci. 2004), however, are the reasons why privatised banks that are majority foreign owned banks, for instance, had the lowest cost efficiencies. Had this been done, clarity would have been provided on whether the type of ownership breeds fertile ground for the development of dynamic capabilities that promote efficiency.

As with most studies based on standard questionnaires, however, the study by Frei and Taci (2004) fails to articulate reasons behind the significance of performance based on identified differential factors.

2.15 Dynamic Capabilities and Firm Efficiency

The researcher gleaned various studies which, though not necessarily explicitly investigating the role of dynamic capabilities on firm efficiency, provide useful pointers in this regard. Kablan (2010) provided insights into the relationship between bank ownership and the operating environment, on one hand, and cost efficiency, on the other. The author posits that the expertise and good methods brought by foreign banks into the environment where they operate has a bearing on cost efficiency. Noteworthy, however, is that Kablan (2010) does not amplify the nature of the “expertise” and “good methods”. Such amplification could have provided useful pointers on the nature of dynamic capabilities such banks employ to enhance cost efficiency. Embedded in Kablan’s (2010) conclusion with respect to foreign “expertise” and “methods” is the presumption that foreign banks necessarily positively impact cost efficiency, without taking cognizance of the possible downside risks arising from foreign ownership

The conclusion by Kablan (2010) that focus should not just be confined to micromanagement factors but should take cognizance of environmental variables such as GDP per capita as it affects factors related to demand for and supply of banking services, is of paramount importance to this study. Such an environmental dimension highlights the possible role the dollarized operating environment in Zimbabwe could have had in either limiting or reinforcing dynamic capabilities in respect of efficiency enhancement. With the slow-down in GDP growth rates in the latter years of dollarization in Zimbabwe, the study paid particular attention to the extent this would have affected efficiency enhancement in the banking sector.

In a rare study on the impact of dynamic capabilities on effectiveness and efficiency of operating routines, Wilhelm, Schlömer and Maurer (2015) came up with interesting findings. The study focused on how dynamic capabilities affected purchasing routines of 200 small and medium sized companies under high and low levels of environmental dynamism. Cognizance

was taken of the distinction between operating-routine effectiveness and operating routine efficiency, with the former focusing more on the attainment of goals as a measure of achievement. Operating routine efficiency, on the other hand, refers to the extent to which an operating routine achieves a preconceived goal in relation to underlying costs.

Wilhelm *et al* (2015) conclude that dynamic capabilities, mainly comprising sensing, learning and reconfiguring, enhance the effectiveness of operating routines in both high and low levels of environmental dynamism. Under low levels of environmental dynamism, however, dynamic capabilities are considered to offer minimal value, as they show no impact on the efficiency of operating routines whereas, whilst under high levels of environmental dynamism, they lead to higher efficiency of operating routines. While these results provide very useful insights to this study, the downside is that the study merely focused on one major cost operational routine i.e. purchasing, hence failing to take cognisance of the firm's overall efficiency, which is the focus of this investigation.

In a longitudinal study that is of significance to the investigation of the scope of enhancing bank efficiency through dynamic capabilities, Lawrence (2015) explored the role dynamic capabilities played in turning around the economic fortunes of National Commercial Bank Jamaica. The study particularly focused on how the bank sensed threats, mobilized resources to seize opportunities and transformed for corporate turnaround. During the period of decline (1994-1996) the bank's return on equity had declined from 42% in 1985 to negative 43%. By 1998 the bank's equity ratio had fallen to less than 2%, which was well below the minimum threshold stipulated by the central bank. Management was noted to have failed respond to the early signs of decline before asset erosion became severe.

By 2003 the return on equity had risen to 22%, attributed by Lawrence (2015) to various profit enhancement and cost rationalisation initiatives through dynamic capabilities. These included change of leadership, asset and cost retrenchment, divestment of no-core banking units and refocusing on core financial services. The banking services unit under new management focused on revenue enhancement, increasing savings and cost reduction. Changes were also made to the business model and organisational structure. While the study provides useful insights into the role dynamic capabilities can take in improving cost and profit efficiency, it exclusively relies on accounting ratios for efficiency measurement at the expense of technical efficiency measurement approaches based on parametric and non-parametric techniques - a gap this study sought to address.

In an observation that resonated with the Zimbabwean scenario, Kablan (2010) argued that NPLs in developing countries tend to affect bank efficiency as bad loans tend to increase

bank production costs. The author also posited that banks in countries with a high share of rural population tend to be less cost-efficient because they cannot realize economies of scale. With the NPLs to total loans ratio spiking from 0.6% at the onset of dollarization in 2009 to 20.8% in 2014, coupled with depressed demand in the latter years of dollarization, there was a case to test the veracity of Kablan's contention.

In a study on 94 US banks Weigelt (2009) found out that gaining access to a new technology does not automatically ensure that a firm can successfully deploy the technology in the market. For a firm to reap benefits from a new technology, such as cost savings from internet banking or online reservation systems, for instance, its customers need to adopt the technology. Being one of the capabilities which Zimbabwean banks would ordinarily have applied in the reconfiguration process, the study focused on how the efficiency enhancement drive could have been affected, particularly in light of the telecommunications bottlenecks service providers in the Country have been facing.

2.16 Profit Efficiency versus Technical Efficiency

A key theme in this study is whether Zimbabwean banks in the dollarized environment have been compensating failure to enhance technical efficiency with profiteering. In this regard, a review of the related body of knowledge on technical efficiency and profit efficiency was paramount. The investigation on the scope of enhancing bank efficiency through dynamic capabilities, therefore, had to be done in the context empirical literature on these two concepts.

In a study on U.S. banks over the period 1990-95, Berger and Mester (1997) make interesting observations in a study to the effect that, contrary to initial expectations, profit efficiency is not positively correlated with cost efficiency. Interestingly, the authors conclude that that a bank with higher costs may compensate this apparent inefficiency by achieving higher revenues than its competitors, either by using a different composition of its vector of production or by benefiting from greater market power in pricing derived from its specialisation. In light of the observations by Berger and Mester (1997), and cognizant of the view that Zimbabwean banks have resorted to pricing strategies and non-funded income to address the net interest income and operating expenses disconnect/gap, the study sought to establish whether such strategies could in any way have created laxity in management resulting in lack of motivation to utilise dynamic capabilities with a view to enhancing efficiency.

2.17 Zimbabwean empirical literature

Noteworthy, is that there has been a glaring gap in existing literature on the Zimbabwe dollarized environment in respect of the enhancement of bank efficiency through dynamic capabilities. It has largely centred on causes of bank failures and broad based survival strategies in the dollarized operating environment, notably deposit mobilization and liquidity management strategies, among others. Machona and Kaseke (2013) for instance, focus their analysis to promotional, distributive and client relationship management strategies employed by banks. Another study on the Zimbabwean banking sector, Babi (2014), discusses general survival strategies.

In one of the few studies on efficiency in the dollarized environment, Muvingi (2012) employs the DEA approach anchored on the financial intermediation approach. The study considered total deposits and interest expenses as inputs and total loans and advances, and interest income as outputs. The findings showed that during pre-dollarization private owned banks, both foreign and locally owned, had higher efficiency scores compared to publicly owned banks. The efficiency of seven of the banks improved under the multi-currency regime, whilst six banks recorded a decline of bank efficiency. The findings also showed that foreign owned banks during the Zimbabwean dollar era depicted low efficiency, which was attributed to restrictive credit creation policies. As with most studies, no attempt is made to link bank efficiency and dynamic capabilities. Notable also, is that the study fails to interrogate the veracity of the DEA model.

Although Madondo (2011) provides an extensive analysis of strategic management deficiencies at some of the failed banks in Zimbabwe, no attempt was made to link the deficiencies to the banks' failure to develop and utilise dynamic capabilities to address the fundamental problem in respect of the structural interest income/operating expenses disconnect. -a glaring gap which this study sought to close.

The foregoing empirical literature provided a sound basis on which to anchor this study.

2.18 Critique of Existing Literature

Dynamic Capabilities

Key debates on dynamic capabilities have focused on two critical issues (Easterby-Smith et al, 2008). The first concerns the ambiguity that has characterised the dynamic capabilities construct, particularly in respect of definition and nature, with the second focusing on their effects and consequences.

Zollo and Winter (2002) contend that the definition of dynamic capabilities proffered by Teece *et al* (1997) is tautological as it defines a ‘capability’ as an ‘ability’. Similarly, Priem and Butler (2001) argue that dynamic capabilities are generally only identified where there is a sustained competitive advantage, and therefore it is tautological to claim that they are properties which induce competitive advantage. The dynamic capabilities concept has also been criticized for having been insufficiently underpinned by empirical data given that the Teece *et al* (1997) paper was based on summarizing studies which had been designed to examine phenomena other than dynamic capabilities (Easterby-Smith *et al* (2008). The poor understanding of dynamic capabilities and the lack of a measurable model, therefore, according to (Pavlou and El Sawy 2011), makes it difficult to study how dynamic capabilities can be used in actionable managerial decision making. This study was also exposed to this inescapable shortcoming.

Corroborating the ambiguity argument, Pisano (2016) posits that the definitional ambiguities have resulted in an unproductive debate which has distracted focus from what this strategy approach is meant to achieve. He further contends that rather than chasing after an elusive construct of “dynamic capabilities”, the focus should be more on the problem of how competition in product markets and competition to create capabilities are linked. According to Eisenhardt and Martin (2000), the fact that dynamic capabilities represent best practices and hence, exhibit equifinality, makes them amenable to replication and as such, cannot be a source of competitive advantage or superior firm performance.

Noteworthy is that the argument by Eisenhardt and Martin (2000) that long-term competitive advantage does not rely on dynamic capabilities *per se*, but on the resource configurations created by the dynamic capabilities, is inherently flawed in light of the authors’ very admission that the resource configurations that bring about competitive advantage stem from dynamic capabilities. By further arguing that the difference in effectiveness of dynamic capabilities emanate from using dynamic capabilities sooner, more astutely, and more fortuitously than the competition, Eisenhardt and Martin (2000) tacitly admit that dynamic capabilities can have discernible results.

In the same vein, the contestation by Zott (2003) that dynamic capabilities are not directly linked to firm performance while at the same time admitting that dynamic capabilities may influence performance through modifying a firm’s bundle of resources or routines, is inherently flawed. While authors such as Helfat *et al* (2007) provide definitional clarity by suggesting that dynamic capabilities represent the capacity of an organization to purposefully

create, extend, or modify its resource base, the word “capacity” still represents an ambiguity that leaves room for contestation.

The researcher contends that that both classical⁶ and neoclassical⁷ dynamic capabilities theories are grounded on the implicit presumption that turbulent environments are triggered by hypercompetitive or high-velocity environments, mostly underpinned by inter-alia, technological and product innovation, which become the basis for the deployment of dynamic capabilities. An additional fallacy of neoclassical dynamic capabilities theory is that volatile and dynamic economic environments compel organizations to become more flexible and adapt to the changing business landscape, while imposing stringent pressures to maintain low cost structures in order to meet investors’ demands (Kamoun, 2013).

The classical and neoclassical postulations invariably fail to take cognizance of the particularity of contradictions in peculiar circumstances such as the Zimbabwean dollarized environment, where turbulence could be triggered by inherent structural rigidities that could affect inhibit the effectiveness of dynamic capabilities. In addition, the presumption that dynamic environments impose pressures to contain costs is at variance with pricing strategies Zimbabwean banks seemingly adopted, at the expense of cost containment. Such strategies would appear to distract management attention from initiatives that could facilitate bank efficiency enhancement.

This inherent flaw in classical and neoclassical dynamic capabilities theories is also evident in scholars (Wilhelm et al, 2015) who, when attempting to link dynamic capabilities with efficiency and effectiveness, limit triggers of environmental jolts to changes in customer preferences and product innovation. It is against this background that this study paid due regard to constraints imposed by the specific challenges in the dollarized banking sector landscape in as far as the scope of enhancing bank efficiency through dynamic capabilities.

Another notable deficiency in the dynamic capabilities construct is that it has largely been confined to the link with general performance indicators such as profitability without providing insights into the role played by moderating and intervening variables such as efficiency. While the attempt to link dynamic capabilities with efficiency and effectiveness (Wilhelm, 2015), the focus is confined to a specific functional area and not overall firm efficiency, and more so, does not cover the banking arena. Notably, past studies have not

⁶ early constructs of the dynamic theory from Teece *et al*

⁷ Incorporating amplification of abilities to integrate, build and reconfigure internal and external competencies.

attempted to establish a link between bank efficiency and financial stability. This is a major knowledge gap which the study sought to bridge.

Integral to the investigation of the scope of enhancing bank efficiency through dynamic capabilities is the measurement of efficiency. This was an inescapable requirement in an attempt to assess the role of dynamic capabilities in respect of the efficiency of the sample banks. In this regard, the sections hereunder present a critique of efficiency theoretical constructs.

2.19 Efficiency measurement

A critical analysis of the approaches to measure bank inputs and outputs reveals some gaps. The three approaches identified by Berger and Humphrey (1997) are a case in point. The *asset approach*, for instance, confines inputs to deposits and other liabilities, leaving out shareholders' funds which, for all intense and purposes, represent resources that could potentially be utilised in the production process. There is empirical evidence in Zimbabwe that some banks have in actual fact utilised part of their shareholders' funds to lend and/or invest in the money market. In addition, the restriction of outputs to loans and other assets also creates challenges in the asset approach in that it does not take cognizance of the profit efficiency perspective, through consideration of the income generated by the inputs, let alone the operating expenses.

On the other hand, the *operating or income based approach* (Leightner and Lovell, 1998), which identifies total revenue (interest and non-interest income) as outputs, while inputs are defined as interest and non-interest expenses, fails to contextualise the model as profit efficiency based. Without such a qualification, the exclusion of inputs such as deposits and other liabilities, could be considered as an omission of critical inputs into the production process. The intermediation approach by Das and Kumbhakar (2012), while more comprehensive (incorporating deposits, other liabilities, as well as both operating and interest expenses as inputs, ignores shareholders' funds, as an input.

Barth *et al* (2012)'s intermediation model, incorporating total deposits, total money market funds, and other funding; as well as personnel expenses and labour input, as inputs, and total fixed assets as physical output, ignores the proportion of shareholders' funds that are not funding fixed assets. It is also one of the approaches that combine profit efficiency and technical efficiency variables, hence posing internal validity risk in as far as what exactly is being measured.

The other most notable deficiency in classical and neoclassical bank efficiency measurement approaches is that they fail to take into account the nature of assets in terms of earning capability. For instance, the approaches do not distinguish between asset portfolios based on the ability to generate earnings. For instance, one institution could be heavily invested in lower yielding Government paper such as treasury bills, with another in higher yielding loans. This has a bearing on profit efficiency. Some weighting of these assets in the DEA approach for example, would take care of such a deficiency.

The DEA analysis conducted by Ghosh (2009) under the intermediation approach wherein inputs used were deposits, number of employees, fixed assets and equity, with outputs represented by investments, loans and advances, and other non-interest based fee incomes, is also inherently flawed. This is premised on the observation that the inclusion of fixed assets as input is tantamount to double-counting as this component would have been created from equity. The inclusion of both revenue indicators in the same model tends to dilute the technical efficiency measure as some banks may compensate for technical inefficiency through price adjustments. This is a critical observation in light of the fundamental question in this investigation on whether some banks may have attempted to compensate technical inefficiency through profit maximisation. The study therefore sought to distinguish between technical and profit efficiency measures.

The researcher also notes that the financial intermediation approach to technical efficiency could be inherently flawed in that it appears to be a simple measure of the degree of financial intermediation and not necessarily the efficiency with which the transformation process is being undertaken. This is a fundamental observation which the research sought to validate in the context of the overall thrust of the study.

In light of the above-noted efficiency measurement flaws, any attempt to establish the role dynamic capabilities could be playing is bound to result in a distorted outcome.

Most glaring also is the failure of existing literature to relate bank cost and profit efficiency to financial stability. Efficiency management deficiencies are left at a micromanagement level without comprehensively illuminating the vicious cycle of failure to enhance bank efficiency could have on financial stability.

The aforementioned knowledge gaps and identified deficiencies in dynamic capability theory and concepts and empirical literature, as well as the researcher's experiential knowledge, played an instrumental role in informing the path this study took.

CHAPTER 3

THEORETICAL AND CONCEPTUAL FRAMEWORKS

3.0 Theoretical Framework

Imenda (2014) describes a theoretical framework as a theory that guides the researcher, or a set of concepts designed to offer an explanation of an event, or shed some light on a particular phenomenon or research problem. Imenda (2014) identifies three (3) major defining characteristics of a theory i.e. a set of interrelated propositions, concepts and definitions that present a systematic point of view; it specifies relationships between / among concepts; and it explains and / or makes predictions about the occurrence of events, based on the specified relationships.

Sinclair (2007) argues that at the start of any research study it is important to consider relevant theory underpinning the knowledge base of the phenomenon to be researched. By addressing simple questions, the researcher can begin to develop a loosely-structured theoretical framework to guide them.

The following sections review the dynamic capabilities theoretical framework.

3.1 Description of Dynamic Capability Theory

As highlighted under Literature Review, the concept of dynamic capabilities arose from a key shortcoming of the resource-based view of the firm which has been criticized for ignoring factors surrounding resources, instead assuming that they simply exist (Teece et al, 1997). The authors argue that considerations such as how resources are developed, how they are integrated and released within the firm were under-explored. Dynamic capabilities, therefore, attempt to bridge these gaps by acting as a buffer between firm resources and the changing business environment. This is achieved by adjusting a firm's resource mix and thereby maintain the sustainability of the firm's competitive advantage, which otherwise could be quickly eroded. So, while the RBV emphasizes resource choice, or the selecting of appropriate resources, dynamic capabilities emphasize resource development and renewal (Teece *et al*, 1997).

Reinforcing the difference between dynamic capability construct and the resource based strategy, Teece (1994) contends that firms resorting to the former attempt to accumulate valuable technology assets and employ an aggressive intellectual property stance. The dynamic capability approach, however, ensures that firms demonstrating timely responsiveness and rapid and flexible product innovation, along with the management capability to effectively

coordinate and redeploy internal and external competences, become winners in the global marketplace, argues Teece (1994).

3.2 Reconfiguration and Transformation.

Underpinning the dynamic capabilities construct is the contention that such capabilities represent a subset of competences/capabilities that allow a firm to create new products and processes, and respond to changing market circumstances. Three main capabilities are identified: the ability to *sense threats and opportunities and to seize the opportunities*, as well as the ability to *renew/reconfigure resources*. These abilities are expected to aid organizations to realize the necessity for change, formulate the necessary response to changes in the environment, and apply the right measures to remain competitive (MacInerney, 2012). It is, therefore, about change management, requiring constant surveillance of markets and technologies and the willingness to adopt best practice Camp (1989).

The dynamic capabilities framework has generally been structured at two levels- strategic and operational processes (Güttel & Konlechner, 2009). Operational processes mostly relate to reconfiguring internal or external competencies and shaping operational routines in the company (Wilhelm, 2015). Strategic processes, on the other hand, mostly relate to reconfiguration of operational capabilities through sensing and seizing new opportunities in the dynamic environment (Teece, 2007; Helfat (2007). These observations are fundamental to the investigation of the scope of enhancing bank efficiency through dynamic capabilities as it would appear that somewhere along the way Zimbabwean banks failed such an acid test, manifested by an apparent failure to reconfigure their operations to address viability challenges occasioned by the migration to dollarization. The theoretical framework provides insightful pointers as to some of the operational and strategic blind-spots that could have been encountered in the deployment of dynamic capabilities in a bid to enhance efficiency.

Wang and Ahmed (2007) amplified the reconfiguration and transformation process by distinguishing between *zero order, first order, second order and third order capabilities*. Zero order capabilities refer to firm resources based on the VRIN concept, while “first-order” capabilities relate to the ability to deploy resources to attain a desired goal, leading to improved performance. Second order capabilities are in respect of core capabilities or bundle of a firm’s resources and capabilities that are strategically important to its competitive advantage at a certain point. ‘Third-order’ dynamic capabilities, on the other hand, emphasize a firm’s constant pursuit of the renewal, reconfiguration and re-creation of resources, capabilities and core capabilities to address the environmental change. In light of the structural and drastic shift

in the operational landscape at dollarization, one would have expected bank management to have applied third order capabilities. Based on this theoretical foundation, the test for this study was to determine how the banks could have failed the third-order dynamic capability test in particular.

Dynamic capabilities are, therefore, expected to take on multiple roles in organizations, such as changing resource allocations, organizational processes, knowledge development and transfer, methods for structuring research and development, information technology, marketing knowledge development, and decision making (Easterby-Smith et al, 2002). To give context to the reconfiguration and transformation processes expected to create competitive advantage and enhance firm performance, an analysis of the dynamics surrounding the above-noted key capabilities is highlighted hereunder.

3.3 Capabilities to Sense Opportunities

Underpinning this capability is the expected ability by managers to search proactively for signs of organizational decline through market probing, listening to customers and scanning elements of the business ecosystem (Rodenbach and Brettle, 2012). This, it is contended, is a process of knowledge discovery during which individuals use cognitive capabilities to accumulate, filter and interpret information and signals in whatever form they appear. Cognition, according to Nadkarni and Barr (2008), refers to mental processes of perception, memory, judgment and reasoning. Unfortunately the authors did not identify and analyse the factors that influence or militate against such processes. The study therefore sought to close this gap.

Pisano (2015) identifies three factors on which firm-level differences are expected to have a strong bearing on the data collection process, as follows:

- **Asset Positions:** premised on evolutionary economic and path-dependence logic that a firm's ability to change their future repertoire of capabilities is constrained by its current stock of capabilities. Given that one of the participant banks, Bank Conservative, had generally been considered by the market to be a generally conservative bank, the researcher took cognizance of this in the data collection process in order to test how this could have affected the bank's ability to reconfigure its operations using dynamic capabilities. Particular focus was given to how the asset positions could specifically enhance technical and profit efficiency;

- **Processes:** premised on the observation that while firms can reconfigure their asset positions by investments and other managerial interventions, that capacity is not unlimited. It depends on a set of ‘higher-order’ routines (such as governance structures, resource allocation processes, and management systems) that shape organizational adaptability⁸. The study, therefore, sought to validate the extent to which such high order capabilities, particularly shareholding and governance structures of small locally owned banks and the large foreign owned banks could have affected the pace of efficiency enhancement through the use of dynamic capabilities; and
- **Paths:** based on the notion that most capabilities are cumulative and develop over time through a series of coordinated investments. In this regard, the key strategic problem for firms would be to identify and commit to paths for capability creation that leads to competitive advantage. The study was, therefore, sought to determine the role played by historical capabilities, particularly with respect to foreign owned banks that had operated soundly in the pre-dollarization period.

Though Pisano (2015) was alive to the role potential idiosyncratic constraints could have on the development and utilisation of dynamic capabilities, no consideration was given to the role the external environment could play in the matrix.

In their dynamic capabilities framework, Wang and Ahmed (2004) incorporate *absorptive capability* and *innovative capability* dimensions. Absorptive Capacity, defined as the ability of a firm to recognize the value of new, external information, assimilate it, and apply it to commercial ends, is largely based prior knowledge. On the other hand, innovative capability refers to a firm’s ability to develop new products and/or markets, through aligning strategic innovative orientation with innovative behaviours and processes. Noteworthy is that such capabilities would have, for instance, ordinarily facilitated the introduction of cost effective digital payment platforms as, while augmenting income generation through diversified products in the light of constrained lending. The study, therefore, interrogated bank value chains to determine where the pitfalls could have been.

In addition to *absorptive capability* and *innovative capability* dimensions, the Wang and Ahmed (2007) Research Model incorporates an additional concept i.e. *adaptive capabilities*, which stresses a firm’s ability to adapt itself through timely alignment of resources and capabilities with environmental changes.

⁸ This provides an interesting basis to determine whether internal governance processes of owner managed banks in Zimbabwe, most of which have collapsed, could have had a bearing on their ability to navigate the operating environment.

3.3 Capability to Seize Opportunities

McCann et al (2004) discuss issues pertaining to the seizure of opportunities which constitute critical components of the dynamic capabilities theoretical framework. According to the authors, an important aspect of this capability is a firm's agility, which is in turn driven by key pillars highlighted hereunder.

Figure 2: Agility Building Interventions

<ul style="list-style-type: none"> • <i>Create and sustain an openness to change.</i> <i>How:</i> Provide financial rewards and career incentives for innovation and continuous improvement
<ul style="list-style-type: none"> • <i>Efficiently and quickly acquire, build, share and apply knowledge to critical priorities.</i> <i>How:</i> Create a knowledge management process, but communicate clearly and consistently from the top about the big issues. Form fast-response teams around issues.
<ul style="list-style-type: none"> • <i>Improve “sense-making” skills—better manage uncertainty and ambiguity</i> <i>How:</i> Use scenarios to scan and build hypotheses and models about what is happening. Get people to read broadly and explore new ideas together.
<ul style="list-style-type: none"> • <i>Develop the ability for quickly deploying and then redeploying resources, talent and skills.</i> <i>How:</i> Learn to hedge bets and avoid over-commitment. Cross-train and frequently move people around to broaden skill/knowledge base
<ul style="list-style-type: none"> • <i>Create an action bias throughout the organization.</i> <i>How:</i> Set clear priorities and deadlines and hold people responsible for meeting them. Avoid paralysis in decision making—work on streamlining and clarifying roles/responsibilities in decision-making process.

The framework provided by McCann et al (2004) provides a sound basis for change management on which Zimbabwean banks faced with a significantly shifted operating environment could have leaned on.

Schoenberg et al (2013, as cited by Lawrence, 2015), note in particular, the importance of the *capability to seize opportunity for recovery*. They underscore the role committed leadership team, guided by mental models that are appropriate to the environment the firm finds itself. Underlying assumptions include the role played by past experience, organizational routines and behaviour, data patterns, or expectations from plausible scenarios of the future. Schoenberg et al (2013) further posit that conventional organizational practices and rules impede change to the extent that there is resistance to proposals for new action. These theoretical constructs resonated well with the widely held view that one of the foreign owned bank's innovative capabilities had been hamstrung by corporate path dependency, as well as

extreme conservatism and bureaucratic rigidities on the part of the foreign parent. Noteworthy, however, is that Schoenberg *et al* (2013's arguments are confined to the firm's internal dynamics, at the expense of environmental factors.

In the context of the ability to sense and seize opportunities, Cohen and Levinthal (1990) underscore the importance of the ability to identify and capitalize on emerging market opportunities, when they refer to *absorptive capacity* and apply it to commercial ends, largely based on prior knowledge. It can be argued that objective conditions that characterised the transition to dollarization, whereupon high bank charges partly attributable to emergent structural dynamics as highlighted herein, would have triggered consideration for value chain interrogation. Extant literature, however, fails to provide guidance on potential blind-spots, towards this end.

3.4 Market Dynamism

Central to the dynamic capabilities theoretical underpinnings is the role market dynamism plays in capability development. Market dynamism is considered as an antecedent to firms' dynamic capabilities; the more dynamic a market environment, the stronger the drive for firms to exhibit dynamic capabilities in light of external changes (Wang and Ahmed, 2007). The authors further argue that the higher the dynamic capabilities a firm demonstrates, the more likely it is to build particular capabilities over time; and this is dictated by the firm's overall business strategy. This observation was vital in light of the dynamism that has characterised the dollarized operating landscape.

Eisenhardt and Martin (2000) point out important features depicted by dynamic capabilities in two types of markets: (i) moderately dynamic markets, and (ii) high velocity markets; with the latter markets noted to be key drivers of firm evolution. Puzzling about the Zimbabwean scenario, therefore, is why in the face of environmental dynamism triggered by a shifted operating environment, the quest to exhibit dynamic capabilities, particularly to enhance efficiency was simply absent.

In an observation that guided the course of this study, Ambrosini, Bowman and Collier (2009) posited that top management perceptions of the environment have an impact on how change is managed and resources base is reconfigured. Consistent with this view, Newey and Zahra (2009) argue that it is not just exogenous shocks which cause changes in dynamic capabilities, reconfiguration can also be driven by internal endogenous entrepreneurship.

3.5 Dynamic Capabilities and Firm Performance

Various theoretical postulations on the relationship between dynamic capabilities and firm performance have been proffered. In particular, Wang and Ahmed (2007) consider dynamic capabilities to be conducive to long-term firm performance, although the relationship is deemed to be an indirect one mediated by capability development which, in turn, is mediated by firm strategy. It is argued that dynamic capabilities are more likely to lead to better firm performance when particular capabilities are developed in line with the firm's strategic choice. The question that arose, therefore, was whether strategic choices adopted by Zimbabwean banks at the onset of dollarization, particularly pricing strategies, could have militated against development of dynamic capabilities geared towards efficiency enhancement.

3.6 Dynamic Capabilities and Firm Efficiency

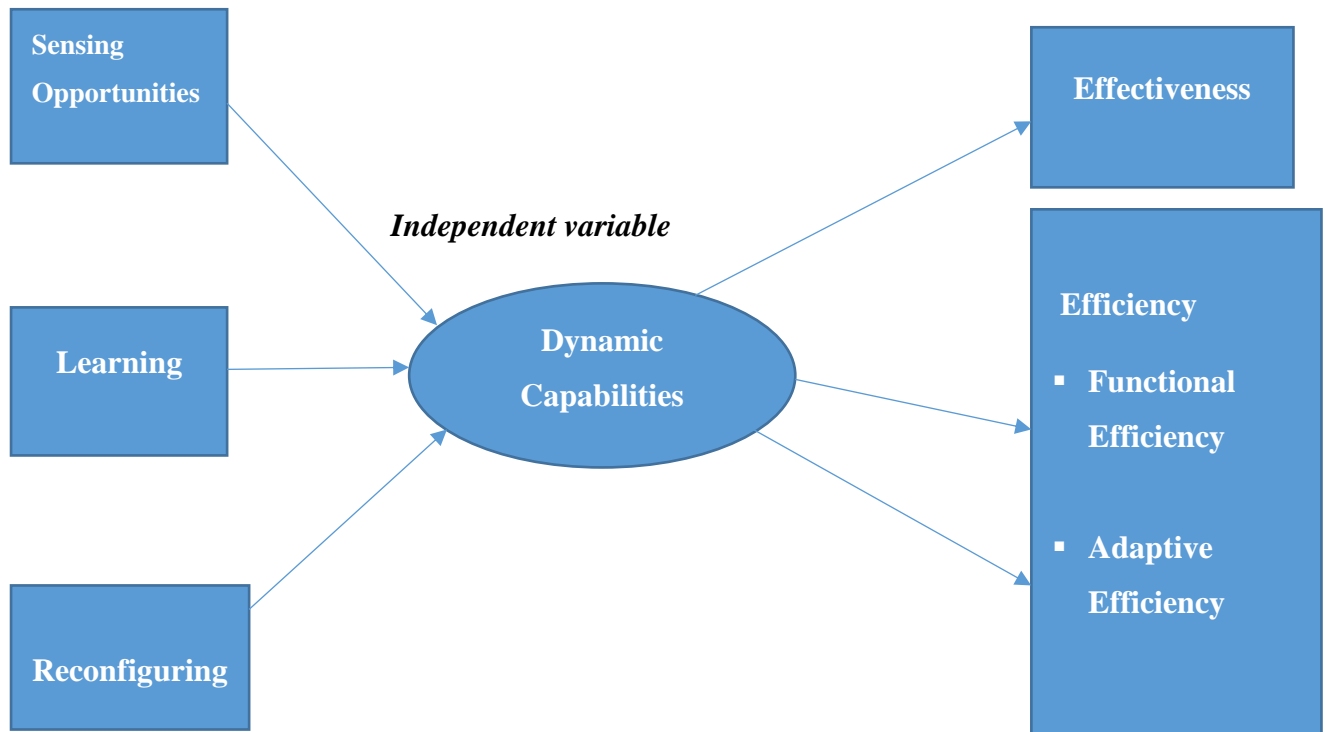
As highlighted under Literature Review, "*classical*" dynamic capabilities theories mainly focus on the link between dynamic capabilities and overall firm performance, with the link between dynamic capabilities and firm efficiency grossly under-researched. Few authors, including Wilhelm *et al* (2015) have focused on firm effectiveness and efficiency. Notwithstanding such a positive development, it is noted that the authors limit the study to the efficiency and effectiveness of one functional area i.e. purchasing, at the expense of overall firm efficiency Wilhelm *et al* (2015) theoretical framework is shown hereunder.

Figure 3: Wilhelm et al (2015) Theoretical Framework: Dynamic Capabilities

/Efficiency and Effectiveness

Independent Variables

Dependent Variables

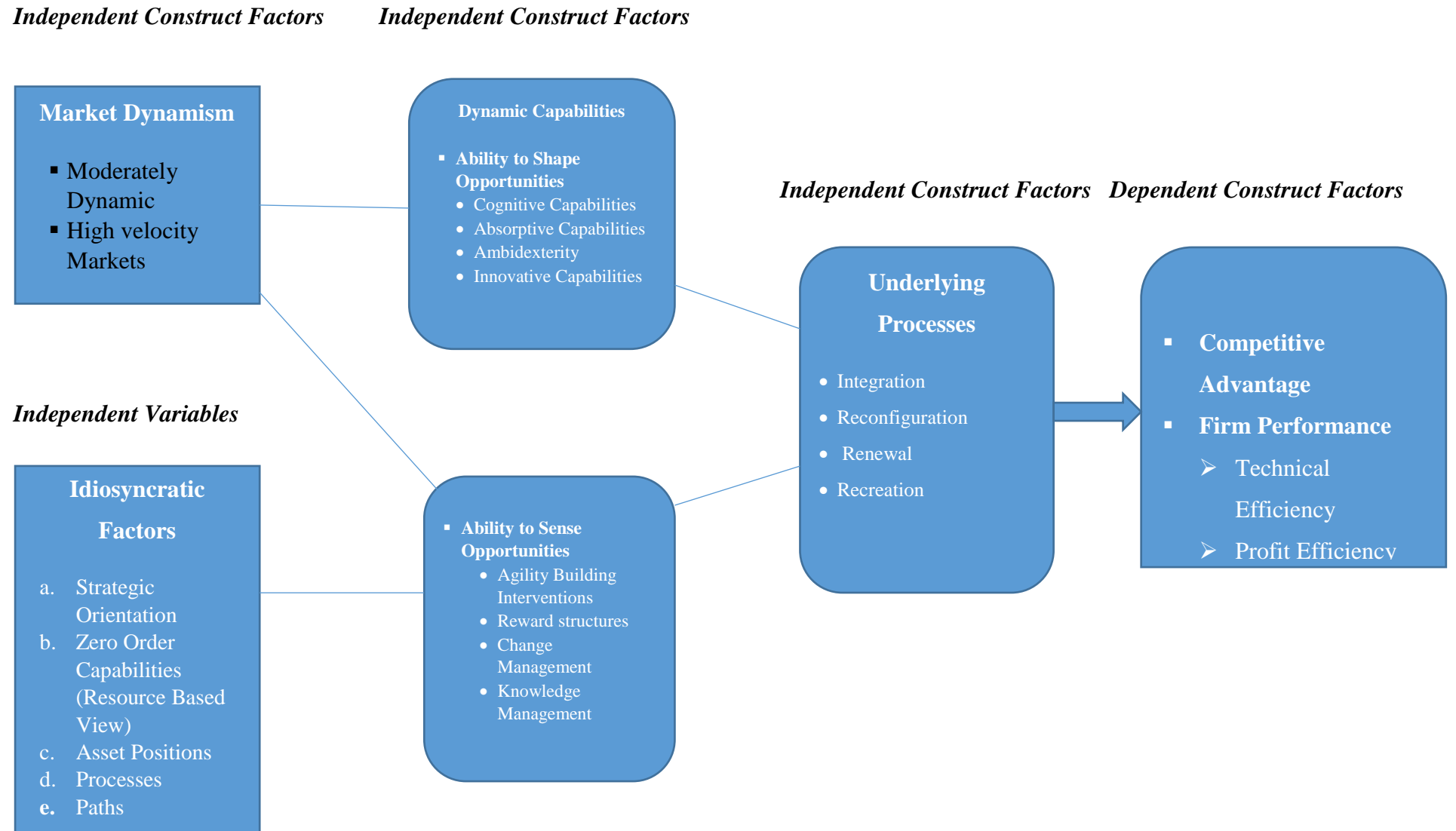


- a) Adaptive efficiency: ratio between goal achievement and operating routines
- b) Functional Efficiency: ratio between goal achievement and functional costs

Source: Wilhelm et al (2015)

Based on the various definitions and theoretical constructs of dynamic capabilities, the Theoretical Framework undergirding this study is shown in figure 4 hereunder.

Figure 4: Dynamic Capabilities Theoretical Framework:



3.7 Conceptual Framework

According to Liehr and Smith (1999), a conceptual framework represents an integrated way of looking at a problem. Miles and Huberman (1994) defined a conceptual framework as a visual or written product, one that explains, either graphically or in narrative form, the main things to be studied—the key factors, concepts, or variables—and the presumed relationships among them.

According to Maxwell (2013), the most important thing to understand about a conceptual framework is that it is primarily a conception or model of what is out there that one plans to study, and of what is going on with these things and why—a tentative *theory* of the phenomena that is being investigated. It is further postulated that the function of the theory is to inform the rest of the study design—to help assess and refine goals, develop realistic and relevant research questions, select appropriate methods, and identify potential validity threats to the study.

Imenda (2014) defines a conceptual framework as an end result of bringing together a number of related concepts, to explain or predict a given event, or give a broader understanding of the phenomenon of interest. It entails the synthesis of existing views in literature concerning a given situation – from both theoretical and empirical findings. It is the simplest way through which a researcher presents his/her asserted remedies to the problems s/he has defined (Liehr and Smith, 1990; Akintoye, 2015).

In light of the foregoing the sections that follow provide a synopsis of this study's conceptual framework.

3.8 Dynamic capabilities approach

A recurring theme on dynamic capabilities approach in many studies with significance to the design of this study has been its seeming vague and elusive nature. Criticisms centre on the approach's seeming resistance to observation and measurement (Wang and Ahmed, 2007), as well as the lack of clarity on how dynamic capabilities differ from resources, processes and capabilities. The nature of the relationships between dynamic capabilities and other organisational variables (Stephano, 2009), has also been questioned. Other authors have even doubted the existence of dynamic capabilities (Winter, 2003). A further complication for this study is the scant literature on the role dynamic capabilities plays with specific reference to bank efficiency enhancement.

Amplifications provided by authors such as Teece (2007), for instance, in relation to the ability to sense, shape and seize opportunities, to a large extent clarified the said ambiguities. Eisenhardt and Martin (2000) also added to the clarity by identifying product development, alliance and acquisitions routines, and strategic decision-making, as some of the dynamic capabilities. In light of this, the study focused on the extent to which such capabilities could enhance technical and profit efficiency.

Illumination of dynamic capabilities such as organisational learning (Pettus, Kor and Mahoney, 2009), managerial capabilities (Mahoney, 1995; Adner and Helfat, 2003), strategic flexibility (Grant, 1996), and dynamic strategic fit (Itami and Roehl, 1987), have also gone a long way in shifting the conversation from issues relating to “vagueness” and elusiveness”. This assisted in focusing the study on the role such capabilities could have played in the reconfiguration and transformation processes of lack of thereof. The increasing attention on the other grey area of the dynamic capability construct pertaining to its link with firm performance, has been addressed (Eisenhardt and Martin, 2000); Zott, 2003) through identification of performance indicators.

The challenge which still faces the dynamic capability construct however, is to establish the exact linkage with resource creation or specific performance indicators (Ambrosini and Bowman, 2009). The authors argue that for dynamic capabilities to be a useful construct, it must at least be feasible to identify discrete processes inside the firm that can be unambiguously causally linked to resource creation. Ambrosini and Bowman (2009) further observe that long time lags between the deliberate decision to deploy dynamic capabilities and the subsequent resource stock outcomes, exacerbate the problem of identification. The investigation, therefore, paid attention to the processes and factors that could be linked to efficiency enhancement.

The problem of causal ambiguity could, however, have been aggravated by what the researcher perceives to be methodological flaws in some of the studies. In particular, studies investigating possible links between dynamic capabilities and firm performance have used questionnaires targeted at firms that would have employed what are perceived to be dynamic capabilities over a period of time. Based on performance outcomes using regression analysis on the responses, a conclusion is made on the role dynamic capabilities could have played in enhancing firm performance. The studies, however, have not taken into account the role of moderating or intermediating variables (Brewer, 2000). In this connection, the study’s methodological thrust had to utilise personal interviews to understand what could have driven or stalled efficiency enhancement through the use of dynamic capabilities.

The researcher's observations are corroborated by Jekel (2009) who argues that the majority of the empirical work in the field of dynamic capabilities either concentrates on certain elements of dynamic capabilities, use the theory as an abstract explanation approach without reference to it in the empirical analysis. Jekel (2009) further contends that the empirical work also uses vague proxies to measure dynamic capabilities or fail to focus on them directly but, instead, concentrate on measurable moderating factors of dynamic capabilities and their effects. Rarely do authors concentrate on the configuration of dynamic capabilities and their resulting impact on firm performance.

The configuration of these elements, Jekel (2009) contends, determines the functionality of dynamic capabilities and thus their impact on firm performance. To address this aspect, Jekel (2009) introduces the *quality aspect* of dynamic capabilities, premised on the observation that this indicates the degree to which the intended effect is fulfilled. Accordingly, dynamic capabilities that ensure a superior resource configuration are considered to be of high quality, while those which lead to an inferior configuration are of low quality. Noteworthy is that the argument by Jekel (2009) focuses on the impact on firm performance under the presumption that reconfiguration indeed takes place. There is no contemplation that the reconfiguration, due to one reason or the other, may in actual fact, fail to take place.

Winter (2003) argues that costs associated with dynamic capabilities make them not necessarily advantageous even in terms of internal choice to use them or develop them. These include associated opportunity costs, namely, the existence of an alternative way to generate change through ad hoc problem solving. The study, therefore, provided an opportunity to decipher whether the seeming lack of haste to utilise dynamic capabilities to enhance efficiency by banks could have been attributable to the cost dimension and the existence of alternative ways of addressing operational viability problems that emerged. The role macrostructure, microstructure rigidities as well as idiosyncratic factors played in moderating the impact of dynamic capabilities on efficiency enhancement was also taken into account.

Kamoun (2013) notes various challenges that usually inhibit effective employment of dynamic capabilities, including bad decisions and missed opportunities normally associated with complex and redundant information environments, which tend to hinder management capability to dynamically anticipate and respond to the changes brought by volatile environments. Kamoun (2013) further identifies information management related challenges confronting business executives and Chief Information Officers in volatile environments that could have affected the reconfiguration process in the Zimbabwe banking sector. These include difficulties in tracking numerous and scattered data repositories, lack of systems governance

across functions, business lines, costly system integration projects, and absence of common applications capable of blending together transactional, analytical, and unstructured information.

The observations by Kamoun (2013) were significant to the study in that focus was placed on the role cognitive and absorptive capabilities as well as ambidexterity could have played in attempts by banks to enhance both profit and technical efficiency. It is also important to note that while these observations are critical from an idiosyncratic point of view, they ignore the role played by the operating landscape in the achievement of intended objectives.

The argument by Teece *et al.* (1997) on the need for more decentralized organizations with greater local autonomy as these are less likely to be blindsided by market and technological developments was also significant to this study. This is premised on the presence of banking groups in Zimbabwe, particularly in respect of foreign banks, which according to Teece *et al.* (1997), pose the risk of information decay as information moves up (and down) a hierarchy. In this regard, the authors call for businesses to devise mechanisms and procedures to keep management informed, or to find methods and procedures to peer through the fog of uncertainty and gain insight.

The fundamental shift in the conversation on dynamic capabilities construct from an exclusive focus on quasi-automatic, routine-based aspects of capability development, at the expense of the roles played by cognition and organizational hierarchy by Scholars such as Gavetti (2005), was also instrumental in shaping the course of this study. The basis for Gavetti's (2005) argument is that dynamic capabilities are usually conceived in terms of "routines", at the expense of behaviour, which is often cognitive and calculative. In this regard, Gavetti and Levinthal (2000) propose that a forward looking logic of consequences and a backward-looking logic of experience should be used jointly to understand the phenomenology of organizational search. This line of thought became a central focus of the study, with a view to establishing whether the seeming delay in efficiency enhancement through the use of dynamic capabilities could have been a result of flaws in the cognitive aspects, and not necessarily routine based.

The argument by Foss and Lindenberg (2013) that the behavioural approach to the micro-foundations of value creation is restricted to cognitive issues such as perception, framing, experiential and vocational learning, and heuristics, while placing little emphasis on the aspect of *motivation*, brings an interesting dimension to the discourse. They therefore propose a goal-framing theory, based on motivation, which distinguishes between three overarching goals; *hedonic* goal (which expresses the desire to improve, or preserve the way

one feels right now, related to one's need fulfilment; *gain goal* (which expresses the desire to improve, or preserve one's resources; and the *normative goal*, (which expresses the desire to act appropriately in the service of a collective entity, such as an organization or a group. These goals, Foss and Lindenberg (2013) argue, are the cornerstone of value creation in firms. In light of the Zimbabwean experience, where some owner-managed banks collapsed due to corporate governance issues related to the highlighted motivational aspects, the study sought to investigate how this could have impacted on profit and technical efficiency enhancement.

Organisational resilience capability theoretical constructs proffered by Lengnick-Hall, Beck and Lengnick-Hall (2010) in respect of the strategic human resource management in creating competencies among core employees also provided a sound footing for this study. The authors consider three elements central to developing an organization's capacity for resilience (specific cognitive abilities, behavioural characteristics, and contextual conditions). Central to their contentions is the role played by, inter-alia, *psychological safety* (the degree to which people perceive their work environment as conducive to taking interpersonal risks: (a) the risk of being seen as ignorant by asking questions or seeking information, (b) the risk of being seen as incompetent resulting from asking for help, admitting mistakes, etc. (c) the risk of being seen as negative when offering critical feedback; and *deep social capital* (which evolves from respectful interactions within an organizational community; in promoting organisational resilience). The study, thus placed focus on these aspects.

3.9 Bank Efficiency Measurement

Given the importance of efficiency measurement as part of the assessment of the scope for enhancing bank efficiency through dynamic capabilities, the sections hereunder review various conceptual issues on the matter.

Mester (1996) suggests that the quality and degree of risk of banks' outputs should be taken into account when modelling banking production, as failure to do so could result in some banks being labelled inefficient simply because they operate in a more risk averse manner. This forms the basis for one of the criticisms of the conventional DEA model, as it attributes all deviations from the frontier to inefficiency, and ignores any stochastic noise in the data (Kuosmanen, and Kortelainen, 2012). This observation was significant to the study in view of the risk aversion that has characterised most foreign owned banks in the dollarized environment. Paradoxically, whilst such banks have shied away from lending, citing high inherent credit risk, they have reported superior profits compared to most local peers. Noteworthy is that most banks had, since 2012, become increasingly cautious in terms of

lending in the light of increased inherent credit risk in the multicurrency system (RBZ, 2015). Interestingly, sector profitability improved markedly in 2017 and 2018 against this background, as explained in Chapter 6.

Backhaus, Bröker, Brüne, Reichle, and Wilken (2011) raise pertinent issues regarding the measurability of efficiency in the banking sector, being service based. These include the issue of *immateriality*, wherein services are intangible and hardly observable, which hampers the quantification of service outputs, compared to manufactured goods, for instance. The diversity of definitions of banking inputs and outputs in literature are also a clear manifestation of this challenge. The data envelopment analysis utilised for the measurement of technical and profit efficiency in this study, for instance, is based on defined inputs and outputs in the liability/asset transformation process, underpinned by the technical challenges discussed under the Literature Review Chapter of this paper. The study, therefore, focused on the measurability of inputs and outputs of banks with a view to determining whether some of the measurement flaws could have affected the pace of efficiency enhancement in any way. This potentially presented a challenge in the assessment of the scope of enhancing bank efficiency through dynamic capabilities.

Pasour (1981) observes that a level of performance which is achievable only under ideal conditions of perfect knowledge is not an appropriate standard against which to measure real-world performance. This is premised on the fact that performance standards derived by assuming profit maximisation should not be used to measure the performance of economic agents whose objective functions involve elements other than profit. For strategic considerations, a firm could for instance, focus more on market share or technological leadership, instead of profit maximisation. Pasour (1981) also raises questions about the accuracy of empirical measures, as observed inefficiency could in actual fact, be partly due to inability to properly measure inputs. The issue of internal validity, therefore, became topical in this study.

Cognizant of the limitations of bank efficiency measurement methodologies, Berger and Mester (1997) suggest that the measurement techniques should take into account the myriad of factors that determine efficiency. These include property rights, legal, regulatory, and contracting environments in which the banks operate. Other environmental issues noted include accounting practices, chartering rules, government regulations, and the market conditions. Berger and Mester (1997) also argue that external and internal mechanisms that discipline bank managers, such as organizational form, ownership and capital structure, governing boards, and managerial compensation, must also be taken into account. External

discipline could also be induced or reduced by government regulation and the safety net, capital market discipline (takeovers, cost of funds, stakeholders ability to sell stock (stock price)), managerial labour market competition, outside stakeholders (equity and debt), and product market competition, Berger and Mester (1997) argue. This study paid due attention to the above-noted various idiosyncratic and environmental factors to determine the extent to which they could inhibit the scope of enhancing bank efficiency through dynamic capabilities.

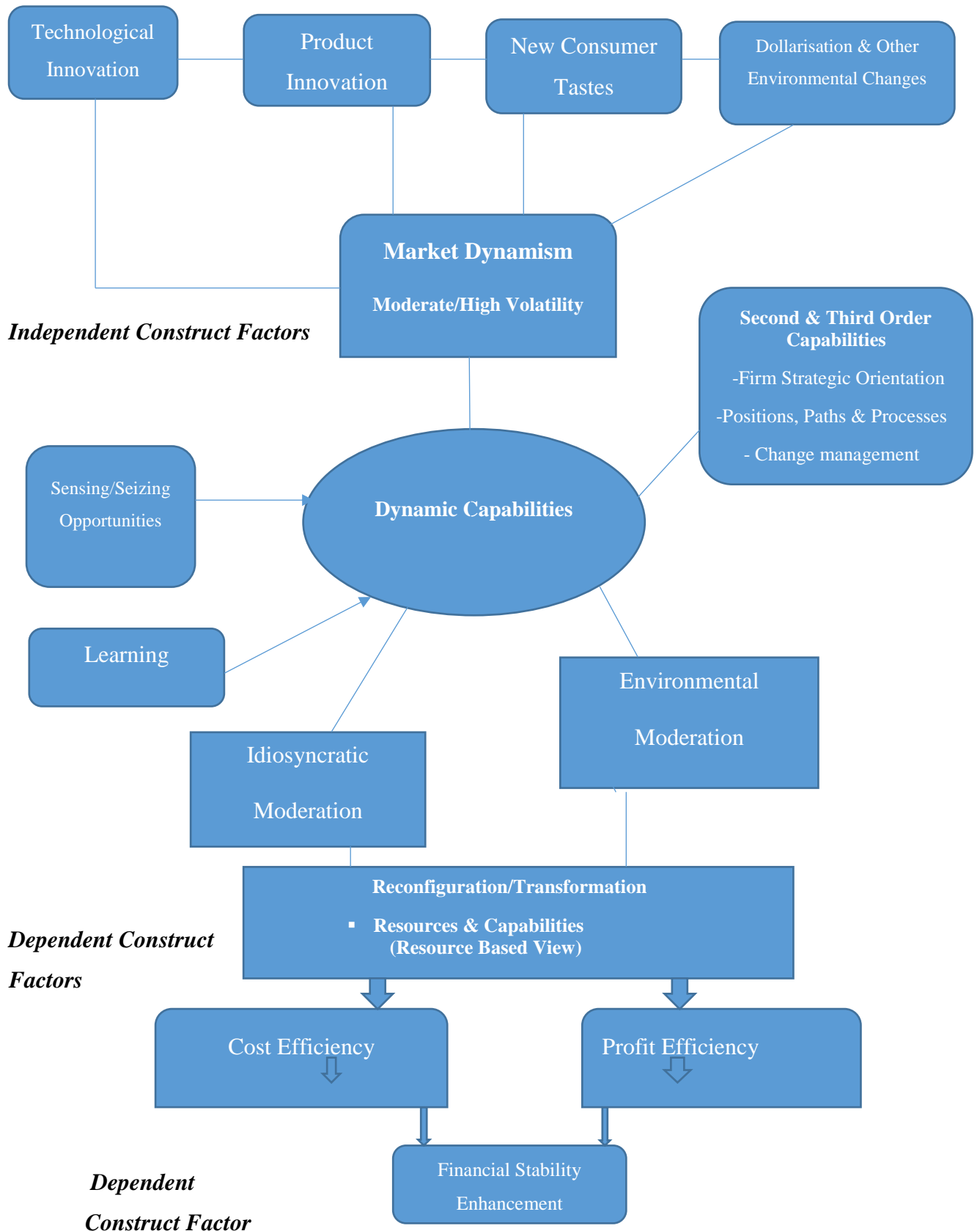
The conceptual framework highlighted hereunder, therefore, is premised on theoretical and empirical literature, critique of existing literature and the theoretical framework. Due regard is paid to the role the various idiosyncratic and environmental trigger or moderate the development and utilisation of dynamic capabilities. The framework goes beyond traditional dynamic capability theory that largely focuses on dynamic capabilities and competitive advantage and firm performance, through a specific focus on the bank efficiency.

The conceptual framework is, therefore, underpinned by the need to establish the nature of dynamic capabilities required to enhance efficiency, challenges faced and opportunities missed, and scope for enhancing efficiency, going forward. Issues relating to the nature, cost and timing of dynamic capability deployment in respect of efficiency enhancement also take centre stage. The Framework also transcends micro-level constructs and focuses on the macro level construct, with a particular focus on the possible link between the seeming delay in enhancing bank efficiency and the vicious cycle of underlying vulnerabilities which have invariably contributed to stunted economic growth, while compromising financial stability.

The Framework depicts interrelationships between key components of independent construct factors i.e. market dynamism, dynamic capabilities; namely, sensing opportunities, seizing the opportunities, learning, reconfiguration of internal and external competencies, on one hand, and dependent construct factor i.e. bank efficiency, comprising profit and technical efficiency. Moderating factors such as idiosyncratic and environmental factors, market dynamism, and firm strategy are also incorporated.

Figure 5: Dynamic Capabilities Efficiency Enhancement Conceptual Framework

Independent Construct Factors



The Chapter provided the theoretical and conceptual basis on which the research was conducted. The next chapter outlines the research methodology.

CHAPTER 4

METHODOLOGY

Kothari (2004) defines research methodology as a way to systematically solve the research problem, incorporating inter-alia, methods/techniques, and assumptions underlying the various techniques.

The research methodology was informed by the objective of the study: to investigate the scope for enhancing bank efficiency through dynamic capabilities. The methodology was underpinned by the theoretical and conceptual frameworks. Based on this, key questions centred on possible idiosyncratic and environmental challenges and opportunities that faced banks at the onset of dollarization in February 2009, with implications on the scope for enhancing bank efficiency through dynamic capabilities. A determination of the challenges and opportunities was envisaged to provide clarity on what could have stalled business model and process re-alignment as a way of enhancing efficiency, and why banks seemingly resorted to high bank charges and lending rates, as well as low deposit rate, in a bid to mitigate the interest operational viability challenges that had arisen.

Other questions that the study sought to address were the nature of dynamic capabilities banks have been employing to enhance efficiency and the scope for doing so going forward; the adequacy of current efficiency measurement methodologies and the extent to which deficiencies, if any, could have distracted the bank efficiency management agenda. Due to the complexities involved, including definitional ambiguities in respect of dynamic capabilities and efficiency constructs, the study had to utilize methods that provided for close scrutiny of the emic perspectives of the participants, including personal interviews. This invariably informed the data collection methods and techniques.

4.1 Research Philosophy and Approach

At the core of this research was the need to unravel why banks seemingly adopted pricing strategies to address operational viability problems brought about by dollarization instead of enhancing efficiency through reconfiguration of internal and external competencies in line with the dynamic capabilities construct. There was, therefore, need to appreciate, inter-alia, cognitive and behavioural aspects that would have affected the ability of management to sense and seize opportunities; including learning and reconfiguration abilities, particularly in light of the structural specificities that characterised the dollarized environment.

Such type of enquiry fell into what the Centre Teaching, Research & Learning (2016) described as the quest to understand a thing's essence and ambience - the what, how, when and where of it – or in short, qualitative enquiry. According to (Berg 2007), qualitative research refers to the meanings, concepts, definitions, characteristics, metaphors, symbols and description of things. Berg (2007) further argues that qualitative research based questions often stress how social experience is created and given meaning. An in-depth understanding of such issues requires interviews that provide an undiluted focus on the individual, and provide an opportunity for detailed investigation of people's personal perspectives (Ritchie and Lewis, 2003) on what exactly happened and why.

The decision to adopt a qualitative approach was also informed by factors identified by Ritchie and Lewis (2003) as critical for undertaking such a research. First was the need to get greater insights into the nature of the problem before the measurement of efficiency⁹. Second, the phenomena under study was deeply set within the participants' personal knowledge or understanding of the issues under investigation. Third, the nature of the phenomena required delicate and responsive questioning and time with the participants. Finally, the issues under investigation were quite complex, requiring explanation of highly technical subjects.

The nature of investigation envisaged in this study was, thus, a form of social enquiry which focuses on the way people interpret and make sense of their experiences and the world in which they live (Ritchie and Lewis, 2003). It locates the observer in the world and consists of a set of interpretive, material practices that makes the world visible (Denzin and Lincoln, 2004).

Qualitative research approaches are also informed by the view that there is no reality out there that can be objectively and dispassionately observed by researchers, but can, at least in part be constructed using observations (Sukamolson 2005). This is in contrast to the quantitative paradigm which is based on the presumption that there is an absolute truth that needs to be discovered through positivist and realist research methods.

Qualitative research is well suited for understanding phenomena within their context, uncovering links among concepts and behaviours, and generating and refining theory (Miles and Huberman (1994). The approach goes beyond quantitative research questions of “who,

⁹ Measurement was not done to determine any causal relationships but to merely establish the level of efficiency at individual banks.

where, how and what”, to questions on “why” and “how”. Ritchie and Lewis (2003) posit that qualitative research is well suited to exploring issues that hold some complexity as well as processes that occur over time. It is an approach in which people being studied understand and interpret their social reality.

In light of the foregoing, the study sought to illuminate understanding and extrapolation of the phenomena under study rather than seek causal determination, prediction, and generalization of findings (Hoepfl, 1997). Due to the complexities of issues involved, and in view of the need for the researcher to fully comprehend what exactly happened from the perspective of participants, in-depth interviews were conducted. This was complemented by documentary analysis as this provided salient features of what was happening, as well as driving forces, particularly in the context of annual financial statements. By including banks outside the sample, documentary analysis also broadened the aspects of the study, hence making the results more representative and generalizable. The researcher was thus actively involved and immersed in the research in order to have a deep understanding of the complex issues involved (Patton, 2003).

The ontological underpinning of the study was *subtle realism* (Hammersely, 1992), which views social phenomena as existing independently of people's representations of them, and only accessible through those representations. Within this construct, the researcher interrogates an external reality that exists independent of his beliefs and knowledge albeit only knowable through the human mind and socially constructed meanings. In this regard, the study paid due regard to the critical importance of respondents' interpretations of the relevant research issues.

The epistemological basis of the study is *interpretivism* (Lincoln & Guba, 2000) which is based on the observation that natural science methods are not appropriate for social investigation because the social world is not governed by regularities that hold law-like properties. Hence, a social researcher has to explore and understand the social world through the participants and their own perspectives; and explanations can only be offered at the level of meaning rather than cause. Facts and values are considered to be not distinct, and that findings are inevitably influenced by the researcher's perspective and values, thus making it impossible to conduct objective, value free research, although the researcher can declare and be transparent about his or her assumptions (Ritchie and Lewis, 2003). In this connection, the researcher sought to be as objective and neutral as possible in the collection, interpretation and presentation of qualitative aspects of the data, particularly given his background as a bank supervisor responsible for prudential supervision of banks under investigation.

To ensure enhanced elaboration, illustration, and clarification of the results (Greene *et al.*, 1989), the qualitative approach was complemented by quantitative techniques, through technical and profit efficiency, as well as accounting methodologies. The use of such quantitative measures, which were confined to measurement of bank efficiency, were thus designed to complement the qualitative approach while amplifying and reinforcing the research findings.

4.2 Research Design

The function of a research design is to ensure that the evidence obtained enables the researcher to answer the initial question as unambiguously as possible (Ritchie and Lewis, 2003). In this regard, obtaining relevant evidence, entails specifying the type of evidence needed to answer the research question, to test a theory, to evaluate a programme or to accurately describe some phenomenon.

A research design, according to Zikmund (2000), is a master plan specifying the methods and procedures for collecting, analysing the interpreting the required information. It is the logical sequence that connects the empirical data to the study's initial research questions and ultimately to its conclusions, underpinned by theoretical and conceptual frameworks. This enables the drawing of inferences and explanations with respect to the phenomena under investigation (Yin, 2013). Kothari (2004) postulates that the function of research design is to provide for the collection of relevant evidence with minimal expenditure of effort, time and money, a process mainly dependent on the research purpose, which can be grouped into four categories, viz., (i) Exploration, (ii) Description, (iii) Diagnosis, and (iv) Experimentation.

To the extent that that the study is aimed at aiding the development of dynamic and bank efficiency theories, strategies or actions, it had a *generative* tilt. The study is also *evaluative* as it was designed to determine the effectiveness of dynamic capabilities in enhancing bank efficiency in the dollarized environment.

The study was also exploratory in nature as one of its major emphasis was on the discovery of ideas and insights (Kothari, 2004), given that to the best knowledge of the researcher, there is yet to be a study which specifically focuses on the scope for enhancing overall bank efficiency through dynamic capabilities. The study has descriptive characteristics as it entails definitions and measurements of dynamic capabilities and bank efficiency.

As highlighted, some aspects of the study required measurement, hence the qualitative approach was complimented by the quantitative approach.

4.2.1 Population

In selecting the study setting, the principle of maximization (Morse and Field, 1996) was applied. This meant choosing a location where the topic of study manifests itself most strongly. In this regard, the population encompassed all the 18 operating banks and six (6) banks closed during the dollarized era (adding up to 24 banks). The sector was dominated by the commercial banking sector, which accounted for 75.07% of total assets as at 31 December 2016, with building societies constituting 23.03%.

The inclusion of banks that had been closed was deliberately done to ensure that the population and sample was representative enough. All banks that had been small locally owned institutions that depicted common characteristics, which included weak internal governance and risk management systems, poor asset quality, undercapitalisation, and liquidity problems. Including such institutions, therefore, would provide an opportunity to determine whether any of the characteristics of the closed banks could have contributed to challenges faced in the deployment of dynamic capabilities to enhance bank efficiency. In the same vein, the inclusion of large foreign owned banks with similarities in terms of internal governance, risk management and business strategies, offered an opportunity to assess the extent to which such factors could have affected the pace of efficiency enhancement through dynamic capabilities.

4.2.2 Sample and Sampling Techniques

Being a qualitative study, in the main, the probability sampling approach, wherein elements in the population are chosen at random, having a known probability of selection, was not employed, as it would not have been representative enough, hence inappropriate for the study (Kothari, 2004). Instead, the selection of participants was criterion based or purposive (Mason, 2002), wherein sample units are chosen on the basis of particular features or characteristics which enable detailed exploration and understanding of the central themes and puzzles underpinning the study.

In light of the aforementioned, sample composition was based on the following:

- a) *Heterogeneous sample* (Holloway and Wheeler, 1996; Robson, 2002) or maximum variation sampling (Patton, 1990); where there is a deliberate strategy to include phenomena which vary widely from each other (in terms of the groups). The aim is to identify central themes which cut across the variety of cases or people. From the researcher's experiential knowledge, banking institutions in Zimbabwe have depicted various characteristics which enable categorisation based on the following:

Ownership of banks

- i. These are banks with sound corporate governance practices and risk management systems, strong financial positions and supportive shareholders. Most of these institutions have adopted a cautious approach to risk management, hence are characterised by low levels of non-performing loans. They are able to mobilize low cost deposits, riding on brand capabilities and low risk perception. Included in this group is Bank Conservative, which is foreign owned, and had been the second largest bank prior to dollarization. As at 31 December 2016, however, the bank's ranking had dropped to 5th in terms of total assets and 6th in relation to total loans, attributed by various analysts to a cautious approach to credit risk management. The focus of the study, therefore, was on the extent to which these factors could have impacted on capability development and utilisation.
- ii. There is also a group are foreign banks that are less risk averse and hence much more profitable than peers. Notable also, has been a perception that foreign owned banks in general are less innovative compared to local banks, manifested for instance, by the late entry into digital products such as mobile banking. There was also a view that such lack of innovative capability on the part of foreign banks was being hamstrung by their foreign parents' lack of familiarity with the operating terrain in Zimbabwe. In this regard, the study sought to determine whether parentage had implications on capability development and utilisation.
- iii. Locally owned banks with relatively sound corporate governance practices and risk management systems. Such banks are characterised by relatively more aggressive business strategies and are more profitable. Non-performing loans are relatively high, hence exerting pressure on liquidity and asset quality.
- iv. Locally owned banks whose reputation was tainted by closures of other locally owned banks during both pre-dollarization and during dollarization. Common features include poor corporate governance practices and risk management systems underpinned by abuse of depositors' funds mainly through non-performing insider loans. Due to general lack of confidence and undercapitalisation, such banks struggled to attain critical mass in terms of revenue to cover operating expenses, before succumbing to serious liquidity and

solvency problems. The inclusion of these banks also provided an opportunity for the investigation to consider the impact of such characteristics on the scope of enhancing bank efficiency through dynamic capabilities.

- b) *Stratified purposive sampling*; (Patton, 1990): a hybrid approach in which the aim is to select groups that display variation on a particular phenomenon but each of which is fairly homogeneous, so that subgroups can be compared (based on the aforementioned observations). This group included foreign owned banks that had similarities in terms of, inter-alia risk management systems and internal governance, while differing in parentage and degree of strategic postures. It also includes locally owned banks that had similarities in terms of the same cost structures pertaining to funding, but differing with regard to ownership and management structures. At one end were owner-managed banks that exhibited governance deficiencies, with others characterised by a separation of ownership and management. Included in the latter was Bank Griffon which, initially was owner-managed but and later brought in institutional investors.

The purposive approach ensures that the sample is as diverse as possible within the boundaries of the defined population (Ritchie and Lewis (2003)). Diversity, according to the authors, is needed for two reasons. First it optimises the chances of identifying the full range of factors or features that are associated with a phenomenon. The premise for this is that the greater the diversity of characteristics or circumstances, the more opportunity there is to identify their different contributory elements or influences. Second it allows some investigation of interdependency between variables, such that those that are most relevant can be disengaged from those of lesser import.

Such a categorisation of banks was also designed to explore the effects of exploitative and exploratory learning in light of the distinct experience base of the banks in terms of control and group structures.

Being purposive in nature, the need to maintain good relationships to ensure effective sampling and for the credibility of the research was, therefore, critically important. Cognizance was taken of the need to successfully identify and negotiate access to sites and individuals (Devers and Frankel, 2000). This was particularly important given the confidentiality that characterises banking, as well as the fact that the in-depth interviews were going to involve bank Chief Executive Officers and Divisional heads whose access is ordinarily difficult.

In light of the foregoing, the sample comprised four (4) banks or 20.8% of the population, which was considered representative, from a population frame of 24. These included one foreign bank, code named Bank Conservative. As highlighted, the bank was one

of the largest banks at Zimbabwe's independence in 1980 in terms of both assets and deposits. With the passage of time, however, particularly as the Country migrated to dollarization, the bank, as with most foreign owned banks, became increasingly conservative and lost ground in terms of market share. The bank also became less profitable on the back of risk aversion.

The intention was to also include a foreign bank which has consistently been a top performer in terms of profitability. This, however, was not possible after the bank's management, who had initially expressed willingness to participate in the study, later on politely turned down the request. Fortunately, the researcher was able to gain some insights into the bank's strategies from former employees who had since joined banks that were part of the sample. The sample also included a relatively large local bank with foreign linkages and was quite active in the mortgage market (Bank Baroda); a medium sized locally owned bank with relatively sound corporate governance practices and risk management systems (Bank Griffon); as well as a failed banking institution (Bank Candid), to represent locally owned banks that persistently struggled in pre-and dollarized environments.

In order to add breadth and depth of empirical analysis, the study also leveraged on information on other banking institutions outside the sample with respect to efficiency measurement, based on documentary analysis.

This sampling approach also took cognizance of the heterogeneous nature of the population in terms of size, ownership, internal resources and capabilities, as well as strategic thrusts, among other factors.

4.2.3 Data Collection Techniques

Qualitative researchers typically rely on four methods for gathering information: (a) participating in the setting, (b) observing directly, (c) interviews, and (d) analysing documents. In light of the complexity surrounding the research, the study was largely based on in-depth interviews, complimented by documentary analysis.

In-depth Interviews

In-depth interviews provided an undiluted focus on the participants, as well as an opportunity for detailed investigation of their personal perspectives (Ritchie and Lewis, 2003). The interviews are particularly well suited to the nature of the research, which requires an understanding of deeply rooted phenomena or responses to complex systems related to dynamic capabilities and operating efficiency.

The individual interviews thus provided an opportunity for the researcher to undertake a detailed investigation of bank management's personal perspectives, for in-depth understanding of the personal context within which the dynamic capabilities are viewed to have impacted on bank efficiency enhancement. To the extent that the researcher is employed by the central bank as a prudential supervisor of banking institutions, audio recording, was not used as doing so could have possibly resulted in participants not opening up to critical views fearing this could be used against them by the Reserve Bank. Field notes were thus taken during the interviews (see **Appendix II**). The researcher leveraged on his speed of typing to capture as much detail as possible during the interviews.

To the extent that the study sought to establish the scope of enhancing bank efficiency through dynamic capabilities, the interviews in the first instance, focused on, inter-alia, the nature of the source and nature of disequilibria that characterised the migration to dollarization. Particular focus was placed on the challenges faced in order to provide the context in which dynamic capability development might have been impaired in respect of efficiency enhancement. Such a determination was envisaged to facilitate a determination of the scope for enhancing efficiency going forward. The interviews also sought to establish the nature of opportunities that management could have capitalised on to develop and utilise dynamic capabilities. Focus was also placed on the role played by existing efficiency measurement methodologies and the extent to which any flaws therein could have affected the pace of efficiency enhancement.

When it became evident that the participants were not conversant with the dynamic capability construct, the researcher had to spend time explaining conceptual issues on both dynamic capabilities and efficiency before seeking their views on the research questions. In this connection and after the first set of interviews, the researcher decided to avail the questionnaire to the participants upfront with a view to enhancing the effectiveness of the deliberations. This proved useful as familiarisation of the questions tended to enrich the responses.

The introductory part of the unstructured in-depth interviews included easy, opening questions, more surface level, background, contextual information and definitional questions. The general and background questions were designed to decipher operational bottlenecks presented by the dollarized environment, from macrostructure, microstructure and micromanagement perspectives; conceptual issues on dynamic capabilities as well as cost and profit efficiency. The idea behind this was to establish whether the seeming lack of concerted efficiency enhancement initiatives in the banking sector stemmed from lack of awareness of

the dynamic capabilities or abortive attempts to employ them due to either institutional or environmental constraints. The core part of the interviews delved into more in-depth questioning and discussion into more specific issues on the subject in a chronological manner.

To ensure the effectiveness of the interviews, content mining questions and in-depth/iterative probing entailing; amplificatory, exploratory, and explanatory probes (Ritchie and Lewis, 2003), were employed. Such probes were meant to ensure that participants further elaborate their views, avail full descriptions and in-depth understanding of the manifestation or experience of the dynamic capabilities and efficiency phenomena. In particular, the researcher leveraged on dynamic capabilities theoretical foundations to determine what could have compromised capabilities such as agility, strategic flexibility and cognitive abilities. Uppermost in the mind of the researcher, also, was the need to determine whether the extent of dynamism or turbulence in the operating environment could have affected the adoption of dynamic capabilities as enunciated in dynamic capability theory.

Data collection was based on semi- structured and open ended questionnaires, which were used for interviews with bank Chief executive Officers and functional heads. Structured questionnaires, initially meant for lower level staff were eventually not used after the researcher determining that the responses would not have provided the required comprehensive responses considered critical to the study. The response rate from the first two banks had also been extremely low.

Being an employee of the central bank responsible for the supervision of banking institutions, there had been a real risk that the respondents would not be as forthcoming. The buy-in at the highest level in each bank, coupled with mastery of interviewing techniques by the researcher, as well as perceived value addition to participant banks' operations, however became the game changer, with some of the participants explicitly expressing their positive sentiments to the researcher. In particular, the researcher was able to establish a rapport and connection with the interviewee mainly through, inter-alia, seeking to put the interviewee at ease while creating a climate of trust; the desire to understanding from the perspective of the interviewee; and establishing credibility through demonstrable understanding of the subject (Ritchie and Lewis, 2003). In all cases, the researcher was able to maintain respondent interest for up to 60 minutes, with all respondents expressing themselves freely.

4.2.4 Documentary Analysis

Documentary analysis was also employed as a data collection technique, entailing the study of existing documents, either to understand their substantive content or to illuminate deeper meanings which may be revealed by their style and coverage (Hammersley and Atkinson, 1995). This involved analysis of bank annual financial statements and strategic documents, which illuminated some of the strategies employed and results thereof.

The idea behind review of published financial statements for participant banks was to try and establish the extent to which dynamic capabilities could have enhanced bank efficiency. This was to be gleaned from the banks' strategic thrusts as depicted in the Chairpersons Repots during the dollarized environment.

Documentary analysis was also important in that it facilitated the measurement of efficiency based on accounting ratios and data envelopment analysis (DEA).

4.3 Methodological Grounding

The methodological stance was underpinned by the 'emic' perspective, i.e. the perspective of the people being studied, by penetrating their frames of meaning, viewing social life in terms of processes rather than in static terms, sustaining empathic neutrality whereby the researcher uses personal insight while taking a non-judgemental stance (Ritchie and Lewis, 2003). The premise for taking the emic approach to the investigation of the scope of enhancing bank efficiency through dynamic capabilities in a dollarized environment represented a complex process that required in-depth insights into lived experiences of respondents occupying high positions in their organisations, as well as their perspectives as to what exactly could have happened and why this was so. In this regard, standard questionnaires would not have provide the anticipated illumination.

The research was also grounded on various methodological assumptions, including Brantlinger's (1997), as referenced by Brantlinger *et al* (2005), with respect to the seven categories of assumptions for qualitative inquiry. These include the researcher's views of the *nature of the research*, which was essentially technical and neutral, intending to conform to traditional research within his discipline. The direction of the researcher's gaze was outward-toward externalizing the research problem, the primary purpose of which was intended for inter-alia the participants, the scholarly community, and policy makers. Notwithstanding the researcher's professional position, being a bank supervisor responsible for the supervision of

banks being studied, his political positioning was neutral, without a politically explicit agenda. Such neutrality was critical, particularly during the in-depth interviews.

To the extent that the dependent factor construct was bank efficiency, notably profit and technical efficiency, the research entailed the measurement of these variables. It also entailed an assessment of the efficacy of existing measurement methodology, notably the cost to income ratio, as well as the non-parametric technique i.e. data envelopment analysis. Empirical results from the sample and the banking sector at large were, therefore, expected to facilitate an assessment of the extent to which deployment of dynamic capabilities could have impacted upon efficiency enhancement.

4.4 Efficiency Measurement

To facilitate assessment of the extent to which dynamic capabilities could have contributed to efficiency enhancement, the researcher measured both technical and profit efficiencies of the majority of operating banks in the dollarized operating environment, while maintaining the anonymity of participating banks. The distinction between technical efficiency and profit efficiency was critical given the need to also make a determination as to whether pricing strategies employed by banks did mask technical efficiency and contributed to high lending rates and bank charges, as well as low deposit rates. In the measurement techniques employed, technical efficiency, was based on the concept of the production of maximum output with given inputs, or equivalently, using minimum inputs to produce a given output (Yang, 2005). Profit efficiency, on the other hand, measures how close a bank is to producing the maximum possible profit given a particular level of input prices and output prices (Berger and Mester, 1997).

The study employed DEA to measure technical efficiency and profit efficiency for participant banks and other select banks. An analysis of the results in relation to efficiency enhancement initiatives was undertaken to determine the extent to which there could have been a link. This, essentially, entailed an analysis of bank strategic thrusts as informed by pronouncements made in bank published financial statements. The choice of DEA was informed by advantages presented by the technique over stochastic frontier analysis, as highlighted under Literature Review.

The efficiency measurement was done at two levels i.e. technical efficiency and profit efficiency.

4.4.1 Technical Efficiency

When DEA is applied to multiple outputs and inputs, efficiency is defined as the ratio of weighted sum of outputs to weighted sum of inputs (Adusei, 2016). The weights for the ratio are calculated by the constraint that each decision making unit's ratio must be less than or equal to one, thus condensing multiple inputs and outputs into a single "virtual" input and single "virtual" output without providing pre-assigned weights. The efficiency score is then calculated by dividing weighted outputs by the weighted inputs.

From a technical efficiency perspective, the intermediation approach was adopted, based on various scenarios. **Scenario 1** considered *shareholders' funds, deposits, and operating expenses* as *inputs*. The inclusion of shareholders' funds and total deposits as inputs was premised on the observation that these are the main sources of funding for banks in the Zimbabwe dollarized environment, notwithstanding the increasing reliance on external lines of credit. On the other hand, the inclusion of operating expenses as an input was based on the consideration that this is the main cost expense item, hence the need to incorporate the technical efficiency dimension in the value chain. Outputs under this scenario take into account major asset components in the Zimbabwean banking sector i.e. loans and advances, other earning assets, mainly represented by treasury bills and placements with other banking institutions. Non-earning assets such as balances with the central bank and cash were excluded, as these are not productively employed, yielding zero returns.

Excluded under Scenario 1 are *interest expenses and provisions for bad and doubtful debts*. The exclusion is based on the view that these amounts are relatively small compared to other inputs, particularly in respect of foreign owned banks. In addition, the low level of provisions for bad and doubtful debts could be an indication of the risk averse nature of some banks, notably foreign owned ones. Including them thus potentially distorts the efficiency scores, depending on how the weightings are configured. The exclusion of interest expenses is also designed to deal with distortions that could arise from issues to do with brand capability which affect the cost of funds, and not necessarily the efficiency with which funds are managed.

Scenario 2 takes cognisance of the observation that notwithstanding the challenges associated with the inclusion of *interest expenses and provisions for bad and doubtful debts*, these items still constitute a substantial portion of the costs of some banks and, thus, have an implication on bank efficiency. In this regard, the **second scenario** takes into account these two expense items, in addition to operating expenses.

Scenario 3 attempts to show the level of technical efficiency taking into account pure financial intermediation by disregarding shareholders' funds as part of inputs, bearing in mind

that the funds represent internal liabilities. The scenario also excludes *interest expenses* and *provisions for bad and doubtful debts*, for reasons already highlighted. It also takes cognizance of the main operating expense item i.e. operating expenses.

Scenario 4 is a variant of **Scenario 3** which, in addition to *deposits* and *operating expenses*, includes *interest expenses* and *provisions for bad and doubtful debts* as inputs. The scenario assesses efficiency based on “pure” financial intermediation inputs as well as key operating expenses, notwithstanding identified challenges in some of the operating expenses.

In light of the fundamental questions raised in the study on whether it was possible that some banks could have deliberately increased prices to compensate for operational inefficiencies, it became imperative that an analysis of profit efficiency be also undertaken. In this connection, methodologies highlighted hereunder were undertaken.

4.4.2 Profit Efficiency

With regard to profit efficiency, *interest expenses*, *operating expenses* and *provisions for bad and doubtful debts* were considered as inputs, being the major cost items for banks in Zimbabwe. Incorporated under operating expenses are *labour costs*, *depreciation*, *rentals* and all *other operating costs*. Outputs were considered as *interest income* and *non-interest income*, being the major profit and loss accounts representing income. The decision to separate profit efficiency and technical efficiency was informed by the need to avoid distorting technical efficiency through the moderating effect of price manipulation on the efficiency scores.

The calculation of profit efficiency scores was also based on the recognition that the objective of maximising profits does not only require that goods and services be produced at the minimum cost, but also demands the maximum volume of revenues (Maudos et al, 2000). It must be noted, however, the profit efficiency dimension does not entirely eliminate the contribution brought about by the effects of increased bank charges and lending rates, and not necessarily increased volumes.

4.4.3 Financial Stability Implications

Based on the conceptual framework, a major focus of this study was also to attempt to establish the extent to which failure to enhance efficiency bank efficiency through dynamic capabilities could have negatively impacted on financial stability. In this regard, the interviews were designed in such a way as to unravel how dynamic capability challenges could have translated to financial instability.

4.5 Data Analysis

The researcher used NVIVO as the main statistical computer software package to analyse the data. The choice of NVIVO was based on its ability to organise, manage, interpret and analyse non-qualitative numerical data. It enabled the researcher to identify main concepts and their context (Bradley *et al*, 2007). NVIVO, therefore, essentially facilitated thematic analysis of the interviews, guided by the conceptual framework.

The researcher also undertook a manual analysis of the data through a schematic approach that allows for open discovery of emergent concepts with a focus on generating taxonomy, themes and theory (Bradley, Curry and Devers (2007) as presented hereunder.

Table 3: Selected Types of Results from Qualitative Data Analysis

Results	Definition	Application/Purpose
Taxonomy	Formal system for classifying multifaceted, complex phenomena according to a set of common conceptual domains and dimensions	Increase clarity in defining and comparing complex phenomena
Themes	Recurrent unifying concepts or statements about the subject of inquiry	Characterize experiences of individual participants by general insights from the whole of the data.
Theory	A set of general propositions that help explain, predict, and interpret events or phenomena of interest.	Identify possible levers for affecting specific outcomes; guide further examination of explicit hypotheses derived from theory

Source: Qualitative Data Analysis for Health Services Research: Developing Taxonomy, Themes, and Theory (Bradley, Curry and Devers, 2007)

4.5.1 Identification of Themes...

Identification of themes formed a core of the analysis of the research findings, through identification emergent themes without losing the connections between concepts and their context (Bradley *et al*, 2007). At the familiarisation stage, focus was placed on not only gaining

an overview of the richness, depth and diversity of the data, but also beginning the process of abstraction and conceptualisation (Ritchie and Spencer, 2002). Recurrent themes and issues which emerged as important to respondents was the basis for setting up a thematic framework.

When identifying and constructing the framework or index, the researcher was guided by the original study aims, emergent issues raised by respondents and analytical themes arising from the recurrence of patterning of particular views or experiences.

4.5.2 Indexing

The next stage of the analysis was the construction of an index which facilitated identification of links between categories, grouping them thematically before sorting them according to different levels of generality to ensure there is a clear hierarchy of main and subthemes (Ritchie and Spencer, 2002). Indexing was meant to facilitate easier retrieval of data at later stages of the analysis. This was followed by labelling or tagging the data, sorting by theme or concept, as well as summarising or synthesizing the data. By so doing, the amount of material was reduced to a more manageable level, and facilitate the process of distilling the essence of the evidence for later representation (Ritchie and Lewis, 2003).

In the initial stages of analysis, focus was placed on noting across all cases in the study and noting within the main themes, the range of perceptions, views, experiences or responses bank management would have taken in respect of the two main variables, i.e. dynamic capabilities and bank efficiency.

Indexing was followed by coding or constant comparison analysis (Leech and Onwuegbusie, 2009), which provides for a formal system to organize the data. The codes, which are tags or labels, were assigned to whole documents or segments of documents to help catalogue key concepts while preserving the context in which these concepts occur (Miles and Huberman, 1994).

In developing the coding structure, the inductive approach, as opposed to the deductive approach, was used. This entails a line by line review of the data and coding assigned as necessary, as a concept becomes apparent. The data analysis and interpretation framework thus entailed documentation, description, summarization, conceptualization, coding, categorizing summarising and interpretation of data, and authenticating conclusions and reflexivity (Bradley *et al*, 2007).

The organisation and categorisation of data was based on non-cross-sectional data organisation, which involves looking at particular parts of the data separately each of which

may require a different conceptualisation of categories. This approach is considered to offer better opportunities than cross-sectional analysis to gain a sense of the distinctiveness of particular sections of the material; to understand complex narratives or processes; to organise the data around themes which do not appear in all parts of the data; and to identify overall structures within each case or interview (Ritchie and Lewis, 2003).

The above-noted processes was also guided by Stirling (2001)'s Thematic Networks tool, which systematizes the extraction of: (i) lowest-order premises evident in the text (Basic Themes); (ii) categories of basic themes grouped together to summarize more abstract principles (Organizing Themes); and (iii) super-ordinate themes encapsulating the principal metaphors in the text as a whole (Global Themes). These are as web-like maps depicting the salient themes at each of the three levels, and illustrating the relationships between them.

Important themes and concepts were logged into NVIVO software package as they emerged during interviews or from document analysis. These related to management's views on its conceptualisation of dynamic capabilities and cost and profit efficiency, challenges and opportunities presented by the abrupt changeover to the dollarized environment.

In the process of sorting and synthesizing the data thematic charting was undertaken, entailing summarisation of the key points of each data.

4.5.3 Charting

Having applied the thematic framework to individual transcripts, the picture of the data as a whole was built by considering the range of attitudes and experience for each issue or theme (Ritchie and Spencer, 2002). Data was taken from the original context and re-arranged according to the appropriate thematic reference. The process called "Charting", entailed devising charts with headings and sub-headings which were drawn from the thematic framework, a priori research questions or according to considerations on how best to present or write up the study.

The lay out of the charts was based on a thematic approach. In this connection, charts were drawn up for each key area, and entries made for several respondents on each chart. The ordering and grouping for the individual cases was linked to characteristics or dimensions that were determined to have significant patterns of experience or behaviour. After analysing thematic charts, a central chart was constructed, displaying the data and classifications developed during the descriptive stage of analysis. This facilitated detection of patterns of

association or clustering, as well as to provide pointers on to proposition testing. Such analysis provided a basis for developing explanations.

4.5.4 Mapping and Interpretation

After data was sifted and charted according to core themes, the pulling together of key characteristics, mapping and interpretation of the data phase ensued. Particular emphasis was placed on among other factors; definition of concepts; mapping range, and nature of variables under investigation i.e. dynamic capabilities and bank efficiency variables under study; and providing explanations.

NVIVO software was employed to facilitate coding, search and retrieval processes (Mason, 2002). Important themes and concepts within the data were logged into the software package to be used as they emerge during interviews or from documents. These related to management's views on challenges faced and opportunities missed and what this meant in terms of dynamic capability development and utilisation with a view to enhance efficiency in the dollarized environment.

Top of the analytical study agenda was the categorisation of banks based on variable analysis, to include size, local or foreign bank, privately or publicly owned bank in respect of efficiency. An attempt was made to link bank efficiency with dynamic capabilities employed.

4.5.5 Ethical Considerations

To the extent that the interview process presupposes access to participants, due regard was given to the negotiation of research relationships (Maxwell, 1996). Cognizance was thus given to issues such as of reciprocity, how the researchers' own characteristics impact on the relationship with participants, as well as ethical issues. In this regard, and in view of sensitivities involved, the researcher had to approach would-be participant banks at the highest level. Preliminary meetings were arranged with Chief Executive Officers (CEO) of the participant banks for buy-in. The background and objectives of the study were clearly articulated and assurance given with regard to anonymity and confidentiality. The importance of the results of the research to participant banks was clearly explained, which generated substantial interest at CEO level during the initial meetings.

Meetings with all key Divisional Heads were arranged through offices of Chief Executive Officers' where there was 100% turnout of targeted respondents.

4.5.6 Validity and Reliability

Cook and Campbell (1979 p. 37) defined validity as the “best available approximation to the truth or falsity of proposition”; while reliability refers to the extent to which results are consistent over time and an accurate representation of the total population under study (Joppe, 2000). Winter (2000), however, suggests that the traditional criteria for validity find their roots in a positivist tradition, which is a culmination of empirical conceptions, universal laws, evidence, objectivity, truth, actuality, deduction, reason.

The 'constructivist' school of thought, however, noted limitations of validity and reliability concepts when applied to qualitative research on the premise that there is no single reality to be captured in the first place, hence replication is an artificial goal to pursue (Marshall and Rossman, 1999). Concerns on the concept of replication in qualitative research is also premised on the complexity of phenomena studied and the inevitable impact of context (Lincoln and Guba, 1985).

In light of the foregoing, cognizance was taken of the need to ensure robustness of the research through internal checks on the quality of the data and its interpretation, as well as assuring the reader/enquirer of the research by providing as much information as possible about the research process (Ritchie and Lewis 2003).

4.5.6.1 Pilot Study

The term 'pilot study' refers to a mini version of a full-scale study (also called 'feasibility' study), as well as the specific pre-testing of a particular research instrument such as a questionnaire or interview schedule (Van Teijlingen, 2001). In this regard, a pilot study was conducted through the use of in-depth interviews with Chief Executive Officers of three of the four banks that formed the selected sample. The interviews were part of a process to test the validity and reliability of the data and its interpretation. The process also provided useful insight into how questionnaires and detailed interviews would be conducted. Necessary adjustments were made to the questionnaires.

The study's research questions were based on specific objectives which were laid out as indicated hereunder.

- a) What challenges, if any, did banks in Zimbabwe face at the onset of dollarization in February 2009 which gave rise to the net interest income/operational expenses disconnect?
- b) What could have motivated bank management to mainly rely on pricing strategies and

non-funded income to address the gap between disproportionately high operating expenses and net interest income, instead of pursuing the efficiency enhancement route; and why the banks failed to leverage on any opportunities that might have existed?

- c) How effective have efficiency measurement methodologies been and in the event of deficiencies, what constraints have been faced in improvement thereof?
- d) What type of dynamic capabilities are required to enhance bank efficiency and what is the scope of enhancing bank efficiency?
- e) In what way can the dynamic capabilities construct be enriched in light of the conceptual and definitional ambiguities that have characterised it?

The identity of the banks has been concealed for confidentiality reasons.

The Questionnaire used contained questions that were aligned to the study objectives (**See Appendix 1**). Each interview took approximately 60 minutes. The interview approach was flexible, taking cognisance of interviewee technical limitations and strengths and focusing on areas that provided maximum mileage to the process.

CHAPTER 5

DATA ANALYSIS & FINDINGS

The Chapter describes the outcome of the data analysis, particularly the results of the proposition testing. It provides a connection between the findings of the study and the problem in terms of providing a solution / answers.

Graphical tools such as tables, graphs, charts are used to present the results of the data analysis.

5.0 Analytical Framework

Data analysis was conducted in the context of the definition by Hatch (2002: 148), as follows:

“Data analysis is a way to process qualitative data so that what has been learned can be communicated to others. Analysis means organizing and interrogating data in ways that allow researchers to see patterns, identify themes, discover relationships, develop explanations, make interpretations, mount critiques, or generate theories.

5.1 Data Analysis

The analysis of findings was done with the aid of NVIVO statistical package, complemented by the (Bradley, Curry and Devers (2007) schematic approach, as highlighted under Methodology in Chapter 4. The presentation is done in line with the research objectives and questions in mind.

5.2 Challenges that faced banks at the onset of dollarization

5.2.1. Overview

A critical research question in this study was in respect of the challenges that faced banks at the onset of dollarization which led to the net interest income/operating expenses disconnect. Answers to this fundamental question were envisaged to provide a contextual

dimension of the circumstances that could have possibly impaired dynamic capability development and utilisation in respect of bank efficiency enhancement.

Respondents from across the participating banks provided useful insights into the nature of challenges faced and how this could have shaped strategic responses. On the back of an assurance that the responses would be held in the strictest of confidence, the bankers opened up and provided what appeared to be very candid comments.

While ratio analysis and graphs showing participant responses were used in analysing the responses, cognizance was taken of the distortion this could present in light of the fact that questions put to them were open-ended, hence responses were purely based on each respondent's views.

5.2.2 Liquidity Challenges and Working Capital¹⁰ Constraints

A topical theme that emerged from all four (4) participant banks pointed to the existence of underlying liquidity challenges at the onset of dollarization. This was mainly attributed to the “decimation” of bank balance sheets that took place on the back of re-denomination of currency. Eighty-nine (89%) of respondents from Bank Conservative, for instance, highlighted liquidity problems as a major challenge. On average, 61.45 % of total respondents (26) cited liquidity as a challenge.

All four banks underscored the fact that the value of most banks' financial assets, including loans and advances and money market investments, had been severely eroded by hyperinflation. Against this background, and in view of the difficulty associated with fresh capital injections, most banks were recapitalised through revaluation reserves arising from properties held, notably land and buildings, subject to appropriate “haircuts”¹¹ by the Reserve Bank, as the prudential supervisory authority.

According to Bank Griffon Finance Director, liquidity challenges were more acute at locally owned banks in view of the flight of deposits to foreign owned banks which were perceived to be relatively safer by the investing public. The Head, Treasury & International Banking at Bank Baroda opined that the relatively low deposit base, coupled with inability of predominantly individual shareholders to provide additional equity at local banks forced the banks to offer high deposit rates as a way of attracting deposits, in the process increasing the cost of funds. He further argued that the externalisation of foreign currency arising from

¹⁰ Available working capital after netting off property and equipment from shareholders' funds.

¹¹ Discounting the value of an asset using a defined factor.

liberalisation of the foreign exchange regime at the onset of dollarization had also impacted negatively on banking sector liquidity.

The recapitalisation challenges line of thought was corroborated by the former Chief Executive Officer of Bank Candid (which failed in 2012 in the wake of serious solvency and liquidity challenges), which he attributed to failure by the major shareholder to inject fresh capital at the bank's inception. Recapitalisation, mainly done through conversion of debt to equity at inception, the CEO argued, deprived the bank of much needed working capital. The subsequent injection of properties as equity by a new shareholder, therefore, had not materially addressed the internal working capital challenges. According to the former Finance Manager of Bank Candid, the capital erosion shock was, however, mitigated by the gradual approach adopted by the Reserve Bank for banks to meet minimum regulatory capital requirements.

To the Managing Director, Bank Griffon, liquidity challenges were aggravated by the high cost of sourcing external lines of credit. The Head Marketing, Bank Conservative, on the other hand, argued that savings deposits remained low reflecting in the main, compromised confidence in the banking sector in the aftermath loss of deposits by the general public after the Government failed to compensate depositors for Zimbabwe dollars locked up in banks when official dollarization was introduced.

The Head, Information Communications Technology, Bank Conservative, also cited the absence of meaningful deposits during the early stages of dollarization as a major challenge facing banks. He attributed this to low levels of account opening. Complicating matters was the fact that the low levels of deposits that were flowing into the banking system were being sourced at steep rates of as high as 60% per annum in light of the scarcity of funds. The intermittent flow of deposits into the banking system, according to the Head, Marketing, Bank Conservative, was reflective of the inability by potential depositors to distinguish what were essentially macro-based challenges, from bank specific challenges. Because of the scarcity of the United States Dollar, depositors became price givers while banks that were short of liquidity scrambled for the highly priced money. Small, locally owned banks were the most affected, particularly in the light of flight of deposits to foreign owned banks perceived to be safe and sound. To most banks therefore, the migration to dollarization was more of a fresh start to business, argued the respondents.

Aggravating the problem, according to the respondents, including the Managing Director, Bank Griffon, was the fact that most customers were preferring to bank with institutions that were already endowed with liquidity. Bank Baroda in particular, noted the emergence of a three (3) tier banking system, which presented an added dimension to the

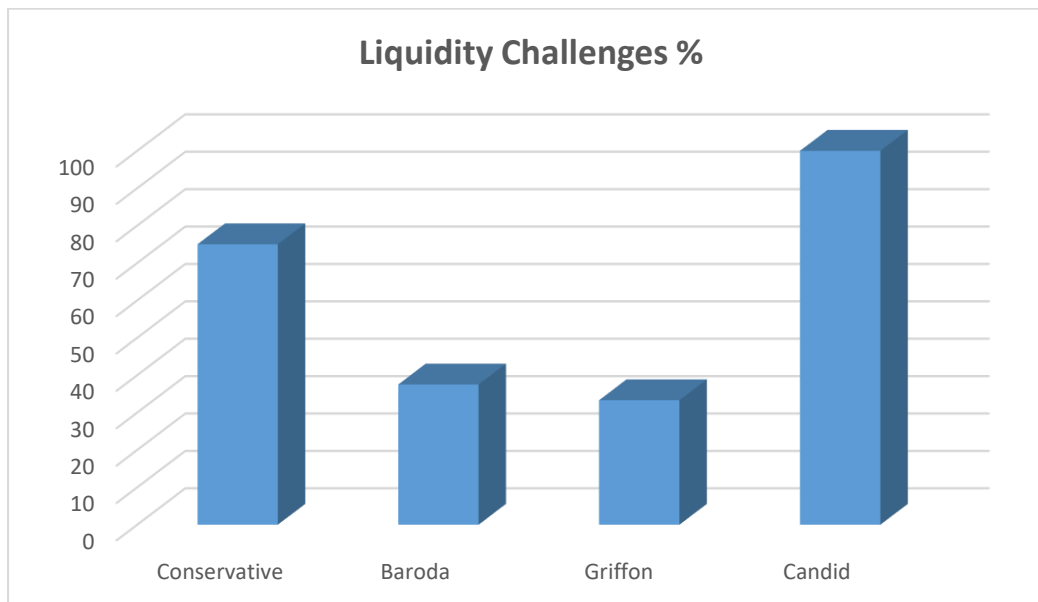
liquidity challenges. The first Tier consisted of international banks such as Bank Conservative, which could attract deposits at relatively low deposit rates due to their perceived stability. Tier 2 banks were made up of middle sized banks such as Bank Griffon, which could attract deposits at slightly higher rates than tier 1 banks. At the lower end of the spectrum were small locally owned banks such as Bank Candid, which found it extremely difficult to raise funds from the general public and international banks in particular. A situation arose, therefore, where some banks were perennially in liquidity funding deficits, while others were in surplus conditions.

As a consequence of the liquidity challenges, the ability of banks to fund client requirements was severely compromised, according to Bank Baroda Head of Treasury & International Payments. Lending was still restricted to say 10 years. Investors that were prepared to avail funds were, however, demanding high interest rates, particularly with respect to wholesale funding. Foreign investors were also charging premiums on account of high Country risk. Credit lines were as high as 11- 12%, as a desperate market sought to take everything that came along.

The absence of historical trends on liquidity thresholds and balances was noted to have complicated liquidity management at the onset of dollarization.

According to the Head, Treasury & International Payments, Bank Baroda and the Finance Director, Bank Griffon, the unsustainably high cost of funding at locally owned banks, left them in invidious positions which forced them to lend at high interest rates, in the process creating fertile ground for the emergence of non-performing loans. Figure 6 shows the proportion of respondents at the respective banks who identified liquidity challenges as a major shock at the onset of dollarization.

There was a general consensus also within Bank Conservative that low levels of liquidity constrained lending and contributed to upward pressure on interest rates and bank charges.

Figure 6: Liquidity Challenges

5.2.3 Resistance to Change

The participants also cited resistance to change as a major challenge that impeded the pace of efficiency enhancement during the migration to dollarization. The Head of Legal, Bank Conservative, attributed the bank's slow response to the foreign parent which depicted extreme risk aversion, aloofness and lack of experiential knowledge in respect of the local operating terrain. This was in contrast to Stanbic Bank, for instance, whose regional parent had been more knowledgeable about the domestic economy. As a consequence, Bank Conservative took too long to embrace new technology, for instance.

According to the Managing Director, Bank Griffon, change initiatives at the bank were seriously thwarted by old executives, who had also been shareholders in the bank. The resistance only subsided following a strategic retreat where the executives were eventually convinced of the need to re-align the business model from an elitist approach to a mass market based one. On the other hand, the Bank Griffon Head of Treasury argued that depositors inclined to a cultural quest for cash were thwarting efforts towards introduction of digital payment platforms, thus militating against innovation and efficiency enhancement.

An added dimension brought up by the Head, Corporate Banking, Bank Baroda, was that foreign owned banks had been instructed not to lend, notwithstanding that credit risk was not inherently high, particularly taking into account the self-liquidating lending nature of tobacco export financing, for instance. He also attributed the resistance to change to the bargaining power banking institutions had compared to clients, which had assured the banks of

continued profitability. This tended to delayed technical efficiency enhancement.

The resistance to change and its impact on utilisation of dynamic capabilities was also attributed to the lack of a paradigm shift from a hyperinflation mind-set, where both bankers and borrowers had become accustomed to large loans and high interest rates. This view was expressed by four (4) officials or 63% from Bank Conservative i.e. Head Legal, Head, Treasury & Markets, Financial Controller and Head, Business Banking. Three (3) (or 43%) of participants from Bank Baroda i.e. Head Retail & Markets, Head, IT and Head Corporate Banking, also expressed the same view. For instance, it was noted that personal loans of up to as high as Z\$80,000 during hyperinflation had not been uncommon, which could easily be repaid. Lost in the euphoria that gripped the nation, however, was that the ability to repay loans and advances in the hyperinflation era had been made possible by speculative activities and high business volumes. The hyperinflationary mind-set was noted to have compromised the motivation to reconfigure and realign internal and external competencies (dynamic capabilities) and streamline operations elucidated in Chapter 5 of this thesis.

The majority of banks that were lending during the early stages of dollarization were noted to have been predominantly small and medium tier banks that were accessing funds at relatively high cost due to risk premiums imposed by the market following a wave of closures of such banks in the period preceding dollarization. The lending rates had been as high as 60% per annum. Added to the high cost of funds was the scarcity of foreign exchange. The high lending rates, it was noted, became a mine-field of non-performing loans (NPLs) that were to crystallise with the progression of time.

The resistance to change, according to Bank Conservative Managing Director, Head Treasury & Markets and Head, Legal, had also been a manifestation of internal and parental rigidities which, for instance, delayed reconfiguration of the bank's IT system. Being group based, any changes to the IT system had to undergo regional and international approvals.

5.2.4 Net Interest Income/ Operating Expenses Disconnect

According to the participants, recapitalisation and working capital constraints that faced banks severely curtailed their ability to underwrite business, hence depressing interest income. In particular, 87.5% of the 8 Divisional Heads at Bank Conservative were of the view that high legacy bloated operating costs on the back of reduced net interest income resulted in a net interest income/operating expenses disconnect.

Corroborating the views of Bank Conservative management, 62.5% of divisional heads at Bank Baroda opined that lack of critical mass to generate sufficient income to cover disproportionately high operating expenses became the genesis of the disconnect that emerged at the onset of dollarization. They further argued that the problem was aggravated by the high bargaining power of suppliers of funds – a development that increased the cost of funding. The Bank Griffon Finance Director and Managing Director concurred with the bloated operating cost argument, while the Head, Retail & Mortgages opined that reliance on wholesale funds (usually expensively priced) increased the cost of funding.

Also depressing earning capability the participants argued, was the discontinuance of open market operations which are a hallmark of functional economies that facilitate the trading of money market investments, notably treasury bills, as central banks regulate money supply. As a consequence, banks lost the opportunity to generate interest income associated with such trades.

The problem was aggravated by the fact reduced earning capacity came against the background of an operating cost base that had remained high on the back of bloated organisational structures and staffing levels that had been occasioned by the need to meet the demands of inordinately high transaction levels associated with hyperinflationary conditions. Exacerbating the problem, according to the former Finance Director, Bank Candid, were restrictive labour laws which constrained retrenchment options. In any event, argued the former Finance Director, some of the banks would not have met costs associated with retrenchments even if the labour law had been permissive.

The other reason for the high operational cost base, according to the Managing Director of Bank Conservative, was that banks were being forced to use generators against the background of serious power shortages, particularly at a time when business volumes were still very low. The problem was aggravated by additional costs of importing USD balances, which included transit, storage and insurance expenses, the cumulative cost factor of which could have been as high as 3.2%, he argued.

According to Bank Griffon management, the operational viability challenge at the bank had been mitigated by relatively lower operating expenses in light of low trading volumes on the back of a lower customer base. The number of customer accounts had, in actual fact, diminished in the dollarized environment compared to the Zimbabwe dollar era when clients had multiple accounts to facilitate multiple withdrawals to fund speculative activities. As the viability challenges became protracted, however, the bank was eventually forced to retrench.

Reduced interest income, against the backdrop of a high cost base, was considered to have been the genesis of the net interest income operational expenses disconnect which engulfed the sector at the onset of dollarization. This also invariably led to increased resort to non-funded /non-interest income by virtually all banking institutions. According to the Head, Treasury and Finance Director, Bank Griffon, the problem was exacerbated by caps imposed by the Reserve Bank on lending rates on productive sector loans, hence squeezing net interest margins.

5.2.5 Efficiency Enhancement Bottlenecks

A number of issues were noted to have hampered bank efficiency enhancement efforts during the early stages of dollarization. Notable, was the belief that the economy would turnaround in the not-too distant future, according to the Finance Director, Bank Griffon. In this regard, banks had not seen the need to reconfigure their operations. Other factors included the depressed nature of the real estate market due to liquidity constraints- a development that thwarted efforts to dispose non-earning assets such as land and buildings. In this regard, the banks concerned could not optimally sweat capital and unlock value. The high cost of retrenchments was also cited as an inhibitive factor to efficiency enhancement.

The failure by Government to normalise relationships with the US government was considered to have been a missed opportunity, argued the former Finance Director, Bank Candid. This, he argued, inhibited funding capabilities that were necessary to support infrastructure required to enhance bank efficiency.

5.2.6 Weak Strategic Management /Change Management Challenges

There was general consensus across the four participating banks that most banks were caught unprepared by the new operating environment in terms of strategic responses. For instance, the Managing Director, Bank Baroda, opined that there was lack of reflection on what the new environment meant on the part of both bank management and bank clients. This, he argued, was mostly attributed to general lack of experiential knowledge in respect of dollarized environments. The new operating environment had come with different risk characteristics which required new ways of thinking, including reconfiguration of business models, processes and systems, as well as introduction of new products, which bank management appeared to have lacked at the time. In this regard, according to the Managing Director, banks lost the opportunity to enhance efficiency.

The Finance Director, Bank Griffon, indicated that the primary motivation of locally owned banks had been to capitalise on “lost opportunities” through increased lending, regardless of the consequences of unchartered risks associated with the new operating landscape. For them, it was a chance “to become something”, grow bank balance sheets and accumulate personal wealth, oblivious of implications thereof. Lending under such circumstances, more-so the funding green projects, with no experiential knowledge to lean on, according to the Head, Corporate Banking, Bank Griffon, was akin to creating non-performing loans from day one.

The Head of Risk, Bank Griffon, attributed the failure to reflect on what the new environment meant to lack of appropriate expertise. He further argued that even if a voice of reason had arisen during the early stages of dollarization, no one would have listened due to unbridled quest for wealth accumulation, particularly with respect to locally owned banks.

The unbridled growth for small locally owned also came at a time when the institutions were reeling from undercapitalisation and underlying liquidity challenges, hence exerting pressure for competitive desperation. According to the Finance Director, Bank Griffon, locally owned banks were forced to lend at rates around 60% per annum in light of the high cost of funds, paving the way for high risk taking behaviour. Aggravating the problem were weak risk management systems, hence creating a bedrock for non-performing loans (NPLs). The problem, according to the Head, Corporate Banking, Bank Conservative, was that local banks, for lack of choice, were forced to lend to riskier clients as most of the bankable clients had already been taken by foreign banks.

The majority of participants at Bank Conservative, as well as the Managing Director and Finance Director, Bank Griffon were, however, of the view that foreign owned banks had been more circumspect in their approach to the new operating landscape. This was partly attributed to the guidance provided by the banks’ foreign parents. The Head of Treasury, Bank Griffon, however, attributed the reflection by foreign banks to the ability to hold on to existing business models on the back of adequate working capital, hence stalling the motivation to reconfigure business models and processes.

The lack of strategic flexibility and agility on the part of most foreign banks was largely attributed to bureaucratic rigidities imposed by their foreign parents. All eight (8) respondents at Bank Conservative attributed the lack of strategic flexibility and agility at the bank to an ultra-risk averse culture anchored on rigid adherence to protocol and internal governance arrangements imposed by the foreign parent. The bank’s Head, Treasury and Markets, accused the parent of failure to engage dollarization experts that would have been readily available from

across the globe, opting instead, to place reliance on academics who dictated certain corporate paths and strategies that were inconsistent with the demands of the new operating environment. The foreign banks were noted to have also opted to lodge substantial amounts of their funds with the central bank at zero return as part of a conservative risk management strategy.

The respondents were also unanimous in that foreign controlled banks were discouraging deposits by offering low rates as they did not have suitable investment avenues, hence adversely affecting financial intermediation and ultimately, efficiency. Some of the foreign banks were, in actual fact, directed to stop lending, argued the respondents. Such risk aversion was deemed to have adversely affected profitability. For instance, the Managing Director of Bank Conservative attributed the bank's subdued earnings performance to the parent's directive not to participate in treasury-bill transactions notwithstanding immense income generating opportunities presented by such a financial instrument.

One of the more critical Conservative Bank respondents accused the parent of parochially imposing the retail banking model on the local subsidiary. The parent was also noted to have prided itself in having seen it all- a centre of excellence with high specialties. He also submitted that the bank's ability to hold and reflect on market developments contributed to the slow response in terms of agility and strategic flexibility.

In a demonstration that parentage mattered in terms of strategic flexibility and agility, a subsidiary of a regional bank was noted by most of the participants to have demonstrated deep appreciation of regional markets and products. Accordingly, the bank had responded to the dollarized environment in a much more positive manner. According to the Chief Executive Officer, Bank Griffon, the bank had practically "taken calculated risk and run away with the market", mainly focusing on export oriented clients, as well as investments in Government securities which presented enormous opportunities for income generation. As a consequence, the bank has persistently recorded superior profitability.

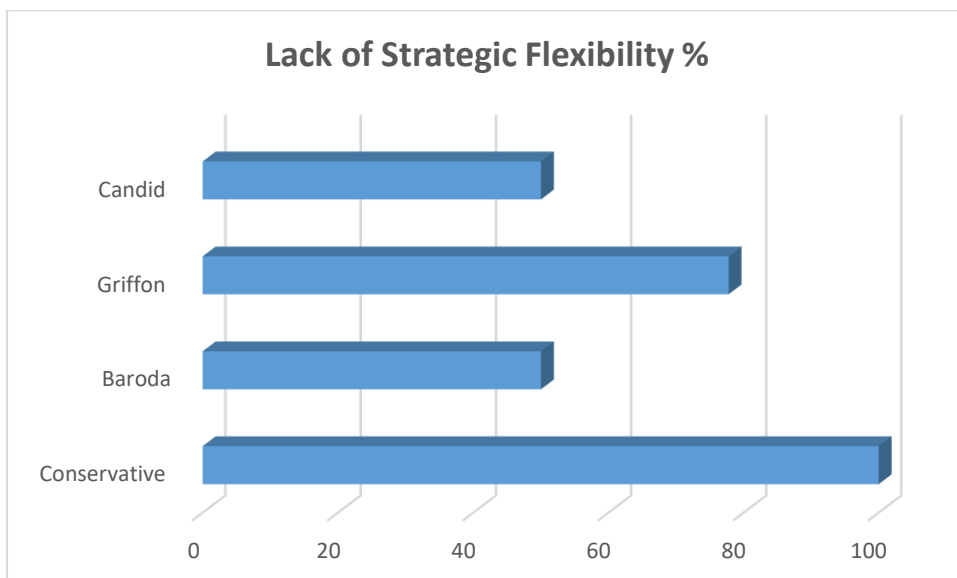
To the Head of Corporate Banking at Bank Baroda, though some banks had begun to respond positively to the shifted operating landscape, there had been lack of clarity in terms of strategies, market segments to attack, and product offerings. The absence of appropriate structures, value offering propositions, and failure to comprehend the cost implications of what was required to adjust to the new operating landscape had, however, stalled reconfiguration efforts, he argued.

The lack of progress towards efficiency enhancement was also attributed to inertia and lack of responsiveness on the part of senior management. The Bank Candid former Finance Manager, for instance, indicated that information on due diligence exercises that were

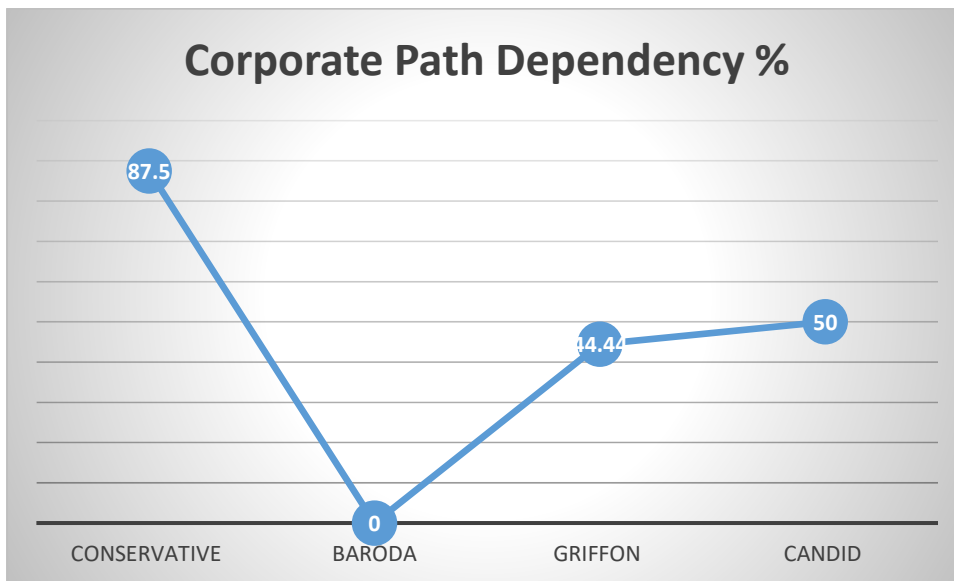
conducted on Bank Candid by prospective investors had been confined to executives at the expense of the generality of staff. It would have, however, been prudent, he argued, for the executives to have apprised all staff as meaningful contributions from that segment could have assisted senior management make the right decisions. For instance, accumulated leave days could have been turned into equity or even sacrificed given the extent of distress the bank had been facing. This could have ameliorated the financial distress and assisted in the bank's turnaround. The former Finance Manager also bemoaned the negative role played by the Zimbabwe Bankers Association Workers Union which insisted on salary increments notwithstanding the perilous financial condition the bank was in.

Figure 7 shows the distribution of participants who identified lack of strategic flexibility and as an issue at the four (4) participant banks.

Figure 7: Lack of Strategic Flexibility



Most of the respondents at Bank Conservative (87.5%) attributed reconfiguration challenges to corporate path dependency, wherein familiarity with the traditional way of doing things, stood in the way of change. This compared to 50% (Bank Candid) and 44.44% (Bank Griffon). Bank Baroda participants did not express this view in their responses. The responses on the role corporate path dependency played in stalling bank efficiency enhancement are shown in the diagram below.

Figure 8: Corporate Path Dependency

5.2.7 Structural Challenges

The former Chief Executive Officer (CEO) of Bank Candid attributed viability challenges at most banks to the persistence of structural rigidities in the economy, which had given rise to hyperinflation in the first place. These included constrained capacity to generate foreign exchange, low capacity utilization, import dependence, consumption without saving and production. This, according to him, was due to the failure to holistically address the challenges during the migration to dollarization. Due to a shortage of basic commodities on the market, the distribution sector was noted to have grown on the back of a shortages of basic commodities. This in turn affected the capacity of local industry to grow.

The former Bank Candid CEO further argued that the authorities should have realised that excessive reliance on imports meant that the little available foreign exchange would be depleted at some point in the future. Such a realisation should have ordinarily resulted in the authorities taking proactive measures to avert the imminent onset of the cash challenges that would face the Country four (4) years into dollarization. Such proactive measures would, for instance, have included early introduction of bond notes¹².

The difficult operating environment was noted to have resulted in sluggish performance by the generality of corporate entities, with others closing down. Against this background, bank asset portfolios remained sub-optimum. It is, however, noted that the views expressed by the former CEO of Bank Candid were not expressed by any of the other 26 participants.

¹² Note introduced by the Reserve Bank as a medium of exchange.

5.2.8 Leakages of USD Balances

Noted by most participants was the fact that, being a hard currency, the United States Dollar provided added attraction to foreigners who saw an opportunity to externalise the hard currency. The problem was exacerbated by the liberalisation of exchange controls by the authorities. With generous cash limits individuals could take out of the Country, large amounts of USD cash were lost through both legal and illegal channels. The participants attributed this to the lack of foresight and experiential knowledge on the part of Government and the Reserve Bank, the consequences of which would manifest years later, through severe cash shortages.

5.2.9 Systems Challenges

From an information technology management perspective, the system functionality which had been configured to accommodate quintillions of dollars during hyperinflation, had to be reconfigured to match the multicurrency system. The reconfiguration, according to the respondents, was affected by inadequate time that was available to manoeuvre. For Bank Conservative, the added challenge was that adoption of new IT systems had to be subject to onerous bureaucratic procedures which involved head office approval.

The introduction of new banking products to complement mortgages also called for business model and resource realignments, which presented system challenges.

According to the former Finance Manager of Bank Candid, however, official dollarization had not come as a major system shock as the general public had already been trading in foreign currency at the height of hyperinflation when the Zimbabwe dollar had already been rejected.

5.2.10 Other Challenges

Other challenges identified by the respondents include environmental uncertainty and associated problems of not knowing how to react. Banks also faced organisational shocks in the sense that existing structures had been configured to accommodate the requirements of hyperinflationary conditions, whereat huge volumes of cash were handled.

Another notable change was the decimation of the middle class in terms of disposable incomes. Corporate entities were also noted to have been decimated in the light of lack of capital and working capital.

5.2.11 NVIVO Diagrammatic depiction of Challenges at Dollarization

Figure 9 provides a synopsis of the major themes that emerged in relation to challenges faced through the aid of the NVIVO software package.

The diagram provides a synopsis of the of dollarization challenges, ranging from; the hyperinflationary mind-set, lack of experiential knowledge of dollarized environments, and bureaucratic rigidities. Other challenges were in respect of high risk aversion, and misalignment of operating systems, processes and structures with the demands of the new operating environment. Disadvantages of regional parentage are also underscored.

The diagram also shows sources of shocks to liquidity challenges, including decimation of bank balance sheets as a consequence of hyperinflation, low confidence in the banking sector in the aftermath of loss of Zimbabwe dollar balances by the investing public at dollarization, as well as limited external lines of credit. The high lending rates node is largely a reflection of the consequences of the high cost of funds, as well as high bargaining power of suppliers of funds.

Other shocks highlighted in the diagram relate to high operating costs and high country risk, poor asset quality, low industry capacity utilisation, weak earnings performance, high costs of business model reconfiguration and barriers to innovation.

The intensity of views expressed by participants is shown in Figure 10, represented by thickness of the boxes. These included the role played by parentage in thwarting adoption of appropriate strategic responses. This was followed by the uncertainty surrounding an unchartered operating environment on the back of general lack of strategic flexibility and agility. The inflationary mid-set, resistance to change and low trust in bank were also some of the high ranking challenges underscored by the respondents.

Competition from mobile network operators, and constraints in respect of re-alignment/reconfiguration of business models and operating systems, also stand out as major challenges that have been experienced in the dollarized environment.

NVIVO also provided a synopsis of the intensity of views expressed by the participants in respect of each of the challenges.

Figure 10: Intensity of Challenges (NVIVO Analysis)

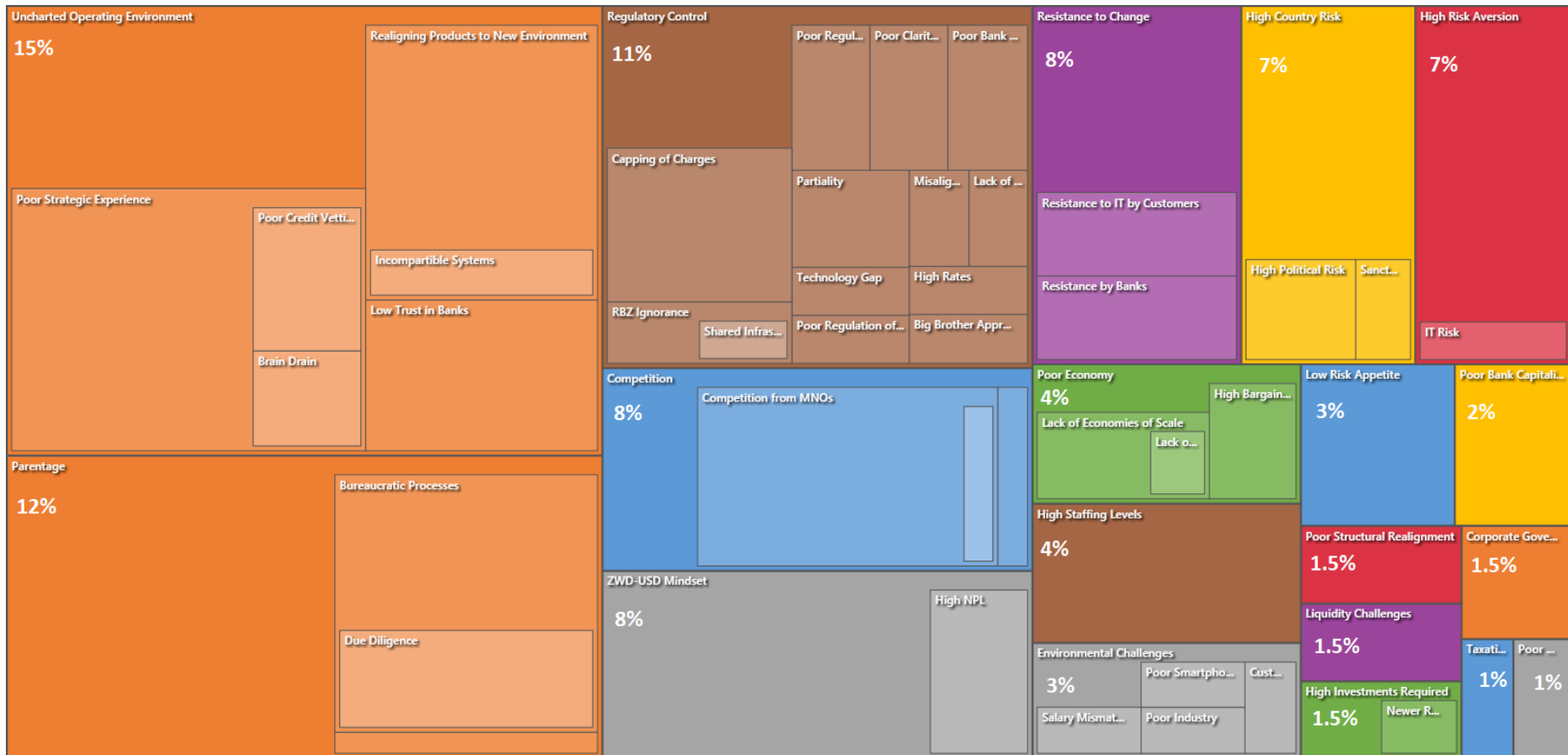
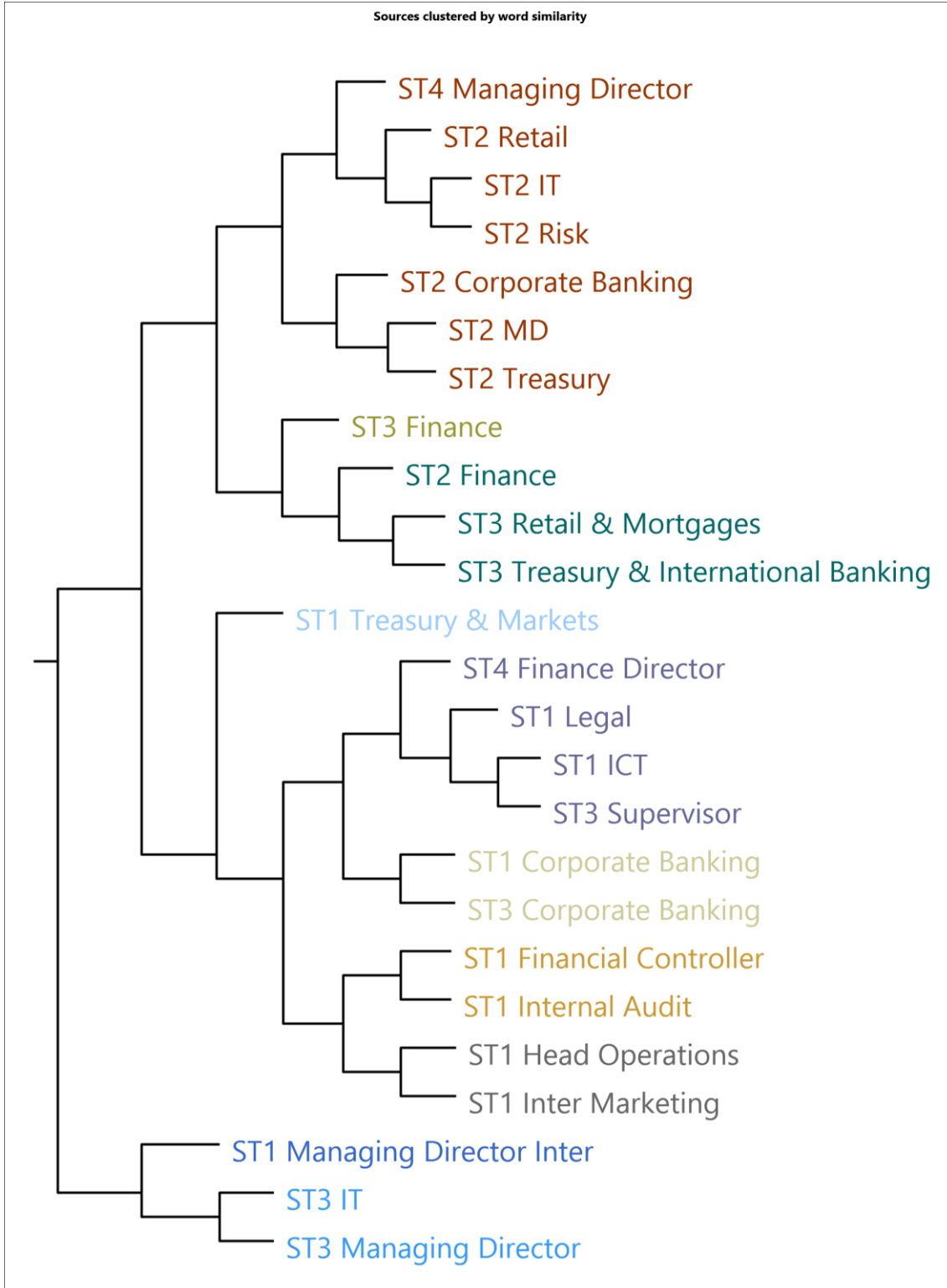


Figure 11 below presents NVIVO based analysis clustered by word similarity, demonstrating similarity of views within banks and across banks.

Figure 11: Sources Clustered by Word Similarity (NVIVO Analysis)



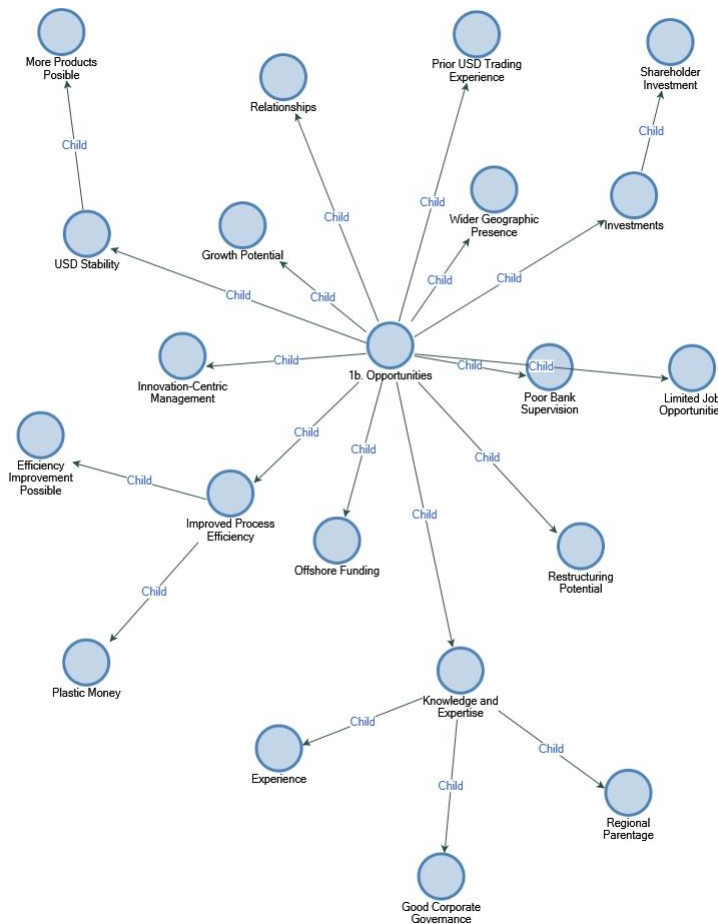
The idiosyncratic and environmental factors cited as contributing to the challenges that faced banks at the onset of dollarization provided useful insights into what could have affected the pace of dynamic capability development and utilisation in the enhancement of bank efficiency, as highlighted in Chapter 6 of this paper.

5.2.12 Opportunities Presented by Dollarization

One of the central thrusts of the investigation was to determine opportunities, if any, that were brought about by dollarization and why banks seemingly failed to leverage on them in the reconfiguration of business models, operating systems and processes, through utilisation of dynamic capabilities. Opportunities presented were of great significance as they provided scope for enhancing bank efficiency through dynamic capabilities, going forward.

Figure 12 below highlights major themes in respect of opportunities identified by the respondents to have been brought about by dollarization, based on NVIVO analysis.

Figure 12: Opportunities brought about by Dollarization



5.2.13 Scope for New Business Growth and Products

There was consensus by the participants that, notwithstanding the challenges brought about by dollarization, the ensuing stability that characterised the operating environment provided scope for improved business planning and growth opportunities.

The Head Retail and Head of Mortgages, Bank Baroda, opined that banks that had export based clients and USD balances had the opportunity to increase market share in terms of lending. This was corroborated by the Managing Director, Bank Griffon, who noted a foreign owned bank with regional parentage as having capitalised on this and grew its loan book, while enhancing profitability. The bank has persistently outperformed all banking institutions in the dollarized environment. The divisional heads from Bank Baroda further opined that their institution had leveraged on the Banking Group structures to engage in international transactions for the first time.

Bank Baroda was also noted to have capitalised on its wide branch network to grow its mortgage book and for the first time, venture into foreign exchange dealership and telegraphic transfers for its clients. Dollarization, according to the Head, Corporate Banking, Bank Baroda, had also opened up of broader banking space and customer base, product offerings, revenue sources, and balance sheet growth. This had invariably enhanced profitability.

The Head, Treasury & Mortgages, Bank Conservative, cited opportunities to engage in non-traditional activities such as mortgages in light of the gradual increase in the supply of liquidity as dollarization progressed. According to the Finance Director, and Heads of Treasury and Retail at Bank Griffon, the bank had introduced products such as Point of Sale, Griffon Lite, Small & Medium Scale lending, as well as value chain financing, which spurred business growth.

The overnight taming of rampant inflation, as well as the ability to plan at personal, corporate and national levels, had provided opportunities for business growth, according to Bank Candid management. Dollar based earnings, coupled with absence of exchange risk presented added growth opportunities for banks and corporates. Another notable opportunity was the ability of multi-currencies to store value compared to the defunct Zimbabwe Dollar.

According to the Head of Corporate Banking, Bank Baroda, high costs associated with dollarization had provided an incentive for banks to reconfigure their business models, operating systems and processes, hence providing an opportunity to enhance efficiency. In this regard, the bank moved from mortgage to banking products, necessitating the need to establish structures that facilitated customer interface. This also invariably called for total system

changes, which came along with “pain”. The broader operating environment came with new international banking relationships and NOSTRO accounts, which needed to be funded.

The table below shows the expansion that took place during the period 2009 and 2014 as banking institutions took advantage of business opportunities presented by the dollarized environment.

Table 4: Trend in Banking Sector Loans, Total Assets and Total Deposits

Item	2009	2010	2011	2012	2013	2014	% growth
	\$ billion	\$ billion	\$ billion	\$ billion	\$ billion	\$ billion	2009-2014
Total Loans	0.67	1.62	2.55	3.24	3.45	3.63	124.07
Total Assets	2.19	3.69	4.76	6.20	6.73	7.11	92.68
Deposits	1.36	2.31	3.05	3.81	3.72	4.07	76.19

Trend in Participant Banks Loans, Assets and Deposits

Table 5: Bank Baroda Selected Balance Sheet Items

Item	2009	2010	2011	2012	2013	2014	% Change
	\$m	\$m	\$m	\$m	\$m	\$m	2009-2014
Total Loans	21.7	57.7	195.6	275.0	323.2	446.9	1,933%
Total Assets	86.0	181.6	323.6	448.4	624.2	856.8	896.6%
Total Deposits	34.9	120.5	223.0	341.4	443.8	598.8	1,614%

Table 6: Bank Conservative Selected Balance Sheet Items

Item	2009	2010	2011	2012	2013	2014	% Change
	\$m	\$m	\$m	\$m	\$m	\$m	2009-2014
Total Loans	20.5	43.6	60.5	93.2	119.7	126.9	518.5
Total Assets	187.2	231.7	281.6	324.3	339.6	322.1	72.1
Total Deposits	121.9	172.9	211.9	222.9	246.7	205.3	68.0

Table 7: Bank Griffon Selected Balance Sheet Items

Item	2009 \$m	2010 \$m	2011 \$m	2012 \$m	2013 \$m	2014 \$m	% Change 2009-2014
Total Loans	17.8	61.5	117.3	153.3	194.9	217.5	1,120.0%
Total Assets	40.9	105.4	168.2	234.8	268.5	296.4	623.7%
Total Deposits	28.6	62.8	106.2	152.3	157.1	173.7	508.0%

Table 8: Bank Candid Selected Balance Sheet Items

Item	2009 \$m	2010 \$m	2011 \$m	2012 \$m	2013 \$m	2014 \$m	% Change 2009-2014
Total Loans	5.17	5.6	5.9	5.7	4.1	2.3	56.2
Total Assets	21.4	16.7	17.4	41.8	37.8	32.7	53.0
Total Deposits	12.9	13.9	14.2	18.9	14.6	18.8	46.3

The above-noted trends for selected balance sheet items of the sample banking institutions are consistent with data gathered during interviews and from documentary analysis. The exceptional growth at Bank Baroda resonates with the bank's expansive branch network, benefits from group synergies, as well business strategies that include venturing into non-traditional products.

For Bank Griffon, the significant growth experienced post 2010, was consistent with the mass based strategic thrust that took place when new and dynamic executives took over, compared to the elitist model that had been employed. The outlier bank, Bank Candid shows marginal growth rates from 2009 to 2012 before declining drastically in 2014. The sluggish growth was largely a reflection of undercapitalisation and low liquidity, with the sharp decline in 2014 indicative of the loan write offs that took place before the bank was eventually closed in the wake of serious liquidity and capital insolvency.

The sluggish growth in loans and advances at Bank Conservative during the early stages of dollarization was reflective of the cautious lending strategy that ensued.

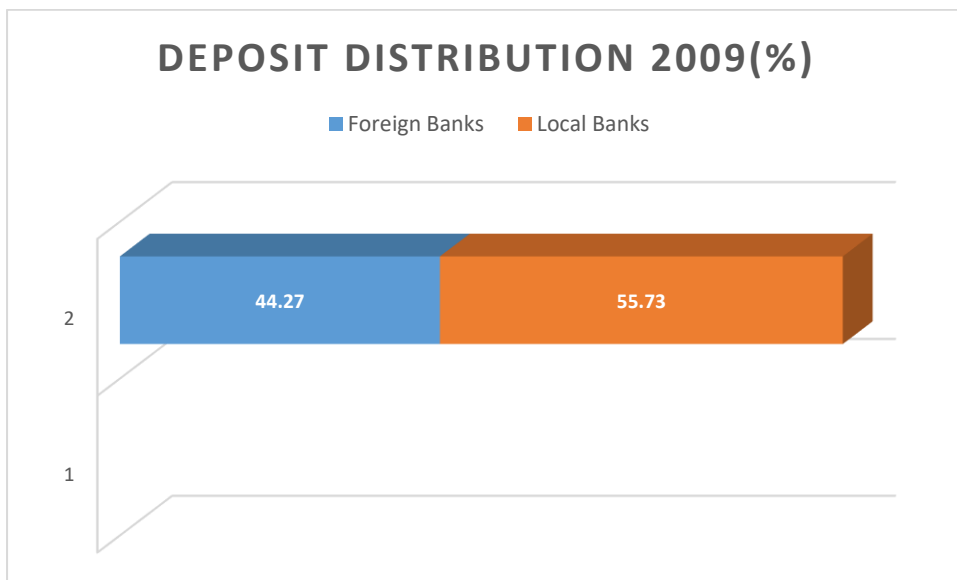
5.2.14 Funding Opportunities

There was general consensus on the part of interviewees that brand capabilities of foreign banks created competitive advantage with regard to the ability to attract deposits. The banks included Standard Chartered Bank, Barclays Bank, and Stanbic Bank. This, coupled with the flight of deposits from local banks perceived to be too risky, provided the banks with the

opportunity for significant business growth.

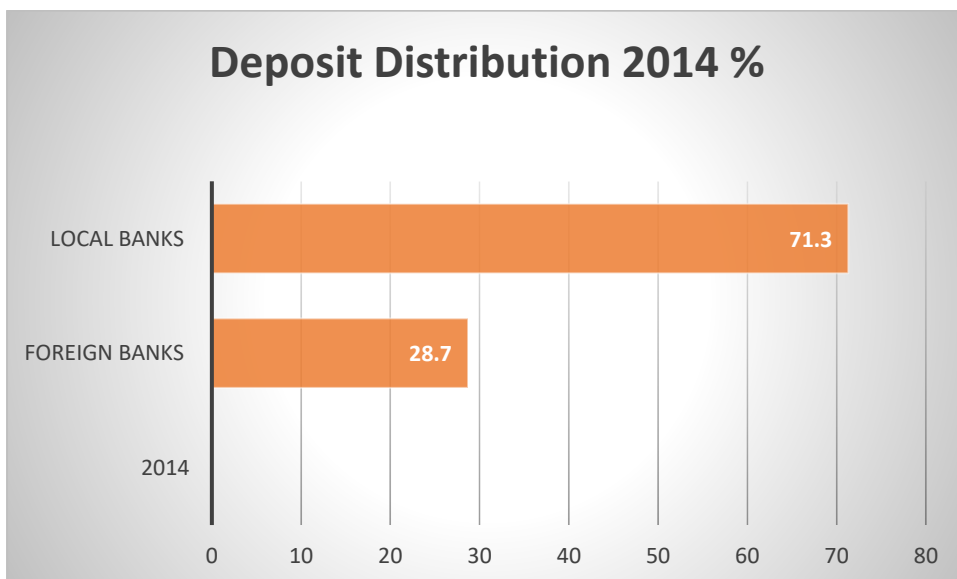
Corroborating the view expressed by respondents that the distribution of deposits at the onset of dollarization was tilted towards foreign banks, Figure 13 shows 44.27% of total sector deposits as at 31 December 2009, were controlled by four (4) foreign owned banks i.e. Barclays Bank, Standard Chartered Bank, MBCA Bank and Stanbic Bank, out of a total of 15 banking institutions.

Figure 13: Deposit Distribution



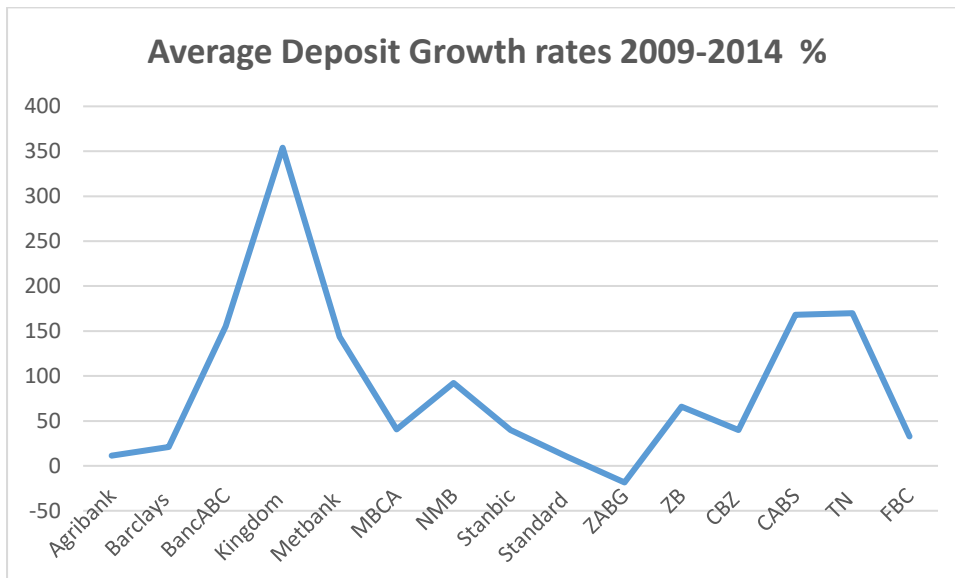
Noteworthy, by 31 December 2014, the proportion of deposits at locally owned banks had increased to 71.3%, as shown in Figure 14.

Figure 14: As at 31 December 2014.



The decline in proportion of deposits held by foreign banks from 2009 to 2014 was largely attributable to a more than proportionate growth in deposits at locally owned institutions, including the largest bank (CBZ), compared to foreign banks. This is shown in the **Figure 15** below, which also gives credence to the view by respondents that foreign owned banks went out of their way to discourage deposit mobilisation riding on risk aversion in the wake of deep reflection on the meaning of dollarization.

Figure 15: Average Deposit Growth Rates 2009-2014



Locally controlled banks, BancABC (155.2%) and Kingdom (354.0%) had the highest growth rates, followed by other locally owned banks NMB Bank (92.0%), CABS (172%), and TN Bank (173%). By contrast, foreign banks had the lowest deposit growth rates as follows: Standard (10.0%), Barclays (20.9%), Stanbic (39.8%), and MBCA (40.7%).

5.2.15 Parental Leverage

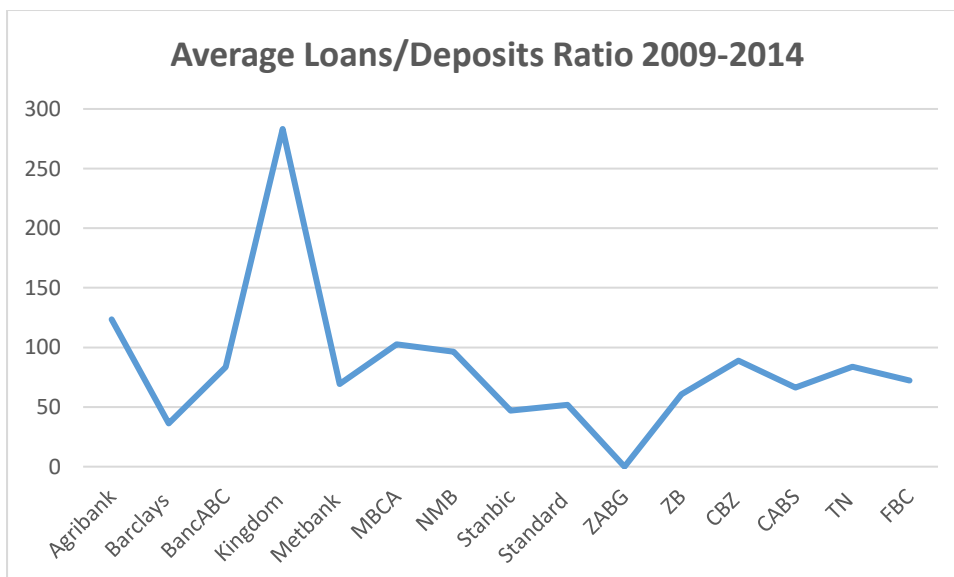
Fifteen out of the 26 participants (55.6%) underscored the importance of parental leverage in a bank's ability to reconfigure itself as well as the level of business volumes. Bank Conservative had a higher percentage (75%) of participants who shared this view. Bank Baroda (50%), Bank Candid (100%- both Managing Director and Finance Director), with Bank Griffon scoring the lowest (33.33%). Banks that had foreign parentage were noted to benefit from the financial strength, experiential knowledge, good corporate governance, strategic guidance, as well as strong risk management systems at the disposal of the parents.

The Head, Business Banking, and Head, Treasury & Markets, Bank Conservative, argued that Stanbic Bank had progressed more in terms of business opportunities compared to other foreign banks, mainly riding on the guidance given by the regional parent. On the other hand, while the Head, Internal Audit, Bank Conservative, acknowledged the role played by the Bank Conservative parent in reinforcing strong corporate governance and risk management in its local subsidiary, he bemoaned the parent's risk averse approach which had stalled efficiency enhancement.

The guidance provided by foreign parentage was noted to have mitigated the risk of adventurist thrusts adopted by locally owned banks, characterised by aggressive lending in unfamiliar territories. Uppermost in the foreign banks was the need to appreciate the dynamics of the new operating terrain first. The "Centre" was noted to have played a crucial role in terms of guidance, leveraging on experiential knowledge from wider connections in Countries such as Ghana for example (for banks such as Bank Conservative). The Managing Director, and Head, Corporate Banking, Bank Baroda, shared the same view, arguing that foreign parentage brought in the much needed financial muscle and international exposure.

Figure 16 confirms the relative divide between foreign and locally owned banks in terms of deployment of deposits into loans as observed by the various participating banks, confirming the view point that locally owned banks adopted more aggressive business strategies.

Figure 16: Average Loans/Deposits Ratio 2009-2014



It is apparent that local banks had the highest average proportions, with Kingdom (283.2%) leading the pack, followed by Agribank (123.6%), NMB (96.5%), CBZ (88.9%) and FBC (72.2%). Foreign banks (Barclays, Stanbic and Standard) had the lowest ratios of 36.4%, 47.1% and 51.8%, respectively. It is, however, noted that the loans to deposit ratios for Kingdom Bank and Agribank were slightly distorted by the fact that part of the loans were funded by foreign liabilities, hence ratios of over 100% for the loans to deposits ratio. Kingdom was to fail in 2015 on the back of serious capital and liquidity solvency problems.

Strong governance arrangements and practices within the international banking groups were considered to have presented opportunities to stabilise local subsidiaries. The separation between ownership and management was also deemed to have averted vices such as insider loans which became one of the main causes of bank failures in Zimbabwe. For Bank Griffon, for instance, the entry of foreign shareholders around 2010 was noted to have stabilised the bank in terms of internal governance and financial resource capabilities. The improvement in internal governance was reflected by, inter-alia; the absence of insider loans in the bank, sound risk management systems and internal controls. As a consequence, market confidence improved. The Bank Griffon Managing Director also attributed good corporate governance at the bank to the separation between management and ownership. The threat of dismissal was also considered to have been a sufficient basis to scare management and the generality of staff from misbehaving.

5.2.16 Business Opportunities

An important aspect of bank efficiency is the level of business activities. Forty-four percent (**44%**) of the respondents were of the view that smaller banks were presented with the opportunity for increased business opportunities, particularly in respect of deposit mobilization and earnings generation. The expansionist policies, the respondents argued, were however, characterised by competitive desperation and excessive risk taking, particularly at a time when the “good clients”, notably exporters, had already been “grabbed” by bigger banks such as Bank Conservative. The market segment that remained included dealers and other small players who tended to ride on speculative business activities and hence constituted a risky clientele segment. This exposed the banks to relatively higher credit risk, hence creating a bedrock for the emergence of non-performing loans. It was also pointed out that the small banks were offering high perquisites in order to attract experienced staff.

Opportunities for growth also emerged for banks that had a wide customer base, such as Bank Baroda, on the back of a strong captive market for potential depositors, opined participants from the bank. A relatively robust IT system provided the bank with a platform to ring-fence customers' remaining Zimbabwe dollar balances, hence providing a solid client base going forward. Old accounts were used for salary payments, thereby smoothening the transition and gradual increase in liquidity.

It was also noted that smaller banks that were not subject to strict parental oversight managed to make inroads in terms of innovation, with foreign owned banks still struggling to understand market dynamics. There has, however, been increased efforts by some of the foreign shareholders to understand the Zimbabwean market through visits and increased collaboration with local management, it was noted.

To the extent that efficiency enhancement is a major variable in the study, findings in this regard were critical, and these are highlighted below.

5.2.17 Opportunities for Efficiency Improvement

Noteworthy, only 8 or 32% of the respondents felt that the dollarized environment presented an opportunity for improved operational efficiency. This, according to them, could have been achieved through, inter-alia, product and technological innovation. This was particularly true for banks that had the financial wherewithal to invest in requisite systems. For instance, E- channels, notably, internet banking and credit cards that had been introduced by Bank Conservative, were noted to have contributed to increased operational efficiency. The bank was also planning to go live with respect of the ZIPT digital platform¹³. RTGS and mobile banking were also said to up and running.

The dollarized environment, according to the respondents, provided a platform to utilise capabilities such as the ability to sense and seize opportunities to enhance efficiency through, for instance, trading faster on the back of new products. A major downside risk that faced international banks in this regard was, ironically, the ability to sustain themselves for a prolonged period of time before reconfiguring their operations, hence obviating the need to realign and reconfigure their business models and operating systems. Cash challenges were noted to have also presented great scope to introduce digital payment platforms, including telephone banking and plastic money. Banks were however, noted to have remained aloof

¹³ Platform which facilitates transfer from bank wallet to the bank account

during the early stages of dollarization, by failing to partner with Econet mobile network operators when this payment platform hit the market.

According to the Head of Retail & Markets, Bank Conservative, reduced earning capabilities had brought a compelling need for banks to reconfigure their operations and enhance efficiency through, for instance, shared costs by banks. This could have been done, inter-alia, through centralised importation of costs, shared costs by banks in terms of channel distribution (including ATMs, branches, and POS).

The Head of Corporate Banking, Bank Baroda, opined that the decision taken by the bank to diversify into commercial banking products, in addition to mortgage business, had exerted pressure to reconfigure business operating systems. This was premised on the need to create platforms to facilitate international banking relationships and NOSTRO funding, for instance. He also noted the scope for enhanced efficiency through cheaper funding sources. To the Head, Treasury & Markets, Bank Conservative, the caps on lending rates imposed by the Reserve Bank had compelled banks to devise ways to innovate in order to compensate for forgone interest income.

The Finance Director, Bank Candid, argued that dollarization had presented an opportunity to reconfigure accounting systems which had been configured to accommodate quadrillions of dollars in the hyperinflationary era. The compelling need to diversify operations into non –traditional areas as a way of enhancing scale and profit efficiency was also highlighted by the Head, Retail & Markets, Bank Baroda.

5.2.18 Expertise & Knowledge

Thirteen out of the 27 respondents (48.1%) identified expertise and knowledge as an opportunity that could have been tapped upon to reconfigure operations and enhance efficiency as the Country migrated to dollarization in 2009. The Managing Director, Griffon Bank, for instance, bemoaned the need for banks to have engaged the right type of banker, as high integrity alone was no longer adequate for the demands of the job. Required were the right people, geniuses who could upset things, people who think outside the box, or for that matter, non-bankers who could transform banks. He cited a former Managing Director of Bank Conservative, who had not been a career banker but had been very effective.

The migration to dollarization was also noted to have provided immense opportunities for the recruitment of staff with capacity as well as innovators. It had been a time when executive management needed to be people whom staff would feel comfortable submitting new

ideas without fear of being ridiculed. This would have promoted innovation, argued the Griffon Bank Managing Director.

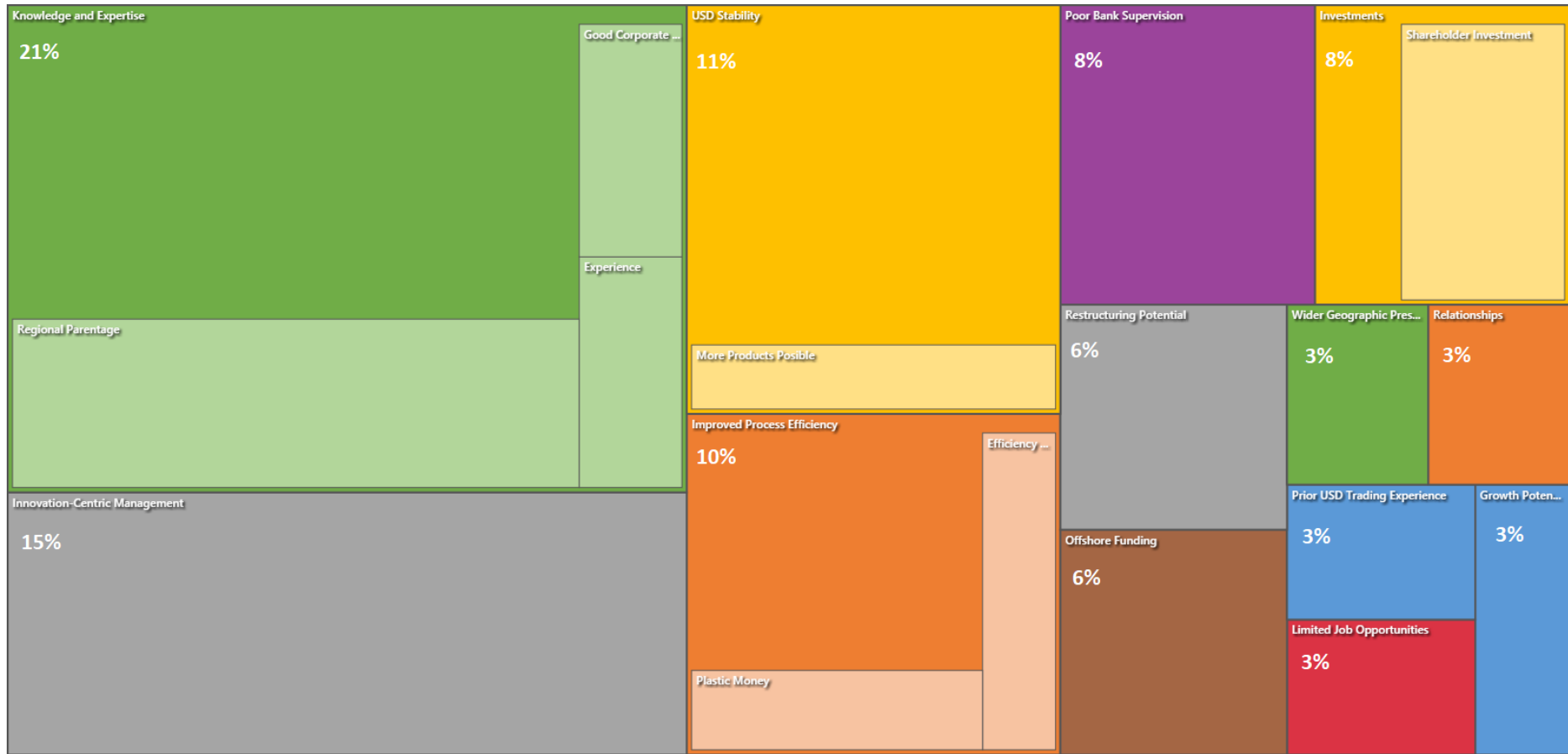
Banks that had requisite skills, competencies and capabilities also stood a better chance of successfully navigating the new operating environment. In this regard, the institutions could have carefully vetted prospective employees during the recruitment exercise, while inculcating the right culture. According to the Managing Director, Bank Baroda, international banks had a slight competitive advantage in light of higher experiential knowledge and skills. Bank Baroda had managed to diversify into corporate banking riding on new skills acquired from competitors and the Reserve Bank.

Both Head of Retail and Head, of Mortgages, Bank Baroda underscored the importance of skills at Board and management levels in terms of reconfiguration capabilities. According to the Head, Corporate Banking, Bank Baroda, the loss of skills to the diaspora initially stretched management in the discharge of its responsibilities. The Head, IT, Bank Baroda, noted the importance of IT skills in the reconfiguration of management information systems as the innovative thrust takes root. He highlighted skills related challenges experienced when the bank implemented a new core banking system in 2011 to support various digital platforms.

The Head of Treasury at Bank Griffon, attributed the lack of vigorous pursuit of business process re-engineering to limited skills in that regard. He further argued that there had also been need to augment traditional risk management skills in areas such as credit in the light of challenges brought about by the new operating environment. In that regard, the bank facilitated training in credit certification programmes. This view was corroborated by the Financial Controller, Bank Conservative, who underscored the importance upskilling staff in an uncertain environment calling for new products and new way of managing risks.

Figure 17 shows opportunities in the dollarized environment highlighted by the respondents in terms of the intensity of views expressed.

Figure 17: Intensity of Opportunities (NVIVO Analysis)



Based on N-VIVO analysis above, innovation centric management as well as knowledge and expertise provide the greatest opportunity to facilitate reconfiguration of operations and enhancement of efficiency. Noteworthy also was the significance of the stability of the US dollar as a major determining factor. According to the Head, IT and Head of Internal Audit at Bank Conservative, the value of USD gave people confidence, being a stronger currency than most currencies in the region and internationally. This view was also shared by the Head of Treasury & International Banking, Bank Baroda. Other notable opportunities cited, according to the diagram include improved process efficiency, restructuring potential and off-shore funding. The diagram also shows improved process efficiency, restructuring potential and off-shore funding, as other opportunities frequently cited.

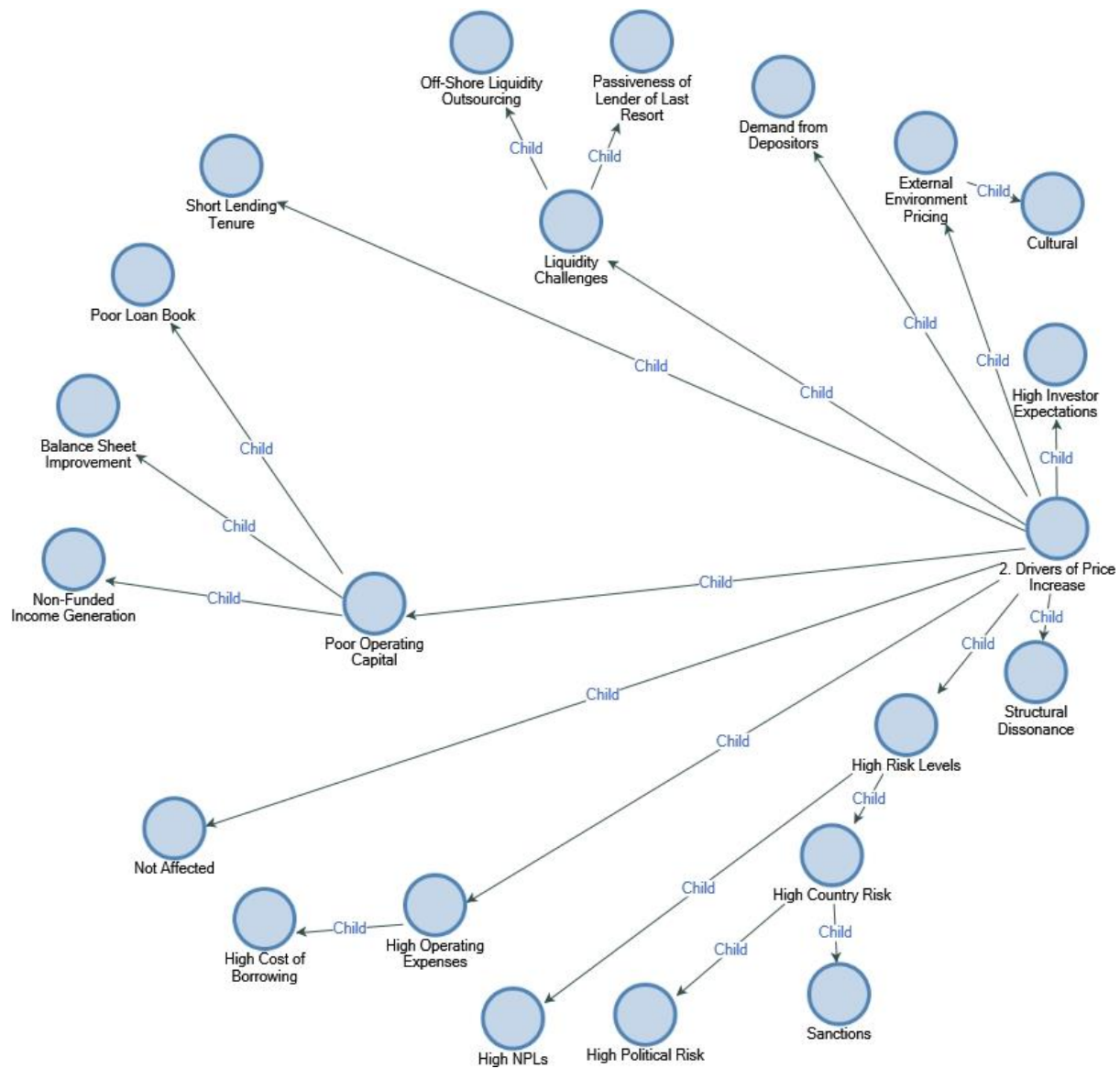
5.3 Motivation for resorting to price increases and non-funded income (Study Objective 2)

The second objective of this study was to determine why banks seemingly failed to enhance efficiency through dynamic capabilities to address the net interest income /operating expenses disconnect and, instead, resort to high interest rates and charges. Clarity on these issues was expected to shed light on what could have stalled dynamic capability development and utilisation with a view to enhancing efficiency, and to determine, going forward, whether there is scope to enhance efficiency through dynamic capabilities.

The in-depth interviews provided very interesting insights. These are summarised in NVIVO results shown hereunder.

Figure 18 provides a synopsis of the responses given by the participants.

Figure 18: Resort to price increases and non-funded income versus efficiency enhancement



The following is an analysis of the issues raised by the participants in relation to the high lending rates and bank charges in the dollarized environment.

5.3.1 Liquidity Challenges/Scarcity of Funds

About 51.9% of the respondents attributed high lending rates to the scarcity of funds on the backdrop of liquidity constraints that characterised the early stages of dollarization. The liquidity challenges were attributable to a number of factors, including, limited foreign lines of credit, low domestic savings, inability of the central bank to print local currency, as well as undercapitalisation, mainly in respect of small local banks. The absence of a lender of last

resort facility from the Central Bank was also noted to have created additional liquidity challenges.

According to the Head of Treasury & International Banking, Bank Baroda, liquidity challenges were aggravated by the inefficient distribution of the available funds, whereat larger banks had most of the liquidity at the expense of smaller banks. The problem was also exacerbated by the fact that the larger banks, mostly foreign owned which could have otherwise availed loans at relatively low interest rates due to access to cheaper funding sources, were not lending due to risk considerations, hence exerting upward pressure on lending rates. He further opined that the problem was worsened by the depletion of foreign currency on the back of externalisation in the wake of deregulation of the foreign exchange market.

The Head, Treasury & International Banking, Bank Baroda, was also of the opinion that the rise in non-performing loans (NPLs) during the early stages of dollarization had resulted in banks restricting lending, also exerting upward pressure on interest rates. The cost of NPLs, through provisions for bad and doubtful debts, also added to operating costs, hence exerting pressure for high bank charges and lending rates, it was argued. Arising from these observations was the need to determine how the efficiency of small banks with high cost funds would have been affected.

The Candid Bank Finance Director also argued that low levels of US dollars in the economy forced banks to lend at interest rates as high as 60% per annum, which also explained the emergence of non-performing loans NPLs. According to the Head of Corporate Banking, Bank Baroda, the high level of lending rates was also reflective of the high cost of regional lines of credit/ off-shore lines of credit, priced at around 12-14% per annum. This had resulted in the compression of net interest margins, in turn exerting pressure on banks to increase charges. The Head of Treasury & International Banking, Bank Baroda and the Head of Treasury, Bank Griffon attributed the high lending rates to liquidity challenges driven by the absence of a functional lender of last resort facility at the Central Bank.

The other major driver of high lending rates was noted to be the high cost of deposits, particularly with respect to small locally owned banks, whose cost oscillated around 20% per annum. Aggravating the problem for such banks, according to the Managing Director, Bank Baroda and the Head of Corporate Banking, Bank Conservative, was the fact that most of these banks had relatively higher level of provisions for bad and doubtful debts, having been exposed to riskier market segments, hence adding to production costs. On the flipside, international banks, according to the Head of Treasury, Bank Conservative, deliberately kept deposit rates down in an attempt to discourage deposits as the banks were not involved in any meaningful

investment activities in the light of the cautious approach to lending. Accepting deposits would, therefore, have meant incurring unnecessary costs.

According to the Head, Retail & Mortgages, the lack of long term funding exerted upward pressure on interest rates as banks priced long term lending appropriately. This was reflected by double digit mortgage rates for instance. The other dimension noted to have contributed to the high cost of funding was that the main source of funding then were wholesale funds which normally do not come cheap, besides being volatile.

To address the issue of high cost of funding, where interest rates used to be around 8-9%, Bank Baroda management diversified the deposit mix, focusing more on cheaper deposits, resulting in the cost of funding declining to around 4%. This had the effect of increasing the profit margin. There was, however, some resistance from potential depositors, which affected level of business in terms of volumes of transactions.

Documentary analysis also revealed additional factors that explained high lending rates that prevailed at the onset of dollarization. According to the RBZ (2012) borrowers were prepared to pay any price for loans (RBZ, 2012) after a decade of failure to retool. Dollarization had, thus, provided corporate entities with an opportunity to revitalise their operations, notwithstanding the high cost of funding. At the same time, banks saw the new operating environment as an opportunity to boost their balance sheets and earnings positions, primarily as an attempt to bridge the operating expenses and net interest income disconnect. In other words, there was a “double coincidence of wants” between banks and potential borrowers. In addition, the bargaining power of banks was generally high, hence limiting borrowers’ negotiating flexibility.

5.3.2 High Operating Expenses

According to 68% of the respondents, banking institutions faced serious cost burdens at dollarization. This was attributed to a number of factors. According to the Managing Director of Griffon Bank, most banks inherited very high cost bases during hyperinflation era on the back of bloated staffing levels that had been required to support high volume based transactions. With the onset of dollarization, such bloated levels could not be accommodated in an environment of lower volumes of transactions. The problem was exacerbated by the restrictive nature of the Labour Relations Act, which made it difficult to retrench workers.

According to the Managing Director, Bank Griffon, the problem was more to do with inability to retrench in the light of limited resources, and not the Labour Relations Act. In this

regard, the bank had to delay the retrenchment of 113 staff members or 30%, from a compliment of 300. He also advised that the cost of reconfiguring the business to enhance efficiency had not been justified by the low level of revenue.

Constraints imposed by the Labour Relations Act, according to the Finance Director, Bank Candid, resulted in a situation wherein the excess staff would spend idle time on the internet and making telephone calls, thereby adding to operating expenses. An additional dimension to the cost structure of banks in the dollarized environment, according to the Managing Director and Financial Controller, Bank Conservative, was the additional cost of importing cash to meet client withdrawal requirements in the absence of a local currency. Cash in transit, as well as storage and insurance charges added a cumulative cost factor of around 3.2%.

The Managing Director, Bank Conservative, highlighted several factors he believed were responsible for the high cost base in the dollarized environment. These included; constant power outages which necessitated the need to use generators to keep business going. The generator would run for four (4) to 48 hours at a time when customers would make infrequent visits to the bank to withdraw insignificant amounts of money, hence reducing the scope for fees and commissions. The absence of other basic resources such as water, which are ordinarily provided for by the state and municipalities, forced banks to find alternative means at huge cost. These cost burdens, the Managing Director argued, were taking place at a time when the clientele base was still quite low. This, therefore, justified a high pricing regime in order to cover the operating expenses.

As far as the Head, Operations, Bank Conservative, was concerned, the tendency to increase lending rates and bank charges was largely driven by the need to maintain operating systems, notably information technology platforms and automated teller machines whose operating costs had remained inordinately high, a view shared by the Head of Internal Audit, Bank Griffon. Against this background, argued the Head of Legal, Bank Conservative, banks were not generating sufficient revenue to cover operating costs, hence the tendency to compensate for the disconnect through maintenance of low deposit rates. According to the Head, Corporate Banking, Bank Conservative, Head, Marketing, Bank Conservative, Head, Treasury & Markets, and Finance Director, Bank Griffon, high lending rates created a vicious cycle wherein resultant high NPLs called for the need for high lending rates, fees and commissions. The problem, according to the Head, Treasury, Bank Griffon, was aggravated by the desire to make money, which compelled them to pay attractive rates in a bid to mobilise

deposits and augment business. Salary pecks were also increased as a way of attracting high calibre staff.

According to the Head of Retail, Bank Griffon, the high level of lending rates and bank charges were reflective of the need to bridge the disconnect between insignificant revenues against the background of high operating costs. This view was supported by the Managing Director, Bank Griffon, and Head of Retail & Mortgages, Bank Baroda, who attributed the low levels of earnings to the decimation of bank balance sheets by hyperinflation, in turn affecting the capability of banks to lend and generate interest income. Against this background, the appetite for non-interest income increased, opined the Head of Corporate Banking, Bank Conservative.

The Head of Corporate Banking, Bank Griffon brought in a slightly different dimension to the cost dimension, arguing that dollarization had come at a time when production inefficiencies in Zimbabwe had been low due to obsolete equipment. This had resulted in a decline in local production in preference for imports – a development that not only increased domestic prices, but also further depleted the little foreign currency that was available. This view was shared by the Managing Director, Bank Candid.

According to the Finance Director, Bank Candid, high deposit rates were a manifestation of deposit mobilisation drives that were meant to facilitate growth with a view to capitalising on lost opportunities, while facilitating personal wealth accumulation on the part of local banks; oblivious of the implications. There had been no conscious effort to reflect on what dollarization meant. Bank Conservative, on the other hand, was noted to have had the ability to offer relatively low lending rates, riding on a contingent reserve for any unforeseen developments provided by the foreign parent.

The respondents were therefore unanimous in that loan pricing as well as fees and commissions were largely driven by the need to cover the above-noted operating expenses.

5.3.3 Impact of Cautious Lending Approach

Twelve (12%) of the respondents attributed high lending rates to the cautious approach to lending adopted by international banks, as this reduced availability of loanable funds. The international banks, which could have otherwise availed funds at relatively lower rates, were noted to have held back while reflecting on what the new environment meant in terms of strategic thrusts. Bank Conservative in particular, had planned to gradually assume high levels of risk and increase interest income as the market developed.

5.3.4 Hyperinflationary Mind-set

Sixteen percent (16%) of the respondents attributed high lending rates and bank charges to the hyperinflationary mind-set, wherein most people had been accustomed to high prices and interest rates. The hyperinflationary environment had enabled borrowers to service debt mainly through speculative deals that assured healthy profit margins. In particular, there had been a prevalence of “traders/dealers” who could afford to sustain interest rates of around 60% through sale of imported goods at exorbitant prices in light of shortages that characterised the market. When local companies such as OK Zimbabwe Limited started to trade, however, the dealers could not sustain the competitive pressures and struggled to settle their debts, setting the scene for the emergence of NPLs.

Bank Conservative management, however, disagreed with the notion that banks were generally charging high lending rates, arguing that on its part, the bank had been offering relatively low interest rates in light of its relatively low cost base, and also taking into account the unsustainability of high lending rates. The low cost funds included off-shore facilities in markets with lower rates, such as Mauritius. In addition, most clients were noted to have been facing viability challenges, resulting in the bank focussing on large corporates and multinational corporations whose low risk profiles ordinarily called for relatively low interest rates.

5.3.5 Net Interest Income/Operating Expenses Disconnect

Thirty-six percent (36%) of the respondents indicated that the decline in lending rates at the onset of dollarization, coupled with restricted lending resulted in squeezed net interest margins. Lending rates in the hyperinflationary environment had been disproportionately higher than deposit rates, resulting in higher net interest margins, argued the Managing Director, Bank Baroda. This, coupled with the high operational cost bases that were obtaining in the dollarized environment, it was argued, resulted in the net interest margin/ operating expenses disconnect which the researcher noted and became the main focus of the study. To compensate for this disconnect, the respondents opined that banks maintained high lending rates, as well as increasing resort to non-funded/non-interest income.

5.3.6 Resort to Non-Funded Income

About 31% of the 26 participants concurred that pressures imposed by the dollarized environment forced banks to increasingly resort to non-interest/non-funded income to sustain

operations. At Bank Conservative, 87.5% of the participants shared this view, including Heads of Business Banking, Treasury & Marketing, and the Financial Controller. In particular, limited funding capabilities gave rise to recourse to fees and commissions through product diversification. This included activities such as international banking, safe deposit box services, and structuring of facilities to augment income.

Bank Baroda, for instance, was able to leverage on capabilities for personal lending to attract clients who had not been banking with the institution, as well as to avail loans. Other tailor-made products included mortgage and Small and Medium Enterprises products, as well as value chain financing, as a way of generating both interest and fee income. The rise in non-funded income/fees and commissions, according to the participants was, therefore, not necessarily due to high bank charges, but due to diversification of income sources in the light of reduced interest income.

High levels of non-funded income were also attributable to banks that were capitalising on fees and commissions, including the persistently high performing bank in terms of profitability. This entailed granting of very short term loans which were not aligned to client business cycles, necessitating frequent roll-overs which would be subject to new fees and commissions.

In terms of innovation, respondents from Bank Baroda advised that the bank ventured into the informal sector much earlier than most banks. The bank had, for instance, partnered with Mukuru.com (a Money Transfer Agent) as well as a loyalty program. In addition, the bank introduced a Platinum Card, which became a leading edge long before the bank engaged in commercial banking activities. Personal loans were also introduced. The bank also partnered with Multi- pay for digital banking. There was, however, acknowledgement by the bank that some new players had been more innovative than the bank.

The Head, Treasury & Mortgages, Bank Baroda, posited that that low profit margins drove banks to resort to non-funded income. In this regard, the bank pursued mortgage and personal lending to capitalise on this source of funding, with banks such as CBZ Bank and FBC Bank doing the same. Bank Baroda also introduced international banking, and other types of services, including safe deposit boxes and structured facilities in order to boost non-funded income. The Head, Treasury & Markets of Bank Conservative, also indicated that banks had to improve product and service quality in order to compete effectively. According to the Finance Director, Bank Candid, small banks that were not adequately capitalised and had low deposit bases had to resort to non-funded income for lack of choice.

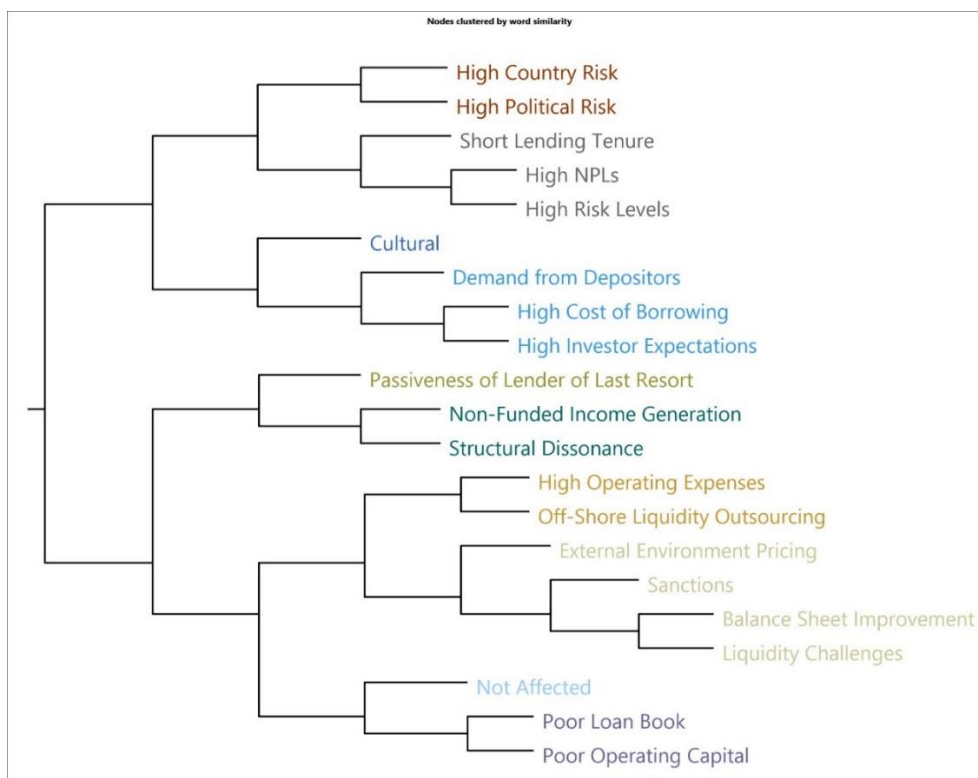
Another dimension was that the new operating environment brought about some level

of uncertainty to an extent that it became difficult to price risk in a meaningful manner. It was a question of taking each day as it came. In the circumstances, the most logical thing to do was to ride on non-funded income. The strategy therefore, was to gradually assume credit risk as the market developed while capitalising on non-funded income in the meantime.

Bank Griffon management, however, argued that labelling fee income as non-funded income would be as a misnomer as fee income relating to lending is, in essence, funded income. Other fees, such as withdrawal fees would be the real non-funded income.

Nodes clustered by word similarity in respect of the drivers of prices are indicated in the diagram below.

Figure 19: Cluster Analysis - Motivation for resorting to price increases and non-funded income



The diagram provides a synopsis of key concepts identified by the respondents as having contributed to the maintenance of high bank charges and lending rates, as well as resort to non-funded/non-interest income. These include high political and country risk premiums reflected in pricing of external lines of credit; hyperinflationary mind-set whereat both borrowers and lenders were accustomed to high lending rates and charges, as well as the get-

rich quick mentality. The high bargaining power of depositors on the back of structural liquidity constraints, and structural dissonance arising from insufficient revenue to cover operating costs, were also significant factors.

The other major challenge depicted in the diagram was under-capitalisation on the part of most locally owned banks, exerting pressure on them to offer high deposit rates to attract funds, in turn compelling the banks to levy high lending rates.

5.3.7 Reconfiguration of Business Models, Processes and Systems

Respondents from Bank Griffon attributed the delay in reconfiguration of business processes and systems at banks to various factors. Notable was the lack of effort by most banks to streamline costs, preferring instead, to maintain high lending rates and charges to sustain costs. They attributed the lack of motivation to right-size banks to the ease of making money to which they had been accustomed to in sustaining bloated organisational structures and attendant operating costs. The other reason attributed to the failure to realign and streamline operations was the uncertainty on whether the operational challenges would persist or not, hence obviating the need for organisational realignments. Some banks were noted to have been basking in past glory and were in a kind of denial that things had radically changed.

The Head, IT, Bank Baroda, opined that the delay in technological and product innovation had been a reflection of the absence of a global drive towards electronic channels in 2009 when the Country dollarized. The other reason cited was the apparent lack of reflection by bank management on the implications of the dollarized environment. The focus, particularly by local banks, was on capitalising on lost opportunities, wealth accumulation, and balance sheet growth, without appreciation of the implications of such strategic thrusts.

The former Finance Manager at Bank Candid argued that the lack of market discipline, to some extent, contributed to delayed business model reconfiguration. In particular, he highlighted failure by bank creditors to demand rent arrears in the expectation that the operating environment would improve and promote business viability, hence enabling banks to clear the arrears. Had the creditors insisted on payment of the outstanding rent and other dues, banks could have been forced to rationalise their costs much earlier than they did.

About (29.6%) of the respondents from Bank Baroda, Bank Conservative, and Bank Griffon) attributed the delay in efficiency enhancement by banks to reckless lending at exorbitant interest rates against the background of a Reserve Bank that was “missing in action” in terms of its supervisory and regulatory role of financial sector management. The Bank, it

was argued, had not been actively promoting sound banking practices and governance, as well as intervening in interest rate management, hence allowing banks the latitude to levy high lending rates

The Reserve Bank was, however, noted to have awoken from its deep slumber from 2012 onwards when it engaged banks to reduce interest rates and bank charges. This saw lending rates progressively reducing to 12% in 2017. The resultant squeeze in profitability forced banks to increasingly interrogate their value chains and vigorously pursue product and technological innovations with a view to enhancing efficiency. This view, however, was expressed by only 22.2% of the respondents, namely; Head, Corporate Banking, Bank Griffon, Head, Retail & Markets, Bank Baroda, Financial Controller, and Head, Corporate Banking Bank Conservative; and Head, Corporate Banking, Bank Baroda, and Head, Operations, Bank Conservative.

The Head of Internal Audit, Bank Conservative, also attributed failure to reconfigure risk management systems to the protection, by the Reserve Bank, of “corporate vultures” that had been responsible for bank failures. This had, in turn, promoted inefficiencies through for instance, emergence of NPLs and requisite provisions for bad and doubtful debts. According to the Head, Treasury & Markets, Bank Conservative, the Reserve Bank had also promoted inefficiency in the banking sector by failing to facilitate shared infrastructure between banks, including importation and distribution of cash, as well as sharing of distribution channels, among others. Cases were cited where, for instance, each bank had security guards manning ATMs at the same complex, unduly adding to operating expenses.

According to the Head, Treasury & International Banking, Bank Baroda, the Reserve Bank had also stalled efficiency enhancement by insisting on storage of hard copies of certain documents for audit trail purposes. These, he argued, could have been easily scanned and stored electronically. The Managing Director, Bank Conservative corroborated this view by arguing that over-regulation by the Reserve Bank, inherited from the past when a lot of documents had been required for exchange control purposes, had continued notwithstanding the liberalisation that had taken place. In any event, the submitted documents were being simply filed at the Reserve Bank.

The Head of Treasury & Markets, Bank Conservative, also attributed delays in reconfiguration of bank business models and processes to the Reserve Bank’s Big Brother attitude, wherein certain policy interventions had been made without consulting banks. Notably was the introduction of Bond Notes which were literally imposed on banks. The Bond Notes

were noted to have created inefficiencies such as those that existed in the Zimbabwe Dollar era in view of need of more staff to count the moneys.

With regard to Bank Conservative, there was overwhelming consensus by the bank's management that the bureaucratic fog surrounding the bank's holding company/parent contributed significantly to the absence of *strategic flexibility* (ability to change on relatively short notice and at low cost (Ghemawat and del Sol, 1998) and *agility* [the ability to develop and quickly apply nimble and dynamic competitive moves (McCann, 2004)], as well as *adaptability* (the ability to establish fit with the environment (Chakravarthy, 1982). The fact that all policy and operational decisions had to be made at Head Office negatively affected efficiency enhancement.

On why the consolidation route and associated efficiency gains was not taken by banks as part of resilience capability management, the respondents indicated that international banks, for instance, had not seen value in that proposition as they did not want to be contaminated by distressed banks. On the other hand, owners of small banks suffered from an 'ego syndrome' wherein they did not wish to dismantle the "empires" they had created.

The pace of technological development and product innovation was also noted to have been slowed down by the inability of some clients to acquire requisite complementary digital platforms, as well as absence of skills to match the requirements of new banking products.

According to the former Chief Executive Officer of Bank Candid, while a decision to close branches had been made as part of cost efficiency enhancement, this could not be followed through after taking into account the plight of customers. The bank did, however, institute cost containment, through payment of low salaries, while purchases of basic equipment such as photocopiers, was postponed. These measures, however, did not materially improve the bank's condition as the institution could not generate sufficient income to cover operating expenses due to undercapitalisation and low deposit base.

The Chief Executive Officer of Bank Griffon attributed the absence of vigorous pursuit of rationalisation to lack of skills. He also noted that it was prestigious then to have large branches and offices, where issues to do with ventilation were topical. It was not uncommon to have branches with 10-15 tellers. Branches were being increased without paying cognizance to cost implications. With the benefit of hindsight, banks would not have been so reckless, he opined. On the other hand, international banks retrenched much earlier into dollarization when retrenchments costs had been low. Smaller banks were noted to have been hiring.

The former Finance Manager of Bank Candid also indicated that while the issue of branch rationalisation had come up, it had remained mere talk as the bank's extensive branch

network had been a selling point for prospective investors. Meantime, the branches were posting losses. It was also highlighted that while lower level staff had been aware of the Latin American experience in terms of dollarization, as well as the impact mobile banking was having in terms of service delivery, top management had been comfortable with old systems (brick and motor). In addition, when the Ecocash mobile platform was introduced, most bankers did not think the wave would impact the market in a significant way, notwithstanding results of a survey by the RBZ in 2006 which showed that 80% of the population was financially excluded. Banks had not done anything to capitalise on that gap, leaving mobile money transfers, notably Ecocash, to run away with the market.

According to Bank Candid management, the misplaced assumption that Government would always support the bank by way of deposits, by virtue of its being shareholder in the institution, might have stifled entrepreneurial ability. When the support did not come, the bank struggled to on-board business. The problem was aggravated by the absence of capital.

Another factor noted to have inhibited innovation was the failure by banks to partner with mobile network operators (MNOs), reflecting lack of responsiveness. Instead, the two parties became competitors with, for instance, banks refusing to cooperate with a sister bank of Econet Wireless (Private) Limited on the Zimswitch platform. Econet Wireless was providing the mobile money platform. The failure to establish strategic partnerships between banks and MNOs thus increased the cost of doing business.

The delay in introduction of new products was also attributed to trust issues from security and cyber-risk viewpoints. There was also fear that the Reserve Bank would not have welcomed the concept anyway. Banks had therefore, taken a wait and see attitude.

Bank Griffon management indicated that the bank had to streamline operations by reducing rented accommodation in February 2009 as a way of managing the operating environment. All staff, from the lowest level to the Chief Executive Officer were on a salary of as low as USD\$50 per month. The bank also reduced the staff complement from 300 to 187 in 2010. The delay in retrenchments had been due to limitations imposed by the Labour Relations Act, management intimated.

Underscoring the fact that bank Griffon responded to changing operating landscape, management contended that various products were introduced in an attempt to cater for all sectors. The bank was later to change its strategic thrust from one that predominantly focused on high net-worth individuals to small and medium enterprises and other broader market segments. This was after a realisation of the unsustainability of a business model that had focused on a narrow market segment in a dollarized environment. The change in strategic focus

was noted to have been made possible by the resignation of former executives and founder members who had been resisting change. Initial efforts to reconfigure the business model had also been hindered by lack of financial resources.

Bank Griffon management also noted the effectiveness of the strategic thrust taken by Stanbic Bank on the strength of a regional parent. Riding on the South African based parent's experiential knowledge of the Zimbabwean market and group synergistic relationships, the bank managed to make significant inroads into lending, mainly to exporters. The bank also actively participated in the Treasury-bill market when other international banks were holding back on the basis of risk considerations.

Bank Baroda management argued that, whilst other banks were being cautious about lending, the bank had quickly reconfigured its operations towards lending. Be that as it may, management acknowledged that risk management systems were still weak, manifested by the employment of short term funds to fund long term loans, hence creating underlying liquidity challenges. Lending was done without following prudent credit risk management practices.

Innovation as a basis for reconfiguration of business models was also noted to have been inhibited by capital and liquidity challenges which, in turn, constrained investment in infrastructural requirements. Efforts to reconfigure and realign business models was also constrained by resistance to change at some banks.

Other respondents, including the Financial Controller, Bank Conservative, argued that it was not necessarily true that banks had taken too long to reconfigure their operations, as banks did in fact retrench and close branches. Bank Conservative had, in actual fact, reduced staff from 1200 to 600 much earlier into dollarization. In this regard, there was some level of strategic reflection by bank management.

The issue of reconfiguration of business operations across the board, some respondents argued, should be looked at from a holistic point of view. For instance, for the first time in a long time, companies were exposed to a global currency and were competing with international players. In this connection, production efficiencies were under severe test. Due to archaic equipment, however, it was always going to be difficult to achieve efficiency in view of high production costs. The problem would have been aggravated by use of a much stronger currency compared to trading partners, rendering exports uncompetitive. This tended to discourage the thrust towards manufacturing, hence thwarting overall efforts towards efficiency enhancement in the Country. As a consequence, the Country became import dependent with implications on underlying liquidity. This affected restocking of industry.

5.4 Efficacy of Cost and Profit Efficiency Measurement Techniques (Study Objective 3).

The need to determine whether flaws in efficiency measurement methodologies and techniques could have clouded management's ability to recognise the need to enhance efficiency through reconfiguration of business models and operating systems was a vital cog in this study. The following sections present views expressed by the participants in this respect.

5.4.1 Efficiency Measurement Methodologies

In evaluating the efficacy of cost and profit efficiency measurement techniques, the researcher first checked the respondents' level of appreciation of the concept of bank efficiency. The conceptualisation was varied. To the Financial Controller, Bank Conservative, efficiency was about *ideal versus actual balance sheet* in terms of absolute amounts. He opined that ideal balance sheet figures come from strategy, in terms of the targets, compared with the outturn. To the Finance Director, Bank Candid, efficiency was achieved when a bank attained the *break-even point*. The Head, Corporate Banking, Bank Griffon and Head, Treasury & Investment Banking, Bank Baroda, considered *positive net interest income/margin* to be symptomatic of efficiency.

About 44% of the respondents identified the *cost to income ratio* as the most important measure of efficiency. These included the Head of Corporate Banking and Financial Controller, Bank Conservative, Head, Retail & Mortgages, Bank Baroda, and Managing Director, Bank Baroda.

The Finance Director, Bank Candid considered *capitalisation* as the most important measure of operating efficiency, with the Head, Retail & Markets highlighting the *level of non-performing loans*. According to the Finance Director, Bank Griffon and Head of Operations, Bank Conservative, operating efficiency is best measured by *how much revenue a bank would have generated*. To the Bank Conservative Financial Controller and Bank Conservative Head of Operations, *contribution per person* is an ideal measure of efficiency. *Cost per employee* was also identified as an ideal measure of efficiency by the Financial Controller, Bank Conservative and Finance Director, Bank Griffon.

Other indicators identified were *return on equity*, and *cost of capital* (Head, Treasury & Markets, Bank Conservative; Finance Director, Bank Griffon; and Head, Treasury & Markets, Bank Baroda. The Head, Corporate Banking, Bank Griffon; and Head, Treasury & International Banking, Bank Baroda, identified *net interest income* as the ideal measure of operating efficiency. To the Head, Retail & Markets, Bank Baroda, the *number of accounts*

held by the bank is the most appropriate measure, while the Finance Director, Bank Griffon and Head of Retail & Markets, singled out the *return on assets*. *Overall revenue, volumes of transactions processed and processing hours*, were also considered as critical indicators. The former Finance Director, Bank Candid, also identified *skills* and *human capital* as an important measure of efficiency.

In terms of *major inputs*, the Bank Conservative CFO identified *deposits*, which are deployed into *loans and investments*. He opined that *human capital* and *technological aspects* would be enablers, and not necessarily inputs. *Maximum output*, as far as he was concerned, would be the *optimum production level* where *no idle resources existed*. He, however, could not explain nor identify the state at which no idle resources existed, or what the optimum production level would be. He also underscored the need to consider the *mix of branch network*, including *non-branch delivery channels*, which would minimize pressure on branches.

According to the CFO, Bank Conservative, the bank was doing quite well in terms of efficiency given that its ratios compared favourably with industry, notably the cost to income ratio. With regard to NPLs, the bank was in the in top quartile. The Bank Conservative CFO also argued that the bank had done much without investing too much into infrastructure. In addition, the bank had the best *staff/ cost to total cost ratio* in the industry. The bank was also outsourcing certain services with partners who had the time to research. In addition, the bank had the largest network of POS.

The Managing Director of Bank Baroda indicated that, notwithstanding the bank's relatively low cost to income ratio of around 50%., more needed to be done to enhance efficiency. This included *automating reconciliation processes*, and *rationalising branches*. To enhance efficiency through automation, the bank intended to *reduce loan processing turnaround* time to 14 days in the short term, to be further reduced to 1 day in line with international best practice. The Managing Director also posited that scale efficiency could be enhanced by *raising business volumes*. The dilemma faced by the bank, however, was that while management was advocating for business process re-alignments, the bank did not want to abandon the customer.

Bank Griffon was also measuring efficiency through standard financial ratios; including *contribution per person, cost per employee, asset utilisation, return on equity* and *return on assets*. The bank had also introduced Business Process Re-engineering (BPR), meant to improve process efficiency. The idea was to reduce the number of staff involved in effecting transactions, in a paperless environment. Office space was also going to be reduced to enhance efficiency.

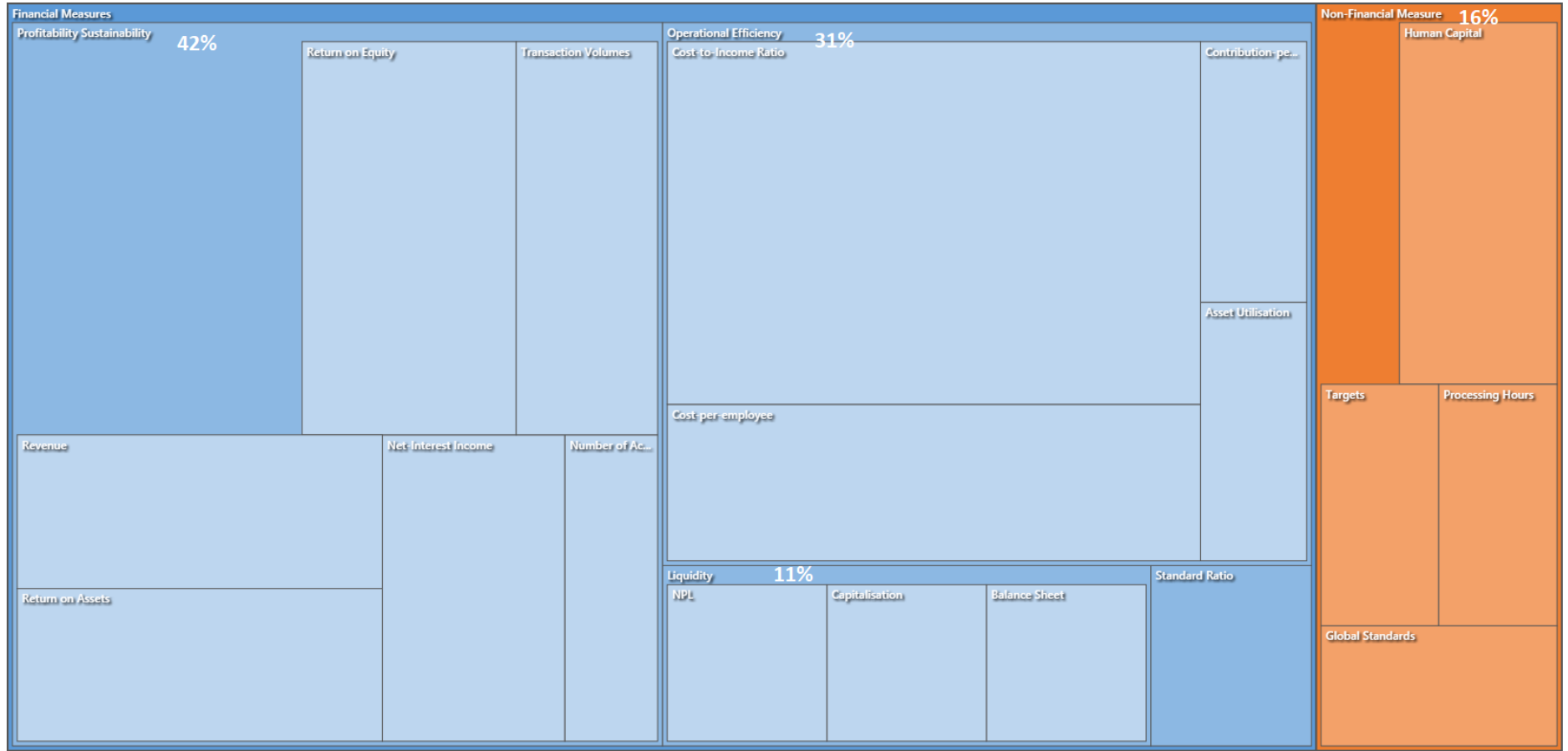
The Head of Treasury at Bank Conservative defined efficiency as the *ability to use the same resources to produce more*. Efficiency, he argued, was about realising *target return on equity*. It entails coming up with standard targets in terms profitability ratios, *cost to income ratio*, and *cost per employee*. Attainment of these is tantamount to efficiency, it was argued.

The Finance Director for Bank Baroda defined efficiency as the *ability to produce more with fewer resources*. In this regard, BPR facilitates efficiency enhancement, he argued. He cited Steward Bank Zimbabwe Limited for having a “very good business model” anchored on efficiency. *Overheads must be matched with income*, he argued. There is need to get to *breakeven point*. Other efficiency measures were; *capitalisation, skills, human capital, business acumen*, where one can minimize costs and maximize revenue. To sustain lower lending rates, there was need for banks to adjust, and not merely profiteer to cover up defective business models, he opined.

Bank Conservative’s Internal Auditor considered efficiency enhancement to be a continuous improvement which requires ability to diversify product lines, while riding on mobile banking platforms to improve efficiency and customer experience. Bureaucracy sometimes tends to negatively impact in terms of efficiency, where formal structures such as those existing in Bank Conservative are the order of the day, whereas with other banks, a mere phone call is all that could be needed to arrange a facility for client requiring \$50,000, for instance.

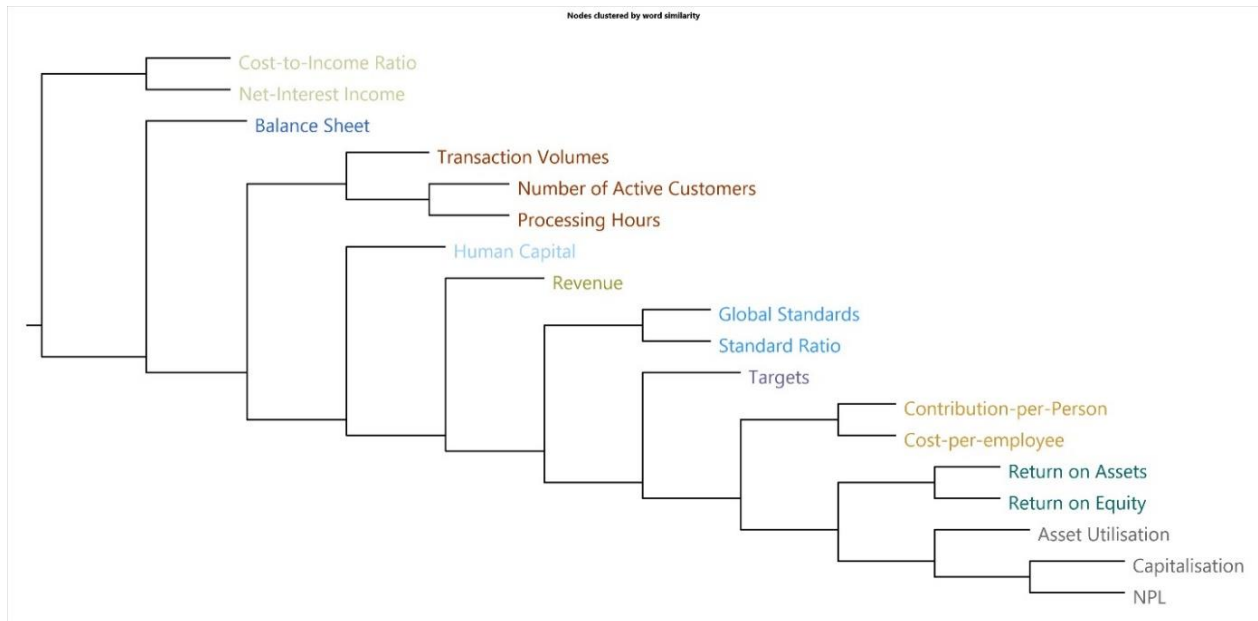
Figure 21 below shows the measures of efficiency highlighted by the respondents, by order of intensity. The cost to income ratio was the most predominant, followed by return on equity and cost per employee. Transaction volumes, net interest income, return on assets and revenue were also identified as important measures of efficiency. Factors mentioned outside accounting ratios, though not so significant, were processing time and human capital utilisation.

Figure 20: Cost and Profit Efficiency Measurement Techniques (NVIVO based)



The diagram below provides a synopsis of cluster analysis in respect of the measurement techniques highlighted by the respondents. The majority of the measures relate to accounting ratios, with the cost to income ratio dominating as shown by the diagram above.

Figure 21: Cluster Analysis- Efficacy of efficiency measurement techniques)



Dominating the measurement indicators are financial ratios, including the cost to income ratio, return on assets, return on equity and asset utilisation. Cost to income ratio is derived by dividing interest expenses and operating expenses by interest income and non-interest income. Asset utilisation on the other hand is a product of total income divided by total assets and measures an institution's ability to generate income with a given set of assets.

5.4.2 Efficiency Measurement Results

A comparison was made between efficiency, as measured by the cost to income ratio, on one hand, profit and technical efficiency ratios, on the other. This was designed to assess whether the cost to income based oriented approach could have distorted efficiency measurement in any way, as well as detract management attention towards development and utilisation of dynamic capabilities to enhance efficiency. Results of the cost to income ratio analysis for all commercial banks that operated in the Country from 2009 to 2017 are presented in Table 9 below.

Table 9: Commercial Banks' Cost/ Income Ratios

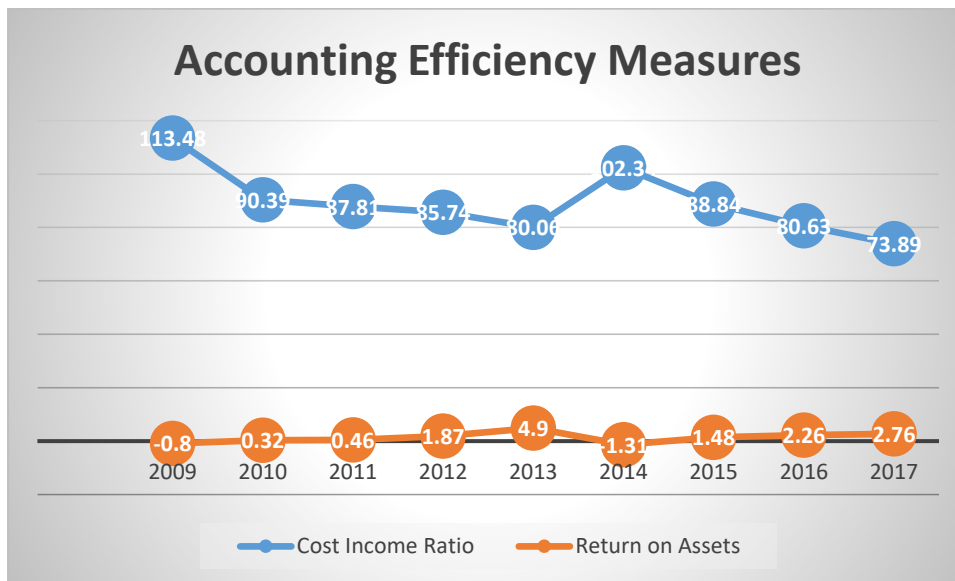
	2009	2010	2011	2012	2013	2014	2015	2016	2017
ABC Corp	94.40%	75.09%	70.16%	82.17%	71.22%	106.74%	96.52%	93.27%	89.44%
AGRIBANK	328.10%	148.93%	97.58%	118.48%	134.48%	116.75%	102.52%	89.33%	86.75%
BARCLAYS	96.28%	105.08%	93.72%	96.38%	85.92%	82.52%	87.46%	75.23%	66.83%
CBZ Bank	61.93%	61.31%	65.59%	61.48%	75.07%	91.38%	85.97%	83.16%	87.85%
Ecobank	Opened 2012			94.42%	87.45%	84.74%	78.31%	65.92%	43.14%
FBC	92.69%	81.97%	80.18%	80.78%	79.58%	96.09%	85.03%	81.77%	80.53%
KINGDOM	95.79%	83.08%	97.24%	94.93%	184.17%	205.14%	Closed	Closed	Closed
MBCA	92.85%	84.52%	78.93%	70.48%	76.28%	75.59%	75.01%	82.51%	75.38%
METBANK	57.19%	79.93%	78.58%	91.14%	91.32%	131.69%	101.46%	92.76%	77.34%
NMB BANK	74.46%	95.81%	77.97%	71.19%	108.41%	95.82%	89.22%	87.27%	76.91%
STANBIC	68.48%	75.37%	73.53%	66.99%	63.95%	68.07%	64.47%	70.57%	62.00%
STANCHART	126.02%	74.25%	56.90%	64.72%	80.07%	84.37%	86.25%	69.44%	75.17%
TN BANK	123.16%	87.52%	89.17%	106.23%	957.54%	93.50%	109.63%	72.55%	59.52%
ZABG	121.97%	125.79%	190.44%	98.52%	991.58%	Closed	Closed	Closed	Closed
ZB Bank	155.45%	86.81%	79.31%	88.15%	97.03%	100.37%	93.09%	84.43%	79.83%
Average	113.48%	90.39%	87.81%	85.74%	80.06%	102.34%	88.84%	80.63%	73.89%

Source: Published financial statements.

Note: *Cost/Income ratio is derived from net operating expenses as a percent of net interest income + non-interest income.*

The general decline in cost to income ratios for all banks between 2009 and 2017 would suggest that efficiency would have improved during that period, based on the submissions by the participants. A close analysis of developments, however, shows that while the decline in the ratios, particularly post 2014 was partly due to cost realignments by the majority of banks, it was more to do with increased non-funded income (RBZ, 2017). Interestingly, the increase in non-interest income was mainly driven by, inter-alia, fees from increased use of digital payment platforms and more frequent cash withdrawals on the back of reduced withdrawal limits (RBZ, 2017) as cash challenges persisted.

Figure 24 shows the inverse relationship between the cost to income ratio and the return on assets, hence buttressing the view that banks could have been distracted from technical efficiency enhancement initiatives as a consequence of undue focus on this type of efficiency measure.

Figure 22: Accounting Efficiency Measures

Source: Bank published financial statements

An analysis of cost to income ratios for the four (4) participant banks was also done for the period 2009 to 2017 based on published financial statements, as shown in Table 10 below.

Table 10: Participant Bank Cost/Income Ratios

Bank	2009 (%)	2010 (%)	2011 (%)	2012 (%)	2013 (%)	2014 (%)	2015 (%)	2016 (%)	2017 (%)
Conservative	96.28	105.08	93.72	96.38	85.92	82.52	87.46	75.23	66.83
Griffon	74.46	95.81	77.97	71.19	108.41	95.82	89.22	87.27	76.91
Baroda	49.50	53.56	60.96	54.37	67.11	78.83	78.97	75.39	72.33
Candid	121.97	125.79	190.44	98.52	991.58	Closed	Closed	Closed	Closed

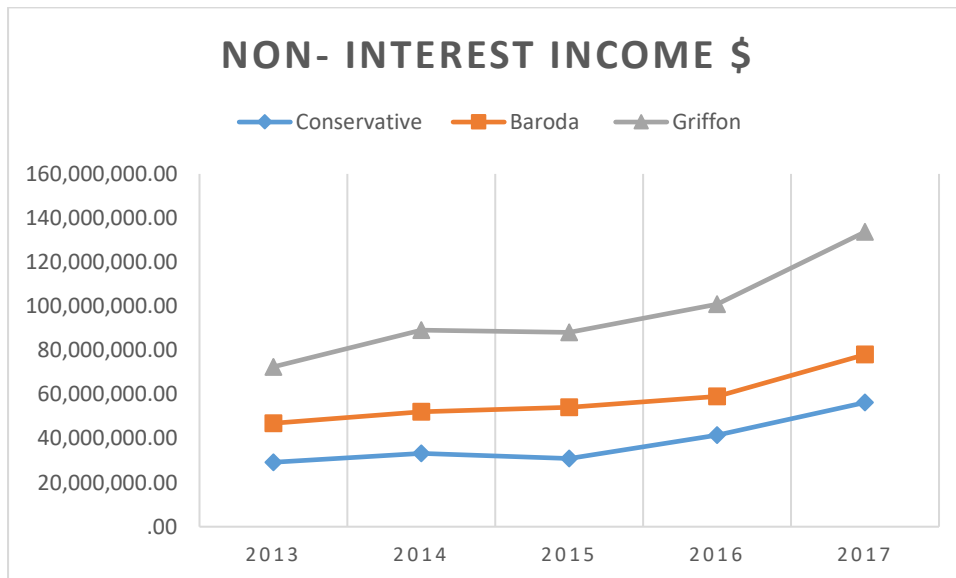
From the data, it was noted that Bank Conservative was the most efficient, with a cost to income ratio having declined from 96.28% in 2009 to 66.83% as at 31 December 2017. Bank Baroda was the second best performer, followed by Bank Griffon. By the time Bank Candid was closed in 2014, the cost to income ratio had skyrocketed to 991.58%, against the background of serious solvency and liquidity challenges.

The improvement in the Bank Griffon cost to income ratio, on the other hand was due to a combination of cost containment and income generation. Operating expenses declined from \$27.8 million to \$25.9 million between 2014 and 2016, with net interest income increasing from \$16.3 million to \$22.5 million. The decline in operating expenses came against

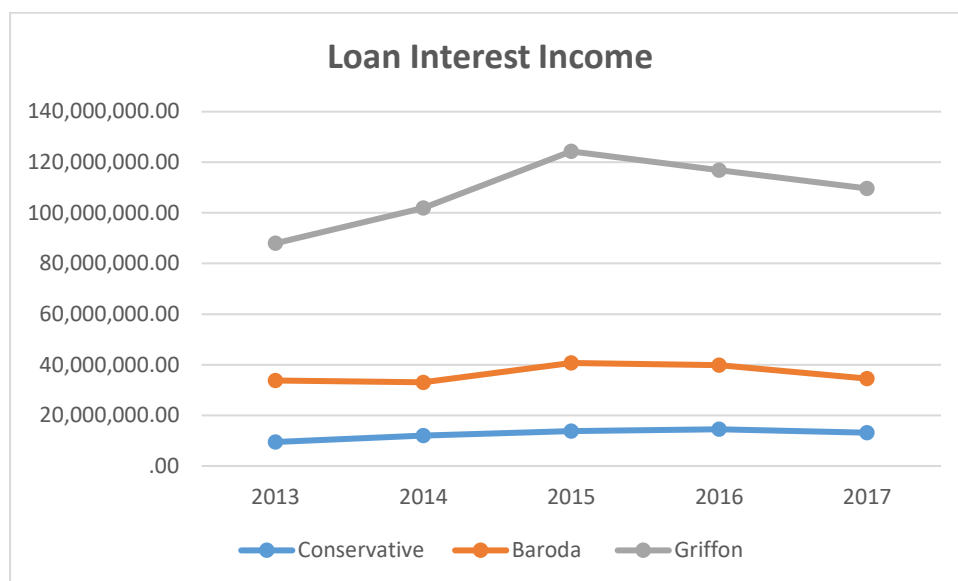
the background of a business process re-engineering project. The bank's cost to income ratio, however, remains well above that of the other two banks.

The general improvement in the cost to income ratios for all the three operating banks, Bank Baroda, Bank Conservative and Bank Griffon was, however, mainly spurred by the growth in non-interest income, notably, fees and commissions on the back of increased uptake in digital payment platforms by the public, as well as increased frequency of cash withdrawals after most banks imposed much lower withdrawal limits, as shown in Figure 23 below.

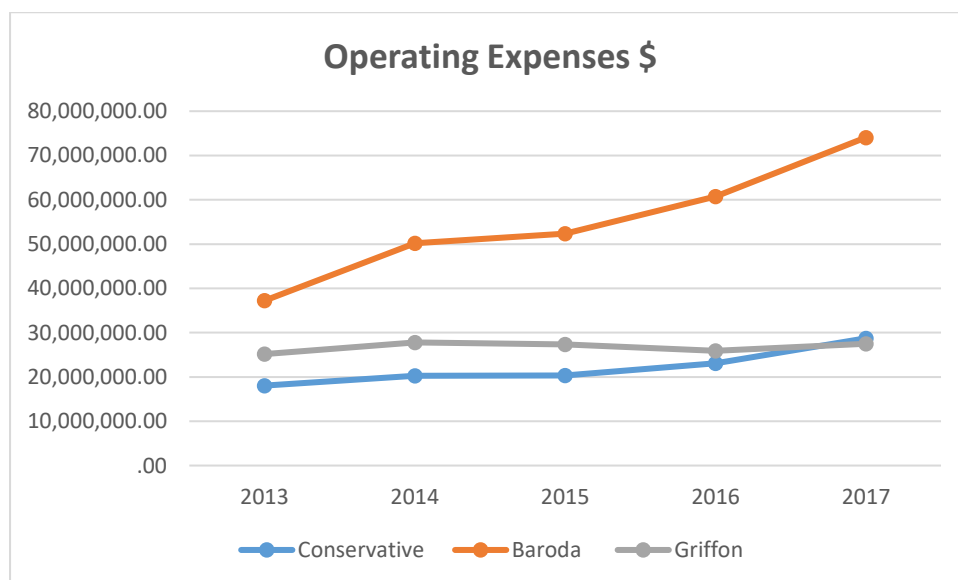
Figure 23: Non-Interest Income



The improvement in the cost to income ratio, particularly post 2014, was also attributable to increased reliance on investment income from short term investments (RBZ, 2016). This came at a time when most banks had adopted a cautious approach to lending, coupled with a preference for holding less risky, and sometimes higher yielding short-term investments. Figure 24 below shows the effects of the cautious approach to lending and repositioning of bank balance sheets towards short term investments on loan interest income.

Figure 24: Loan Interest Income

On the expenses side, Figure 25 below shows the trend in operating expenses for the three operating participant banks between 2013 and 2017. The generally unchanged level of expenses between 2014 and 2016 was a manifestation of the cost containment measures the banks were putting in place to manage decompressed net profit margins.

Figure 25: Operating Expenses

The increase in operating expenses at bank Baroda was mainly a reflection of branch refurbishment and roll-outs, as well as expansion of digital payment platforms.

5.4.3 Technical Efficiency Analysis

The calculation of technical efficiency and profit efficiency was based on banks' financial statements for selected years. The analysis was based on data envelopment analysis (DEA), deemed to be most appropriate in the light of the financial intermediation business models Zimbabwean banks were employing. Various technical efficiency measurement scenarios were undertaken, based on non-radial measure of efficiency, maximum distance to frontier: SBM; Tone (2001), input oriented, constant returns to scale.

The results of Scenario 1 based on **Shareholders' Funds, Deposits & Operating Expenses**, as inputs, and **Loans and Advances and Other Earning Assets**, as outputs, are presented under **Table 11** below.

Table 11: Technical Efficiency Results- Scenario 1 (2013-2017)

BANK	2013	2014	2015	2016	2017
AGRIBANK	1	1	1	1	1
BancABC	1	1	0.916439	1	0.717744
BARCLAYS	0.394089	0.426948	0.558794	0.435369	0.365098
CBZ	1	1	1	1	1
ECOBANK	0.664355	1	1	0.637877	1
FBC	1	1	1	0.880124	0.692702
MBCA	0.485126	0.565705	0.60805	0.532459	0.4814
NMB	0.887805	1	1	1	0.83586
STANBIC	0.526194	0.504318	0.583367	0.480184	0.492182
STANCHART	0.406811	0.467866	0.462308	0.492299	0.659169
STEWARD	0.465598	0.594496	0.442065	0.420617	0.614725
ZB BZNK	0.512062	0.614689	1	1	1
CABS	0.632936	0.660197	1	0.882029	1
POSB	0.36573	0.494421	0.528871	0.444174	0.501814

Source: Banks Published Financial Statements

Noteworthy, is that banks that had relatively high cost to income ratios and hence, deemed inefficient based on participants' assessments, performed well in terms of technical efficiency scores. An analysis and discussion on this is given in Chapter 6. The **second scenario** was based on **Shareholders' Funds, Deposits & Operating Expenses, Interest Expenses & Provisions for Bad and Doubtful Debts**, as inputs, and **Loans & Advances and Other Earning Assets**, as outputs. The results are presented in Table 12 below.

Table 12: Scenario 2 (2013-2017)

	2013	2014	2015	2016	2017
AGRIBANK	1	1	1	1	0.635638
BancABC	1	0.306416	0.411883	1	0.424466
BARCLAYS	1	1	1	1	1
CBZ	1	1	1	1	1
ECOBANK	1	1	1	1	1
FBC	1	1	1	0.803993	0.614208
MBCA	0.851206	1	0.723862	1	0.679396
NMB	1	1	1	1	0.782042
STANBIC	1	1	1	1	1
STANCHART	0.845193	0.410973	1	1	1
STEWARD	0.577291	0.450201	1	1	1
ZB BZNK	1	0.818373	1	1	1
CABS	1	1	1	1	1
POSB	0.458534	0.506541	1	0.803993	0.54241

Source: Published Financial Statements

The results show that, in general, all banks performed well compared to Scenario 1, particularly post 2014. In particular, the status of international banks i.e. Barclays, Standard, Stanbic and Ecobank, except MBCA (now Nedbank) changes completely, as they have efficiency scores of 1. Foreign banks that have not been consistent are Nedbank and Standard Chartered. Two local banks that performed extremely well under this scenario are CBZ Bank and CABS. Similar about these banks is that they are large and have been aggressive in terms of lending. Noteworthy, however, was that the other locally owned banks, particularly BancABC and the Peoples Own Savings Bank (POSB), dipped significantly in 2017.

Scenario 3 was based on **Deposits and Operating Expenses** as **inputs** and **Loans & Advances** and **Other Earning Assets** as outputs. The results are shown in Table 13.

Table 13: Technical Efficiency (Scenario 3):

	2013	2014	2015	2016	2017
BANCABC	1	0.954792	0.881178	0.819305	0.449979
AGRIBANK	1	1	1	1	0.65749
BARCLAYS	0.564695	0.50216	0.589727	0.414141	0.671497
CBZ	0.564695	1	1	1	1
ECOBANK	0.804947	1	1	0.713408	1
FBC	0.779038	0.779802	0.828206	0.784995	0.732157
MBCA	0.709102	0.690023	0.648258	0.560998	0.52384
NMB	0.874089	1	0.940492	1	0.876162
STANBIC	0.641182	0.666049	0.63447	0.530011	0.46667
STANCHART	0.681719	0.537444	0.443411	0.609243	0.595745
STEWARD BANK	1	0.777464	0.773632	0.495513	0.688567
ZB BANK	0.681719	0.631775	1	0.925219	1
CABS	1	0.892945	1	0.99612	1
POSB	0.439134	0.488204	0.711062	0.360575	0.575786

Source: Bank Annual Reports

Interestingly, under this scenario, all foreign owned banks recorded extremely low efficiency scores during the review period (i.e. Barclays, Stanbic and Standard), with the exception of Ecobank, which had an efficiency score of 1.0. On the other hand, locally owned banks, CBZ, NMB and CABS performed persistently well between 2013 and 2017. Notable, is the significant deterioration in the efficiency scores for Steward Bank between 2013 and 2016, before improving in 2017 albeit below other locally owned banks. Incidentally the bank performed well as measured by the cost to income ratio, as well as under scenario 1 and 2. Agribank performed persistently well through throughout 2013-2016, before a sharp deterioration was recorded as at 31 December 2017.

Notable under this scenario is that banks that had relatively higher loan portfolios performed much better than their peers.

Technical Efficiency scores for participant banks based on Scenario 3 are presented in Table 14 hereunder.

Table 14: Technical Efficiency (Scenario 3)

Bank	2013	2014	2015	2016	2017
Bank conservative	0.564695	0.50216	0.589727	0.414141	0.671497
Bank Griffon	0.874089	1	0.940492	1	0.876162
Bank Baroda	1	0.892945	1	0.99612	1

Consistent with other foreign owned banks Bank Conservative had persistently low technical efficiency scores from 2013 and 2017, albeit improving marginally in 2017. This was in contrast with its cost to income ratio (66.83%), which was one of the lowest in the sector, also consistent with other foreign owned banks. Bank Griffon and Bank Baroda, on the other hand, had persistently high scores over the review period, depicting the same scenario as with other locally owned banks, which had relatively high cost to income ratios. It is noted, however, that though the holding company for Bank Baroda is locally incorporated, its ultimate shareholding is foreign.

When **interest expenses** and **provisions for bad and doubtful debts** are included, however, Bank Conservative outperforms Bank Griffon. The only bank that performs well in both scenarios from the sample is Bank Baroda. Noteworthy, is that notwithstanding the relatively high levels of interest expenses and provisions for bad and doubtful debts, the bank still performs well under this scenario.

Details of the results of sample based on the Scenario that includes interest expenses and provisions for bad and doubtful debts are shown in Table 15 below.

Table 15: Sample Banks- Including Interest Expenses and Provisions for Bad and Doubtful Debts

BANK	EFFICIENCY SCORE
BANK CONSERVATIVE	1
BANK GRIFFON	0.653467
BANK BARODA	1

5.4.4 Profit Efficiency

To increase analytic depth on efficiency analysis, the study also considered results of profit efficiency, which is basically a measure of how close a bank is to producing the maximum possible profit given a particular level of input prices and output prices.

The **first scenario** considered major profit and loss account items in the Zimbabwean dollarized environment. On the input side are operating expenses, interest expenses and

provisions for bad and doubtful debts, whilst interest income and non-interest income were deemed as key outputs.

Paradoxically, the results show that the worst performing banks in terms of technical efficiency were the best performers in terms of profit efficiency, as shown in Table 16 below.

Table 16: Profit Efficiency Trends

	2013	2015	2016	2017
AGRIBANK	0.479312	0.479312	0.646829	0.67593
BARCLAYS	1	1	1	1
CBZ	1	1	1	1
ECOBANK	0.681588	1	1	1
FBC	0.858058	1	0.817577	0.841358
MBCA	0.946832	1	0.645051	0.7119411
NMB	0.650763	0.858091	0.776985	0.592911
STANBIC	1	1	1	1
STANCHART	0.89882	1	1	1
STEWARD BANK	0.133558	0.420757	1	1
CABS	1	1	1	1
POSB	0.483404	1	0.743051	0.476456

Note: 2014 data not available

The Table below compares technical efficiency and profit efficiency scores for the various banks.

Table 17: Technical & Profit Efficiency Scores (2013)

Bank	Technical Efficiency	Profit Efficiency
AGRIBANK	1	0.479312
BARCLAYS	0.564695	1
BANCABC	1	1
CABS	1	1
CBZ	0.56468	1
ECOBANK	0.804947	0.681588
FBC	0.779038	0.858058
MBCA	0.709102	0.946832
NMB	0.874089	0.650763
STANBIC	0.641182	1
STANDARD	0.681719	0.89882
POSB	0.439134	0.483404
ZB BANK	0.681719	0.681588

Table 18 depicts a synopsis of the divide between foreign owned banks and locally owned banks, with the former performing badly in terms of technical efficiency and well in terms of profit efficiency. It would appear that, from a technical efficiency point of view, foreign owned banks are being penalised for not lending. From a profit efficiency perspective, the foreign owned banks appear to be benefiting from relatively large loan portfolios in absolute terms as well as ability to generate non-funded income. The ability to generate more

income in relation to operating expenses appears to place the foreign banks on a competitive advantage from a profitability perspective.

A comparative analysis of Profit Efficiency and Technical Efficiency Scores for the sample banks is shown in Table 18 below. Bank Candid had been closed in 2014.

Table 18: Profit Efficiency versus Technical Efficiency for Sample Banks (Technical efficiency Scenario 3)

Bank	Technical Efficiency*				Profit Efficiency			
	'14	'15	'16	'17	'14	'15	'16	'17
Bank Conservative	0.50	0.59	0.41	0.67		1	1	
Bank Baroda	0.89	1	0.99	1		1	1	
Bank Griffon	1	0.94	0.56	0.52		0.86	0.78	

***Excluding Interest Expenses and Provisions for Bad and Doubtful Debts as inputs.**

Consistent with the results of other foreign owed banks, Bank Conservative recorded extremely low technical efficiency scores and a high profit efficiency scores. Bank Baroda scored high under both types of efficiency measures. On the other hand, Bank Griffon was technically efficient yet not so profit efficient in relative terms.

5.4.5 Bank strategic thrusts versus efficiency

A review of participating banks' published financial statements and other documents between 2009 and 2017 was conducted to establish possible links between bank strategic thrusts on one hand and profit and technical efficiency, on the other. The findings are presented hereunder.

a) Bank Conservative

A review of the Board Chairman's Reports in the bank's annual financial statements depicted an extremely conservative strategic thrust. For instance, as far back as 2009, the bank's Board Chairman intimated that the bank's loan portfolio would be rebuilt and increased as market and **credit risk factors** in the economy improved. Notwithstanding the Chairman's acknowledgement of the changing operating terrain as the country migrated to dollarization, his main focus, however, was on maintaining **capital and liquidity positions** above regulatory benchmarks. The Chairman also underscored the need to minimise the **risk of future default**.

Recognition was also given to the support received from the Group in respect of sustaining business operations in the shifted operating terrain.

While the Managing Director's commentary referred to strategic fit issues, this was confined to **strengthening of risk management systems** in view of the operating environment. Reference to delivery channels was limited to internet, mobile banking, and SMS alerts, while business alignment was restricted to delivery of customer service, with no reference to efficiency enhancement.

In subsequent reports up to 2016 the Chairman continued to underscore the importance of maintaining a cautious lending strategy underpinned by prudent risk management and internal controls. It is noted that the bank's average deposit growth rate and average loans to deposit ratios over the period 2009 and 2014 were amongst the lowest amongst foreign banks.

The strategic thrusts resonate with balance sheet structure and relatively low technical efficiency scores, particularly when the DEA intermediation approach is utilised.

b) Bank Griffon

As with most banks, the Chairman's Statement in the 2009 published Financial Statements made no reference to any strategic thrusts, focusing instead, on accounting policies and risk management as per RBZ requirements. It was apparent that during the early phases of dollarization before the departure of founding directors and executive management, the bank paid little attention to strategic issues, preferring instead to focus, on accounting and regulatory conventions.

It was not until 2012 that the bank's corporate strategy began to incorporate the launch of new products, including Visa Card International, Debit Card, SMS alerts, and E-Statements, in a bid to diversify the clientele base. With the coming on board of a new Board Chairman in 2015, the bank widened its catchment area to include small and medium scale enterprises and broader market segment through branded technology. This was done through accelerated deployment of Point of Sales targeting the lower end of the marker.

Through cost containment efforts anchored on product and technological innovation, deployment of POS and enhanced e-channels, operating expenses declined by 3% and 4% in 2015 and 2016. These developments resonate with the bank's largely favourable cost to income ratios and technical efficiency measures, compared to peers. It is, however, noted that the bank's profit efficiency ratios were generally below peers, largely attributable to relatively higher provisions for bad and doubtful debts.

It would, thus, appear that the expansionist policies and innovative thrusts adopted by new management after the departure of the old executives contributed to efficiency enhancement as reflected by higher technical efficiency scores. Bank Griffon was one of the locally owned banks that grew the deposit base relatively faster than foreign owned banks.

Bank Baroda

Consistent with the growth strategy views expressed by most respondents at Bank Baroda, the Board Chairman's statements from 2011 to 2014 placed emphasis on asset and loan growths. For instance, the 2011 Annual Report highlighted a 163% growth rate in total assets, largely driven by the growth in deposits. Other comments related to the bank's growth strategy included re-opening of closed branches, establishment of agency networks, the launch of an SME package, and access of a \$20 million external credit line to support long term loans. There has also been a drive towards digital payment platforms. The bank was also granted an authorised dealership license, in addition to implementation of a new core banking system.

The 2012 Chairman's statement noted a 46% growth in assets, mainly driven by the growth in deposits. The bank re-opened eight (8) branches, and rolled out agents to support mobile banking network. The bank also deployed more POS to support plastic money usage while mobilising additional external lines of credit to fund long term loans, including mortgage loans.

In addition to highlighting asset growths, the 2013 and 2014 Chairman's Reports also referred to the deployment of ATMs to make banking accessible; mobilisation of additional external credit lines to finance long term mortgage loans; as well as introduction of additional services on the mobile banking platform. More POS were also introduced to promote the use of plastic money. Interestingly, the bank had grown from being the 8th largest banking institution in the country in 2009 to the second largest bank in 2014, with an asset base of USD\$856.8 million. Consistent with the growth and income generation strategies, the bank recorded relatively high scores in respect of both profit and technical efficiency.

5.5 Scope for Enhancing Bank Efficiency through Dynamic Capabilities

The epicentre of this study was to determine the scope for enhancing bank efficiency through dynamic capabilities". The sections hereunder, therefore, provide highlights of the views expressed by respondents from the four (4) participating banks on this matter. These are

broken down into idiosyncratic and environmental factors. Of the total participants numbering 26, 76.92% were of the view that there is scope to enhance bank efficiency going forward.

5.5.1 Idiosyncratic/Bank Specific Factors

a) Re-alignment of Distribution Channels

There was general consensus that the predominance of branches in the current distribution network in the banking sector provides great scope to enhance operational efficiency in the banking sector through re-alignment of distribution channels. For instance, the Bank Conservative Financial Controller argued that the bank's extensive branch network has been major hindrance to technical efficiency enhancement. He noted that the bank's business model, wherein more people are in the back office compared to front office, had created operational bottlenecks. The Financial Controller also noted that the re-alignment would be timely given that most of the bank's customers are no longer keen to necessarily come to the bank, but to transact from the comfort of their homes.

The Bank Conservative Financial Controller also noted that current brick and mortar business models would invariably need to be disposed of. The challenge, though, was with the depressed nature of the real estate market due to underlying liquidity problems in the economy, which makes it difficult to find buyers. Against this background, argued the Financial Controller, the *ability to make decisions* to reconfigure distribution channels and the role corporate structures could play, is critical. This view was corroborated by the Head, Retail & Markets, Bank Baroda. The Head, Corporate Banking, Bank Baroda, concurred and advised that the bank was in the process of determining loss-making branches with a view to closing them down. By October 2018 the bank had merged some branches as part of the branch rationalisation process.

Reinforcing views expressed by his colleagues, the Managing Director of Bank Baroda, posited that there was scope to migrate from branch based business models towards automation, underpinned by products such as internet banking, point of sale (POS), and mobile banking, in line with world-wide trends. Cash shortages that have characterised the market were noted to have created scope for banks to introduce digital payment platforms. The Managing Director also noted the pressure to innovate that was emanating from mobile network operators.

According to the Finance Director, Bank Griffon, the decompression of net interest margins arising from the cap in lending rates had forced banks to interrogate their value chains

and consider opportunities for enhancing efficiency. One of the strategic responses the bank had adopted was implementation of a Business Process Re-engineering Project (BPR). This included branch rationalisation.

One of the major risk factors against branch rationalisation, however, according to the Managing Director, Candid Bank, and Managing Director, Bank Baroda, was the emotional attachment between bank management and customers. For instance, the former advised that the decision to close one of the bank's branches in a remote location had to be reversed after a huge outcry from the clients.

b) Business Process Re-engineering (BPR)

A significant proportion of the respondents (65.38%), cutting across all the participant banks and functional lines, identified business process re-engineering as presenting huge scope for efficiency enhancement in the dollarized environment. The respondents highlighted various initiatives that were being adopted, as well as benefits and obstacles being experienced.

To the Head, IT, Bank Griffon, BPRs enhance efficiency through reconfiguration of business processes in key functional areas, including paperless workflow solutions. The strategic role of IT in the reconfiguration process was also underscored. This was designed to identify operational bottlenecks as part of the BPR. The process also entailed upgrading systems in order to be a world class service provider and meet customer needs. The importance of aligning business strategy and IT strategy was underscored. In line with the 2017-2019 Strategic Plan for instance, Bank Griffon was implementing BPR whose key pillars are *operational efficiency enhancement, business model re-alignment and cost optimization*. Cost savings had already been realised in respect of, inter-alia, property expenses, bank charges, IT licensing, pension, and school fees.

According to the Head of Marketing, Bank Conservative, BPRs provide scope for automation of straight through processing, hence obviating the need for manual interventions. The bank had already implemented this, resulting in the clearing of Real Time Gross Settlement Systems (RTGS) backlogs. Critical components of BPRs, argued the respondents, include increased focus on people, processes and systems, staff benefits and improved customer experience. Such initiatives had seen the introduction of new products, notably twitter, ZIPIT, and mobile money platforms, opined the respondents. This way, efficiency is enhanced.

While noting the importance of robust management information systems (MIS) in the business and product reconfiguration processes, Bank Conservative Management bemoaned the negative impact bureaucratic approval processes have had in the reconfiguration of the

bank's MIS. An acquisition of an appropriate MIS at Bank Conservative, according to the bank's management would, for instance, invariably reduce excessive reliance on back-office staff which had a ratio of 3:1 in relation to front office staff. An efficient MIS would also reduce operational risk associated with manual processes.

The Head, Operations, Bank Conservative advised that the bank had already bank-rolled a BPR project in a bid to enhance efficiency. The process had begun with the engagement of consultants seconded from the parent. During the time of the interviews, seven (7) processes had been reviewed and value stream maps developed. At each step, value-adding activities had been determined through smart ways of achieving transformation (SWAT). Through that process, two (2) units had already been merged into one. Most processes required automation with system implications. The biggest challenge, however, was that Head Office was only prioritising changes that were perceived to have immediate impact.

Bank Baroda also indicated they were in the process of acquiring a new system as part of BPR. This was anticipated to facilitate tracking of documents and improvement in processing times. The initial port of call was to improve loan origination processes. The plan was to extend this to other areas. It was, however, noted that the bank was not clear on the difference between business process improvement and business process re-engineering, with the former relating to incremental improvements and the latter entailing radical changes to process improvement.

The Head of Marketing at Bank Conservative, however, highlighted that efficiency enhancement was being inhibited by the requirement by the Reserve Bank for banks to submit paper based regulatory returns at a time when the bank was moving towards paperless transactions. A lot of investments in technology were being made to facilitate opening of accounts through digital means for instance. Consideration was also being given to conduct meetings through video conferencing. According to the Head, Treasury & Markets, Bank Conservative, the scope for efficiency enhancement has been increasing as banks get more comfortable with the income being generated, which makes it easier to invest in technology that promote innovation.

Bank Conservative management also bemoaned the bank's undue focus on risk analysis, which had impeded on-boarding of products such as Zip-it platform¹⁴ and mobile money transfers.

Key to BPRs, according to the Managing Director, Bank Baroda, is branch rationalisation accompanied by introduction of internet banking; POS, and mobile banking. This had brought

¹⁴ Mobile platform wherein a client can transfer funds from the bank to mobile wallet

increasing pressures to rationalise operations in the years ahead. In this regard, the bank was in the process of automating.

A major development that provided scope for efficiency enhancement in the dollarized environment, according to the Head, Retail, Bank Griffon, was the ability by banks to upgrading core banking systems, which had been difficult in the pre-dollarization period light of foreign exchange to pay for that service let alone pay licence fees for core banking systems. It was, however, observed that with the cash challenges and tightening of remittances by the RBZ, it had become difficult to pay for the system upgrades. In that regard, there has been a drive to look for local suppliers.

The Bank Conservative Chief Executive Officer, on the other hand, intimated that Business Process Re-engineering is an outdated concept in a dynamic environment, preferring instead, a continuous review of systems (incremental process improvement).

c) Strategic Flexibility

Strategic flexibility was identified as a key dynamic capability that presents scope for facilitating bank efficiency enhancement. The Bank Baroda Head of Corporate Banking, in particular, underscored the importance of strategy re-alignment from elitist to mass backed marketing strategies. He noted the scope for tapping on increased demand for mortgage loans as a way of diversifying loan portfolios. Such strategic moves provide opportunities for income generating capabilities in an environment where operating expenses have remained high. For bank management to maximise benefits from this capability, however, there is need for a mind-set shift towards the right lending culture as well as clearly defined market segments, while being mindful of attendant cost implications, according to the Head of Corporate Banking.

Bank Conservative management highlighted the extent to which compromised strategic flexibility had stalled efficiency enhancement initiatives at the bank. Notable was the bank's lack of appreciation of the demands of the local environment by the bank's foreign parent. Due to the global nature of the Bank Conservative Group, for example, prioritisation had been given to other projects in other countries where the group has a presence.

For bank efficiency enhancement to be realised, according to the participants, there is need for strategic flexibility to start at the highest level in the organisation. In particular, there is need for good quality board members and management skills to move ahead of competition. Dynamic institutions are required to drive the innovation process. While foreign controlled banks were noted to have strong internal governance processes that could be leveraged upon to enhance efficiency, bureaucratic tendencies and cautious business approaches, as well as

undue focus on risk analysis, had adversely affected strategic flexibility and growth prospects.

Bank Baroda prided itself for taking advantage of the environment and moving into the internet banking model ahead of competition. The bank also introduced agencies all over the Country at a time when international banks had stuck to the traditional branch network. Paramount in strategic flexibility and agility is the need to fully appreciate risk. There is also need to stay close to the civil service in view of the vast growth potential presented by this segment.

Strategic flexibility at Bank Baroda was mainly attributed to a flexible and supportive Board. Amongst approvals granted by the Board was the budget for Point of Sale (POS). This facilitated alignment with customer requirements and competitive positioning – described by management as nimble-footedness. The Board was always enquiring on whether management had received all they required in terms of resources. The Bank Griffon Finance Director noted the importance of agility which, in turn, facilitates first mover advantage through introduction of unique products. Critical to this is staff morale, which ensures that they stay focused, and think outside the box.

The Bank Conservative Financial Controller noted the scope for enhancing efficiency through customer-centric approaches, as these would drive volumes and enhance scale efficiency. These are more effective compared to the pricing strategy, as there was little scope for competitive pricing. Bank Conservative for instance, had tried the pricing approach which was met with counter strategies by competitors resulting in reduction of prices to sub-economic levels. He also argued that efficiency enhancement would also be critically dependent on a change in philosophy by bank management.

The Managing Director of Bank Conservative posited that the ability to manage cash in an environment of severe cash shortages presented an opportunity to expand the customer base and boost business activities. For instance, he prided the bank for the innovative manner in which it had handled persistent cash shortages. The bank was the first to have introduced a weekly cash allowance for clients. The bank also came up with breakfast meetings for clients, notably, tobacco farmers, to understand their specific needs and provide tailor-made products.

According to the Head of Corporate Banking, Bank Baroda, the operating environment also provided opportunities for banks that could match customer demands while launching products at the right time to enhance operational efficiency. He, however, admitted that the bank had not excelled in this regard. Product and service innovation had somewhat progressed slowly, mainly due to failure to maximize utilisation of technology. The bank had thus missed an opportunity to leverage on technology platforms.

The Bank Griffon Finance Director emphasized the importance of ability to satisfy customers, value proposition, product innovation, producing at the right price, ability to align value proposition, as well as strategic intent and objectives. In addition, she identified customer and service centric abilities, and the appreciation of the fact that that customers have a choice has choice, as critical capabilities.

To enhance profit efficiency, the Bank Conservative Head of Treasury highlighted the need for management to get out of its comfort zone and start lending and sweat capital more, even if it meant focusing on big corporates considered to be less risky. Consideration should also be given to increased support to small and medium scale enterprises whose influence in the economy had increased tremendously. With effective lending, return on equity would exceed the cost of equity and hence, efficiency would be achieved, the Head of Treasury argued.

According to the Head, Retail & Markets, Bank Baroda, banks that demonstrate capability to diversify their funding bases from wholesale to retail sources stood a better chance of minimising funding costs. He also discounted the myth that only those banks that have capitalised on flight to quality can source relatively cheap funding, arguing that it is more to do with service quality. Both the Head of Corporate Banking and Managing Director, Bank Baroda, also concurred that tapping into Small and Medium Scale Enterprises and value chain financing provides great scope for banks to sweat capital and be more efficient.

d) *Decision Making Ability*

The ability to make decisions in a timely manner was noted to be an important capability that would determine the pace of efficiency enhancement. This includes the timing of product introduction, where one of the domestically owned banks was noted to be a very good example of this. In particular, the bank had been purchasing land and building modern structures for sale. This had taken the market by storm. The ability to identify and seize opportunities, in addition to giving people the opportunity to think outside the box was also considered to be vital. The imperative need to give staff the freedom to make mistakes was also underscored. According to the Financial Controller, Bank Conservative, capacitating management to roll-out new products is vitally important. It is therefore important that corporate structures be alive to this.

Interestingly, 100 % of the participants from Bank Conservative were of the view that the bureaucratic rigidities depicted by the bank's parent had significantly negatively affected the bank's efficiency enhancement drive. The bank's Managing Director opined that with the

exception of the benefit of brand capabilities, the foreign parent had virtually created gross inefficiencies due to bureaucratic tendencies. This view was supported by the bank's Head, Marketing, who bemoaned the negative effects on efficiency, of strict adherence to expansive governance arrangements. He gave an example of a bank whose regional parentage had greatly assisted in appreciation of the African operating terrain.

The Head, Legal, Bank Conservative, indicated that the ability of the bank to enhance efficiency would largely depend on the flexibility with which it will be given by the parent to conduct operations. The current lack of appreciation by the parent, of the shifted nature of the operating terrain, as well as slow decision making, had stalled efficiency enhancement. In particular, she pointed out the directive given to the bank by the parent to stop lending pending clarity on the trajectory the economy was taking. Reinforcing the importance of parental support, the Head, Corporate Banking, Bank Conservative, indicated that opportunities for growth had been missed due to ill-timed decisions. Opportunities for reconfiguration of the management information system were also missed in view of convoluted approval processes. The same challenges were experienced in respect of product innovation. The time taken to scrutinize proposals due to rigorous risk management systems was also noted to scuttle innovation.

e) Strategy and Infrastructure

It was noted that much would depend on the appropriateness of strategy and infrastructure which, apparently, most banks have been found wanting. Such pillars, it was argued, need to be supported by research, appropriate reward incentives, organisational culture, accountable executive, relevant committees and sub committees, as well as champions who can effectively drive the change agenda, it was argued.

According to the Head, Corporate Banking, Bank Conservative, a key lesson from the dollarized environment is that organisational structures need to be quickly aligned to shifting operating environment. Banks took too long to adjust and adopt new and appropriate and strategies that would have seen leaner structures. Visits to countries that had undergone dollarization would have enhanced experiential knowledge.

The Head, IT, Bank Baroda, underscored the importance of aligning business strategy and IT strategy, particularly in an environment in which product innovation is gaining traction.

f) Executive Support

According to the Head, Operations, Bank Conservative, innovation and efficiency

enhancement in the banking sector would depend a lot on the level of executive support. The bank, she argued, had embedded a culture of innovation and proactive thrusts. Such support was noted to have spurred staff morale which in turn made them stay focused, think outside the box, and propel them to find ways of doing things differently. In particular, the bank's Managing Director was commended by staff for being very supportive of ideas that benefit customers.

Bank Griffon was quite emphatic on the role of executive support if meaningful innovation is to take place. The bank's Finance Director, for instance, underscored the need for a compelling vision, strategic intent, and clear direction. She also identified transformational leadership, change management abilities, executive management support; formal structure to support and nurture innovation, and commitment from the highest office. She also noted the need for leaders who believe in customer and service centric approaches, value proposition, knowing customer has choice; especially in an environment where other businesses encroach into the entity's core business.

Bank Griffon was noted to have received full support from senior management in respect of technological innovation and branch rationalisation, albeit meeting with initial resistance from some sections of middle and lower level management. A directive had to come from senior management for staff to use e-banking and other digital platforms, including ZIP IT and mobile banking.

The Head of Treasury, Bank Griffon, indicated that at first the bank did not have a formal structure that supported and nurtured innovation. With the progression of time, however, weekly development meetings were set in motion, although there had been no follow-through of ideas brought forward. Things changed, however, when the Chief Executive Officer fully supported the innovation agenda and invited staff to submit ideas and rewards offered thereof. New products were introduced, including Point of Sale (POS) and Griffon Lite (current account). This, coupled with competitive pressures, saw the bank introducing other products such as mortgages, SME, and value chain financing, albeit with specific conditions.

g) Knowledge and Expertise

Knowledge and expertise were considered as important attributes which can significantly impact on the pace of innovation. Important also is the ability to be a learning organisation, as well as ability to get staff with the right traits. Bank Baroda managed to diversify into corporate banking through acquisition of new skills from competitor banks and from the central bank.

Innovative environments were also noted to require people of integrity, who are able to do the right things, professional characters, confident, creative, and able to do things differently. For such people to be hired, however, banks require adequate financial resources.

The Head of IT at Bank Baroda underscored the need for core competencies in banking IT systems. This was premised on the observation that while a bank could have a robust IT system, the absence of appropriate skills to support business can impede innovation. At Bank Baroda, they had to complement internal IT capabilities with external party support. The key responsibility was to come up with product innovation e.g. visa master card. Initially, a skills gap had existed where the bank purchased a core banking system in 2011, only to go live in 2013 after facing teething implementation problems.

The Bank Griffon CEO also noted the need for leaders with the ability to recruit staff with capacity to innovate, people who will make the bank move. Staff should have the comfort that when they come up with ideas, they would be taken seriously by senior management, and not simply brushed aside. Further, the operating environment should be such that no one has a monopoly of ideas. He further opined that smaller banks had lacked the required skills base and exposure. A mix of different experiences was noted to facilitate adoption of best practices, while pointing to the right issues.

h) Innovative Capability

The respondents also highlighted the need for innovative capabilities if efficiency in the dollarized banking sector is to be achieved. Such capabilities, for instance, had resulted in the introduction of the ZIPIT platform, entailing interface between banking and mobile wallet facilities. This obviated frequent costly visits to banks by clients. International banks were noted to have stalled in this regard. The Head of Corporate Banking at Bank Baroda gave the bank a rating of five (5) out of 10 in terms of *Innovative Capability*. In some cases the bank had been first to come up with loan facilities in the dollarized environment. The bank had also been the first one to come up with credit partners in the delivery of products. Management was upbeat about the Small & Medium Scale sector. The bank had also ventured into in sugar value chain financing, as well as supporting milk production.

Bank Baroda management also indicated that they were the first to come up with the agency banking model, processing of personal loans, in addition to being the biggest lender. The bank also introduced on-line transactional capacity much earlier than peers, and had launched the card system which became quite popular, as the shift to a paperless system gathered momentum.

The large customer base with a wide geographic spread of 60 branches at Bank Baroda had also contributed to the development of an online payment platform, which had been introduced way back in 1985. International developments towards reduction of branch networks, internet banking, POS, mobile banking, was also exerting pressure to innovate, argued the Bank Baroda Head of Corporate Banking. Cash shortages were also noted to have propelled the need for plastic money. The bank had already introduced internet banking, wherein clients could use to pay bills, including the WhatsApp platform.

The Finance Director of Bank Griffon also identified IT excellence, lean structures, being techno-savvy, use of digital channels and lack of resistance to change internally as important innovative capabilities. The CEO for Bank Griffon also underscored the need for abilities to *sense* and *seize* opportunities- people who are able to study what other markets are doing, and people who are open minded. Innovative banks should have research and development committees where any member of staff is free to put through their thoughts. In this regard, the recognition of quality becomes motivational, he further argued.

i) Alignment Capability

Alignment capability was noted to provide scope for product innovation, with the Head of Corporate Banking at Bank Baroda rating the bank “fair” on this capability, particularly in respect of alignment of strategy with changes in the operating environment, as well as international trends. When the Ecocash Mobile Platform revolution was taking the Country by storm for instance, banks had been found wanting in terms of strategic options.

j) Bank Consolidations

While bank consolidations were noted to provide opportunities business growth and enhanced operational efficiencies, the respondents opined that this route had been inhibited by lack of value proposition, where international banks had not seen merit in that concept given that they were already operating safely and soundly, supported by “big brothers” in the form of parentage. On the other hand, owners of local banks had shown aversion to consolidations for fear of losing control, on the back of poor internal governance and unethical behaviour. This, according to the respondents, had been one of the major obstacles towards efficiency enhancement in the banking sector.

k) Financial Resource Capabilities

The aspect of financial resource capabilities also came out as a major determinant of

efficiency enhancement. The CEO for Bank Griffon highlighted opportunities where financial resource capabilities had made a difference. He noted the case of Bank Conservative where parental support had enabled the bank to fund its retrenchment exercise. Unlike Bank Conservative, while Bank Griffon might have reflected over the shifting operating landscape, its options had been constrained by lack of financial resources. The coming in on board of foreign shareholders in 2010 therefore, made a significant difference to the fortunes of Bank Griffon. The shareholders, not only “brought in financial resources that stabilised the ship, but brought in best practice and enhanced corporate governance”. This, coupled with absence of insider loans, characteristic of foreign controlled banks, significantly improved market confidence, argued the Bank Griffon CEO.

Financial resources capabilities also provide the leverage to capitalise on available opportunities. This, coupled with the right mix of skills, and requisite financial required to drive technological change and product innovation are critical prerequisites. Customer preference was also noted to play an important role in pushing volumes, hence the need for alignment between customer preferences and financial resource capabilities.

l) Risk Aversion

According to the Managing Director, Bank Conservative, risk aversion can be a huge hindrance to efficiency enhancement. For instance, it is difficult for a bank to be successful and profitable in Africa, particularly if it is averse to exposures to government and commodities. This is premised on the observation that African economies are largely driven by Governments and commodities. He gave an example of a foreign owned bank with regional parentage, which had capitalised on actively participating in acquisition of government debt securities and commodities and had been quite profitable. This, in essence, enhances the scope for efficiency, he argued.

m) Sound Internal Governance

Sound internal governance was also identified as a critical factor in efficiency enhancement. The Head of Internal Audit, Bank Conservative, for instance, posited that banks with sound internal governance are not afflicted by insider abuse of depositors’ funds, which in turn minimises non-performing insider loans, associated provisions, and hence positively impacting profit efficiency.

The lack of expertise from a risk management perspective was also considered to be a factor that stalls efficiency enhancement.

Credit losses that most banks had to absorb largely emanating from somewhat reckless lending in the early stages of dollarization had been a learning curve for banks. This recognition, explained the participants, assisted in tightening and streamlining of credit risk management systems, including implementation of new software. For Bank Griffon, lending decisions had to be collectively done unlike in the past. These developments were noted to have increased the scope for efficiency enhancement.

n) Balance Sheet Clean-up

The establishment of the Zimbabwe Asset Management Company (ZAMCO) by the Reserve Bank with a view to acquire NPLs in the banking sector was seen as a positive development in respect of efficiency enhancement. The disposal of the NPLs by banks was noted to relieve them of the burden of provisions for bad and doubtful debts, in addition to funding gaps that curtail lending capabilities. By exchanging NPLs for Treasury Bills, banks were afforded the opportunity to earn interest income and either discount the bills for cash or leverage them for securing deposits.

Banks such as Bank Conservative were noted to have managed to contain the level of NPLs, which was attributed to the guidance received from head office and hence, had greater scope for enhanced efficiency.

5.5.2 Environmental Factors

Respondents from the participating banks also identified various environmental factors that have the potential to adversely affect the impact of dynamic capabilities on bank efficiency enhancement. These are highlighted below.

a) Country Risk Profile & Policy Uncertainty

The Country's high risk profile and policy uncertainty were noted to be posing the biggest threat to bank efficiency. These challenges were noted to have stood in the way of foreign direct investment, as well as external lines of credit, hence restricting banks' capabilities to lend and generate income. This was aggravated by high political risk and financial crime risk, which tend to constrain business activities, particularly against the background of funding constraints. This has led to underutilisation of facilities at branches by clients.

The Head of Treasury, Bank Conservative, for instance, noted in particular the deterioration of the operating environment since 2013. In particular, he argued that questions

were being raised as to whether Zimbabwe was still truly dollarized. The doubt was emanating from concerns on why banks would fail to fund liabilities supported by NOSTRO balances¹⁵ as these would ordinarily be available on demand. He argued that ideally, all bank liabilities in a dollarized environment should be backed by dollar assets, in which case banks should not have difficulty funding maturing liabilities from the disposal of assets held, including NOSTRO balances. This, he argued, gave credence to the assertion that there was some form of printing of local currency that was taking place, presumably through Treasury Bills and Real Time Gross Settlement system (RTGS).

The Head of Treasury, Bank Conservative, also argued that the introduction of the Bond Note¹⁶ had also aggravated the perception that the Country now has a local currency that was introduced surreptitiously. The increasing issuance of Treasury Bills by Government as well as creation of RTGS balances had also exerted inflationary pressures as more and more of “local currency” chases a declining stock of United States Dollars. The Head of Treasury, Bank Conservative, mainly attributed these developments to the refinancing of high budget deficits. One way of getting around this problem, he suggested was to allow the Bond Note to float against the USD as these two were clearly not at par.

The respondents also highlighted two other factors that had inhibited banks from operating optimally. The first was failure by the Reserve Bank to deal decisively with “corporate vultures” i.e. bankers that abused depositors’ funds, a development considered to have undermined confidence in the banking system. The second issue related to high bank charges that have been discouraging savings, more-so long term savings, in the process limiting the capability of banks to lend.

Notable also, according to the Chief Finance Officer, Bank Griffon, are the numerous directives issued by the authorities, which have tended to be inconsistent and confusing, particularly in terms of bank cash management, NOSTRO balance requirements and import priority lists. This, coupled with reactive policy responses, had resulted in uncertainties that have been limiting the scope for increased business activities, hence scale efficiency.

The other challenge noted is the “Big Brother approach” adopted by the Central Bank. Bank Conservative respondents, in particular, argued that the Central Bank had not seen it fit to discuss strategic issues with banks, including issues relating to the dollarized environment. For instance, Bond coins which banks were forced to accept by the Reserve Bank, were noted

¹⁵ Balances held by local banks with foreign correspondent banks.

¹⁶ Legal tender introduced by the Reserve Bank to facilitate exchange of goods and services, the value of which was at par with the USD.

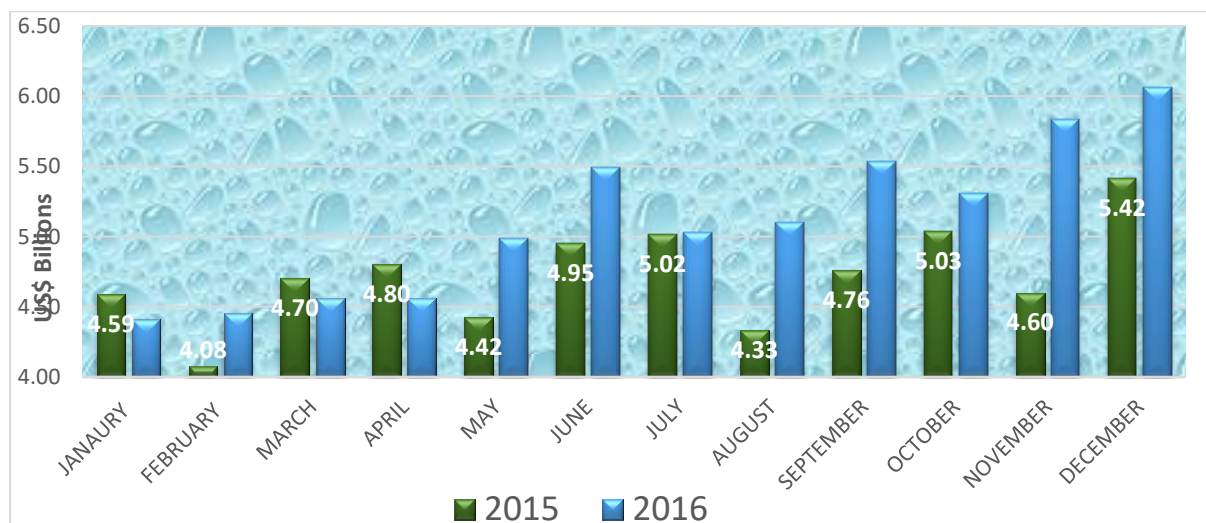
to be creating inefficiencies such as those that existed in the Zimbabwe Dollar era. Banks have had to recruit more people to count bond notes and coins, which results in increased transaction volumes and bank queues, with far reaching implications on operating expenses. The decision taken to reduce bank charges and lending rates against such a background was, therefore, considered counter-productive.

b) Cash Shortages

The respondents were unanimous in that the scramble to innovate currently obtaining in the Zimbabwe dollarized environment had largely been driven by cash shortages. This had left banks with limited choices but to introduce alternative digital payment platforms such as mobile banking, internet banking and other forms of plastic money for their clients.

The former CEO of Bank Candid indicated that, for instance, a large number of customers had rushed to open accounts with Steward Bank Limited, attracted by an assortment of products anchored on the mobile money platform. According to the Reserve Bank (2016) aggregate national payment transactions for the year ended 31 December 2016 grew by 9% to US\$61.7 billion whilst volumes went up by 44% to 367 million. The Real Time Gross Settlement System constituted 77% of the total value and 1.2% in volume terms in the same period. The Figure below shows the aggregate monthly trends of electronic values in 2015 and 2016.

Figure 26: Comparative of Aggregate Electronic Payment Values for 2015 and 2016



Source: RBZ (2016)

c) Competition from Mobile Network Operators (MNOs)

The respondents noted that pressures to innovate, particularly from mobile network operators, had presented scope for efficiency enhancement. There has been increasing awareness that banks have been losing customers to such operators, notably Econet Wireless, Telecel Zimbabwe and Net One. Banks had tried to fight the MNOs to no avail. Increasingly channel distribution has shifted to POS, internet banking and mobile platforms. There has thus been a realisation that costs could be significantly reduced by removing people from the banking halls to alternative payment channels.

d) Decompressed Net Interest Margins

The decompression of net interest margins on the back of reduced lending rates and bank charges was noted to be an important enabler in respect of efficiency enhancement. This had motivated banks to increasingly interrogate their value chains with a view to enhancing operational efficiency, either through cost re-alignments or increased business volumes.

Other respondents, however, were of the view that the capping of lending rates to a maximum of 12% per annum by the Reserve Bank without a discernible basis, was bound to squeeze profit margins and further dampen profit efficiency.

Adding to the decompression in interest margins were pressures for lower lending rates from so-called blue chip companies. These companies have opted for cheaper external lines of credit, resulting in less demand for local lines of credit. This, according to the respondents, has been motivating banks to devise innovative ways of doing business in the most cost efficient and effective manner. The Head of Treasury, Bank Conservative, suggested that the Reserve Bank could come up with a directive forcing customers to borrow from local banks and not rely on cheaper off-shore sources of funding. This, he opined, would in turn boost local banks' balance sheets and increase the scope for efficiency enhancement.

The Head of Treasury, Bank Baroda opined that against the background of decompressed net interest margins, coupled with an apparently overbanked banking sector, banks could derive mileage from some form of consolidation of banking institutions. He also called for the establishment of bigger banks that would provide necessary competition against the big foreign owned banks. As observed by some respondents, however, the scope for bank consolidations was considered extremely remote.

e) Pressures for Customer Convenience

According to the Head of IT, Bank Baroda, the push for innovation by customers who

now prefer to transact in the comfort of their homes, through funds transfer, mobile banking etc., had created immense scope for bank efficiency enhancement. This had forced banks to move from manual platforms towards technologies, such as internet banking. This has, however, called for the need to align business strategy with IT strategy. Such alignment is considered vital in ensuring that product launches are not delayed due to technological bottlenecks.

f) Opportunities for Lending

According to the Head, Corporate Banking, Bank Baroda, the existence of a thriving small and medium enterprises sector in the Country has provided an opportunity to tap on scale efficiency. In this regard, the bank prides itself for having seized the opportunity to venture into the SMEs sector where other banks were fearing to trade. This, he attributed to innovation. He argued that the general belief that risk was high in the market was misplaced. He further opined that tobacco finance, which is self-liquidating, for example, presents a huge opportunity for increased lending. Unlike international banks that had been directed to put a hold on lending, he opined that local banks need not be discouraged by NPLs and instead, assume and manage the credit risk, if operating efficiency is to be enhanced.

The Head of Corporate Banking, Bank Baroda also noted opportunities that existed in personal lending. Unfortunately, some banks were being influenced by banks that had curtailed lending and were following suit without taking an open mind. He further argued that bankers had been selfish all along and were only becoming innovative in the light of pressure exerted by the Reserve Bank through reduced fees and lending rates.

The presence of high net worth individuals in the Country was also considered to present immense opportunities for increased deployment of resources through lending. This, however, had been constrained by the sluggish growth in the economy, which has tended to stall scale efficiency and profit efficiency.

According to the Managing Director, Bank Conservative, the relatively small size of the bankable population in the dollarized era has also militated against attainment of economies of scale.

g) Other Environmental Factors

The respondents also pointed out other environment factors that have the potential to inhibit bank efficiency enhancement through dynamic capabilities. According to the Head, Treasury, Bank Griffon and Head, Treasury & International Banking, Bank Baroda, the limited

nature of the lender of last resort facility, limited financial instruments from a treasury point of view, as well as different discount rates for marketable instruments, had created a number of inefficiencies and bottlenecks.

The limited lender of last resort, it was argued, constraints the ability of banks to lend as they take a cautious approach in light of potential liquidity gaps that could arise when loan defaults are experienced in the absence of a central bank liquidity back-up. This was noted to adversely affect both profit and scale efficiency. Depressed secondary money market activities, on the other hand, constrain income generation capabilities, hence affecting profit efficiency, the Heads of Treasury at Bank Baroda and Bank Griffon, argued. They also observed that the different discount rates that were being offered for Treasury Bills in the secondary market due to the absence of a yield curve had also created inefficiencies in the market in terms of market valuations.

The Head of Corporate Banking, Bank Baroda also noted the negative impact the cost of regional lines of credit (of around 12-14%) were having on the cost of funding, hence affecting the scope of operating efficiency.

The otherwise beneficial effects of digital payment platforms from an efficiency point of view are being limited by network challenges, wherein some banks are sometimes offline, observed the participants. This was attributed to redundancy around network systems, including switch and fibre lines, which at times are affected by rain. The other challenge noted to have impacted negatively on the uptake of plastic money was the multiple pricing system that has been obtaining in the Country, where cash prices are heavily discounted compared to POS and RTGS or mobile payments. This had tended to increase the demand for cash, resulting in persistently long queues at banks. Other respondents also placed the blame on some members of the general public whose mind-set was failing to shift from the propensity to use cash. High POS tax, charges by acquirers and distorted pricing structures, reflecting structural issues, are other environmental factors that were noted to be inhibiting usage of plastic money.

The Head of Corporate Banking, Bank Baroda highlighted the scope brought about by group synergies in enhancing efficiency through product diversity and increased and business volumes. Vibrancy of the economy would also play an instrumental role as this increases business volumes and economies of scale.

Based on documentary analysis, it was also observed the banking sector in the dollarized environment has lacked economies of scale as the bankable population is not big enough to promote efficient utilisation and provision of banking services. According to a FinScope Consumer Survey conducted in Zimbabwe in 2011, only 24% of adult Zimbabweans

were banked. The percentage had however, increased to 30% in 2014, out of a total population of 6.99 million.

The lack of economies of scale in the banking sector was also further demonstrated by a low ratio of the populace that is reliant on formal credit, which increased from 5% 2011 to 13% in 2014 (FinScope Consumer Survey of 2014), while reliance on informal sources such as family/friend reduced significantly to 30%, from 43%. The majority of Zimbabweans (58%) did not borrow, citing fear of debts (48%) and 45% attributing this to worries about the inability to pay back the loans.

h) Regulatory & Global Developments

Failure by the Reserve Bank to align its regulations in line with developments in the operating environment was also noted to be an impediment to efficiency enhancement initiatives. It was argued that most of the regulations were designed when a lot of controls were still in place. The expectation, therefore, had been that most of the reporting requirements would fall away as the economy became liberalised. This, however, has not been the case, with banks still required to submit a multiplicity of regulatory returns involving a lot of paper-work, which creates inefficiencies.

The Head, Business Banking at Bank Conservative observed that the introduction of the International Financial Reporting Standard 9: Financial Instruments (IFRS 9), effective 1 January 2018 had the potential to adversely affect operational efficiency. This was premised on the potential squeeze profit margins in view of the requirement to set aside provisions for bad and doubtful debts based on the *expected credit loss model*, compared to the *incurred credit loss model*.

The Managing Director, and Head of Corporate banking, Bank Baroda, bemoaned the impact of regulation on bank efficiency. They singled out the Basel Accord standards for instance, which require banks to maintain certain minimum capital requirements which impose a constraint on the ability of banks to lend, notwithstanding the justifiable prudential considerations. As a consequence, profitability is compromised, so is efficiency. Another prudential requirement which the two noted to have had an impact on the level of efficiency is the minimum prudential ratio of 30%, wherein banks are required to maintain minimum holdings of liquid assets in relation to total deposits and short term liabilities. The effect of holding a certain threshold of assets in liquid form, they argued, invariably restricts the ability of banks to lend. The importance of such prudential requirements in protecting depositors' funds was, however, acknowledged. There is, however, more scope for the RBZ to interrogate

efficiency at banks, they also argued.

The Managing Director, Bank Conservative argued that the streamlining of regulatory requirements would present scope for efficiency enhancement. For instance, the establishment of a national data base which could be accessed by regulatory authorities would obviate the need for requests of national identities at various agencies. The Reserve Bank was also urged to be mindful of the origin of bank shareholders and give preference to those that are knowledgeable of the local operating terrain. There was also need for foreign shareholders who, incidentally, stabilise banks by leveraging on appropriate international best practice and better corporate governance, as this reinforces market confidence.

Efforts by the Reserve Bank to promote the use of plastic money on the backdrop of persistent cash challenges was considered to be an encouraging phenomenon that was set to enhance bank efficiency.

According to the Head, Treasury, Bank Baroda, the de-risking process, where traditional correspondent banking was slowly disappearing partly due to the cost of compliance and paving way to new technological platforms such as SWFT (Global payments), was also set to drive the efficiency agenda. Further, the de-risking process, where correspondent banks are now penalising their counterparties in the third world for breaking rules in terms of money-laundering, presented an opportunity for such banks to review their processes and address any operational bottlenecks.

The Head, Risk, Bank Griffon, on the other hand, highlighted the extent to which the Reserve Bank was promoting bank efficiency, directly and indirectly, by limiting bank charges and lending rates. This, he argued, had invariably forced banks to rethink on how to innovate and embrace the concept of cost efficiency. He also noted the role being played by mobile payment platforms in promoting operational efficiency and innovation as customers now rarely frequent banking halls.

Another environmental factor noted by the Head, Treasury & Markets, Bank Conservative, with far reaching implications on efficiency enhancement was the uncertainty brought about by discernible evidence of Government failure to meet its financial obligations. This, he argued, was beginning to affect the credibility of Government guarantees, a development that affects the willingness of banks to lend to the public sector.

i) Telecommunications Bottlenecks

According to the Head, Marketing, Bank Conservative, while telecommunications has become the main hub on which digital payment systems

necessary to enhance operational efficiency are anchored, inhibitive infrastructure costs, mainly in the form of equipment, had become the major obstacle. For instance, POS gadgets were noted to cost as much as \$600 each. The other challenge is that there is one dominant player in the telecommunications industry which, incidentally also own a bank. In the circumstances, and in view of conflict of interest issues as well as competitive reasons, peer banks are not very keen to share notes on innovation thrusts with the telecommunications giant's subsidiary.

Network challenges in rural areas have also affected the uptake of digital payment platforms.

j) Shared Costs

About 30.67% of the participants, including the Head, Treasury & Markets and Head, Retail & Markets, Bank Conservative, Finance Director, Bank Candid, and Head of Risk, Bank Griffon, saw scope for efficiency enhancement that could arise from shared cost approaches. Examples were given of other countries where banks share core banking systems and branches to minimise operational costs. The former Finance Manager of Bank Candid gave an example of the Peoples' Own Savings Bank Causeway Harare Branch which was so big that many Teller Cubicles were lying idle.

The Managing Director, Bank Conservative argued that significant cost savings could be derived from shared cash in transit costs, compared to the current set up where several banks individually transport cash to the same destination using different transport services. The same applies to automated teller machines (ATMs), where individual banks could share the costs of security guards securing ATMs for different banks at the same complex.

Against this background, the Head of Treasury at Bank Baroda underscored the need for banks to create synergies and centrally import and distribute cash, as well as share distribution channels. In this regard, banks had created a forum where the scope for creating cost sharing synergies were being pursued. Consideration was being given to collaborating in non-competitive areas such as sharing ATMs and branch networks in partnerships with mobile network operators.

According to the Head, Treasury & Markets, Bank Conservative, significant cost savings could also be realised from sharing guards to avoid the current situation where seven (7) guards, for instance, were securing different ATMs at the same building complex. More, cost savings could also be realised should cash transit costs be shared amongst banks, he

argued.

The Head of Treasury, Bank Baroda also highlighted challenges that could militate against collaborative and cost sharing initiatives. For instance, the ZIMSWITCH platform¹⁷ was being threatened by the shortage of cash – a development that discourages banks with surplus cash to use such a common platform. It becomes survival of the fittest.

Another challenge identified was the insistence by the Reserve Bank for banks to have different disaster recovery arrangements. According to the Managing Director, Bank Conservative, with just two predominant core banking systems in Zimbabwe banks could, for instance, share the disaster recovery sites, particularly in the light of a relatively small banking population of around one million.

k) Funding Re-alignment

The Head of Treasury and Bank Baroda highlighted the scope for cost rationalisation in terms of funding. He argued that this could be achieved through diversification of funding base, from wholesale/treasury sources which are not only expensive but volatile. He further pointed out that it is a misplaced myth to say that it is only the banks that have capitalised on flight to quality that can keep core deposits. This could be achieved by capitalising on vast opportunities that exist for growth in the SME sector and value financing, as well as establishing synergistic relationships with corporates. The mortgages portfolio could also be leveraged to secure clients who would provide a sustainable pool of relatively low cost funds.

5.5.3 Chapter Summary

This chapter presented major findings of the investigation, ranging from challenges and opportunities experienced during the migration to dollarization, motivation for pricing strategies in preference over efficiency enhancement, as well as the scope for enhancing bank efficiency through dynamic capabilities. The next Chapter discusses and interprets the results.

¹⁷ Platform where clients of different banks access cash from the same ATM at a particular bank.

CHAPTER 6

DISCUSSION OF RESULTS

6.0 This Chapter interprets and discusses the research findings in the light of the research objectives and questions. At the heart of the research was the quest to determine the scope for enhancing bank efficiency through dynamic capabilities. This came against the background of viability challenges that faced banks at the onset of dollarization in Zimbabwe which appeared to have largely emanated from disproportionately high operating expenses at a time when earnings capabilities had been significantly impaired. Instead of enhancing operating efficiency through, inter-alia, reconfiguration of business models and operating systems and processes based on the dictates of the dynamic capabilities construct, the banks appeared to have exclusively relied on high lending rates and non-funded income, as well as low deposit rates instead of enhancing efficiency as part of resilience capability management.

The major question that arose, therefore, was why the banks appeared to pursue the “lazy approach” and not be guided by the dynamic capability construct. The strategic approach taken appeared to have had far reaching ramifications on financial stability and economic growth and development.

Against this background, the research objectives and questions centred on: the nature of challenges in Zimbabwean banks faced at the onset of dollarization in February 2009, giving rise to the net interest income/operational expenses disconnect. Focus was also placed on opportunities brought about by dollarization that banks could have leveraged on to enhance efficiency, and why banks seemingly relied mainly on pricing strategies and non-funded income to address the disconnect instead of reconfiguring operations to enhance efficiency. The study also sought to determine whether existing efficiency measurement methodologies could have distracted the banks from enhancing efficiency; whether there is scope for enhancing bank efficiency through dynamic capabilities; and how the dynamic capabilities construct could be enriched in light of the conceptual and definitional ambiguities that have characterised it.

Three Propositions were proffered in respect of this study: (i) Zimbabwean banks resorted to the pricing strategy and non-funded income as primary instruments of managing the net interest income and operating expenses disconnect/gap that emerged at dollarization, instead of reconfiguring and re-aligning business models, business processes and operating systems; (ii) the strategic response adopted by banking institutions to manage the interest

income/operating expenses gap created underlying asset quality, earnings, liquidity and solvency vulnerabilities with far reaching ramifications on financial stability and economic growth; (iii) failure by banks to put in place effective efficiency measurement tools and methodologies contributed to delays in business model and process realignment.

In discussing and interpreting the findings, the researcher attempted to unpack the extent to which the nature of idiosyncratic and environmental factors in the dollarized environment could have stalled the development and utilisation of dynamic capabilities to enhance bank efficiency. Cognizance was taken of the various capabilities identified by the respondents as having affected the pace of efficiency enhancement. The revelations provided an opportunity to ascertain which of the capabilities were of a dynamic or operational nature and implications thereof. An attempt was made to relate dynamic capabilities and efficiency enhancements at the sample banks. In addition, the fact that most local banks had higher non-performing loans also provided an opportunity to ascertain the extent to which provisions for bad and doubtful debts would have affected profit and technical efficiency.

The various issues raised by respondents from the four (4) participating banks were quite revealing. The discussion and interpretation hereunder is categorised into idiosyncratic and environmental factors.

6.1. DOLLARIZATION CHALLENGES

6.1.1 Idiosyncratic/Micromanagement Challenges

a) Risk Aversion

It would appear from the interviews that risk aversion depicted by foreign owned banks adversely affected dynamic capabilities development, with far reaching ramifications on both technical and profit efficiency, with 32.64% of the interviewees citing this as a matter of concern. The cautious approach to lending based on risk considerations, for instance, resulted in substantial amounts of funds either being lodged with the central bank at zero interest, or held as cash. By so doing, the banks did not only forego the opportunity to maximise profitability, but also lost opportunities to reconfigure their business models in respect of other investment avenues. Key buzzwords for these banks have been prudent credit, liquidity and capital risk management. It is important to note that the risk aversion at most of the foreign owned banks was a reflection of bureaucratic rigidities by their parents.

The risk aversion appears to have impacted negatively on technical efficiency, particularly based on the DEA financial intermediation approach that excludes interest

expenses and provisions for bad and doubtful debts. Interestingly, in a seeming attempt to compensate for the risk aversion, most of these banks have been levying relatively higher effective lending rates. This, coupled with bigger balance sheets and high business volumes, as well as lower provisions for bad and doubtful debts and interest expenses, have made the foreign owned banks appear more profit efficient. It can, therefore be argued that high profit efficiency on the back of risk aversion could have contributed to the laxity that has obviated the need for reconfiguration of business models and competencies. It also lends credence to the view that Zimbabwean banks have been compensating inefficiency with high charges and lending rates. Such developments also demonstrated the critical role strategic orientation can play in respect of development and utilisation of dynamic capabilities.

It would also appear that the decision to depress deposit rates by foreign owned banks as part of the risk aversion agenda, has not only negatively impacted the banking sector's ability to perform one of its core functions-savings mobilisation and credit provision, but militates against realisation of optimum profit and technical efficiency. This is particularly so in light of the contribution the level of lending has had to technical efficiency scores under the DEA efficiency measurement approach.

b) Resilience Capability Management Flaws

At the core of dynamic capabilities construct is the resilience of corporate entities to shifting operating environments. In this regard, the net interest income/operating expenses disconnect that emerged at the onset of dollarization and the circumstances that surrounded it, would have been a serious test on bank management's strategic management prowess. The shocks would have invariably required flexible, agile, and relentlessly dynamic organisations that would modify and revise their competencies in order to achieve an appropriate fit - so called "dynamic" aspect of the dynamic capabilities model (Teece *et al* 1997).

The operating environment and challenges /opportunities had called for a clear need to: (i) sense and shape opportunities and threats, (ii) seize opportunities, and (iii) maintain competitiveness through enhancing, combining, protecting and reconfiguring the business enterprises' intangible and tangible assets (Teece, 2007). This is premised on the view that, with limited lending opportunities in traditional segments on the back of a high operating cost base, the scope for tapping into the informal sector and to find innovative ways of enhancing technical and profit efficiency, for instance, would have arisen.

With respect to small locally owned banks, it was quite apparent that management failed to pose and reflect on what the new environment meant. The main focus appeared to have been on the need to capitalise on lost time and opportunities in terms of empire building and enrichment. No due regard was given to the unsustainability of high lending rates and deposit rates offered by these institutions. It would also appear that much of the recklessness that was experienced would have been driven by competitive desperation aimed at attaining critical mass in terms of revenue to cover disproportionately high operating costs. This exposed such banks to high credit risk, culminating in high levels of non-performing loans and attendant provisions for bad and doubtful debts. The relative under-performance of these banks in respect of profit proficiency would, therefore, have been an attestation of this.

On the part of foreign owned banks, although there was some level of reflection, responses mainly centred on cautious optimism at the expenses of holistic value chain interrogation to ensure sustainable viability. Strategic responses were mainly in the form of enhanced traditional risk management, notably credit, liquidity, capital and interest rate risks. In this regard, very little regard was given to efficiency enhancement, resulting in high lending rates and bank charges, as well as low deposit interest rates. The biggest downside risk for such banks was in respect of bureaucratic rigidities at both entity and parent level.

From the foregoing, it would appear that bank management opted for the *marginal/incremental* approach to resilience capability management, mainly underpinned by *pricing strategies*. The incremental changes implemented included, introduction of new technologies, notably management information systems, a change in product characteristics, enhanced risk management, as well as identification and establishment of new marketing channels. New products included automated teller machines, mobile and internet banking, and ZIPIT platforms.

By adopting the marginal/incremental approach, ordinarily characterised by absorption of disturbances (Darnhofer, 2014) and reorganization, while retaining essentially the same function, structure and feedbacks (Folke et al., 2010), the banks appeared to have lost the opportunity to radically depart from the equilibrium-based approaches. The inability to comprehensively reconfigure and adjust to the shifted operating terrain, therefore, appears to explain the resort to pricing strategies.

The incremental approach was a manifestation of a number of factors, including the hyperinflationary mind-set, wherein both bankers and borrowers felt comfortable dealing at high lending rates and bank charges, oblivious of the consequences thereof in a dollarized environment. It can also be argued that the incremental approach on the part of foreign owned

banks could have been a reflection of their ability to withstand the shocks induced by dollarization, in light of the financial buffers they had, backed by parental support.

In the light of the abruptness of dollarization as well as far reaching implications on a structural dynamics, however, the situation would have invariably demanded a more radical or adaptive approach to resilience capability management (Darnhofer, 2014). This entails the ability to implement and create untried beginnings from which to evolve a new way of living (Walker et al., 2004). It would also have entailed adaptability and transformability of systems in an environment where the operating terrain had significantly shifted.

Financial indicators shown in the Background section of this study had clearly shown the significant change in operational dynamics, requiring a radically different approach and thinking. This would have required adoption of more radical approaches, including business process re-engineering/business efficiency programs which, however, took close to nine (9) years to implement, with banks such as Bank Griffon taking the lead. The sections that follow discuss factors that could have contributed to the inertia that was experienced.

c) Capability to Sense Opportunities

It is the researcher's view that consequences of the shifted operating environment when Zimbabwe dollarized, notably bank viability challenges, should have triggered the motivation to sense opportunities presented. In an environment wherein earning capability had been seriously impaired amidst high operating expenses, the more discerning banker would have tried to decipher the most sustainable way of withstanding the shocks mainly through reconfiguration of operational capabilities, with particular focus on cost and profit efficiency.

For small undercapitalised banks facing deposit mobilisation challenges, the most prudent thing to have done would have been to consider engaging strategic partners and re-alignment of business operations. On the other hand, foreign owned banks endowed with relative liquidity, could have positioned themselves to take advantage of lending opportunities presented by retooling needs of various corporate entities, while taking cognizance of the need for enhancing technical efficiency and profit efficiency. As it turned out, however, there was a general lack of ability to sense opportunities presented by the new operating terrain, notwithstanding the structural and environmental constraints.

Close analysis of what could have inhibited the ability to sense opportunities points to lack of requisite cognitive capabilities to accumulate, filter and interpret information and signals (Rodenbach and Brettel, 2012). There was tacit admission by the generality of

interviewees that bank management lacked what was effectively tantamount to necessary perception, framing, experiential and vocational learning, and heuristics (Gavetti and Levinthal, 2000; Gavetti, 2005), considered to be key attributes of cognitive capabilities.

There are possible reasons why such cognitive capabilities could have been compromised. As highlighted by some respondents, the focus for the majority of local banks that were owner managed was self-serving. In this regard, they could have been driven by two motivational goals; the *hedonic motivational* goal (which expresses the desire to improve, or preserve the way one feels right now, related to one's need fulfilment; and *gain goal* (which expresses the desire to improve, or preserve one's resources, at the expense of the well-being of the organisation. These two goals could have been prioritised at the expense of the *normative* goal (which expresses the desire to act appropriately in the service of a collective entity) (Foss and Lindenberg, 2013). It can, however, be argued that potential cognitive capabilities for the locally owned banks could have been clouded by pressures exerted by competitive desperation as already highlighted.

With regard to foreign owned banks such as Bank Conservative, the capability to sense opportunities was largely adversely affected by corporate path-dependence as well as existing stock of capabilities. This could have been a reflection of what Pisano (2015) considered to be firm-level differences that have a strong bearing on the data collection process. In particular, the banks appear to have suffered from the "exploitation" and associated "early success" (Wang, 2015) syndrome, which could have reinforced further exploitation of existing capabilities along the same trajectory, thereby preventing the institutions from adapting to the changing environment. The Bank Conservative scenario could also be attributed to what Schoenberg et al (2013) described as the role played by past experience, organizational routines and behaviour, data patterns, and rules that impede change.

The problem for foreign owned banks also appears to have been aggravated by the risk averse business mentality while, for banks such as Bank Conservative, bureaucratic tendencies, paddled by foreign parents exacerbated the problem. As a consequence, the bank remained stuck in traditional risk management approaches. It would, however, appear that experiential knowledge in respect of the operating terrain provided a cutting edge in terms of the ability to sense opportunities. This is premised on the observations by a number of participants that the agility and strategic flexibility demonstrated by Stanbic Bank could be traced to the guidance provided by the bank's regional parent, at least from a profitability perspective.

It would also appear that 'higher-order' routines such as governance structures, resource allocation processes, and management systems (Pisano, 2015) have had a bearing on

the capability to sense opportunities. At Bank Conservative, exclusive focus on sound internal governance and risk management appears to have created operational inefficiencies that adversely affected the ability to sense opportunities.

The findings also showed the positive role shareholder strength and quality of the Board can have on the ability to sense opportunities. For Bank Griffon, for instance, the presence of founding shareholders and directors who demonstrated extreme conservatism had stood in the way of business model reconfiguration and innovation. It was only after they left that the bank was repositioned from a narrowly focused niche segment to a broad based or mass based approach. The fact that the bank has since fared reasonably well in terms of technical efficiency could, therefore, be an attestation of this view. The observation that Bank Candid executive management failed to involve middle management in strategic management processes, notwithstanding the value addition this would have meant for the bank, is another demonstration of how management quality could have made a difference in bank efficiency enhancement.

Another topical theme that was identified to have adversely affected the ability to sense opportunities, is the hyperinflationary mind-set, which is deemed to have created a culture of laxity and “easy money” philosophy. This corroborates the observation that thought processes motivated by past experience, organizational routines and behaviour, data patterns, or expectations from plausible scenarios (Schoenberg *et al*, 2013) can have a crucial bearing on the *capability to sense and seize opportunities*. The hyperinflationary mind-set saw both borrowers and banks accepting lending rates of as high as 60% per annum in the expectation that loan repayments could be spurred by a few speculative deals.

Another manifestation of limitations displayed by bankers in respect of the capability to sense opportunities has been the failure to effectively leverage on business opportunities presented by the informal sector in Zimbabwe. With the economy getting increasingly informalised in the dollarized environment, one would have expected adoption of effective mass-market penetration strategies, including financial inclusion initiatives, which could have gone a long way enhancing both profit and technical efficiency. The lethargic approach taken, however, points to the continuance of the same traditional approaches to commercial banking which focus more on collateral, at the expense of more innovative ways of managing this market segment.

The findings also suggest that banks missed the opportunity to reconfigure their payment distribution systems, particularly against the background of concerted efforts by mobile network operators to introduce digital payment platforms. Faced with costly

distribution networks and operating systems based on brock and motor, particularly against the background of persistent cash shortages, one would have expected the banks to migrate to the more efficient and user friendly delivery channels in a timely manner. Had banks pursued such an efficiency enhancement route, the need for high lending rates and bank charges, as well as lower deposit rates could have been obviated. In addition, the vicious cycle of high NPLs, earnings, liquidity and capital vulnerabilities that have characterised the dollarized environment could have been minimized.

d) Capability to Seize Opportunities

The findings underscore the significance of cost and timing dimensions (Zott, 2003) in respect of the ability to seize opportunities. For instance, while Bank Griffon management were indeed cognizant of the need to reconfigure operations much earlier into dollarization, resource constraints stood in the way. This challenge was only mitigated when new foreign shareholders came on board and injected additional capital. With adequate capitalisation and supportive governance structures and management, the bank has since grown its loan book significantly, underpinned by an appropriate strategic thrust and product innovation. It is also one of those banks that have embarked upon a business process re-engineering program.

The experience at Bank Baroda, where both technical and profit efficiency has been recorded, demonstrates the importance of resources and capabilities in the ability to sense opportunities. This observation is premised on the leverage provided by the bank's vast branch network. A strong brand, supportive and financial stable shareholder, group synergies, as well as relatively robust management information systems. This contributed in spurring the bank towards substantial balance sheet growth as highlighted in the last Chapter. Prior to dollarization, the bank had managed to invest in properties which provided a good store of value, hence providing leverage in terms of lending.

On the other hand, Bank Candid, with capital mainly in the form of properties, coupled with a low deposit base, struggled to capitalise on opportunities presented by the dollarized environment and eventually failed on the back of serious liquidity and solvency challenges. This was after the bank persistently failed to attain critical mass in in terms of revenue to cover disproportionately higher operating expenses. Weaknesses raised by the former Finance Director in terms of strategic flexibility and agility within the bank appear to have also aggravated the challenges. The Board of Directors was forced to hand over the banking licence to the Reserve Bank when the situation became untenable.

The findings also underscore the need to seriously interrogate the contention that larger enterprises tend to possess greater discretion concerning strategy choice owing to their superior resource base, as well as higher resilience to environmental shocks (Dixon, 2009). It was quite evident that resource buffers can, in actual fact, inhibit utilisation of dynamic capabilities in the enhancement of efficiency. This is premised on the observation that most of the financially strong banks developed organizational slack which restricted the incentive to create a strategic fit between the organization and its environment. Banks such as Bank Conservative, for instance, appear to have ridden on a false sense of security, aggravated by the existence of a domineering, bureaucratic, risk averse and aloof parent. The bank could always rely on support from the “big brother” in times of need. In fact, the bank was availed financial assistance to take care of potential shocks, including retrenchments, to the tune of \$6 million at the onset of dollarization. Other foreign banks such as Standard Chartered Bank were noted to have also fallen in the same trap.

In a demonstration of utilisation of dynamic capabilities, determined through interviews and documentary analysis, Bank Baroda experienced exceptional growth, underpinned by expansive branch network, benefits from group synergies, as well business strategies that include venturing into non-traditional products. Bank Griffon also experienced significant growth post 2010, on the back of a mass based strategic thrust that took place when new and dynamic executives took over, compared to the elitist model that had been employed. On the other hand, Bank Candid, constrained by financial resource capabilities, failed to navigate the dynamic operating environment, before eventually collapsing on the backdrop of serious liquidity and capital insolvency.

e) Knowledge Management Gaps

The failure by the majority of banks to navigate the significantly changed operating pointed to substantial knowledge management gaps. It was apparent from the interviews that most banks failed to appreciate the concept of *absorptive capacity* (Cohen and Levinthal, 1990) i.e. the ability to identify and recognize external information, recognize its value, assimilate it with existing internal information, and use it in a value creation process. The emergence of a net interest income/ operating expenses disconnect at dollarization and its sources would, for instance, have warranted holistic interrogation of bank value chains and adoption of appropriate strategic thrusts, notably, efficiency enhancement . Should this have been done, banks would have undertaken cost rationalisation entailing, inter-alia, product innovation, as well as process

and systems reconfiguration. This, however, only commenced and gained momentum almost nine (9) years after migration to dollarization, through initiatives that include business process re-engineering/business efficiency programs.

The findings also highlight the consequences of deficiencies in *ambidexterity* (Brown and Eisenhardt, 1997), depicted by failure to effect organisational transformation and align products to match the operating environment through iterative processes. The need for strategic fit between product innovation and organizational transformation (structure, culture and processes) in order to sustain existing businesses while simultaneously increasing variation to evolve new business lines, was also underscored by (Burgelman and Doz, 2001). In this regard, there had been an imperative need for management to reflect on the abruptness of the shifted operating environment and quickly create new knowledge and iterative execution to produce adaptive, outcomes, instead of relying extensively on existing knowledge and linear execution to produce predictable outcomes. Faced with such a scenario, banks could have widened their knowledge bases to include dynamic capabilities, and go beyond traditional risk management capabilities.

While it is noted that banks did innovate and come up with new products, this did not appear to have been part of a holistic approach to organisational realignment linked to profit and technical efficiency enhancement. For example, whilst Bank Griffon introduced new products such as Griffon Lite, this appeared to have been part of a fragmented approach to innovation and not necessarily an integral strategy to enhance the value chain. The thrust was more geared towards the boosting revenue and customer convenience more than anything else. In addition, there is no evidence in the bank's financial statements to suggest that consideration was given to overall efficiency enhancement as a response to developments in the operating development. It was only in 2017 when the bank started introducing the concept of Business Process Re-engineering.

On the other hand, while Bank Conservative did demonstrate some level of capability to seize opportunities through cost re-alignments these were, however, confined to reduction of staff and not based on holistic value chain interrogation pointing towards process efficiency enhancement. It is also noted that, while the bank's published financial statements made reference to proactive measures, largely focusing on inter-alia, customer experience and introduction of new products, the required holistic reconfiguration thrust was missing. The business efficiency thrust only assumed significance from 2016 when the bank adopted the concept of business process re-engineering. The biggest threat, as already highlighted, has been

the lethargic nature of the parent, which continues to thwart the efficiency enhancement agenda.

Ironically, the efficiency enhancement drive only gained traction post 2014 when the Reserve Bank intervened in respect of maximum interest rate thresholds and levels of bank charges, demonstrating the extent to which idiosyncratic factors can affect the rate of efficiency enhancement.

f) Path Dependence

The results also underscore the importance of the role a firm's accumulated stock of valuable resources may have on strategic change, either in deterring or misdirecting the search behaviours in turbulent environments (Kraatz and Zajac, 2001). It was quite evident that competencies such as traditional risk management, which had historically added immense value to banks such as Bank Conservative and other foreign owned institutions, created competency traps when environmental conditions shifted (Levinthal and March 1993) at the onset of dollarization. For instance, the bank Chairman's reports from 2009 to 2017 mainly focused on operational capabilities the bank had built over the years. Continuous reference was also made of the need to continue building the bank's portfolio, underpinned by prudent market and credit risk management. The only reference made to initiatives to adapt to changes in the operating landscape were largely centred on maintenance of adequate capital and liquidity, whilst observing minimum regulatory requirements. It was, therefore, apparent that most banks operated in their comfort zones, within the confines of what existing capabilities provided for.

The sections that follow highlight analyse and interpret findings on environmental factors that have impacted on the pace of bank efficiency enhancement.

6.1.2 Environmental Challenges

Structural Nature and Implications

Striking about the triggers that brought about disequilibria and discontinuities as the Country migrated to dollarization was that they were nowhere near the traditional ones identified in most dynamic capabilities literature. These include liberalisation of markets, product and technological innovation, as well as changing customer tastes. In this regard, the envisaged reconfiguration of business models, systems and processes, would be designed to match these changes. On the contrary, the dollarization disequilibria were more structural, with

far reaching ramifications on the pace of bank efficiency enhancement. Each of the challenges is analysed hereunder.

Working Capital Constraints

Working capital constraints against the background of underlying liquidity challenges in the dollarized environment presented direct challenges in respect of development and utilisation of dynamic capabilities to enhance bank efficiency. With the Reserve Bank unable to print local currency the only other major sources of liquidity would have to be exports receipts, foreign direct investment, and diaspora remittances. Unfortunately, after an initial growth trajectory, economic performance became sluggish as dollarization progressed, hence stalling the country's capability to generate export earnings. With the Zimbabwe Democracy Recovery Act and related sanctions imposed by the United States of America Government in 2001, coupled with the Country's high risk profile, the Country has received limited foreign direct investment and foreign lines of credit. Export performance was also sluggish owing to a plethora of factors highlighted in earlier chapters.

The problem has been aggravated by the absence of a functional lender of last resort facility on which banking institutions ordinarily depend upon in situations of temporary liquidity challenges. The absence of key monetary policy levers such as open market operations, interest rate policy management, and the statutory reserve ratio ordinarily employed to regulate money supply, appear to have exacerbated the liquidity problems.

Funding capabilities for banks have also been compromised by a number of banking sector specific bottlenecks. These include serious decimation of bank balance sheets by hyperinflation through erosion of the value of financial assets, which left most banks facing serious working capital constraints.

Apparent from the findings also is that liquidity challenges were more acute for locally owned banking institutions for a variety of reasons. First, most of the banks were largely owner managed by individual shareholders who did not have the financial capability to inject additional capital when needed. Second, the locally owned banks were considered to be riskier compared to their foreign counterparts, particularly in the light of diminished depositor confidence following the collapse of a number of locally owned banks post 2004. This resulted in a flight of deposits to so-called quality, notably the foreign banks. This became the genesis of a tiered banking sector wherein some banks, predominantly locally owned, were persistently in liquidity deficits compared to their cash rich foreign owned counterparts.

The underlying liquidity and capital challenges have had a two-pronged effect on the scope for enhancing bank efficiency through dynamic capabilities, as highlighted below.

i. Development/utilisation of dynamic capabilities

According to Zott (2003) the timing and cost of dynamic capability development is are critical. This was demonstrated by working capital challenges at most small locally owned banks whose ability to develop or utilise dynamic capabilities to enhance efficiency appeared to have been hamstrung. Banks such as Bank Griffon, for instance, found it quite difficult to reconfigure their operations through, inter-alia, cost rationalisation, product and technological innovation due to working capital constraints. Bank Griffon only began the reconfiguration process when new institutional investors came on board. In the same vein, banks such as Bank Candid would not have been in a position to develop and/or utilise dynamic capabilities in light of serious undercapitalisation.

Related to working capital constraints, have been foreign exchange shortages, which invariably adversely affect the ability of banks to reconfigure their technological and product innovation capabilities as a substantial component of the investments require such a resource particularly management information systems.

ii. Compromised scale and profit efficiency

Working capital constraints have also adversely affected the ability of some banks to underwrite business. The most affected activity was lending as this requires substantial amounts of deposits and capital, a development that constrained the ability to generate interest income. Noteworthy is that even banks that have been relatively liquid, have not been able to optimise their lending capabilities due to high inherent credit risk, opting to take a cautious approach to lending. This has in turn affected the level of loans and other earning assets, resulting in them being penalised by the DEA financial intermediation efficiency measurement approach. The level of profit efficiency was also affected in light of relatively low levels of business underwriting, particularly in respect of small locally owned banks that could not raise enough requisite funding to facilitate attainment of critical mass in terms of interest income to cover disproportionately high operating expenses.

The problem for the small locally owned banks appear to have been aggravated by their reluctance to engage strategic partners based on egotistic considerations. Most of the banks only scrambled for strategic partners when it was far too late to attract any prospective investors in light of the serious **liquidity** and **capital solvency** challenges they eventually faced before

they collapsed. The foregoing, therefore, would have constrained not only the ability to optimise scale and profit efficiency, but organic capital growth that would have supported the resources required to develop dynamic capabilities.

The study also revealed the extent to which monetary policy constraints brought about by official dollarization have constrained profit efficiency. Notably, has been the absence of key monetary policy levers, including interest rate management, the ability to print money, open market operations, statutory reserve ratio, as well as limited lender of last resort function.

The absence of open market operations (OMOs) has invariably constrained profit efficiency as the banks are deprived of the ability to generate earnings due to lack of a vibrant secondary market for marketable securities. In addition, the absence of OMOs and the other above-noted monetary control instruments has meant that the Reserve Bank cannot pursue expansionary monetary policy which enables banks to fully deploy their financial resources and hence, maximise profitability, while benefiting from scale efficiency. On the other hand, the Reserve Bank is hamstrung from restraining demand-pull inflation through contractionary monetary policy, thus constraining its ability to create conditions that are favourable for lending. This, in essence, also means the Reserve Bank's ability to reinforce financial stability is impaired.

On the other hand, the absence of a fully functional lender of last resort facility, inhibits profit efficiency as banks are forced to take a cautious approach to lending. It is in this connection that the introduction of an, Afreximbank Trade Debt-Backed Securities (AFTRADES) facility by the Reserve Bank, was a welcome development in the efficiency enhancement agenda. The facility operates and functions as a window of lender of last resort. This entails the transfer of Country risk to the regional financier, which issues guarantees in the form of Aftrades to domestic banks with liquidity surpluses to encourage them to lend to deficit banks. In essence, the surplus banks would then have ultimate recourse to Afreximbank in the event of default and not directly with the deficit banks. The first Aftrades were issued on 19 March 2015 wherein the full amount on offer was US\$200 million. The amount has since been increased to \$400 million which was fully subscribed as at February 2018.

It was also apparent from documentary analysis that the Zimbabwean banking sector lacks the economies of scale based on the size of the bankable population. In essence, this means that bank efficiency enhancement through dynamic capabilities is bound to be constrained by such demand side rigidities. The current scenario, however, presents immense opportunities for banks with the right capabilities to adopt "blue ocean" strategies (Chan, 2004) and capitalise on the untapped segment using appropriate approaches which microfinance

institutions have been using, with relative success.

Other factors that have affected the pace of profit and technical efficiency enhancement are highlighted below.

i. Depressed Operational Viability

Operational viability challenges faced by some banks as a consequence of the shifted operating landscape had far reaching implications on profit efficiency. In addition to relatively lower interest income, depressed secondary market activities impaired banks earning capability against the background of a high operational cost base. Ordinarily, banks generate interest income from the trading of marketable instruments, notably Treasury Bills during the course of open market operations. This is done when the central banks either mops up excess liquidity or injects liquidity through sale or purchases of the Bills as it regulates money supply depending on the monetary policy thrust. The absence of monetary policy levers, therefore, meant the Reserve Bank could not perform such operations.

On the cost side, a multiplicity of legacy issues, including bloated staffing levels associated with the hyperinflationary environment, as well as environmental pressures, invariably increased operational expenses. Continued extravagance on the part of some banks that failed to reflect on the meaning of the shifting operating terrain exacerbated the problem.

Against this background, both locally and foreign owned banks owned and struggled to attain critical mass in terms of income to cover disproportionately high operating expenses. This became the genesis of the interest income / operating expenses disconnect which motivated the researcher to conduct this study.

ii. Market Distortions

Another notable development with implications on dynamic capabilities was in respect of fiscal vulnerabilities, which saw Government become increasingly reliant on borrowing from the banking sector to fund budget deficits. The resultant increase in issuance of Treasury Bills as instruments of debt financing, which at time presented high returns compared to loans and advances or other forms of investments, created an increased appetite for the Bills by banks. This happened at a time when banks had become increasingly risk averse against the background of high inherent credit risk. It can, therefore be argued that, the propensity to develop and utilise dynamic capabilities in a bid to underwrite innovative on balance sheet activities beyond conventional lending to the private sector and Government, would be low in such an environment

It would, therefore, appear that faced with such operational viability challenges, the ability of most banks to develop and utilise dynamic capabilities, became compromised. This, to a large extent, contributed the decision by banks to maintain high lending rates and bank charges in a bid to break even.

iii. **Competitive Desperation**

It would appear from the findings that small locally owned banks also found themselves in peculiar circumstances that would have inhibited their ability to develop and utilise dynamic capabilities to enhance efficiency. Notable, was the extent of funding challenges that forced the banks to offer relatively high deposit rates, in addition to the already punitively priced money the market was prepared to offer them, in order to attract funding. The expensively priced money, against the background of a high operational cost base, naturally led to a decompression of profit margins. The problem was aggravated by the pressure for these institutions to offer relatively high salaries in order to attract skilled manpower from traditional banking institutions.

Complicating the problem for the small locally owned banks was that most bankable clients who ordinarily seek lower lending rates had already been taken by foreign owned banks, forcing the banks to scrounge for riskier segments of the market who, incidentally, are prepared to accept punitively priced loans. A double coincidence of wants was therefore created where, on one hand, the banks were desperate to make money and cover operating costs, and on the other, clients were prepared to borrow at whatever rate. This created fertile ground for NPLs with far reaching ramifications on profit and technical efficiency. Most of the remaining locally owned banks collapsed in less than five (5) years after dollarization in the aftermath of serious solvency and liquidity problems directly linked to non-performing loans.

Problems related to the above-noted competitive desperation challenges appear to have been the epicentre of the inability of these banks, not only to develop dynamic capabilities, but to enhance technical and profit efficiency, as demonstrated by relatively efficiency scores (particularly in scenarios wherein interest expenses and provisions for bad and doubtful debt are included as inputs).

iv. **High Country Risk**

It was quite evident from the findings that high country high political risks have negatively affected the ability of banks to develop and utilise dynamic capabilities to enhance bank efficiency. For instance, low foreign direct investment and foreign lines of credit which

have contributed to underlying liquidity problems, are partly due to high country and political risks. The high country risk has largely been attributable to persistent current account deficits since 2009, which peaked at \$2.4 billion as at 31 December 2013, albeit declining to \$0.7 billion as at 31 December 2016. The Country has also been grappling with debt overhang, with total debt amounting to USD17.68 billion as at 31 August 2018, constituting 71.9 percent, comprising \$9.5 billion (domestic) and \$8.2 billion (foreign). As at 31 December 2018, the Country's accumulated debt arrears to the African development Bank, World Bank and European Investment Bank stood at USD680, \$1.4 billion and \$308 billion, respectively.

v. Digital Platform Bottlenecks

The investigation also determined that network challenges faced by clients when they swipe at supermarkets or service stations owing to “bank offline” challenges pose a threat to the efficiency enhancement agenda. Various analysts also cited failure by the system to cope with the sheer volumes of transactions, wherein some transactions are as low as 50 cents.

The biggest challenge, however, appears to lie with the multi-pricing that has characterised the dollarized environment, with those paying using digital platforms being penalised, compared to those using cash. Cash prices are usually way below mobile money and RTGS payments. Government has blamed businesses for profiteering with the latter arguing they have no choice but to follow the dictates of the market. For instance, manufacturers argue that when they import raw materials they are forced to buy foreign currency on the parallel market since the payments for the imports cannot be made through RTGS or mobile transfers.

While it may not be denied that there could be an element of profiteering, it can be argued that the multi-pricing structure is a direct consequence of the impact fiscal vulnerabilities are having on inflationary pressures. The other downside risk of the multi-pricing structure is that there has been increased demand for cash as consumers try to capitalise on the relatively lower prices for cash purchases. As a consequence, notwithstanding concerted efforts by the central bank to import cash, queues of customers seeking to withdraw cash remain unabated, particularly during pay-days. This invariably breeds inefficiency as banks have to spend more time serving the clients. Pricing challenges were taken to a new level in the aftermath of the October 2018 Monetary Policy Statement, when prices more than quadrupled.

The use of digital platforms will also continue to be adversely affected by infrastructural constraints in terms of telecommunications. These include supply side constraints, inhibitive costs of service delivery and inability by some clients to access technological platforms required to facilitate use of digital and electronic products on offer by banks. This includes

high POS tax and charges by acquirers. It is not unusual for instance, to find a trader in the streets in Lusaka, Zambia, selling his/her wares using a POS, mainly because of relatively cheaper costs of the gadgets.

It is important to note, however, that whilst the increased usage of digital payment platforms is applauded, unlike in other countries where this has been driven by technological developments, the Zimbabwean scenario is more of a reflection of structural shortages of cash, which need to be holistically addressed in order to deal with wider banking sector efficiency issues. It can, therefore, be argued that such operational bottlenecks impede the pace at which business model reconfiguration takes place. Further, the fact that non-funded income had increased phenomenally in 2017 and 2018 partly as a result of fees on the use of digital payment platforms presents a serious challenges to the motivation by banks to pursue core business activities, with possible negative ramifications on dynamic capability development and utilisation.

vi. Strategic Partnerships Challenges

The call by sample banks for the Reserve Bank to facilitate establishment of strategic partnerships with banking institutions presents an opportunity for the creation of conditions that promote bank efficiency enhancement. This is premised on the observation that the dollarized economy has presented complex challenges that require collective thought and effort. Some of the specific examples noted, however, show that there are expectation/and or information gaps between the Reserve Bank and banks. For instance, bankers complained that Bond coins were issued without consultation and have created a lot of inefficiencies. On its part, however, the Reserve Bank argues that the coins were necessary to curb high prices that were partly attributable to lack of change. The Bank also argues that coins discourage foreign exchange parallel market activities in view of the huge amounts of coins that would need to be carried.

While the issue of strategic partnerships is of crucial importance, by unduly focussing on consultative processes is tantamount to loss of focus on the need to address the structural challenges. The conversation should instead, focus more on why the Bond Coins have had to be issued in the first place.

A classical case where wider consultation would have been quite beneficial relates to the 2% money transfer tax introduced in October 2018 with far reaching ramifications on price stability. There is a school of thought which argues that while the 2% tax might have balanced the fiscal budget, there is a real possibility that it could dampen demand in the medium to long

term, and hence affect the viability of corporate entities. Such a development could result in underutilisation of capacity by industry – a development that could also adversely affect bank efficiency.

vii. Macroeconomic Management

Currency challenges raised by some of the respondents, notably the Head Treasury & International Markets, Bank Conservative, have also constrained the role dynamic capabilities can play in efficiency enhancement, pointing to the need to reinforce macroeconomic management. It is the researcher's view that the genesis of most of the currency challenges faced in the Zimbabwean economy at the time of the study could be traced to failure by policy makers to appreciate several fundamental factors when official dollarization was adopted in February 2009.

Experiential knowledge from Latin American countries, for instance, would have made the policy makers recognise the importance of pre-requisites for sustainable official/full dollarization. For example, Ecuador, which adopted full dollarization in 2000 after facing similar macroeconomic challenges that Zimbabwe went through the pre-2009 period, put in place various safeguards that ensured full benefits were realised. Challenges faced included, high fiscal deficits, underlying liquidity challenges and hyperinflation.

With the adoption of full dollarization, Ecuador enacted the Economic Transformation Law (Ley de Transformación Económica), which introduced reforms that provided incentives to private investment in the energy sector, encouraged privatization of state enterprises, and made labour markets more flexible. In addition, the Central Bank repurchased almost all the outstanding stock of sucres, and all bank accounts were converted into dollars. To smoothen liquidity, the International Monetary Fund (IMF) signed a standby agreement with the Ecuadorian government to support economic stability and recovery, helping to attract additional funding from other multilateral institutions. (Quispe-Agnoli and Whisler, 2003). In addition, a separate Liquidity Support Fund was established to supplement the central bank's capacity during liquidity problems.

An awareness of the critical role of fiscal consolidation in official dollarization as demonstrated by Ecuador would also have made a lot of difference in the efficiency enhancement process in the Zimbabwe banking sector. Such a policy stance, which takes cognisance of the inability of governments in countries that have officially dollarized, to generate seigniorage (revenue from issuance of domestic money) (Qispe-Agnoli and Whisler, 2006) would, for instance, have minimised fiscal deficits and its ramifications on inflation.

From the findings, it is apparent that very little regard was given to the Latin American experience, with serious implications, the structural effects of which have significantly affected the pace of efficiency enhancement through dynamic capabilities. First, when Government introduced dollarization, the Country was still facing acute foreign exchange problems, on the back of current account deficits, low direct foreign investment and foreign lines of credit. Although the Government of the day adhered to austerity measures during the early stages of dollarization, underpinned by the mantra “you eat what you catch”, this was to change a few years down the line, as fiscal deficits began to emerge due to a number of reasons. Second, failure by the authorities to plug foreign exchange leakages through externalisation, exacerbated the foreign exchange problem.

The observations by the Head of Treasury & Markets, Bank Conservative, in respect of surreptitious printing of money through Treasury Bills and Real Time Gross Settlement System would, therefore, have been consequences of high Government expenditures on the back of the afore-noted structural challenges. In particular, in what has turned up to be gradual shift from full dollarization to partial dollarization, the rapidly expanding RTGS balances and Treasury Bills as Government refines fiscal deficits using domestic sources of financing, have not only exerted inflationary pressures, but crowded out the private sector.

Rising inflation and declining industrial capacity utilisation have heightened inherent credit risk, in the process, forcing banks to adopt a cautious approach to lending in preference for holdings of low credit risk Treasury- Bills, whose effective yields have been at times higher than that of loans and advances depending on discount rates applied when purchasing or disposing of the instruments. As banks become more and more cautious in their lending approaches, technical and profit efficiency is compromised.

Given the significance of the impact of currency dynamics on the efficiency of banks, as well as the seeming lack of clarity to the interviewees and generality of Zimbabwean and scholars on the exact money supply transmission, the researcher deemed it fit to interrogate this matter.

What appears to be happening is that when a client provides a service to Government and is paid in the form of Treasury Bills, for instance, the instruments are presented to a bank which in turn either discounts them or creates a deposit for the client concerned. In the event the placement/deposit route is taken, the bank's deposit base increases. The corresponding asset is the Treasury- Bill. This, in essence, means that the growth in banking sector deposits is not backed by a corresponding increase in USD backed assets, save for the increase in the Treasury Bill portfolio. The other dimension to money creation is that when Government borrows from the Central Bank, payments to the various service providers are effected through RTGS, without any physical cash movement. The growing RTGS balances against static or declining USD balances creates an imbalance that exerts pressure on the exchange rate, with far reaching consequences on inflation as the cost of production balloons.

The above-noted money creation process has various implications. First, the account holder whose account is credited with the Treasury – Bill backed deposit or RTGS would invariably be eligible to a claim on cash at the bank (both USD and RTGS balances) when it is quite clear that there is no cash back-up. Second, the same clients would also expect their import requirements to be met on the strength of the deposit when it is apparent there is no relationship between the deposit and NOSTRO balances that are required to fund exports. The imbalance has invariably created a gridlock on the funding of imports, with clients that genuinely deposited USD balances sometimes failing to fund their export businesses.

With total deposits exceeding the stock of available foreign currency, some depositors resort to buying the foreign currency on the black market outside the domestic banking system, hence exerting pressure on the parallel market exchange rate. The resultant premiums have thus contributed to the upward pressure on prices.

The money supply growth problem and source thereof was aptly summarised in a Reserve Bank of Zimbabwe Monetary Policy Statement (2018), which attributed the 44.31% growth in bank lending, from \$7.55 billion in November 2016 to \$10 64 billion in November 2017, to net credit to Government, which rose by 70.45% to \$6 27 billion. During the same period, credit to the private sector rose by a mere 6.97% to \$3 71 billion (RBZ, 2018). The increase in credit to Government, according to the Reserve Bank, continued to reflect increased reliance by Government on the banking sector to finance its budget deficit.

Further reinforcing the money supply dynamics, an RBZ January 2018 Monetary Policy Statement attributed the substantial increase in money supply to the expansionary fiscal stance. It noted the increase in RTGS position from \$954 million in 2016 to \$1.73 billion in 2017, which was largely attributed to increased Government financing through the overdraft at the

central bank and the issuance of Treasury Bills and Bonds, which increased from \$3.2 billion in 2016 to \$5.2 billion at the end of 2017. The increase was noted to have largely arisen from securities issued for Government projects which include the financing of grain producers as well as for financing agriculture.

Table 19 below provides a synopsis of the impact macro-financial linkages highlighted above have had on the banking sector, manifested by the progressive decline in loans and advances and contemporaneous increase in securities and investments, notably Treasury Bills.

Table 19: Extract of Aggregate Bank Assets & Liabilities

Item	Dec. 2014 (\$m)	Dec. 2015 (\$m)	Dec. 2016 (\$m)	June. 2017 (\$m)
Securities & Investments*	639,7	1,510,5	1,861,9	2,358,2
Loans & advances	3,632,6	3,496,2	3,418,9	3,361,4
Total Deposits	4,065,2	4,499,2	5,280,6	6,001,0

**Mainly comprising Treasury Bills.*

Source: RBZ

Things came to head during the week ended 12 October 2018 following an unprecedented crash of the value of the Bond Note and RTGS balances to 1USD: 650. This came in the wake of a Monetary Policy Statement of 1 October 2018 wherein a directive to separate RTGS/Bond deposits from NOSTRO/foreign currency deposits was issued, coupled with a 2% mobile transfer tax announced by the Minister of Finance & Development on the same day. In a flash, the Country experienced spectacular price hikes by jittery wholesalers and retailers amid shopping sprees by panic stricken members of the public, reminiscent of the 2008 hyperinflationary environment. The perception by the investing public was that separation of NOSTRO FCAs and RTGS FCAs had been a tacit admission by the authorities that the Country had de-dollarized and that the Zimbabwe dollar was back. How the currency issue will pen out is expected to define the future course of banking sector soundness and efficiency.

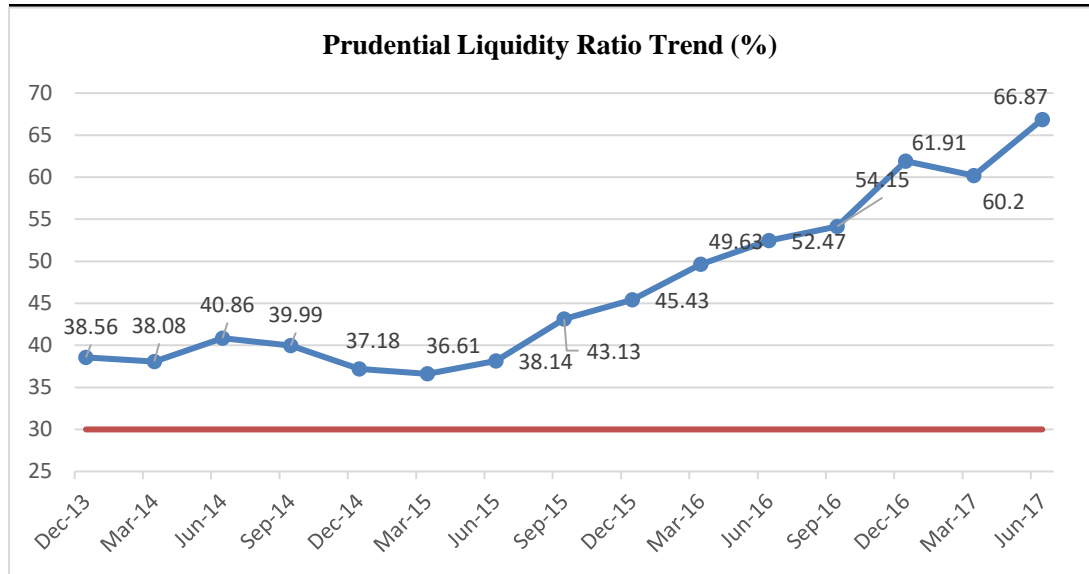
viii. Supervisory Challenges

It was also apparent that one of the regulatory dilemmas facing the Country, with far reaching ramifications on bank efficiency enhancement, is the requirement for banks to

maintain a high **minimum prudential ratio**¹⁸ (currently standing at 30%). While it is acknowledged that maintenance of such a high ratio has brought some measure of resilience of the banking sector in terms of liquidity management, it has constrained full deployment of bank resources to the detriment of profit and technical efficiency.

The figure below shows the trend in the prudential liquidity ratio since December 2013.

Figure 27: Trend of the Prudential Liquidity Ratio (31 December 2013 – 30 June 2017)



Source RBZ (2017)

Interestingly, the average banking sector liquidity ratio has persistently been above the 30% minimum threshold, particularly post 2015. This, not only reflects the cautious approach banks have increasingly adopted to minimise credit risk, but also increased uptake of Treasury Bills, coupled with higher RTGS balances. Based on the current micro-prudential supervisory approach to supervision which focuses on safety and soundness of the banking sector, however, such a high ratio would be considered as a healthy illustration of sector liquidity. The approach, however, does not facilitate interrogation of structural dynamics which have been driving the ratio up, including fiscal and currency vulnerabilities, to the detriment of efficiency, dynamic capabilities, and financial stability undertones.

The micro-prudential approach and its implications on the scope for enhancing bank efficiency through dynamic capabilities, can also be illustrated by the analysis that has hitherto, characterised banking sector profitability. For instance, an analysis of the aggregate banking

¹⁸ Computed by dividing total liquid assets by total deposits and short term liabilities, and is designed to ensure that banks have a sufficient liquidity to meet short term maturing liabilities

sector aggregate income statements for the period 2015-2018 shows that net total income grew from **\$127.5 million to \$380.7 million**. Incidentally, the growth was largely spurred by non-funded income, which expanded by 84.6% to \$722.9 million. During the same period, interest income rose by **11.6% to \$733.4 million**. Based on the current supervisory philosophy, one could easily conclude that the sector was doing very well, particularly in light of concomitant improvement in capital.

A close analysis of the dynamics would, however, reveal important undertones critical to this study. For instance, the increase in non-funded income was mainly a reflection of fees and commissions on increased usage of digital payment platforms, as well as more frequent cash withdrawals (both consequences of cash shortages in the banking sector). On the other hand, while overall interest income increased, the contribution from loans and advances actually declined, with interest income from securities and investments growing significantly by **238.7%**, to **\$296.5 million**.

In the same vein, the improvement in capital adequacy ratios during the same period was more of a reflection of the highlighted structural improvement in earnings, as well repositioning of bank balance sheets from loans and advances (with higher risk weights from a capital adequacy perspective) to securities and investments (with lower risk weights). It is the researcher's view, therefore, that overlooking such dynamics in profitability analysis, detracts bank management from the required thrust to interrogate value bank chains more. It directs the focus of analysis from efficiency enhancement and dynamic capabilities.

In light of the foregoing, there is an imperative need for the Reserve Bank to revamp its supervisory approach which has been hitherto hinged on the CAMELS (*acronym for Capital adequacy, Asset quality, Management, Earnings, Liquidity & funds management, and Sensitivity to risk*) approach and RAS (Risk Assessment Systems) methodologies that do not entail interrogation of bank value chain issues. While this approach has contributed immensely towards the assessment of the safety and soundness of individual banks, it needs to be complemented by macroprudential supervisory methodology that focuses on the identification and build-up of systemic risk, as elaborated in Chapter 7.

The findings also show that there is scope for the Reserve Bank to facilitate bank efficiency enhancement. The Bank's insistence for banks to keep physical copies of certain transactions to facilitate audit trail purposes merit serious attention as this has been stalling efficiency enhancement. In this regard, retention of scanned copies, signed by authorised signatories, could suffice. Another observation meriting serious consideration by the Reserve Bank is the need to facilitate cost sharing by banks in respect of various infrastructural and

distributional spheres. This includes disaster recovery arrangements, core banking systems and branches, and automated teller machines and associated security systems, in order to minimise operational costs.

It would also appear that the thrust by the Central Bank to ensure that banks **strengthen their credit risk management systems** has had a positive impact on bank efficiency enhancement in the light of the progressive decline in the non-performing loans to total loans ratio, from a peak of 20.8% in 2014 to around 7% 6.68% as at 30 September 2018. This reduces the level of provisions for bad and doubtful debts, hence impacting positively on profit efficiency. Improved risk management, including on-boarding of new software, should result in more efficient deployment of resources. The Reserve Bank could also facilitate an arrangement where banks could import and distribute cash centrally. By adopting measures that do not threaten availability of cash, Government and the Reserve Bank would also promote utilisation of the ZIMSWITCH platform¹⁹ which has been threatened by cash shortages.

6.2 OPPORTUNITIES AT DOLLARIZATION

Another major focus of this study was to determine the nature of opportunities, if any, that existed at the onset of dollarization, and assess the extent to which banks seized them to develop and utilise dynamic capabilities with a view to enhancing technical and profit efficiency. The study was also aimed at assessing whether, going forward, opportunities exist to enhance bank efficiency through dynamic capabilities.

It was apparent from the study that, notwithstanding the various challenges brought about by official dollarization, banking institutions were presented with opportunities they could have leveraged on to enhance both technical and profit efficiency through dynamic capabilities. Most importantly was the stability in the operating environment, which invariably facilitated ease of business planning. The value of the USD was noted to have given people confidence based on its strength. Easy availability of the Rand and Pula also meant that payments for external services could be easily paid, hence boosting confidence in the banking system.

The certainty associated with stable operating environments would also have invariably created the desire to invest in infrastructures that could have been leveraged upon to promote technological and product innovation. Under such circumstances, banks that had the capability to lend could have targeted exporting clients, just as Stanbic Bank was noted to have done.

¹⁹ Platform where clients of different banks access cash from the same ATM at a particular bank.

This, however, needed cognitive abilities to quickly appreciate the implications of the operating terrain.

The new environment also provided scope for growth opportunities, driven by possible funding from external lines of credit and capital injections from foreign banks in the light of a more stable operating environment. Banks could offer longer- term mortgages. Unfortunately, the sector failed to fully leverage on such opportunities due to a number of factors. These included perceived high Country risk, which in turn limited foreign exchange inflows. The problem was aggravated by failure to effectively plug foreign exchange leakages during the early stages of dollarization. This in turn constrained banks ability to lend and enhance both profit and scale efficiency. Growth opportunities for banks would also have been inhibited by retooling challenges most clients faced in the light of continued foreign currency shortages. This invariably constrained the demand for loans from the corporate sector. In one of the rare cases during the initial stages of dollarization, however, Bank Baroda leveraged on these opportunities to grow its loan book and introduce new products.

Against this background, bank balance sheet growths that took place showed that the level of interest income for all banks was not sufficient to cover disproportionately high operating expenses, hence creating a structural defect that called for strategic initiatives that included augmentation of income or efficiency enhancement. Unfortunately, the banks opted for pricing strategies at the expense of efficiency enhancement, hence losing the opportunity to develop and utilise dynamic capabilities.

A positive development on the supervisory front in terms of efficiency enhancement in the Zimbabwe dollarized environment has been interventions that have ensured the reduction of lending rates and bank charges, which has invariably propelled an unprecedented scramble for cost realignments, mainly through product and technological innovation. One could therefore argue that it had to take such type of external pressure to break the inertia that had grappled the sector for an inordinately long period of time.

While there was a view from the participants that International Financial Reporting Standard 9: Financial Instruments (IFRS 9) (the Standard), effective 1 January 2018, has the potential to that the Standard would squeeze profit margins and increase income statement volatility as more assets are measured at fair value, coupled with earlier recognition of impairment losses, Ernst & Young (2016) posit that the Standard is actually set to bring about great opportunity for balance sheet optimisation and enhanced efficiency in the reporting process, as well as cost savings. The researcher, therefore, submits that IFRS 9 actually presents scope for the enhancement of bank efficiency. In fact, dynamic capabilities are envisaged to

play a critical role as implementation of the Standard is highly dependent on the ability to reconfigure expected credit loss models, IT systems, as well as accounting policies and procedures.

6.2.1 Growth Opportunities

The overnight taming of rampant inflation, as well as the ability to plan at personal, corporate and national levels, invariably provided opportunities for business growth, and with it scope for efficiency enhancement. Dollar based earnings, coupled with absence of exchange risk presented added growth opportunities for banks and corporates. Another notable opportunity was the ability of multi-currencies to store value compared to the defunct Zimbabwe Dollar. Responses to the growth opportunities were varied, with far reaching implications on development of dynamic capabilities and efficiency enhancement, as highlighted hereunder

a) Foreign Banks

The dollarized environment created various competitive advantages for foreign owned banks in as far as efficiency enhancement through dynamic capabilities was concerned. In addition to the relatively higher capital bases compared to their locally owned peers, the foreign banks also rode on the “flight to quality” syndrome, wherein depositors opted to place their funds with these banks. The banks could also access relatively cheap funds, riding on brand capability. Foreign parentage also presented a competitive advantage in terms of funding support and experiential knowledge, particularly in respect of Stanbic Bank.

While foreign owned banks were noted to have reflected on what the new operating environment meant, the downside risk was that they became overly cautious, in the process affecting the potential to enhance efficiency through development and utilisation of dynamic capabilities. Affected banks included Bank Conservative’s operations, which had an added problem of parental bureaucratic rigidities. This, not only invariably affected the ability to develop and utilise dynamic capabilities, but profit and technical efficiency enhancement.

By offering low deposit rates in as an integral strategy of the cautious approach to lending, the foreign owned banks inadvertently lost the opportunity to build the critical mass that would have minimised the emergence of the net interest income/operating expenses gap. It can, therefore, be argued that such compensatory behaviour could have invariably militated against potential development and utilisation of dynamic capabilities to enhance profit and

technical efficiency. On the other hand, banks that had supportive parentage, made significant inroads in terms of growth and profitability. A typical example is Stanbic Bank. Noteworthy, however, is that though such foreign owned banks might have experienced relative growth trajectories in terms of lending, not much was done in respect of efficiency enhancement. This phenomenon could be explained by the ability to generate substantial earnings based on high non-funded income and high lending rates, coupled with low cost of funds.

It would also appear that the foreign owned banks failed to leverage on strong governance and risks management systems characterised by separation between ownership and management which would have provided opportunities for growth and efficiency enhancement based on calculated risk taking, rather than take risk avoidance.

b) Local Banks/ Small Banks

As was the case with large foreign owned banks, local banks were also presented with the opportunity to grow underpinned by dynamic capability and efficiency enhancement. Noteworthy, however, is that although the banks did indeed grow their balance sheets, the growth was funded by expensive funds, the proceeds of which were directed to riskier client segments whose borrowing options are usually restricted, hence creating a bedrock for non-performing loans.

The high cost of funding, coupled with a generally high operating cost base on the backdrop of failure to attain critical mass to cover operating expenses culminated in operational viability problems that would have made it difficult to create the necessary resource base to meet the requirements dynamic capability development. The problem appeared to have been exacerbated by the fact that business growth came against the background internal governance flaws, coupled with lack of experiential knowledge and undercapitalisation. Against this background, various strategic and operational miscalculations were made culminating in serious liquidity and solvency challenges that significantly affected overall efficiency.

The absence of anchor institutional shareholders appeared to have deprived the locally owned banks of much needed guidance in terms of internal governance and risk management so critical for efficient operations, though not necessarily pre-requisites, as has been the case with some foreign banks.

6.2.2 Scope for Enhancing Process Efficiency

It is the researcher's contention that the viability problems that emerged at the onset of dollarization, reflected by the net interest income/operational expenses disconnect, would have spurred banks to configure their operations with a view to diversifying income or enhance cost efficiency. Dollarization also provided an opportunity for banks to upgrade their management information systems that had been embedded with inefficiencies characteristic of hyperinflationary conditions. There had also been scope for companies and banks to reconfigure their organisational structures. Cash challenges that emerged with the progression of dollarization also created opportunities for reconfiguration of distribution channels, from "brick and mortar", to digital payment platforms.

The scope for process efficiency enhancement, however, was scuttled by various idiosyncratic and environmental factors that have characterised the dollarized environment. These include underlying liquidity challenges, limited foreign direct investment and external lines of credit, and resilience capability management flaws.

As a consequence of the various resilience capability management flaws, the foreign owned banks lagged in terms of innovation. The lethargic nature of foreign parents also contributed significantly to constraining efficiency enhancement. In this regard, the opportunity to grow and meaningfully contribute to economic development, was missed. On the contrary, banks, such as Stanbic Bank, riding on a regional parent with experiential knowledge and right risk appetite, contributed to relatively high technical efficiency, albeit way below local peers.

6.2.3 Product and Technological Innovation

It is the researcher's view that while there is a discernible thrust towards innovation at various banks, including Bank Conservative, various idiosyncratic factors still pose threats in respect of the efficiency enhancement agenda through dynamic capabilities. Most notable, is the continued inertia underpinned by ultra-conservative approaches, particularly in respect of foreign-owned banks.

It was also apparent that for the innovative centric management approach to be effective, it has to be accompanied by an enabling environment that promotes agility and service stewardship in a very practical manner. The laboratory philosophy, where all innovative ideas are considered regardless of how wild they are, also appears to have traction. It is also important that senior management give due attention to staff morale, as this makes them more focused and think outside the box. Dedication to duty by staff is also critical in promoting

innovative centric behaviour. It would, however, appear that the mere creation of environments conducive to the generation of progressive ideas without enhancing cognitive capabilities through knowledge management, may not be sufficient.

The research also showed that opportunities existed for banks that had formal structures to support and nurture innovation and efficiency enhancement. This was particularly so for Bank Griffon, where weekly development meetings made all the difference. A reward structure, where an incentive structure for those that demonstrate innovative capacity is put in place, would also be a critical cog in this process. It was, however, also apparent that such deliberations and resolutions have to be religiously followed up, with support from the highest office in the bank. The various banking products that have since been introduced, are an affirmation of this.

Opportunities also arose for banks that had the appropriate processes to hire right people; people who are prepared to think outside the box and could transform banks- and not necessarily focusing on integrity and traditional banking experience. Judging from the performance of Bank Conservative, where an example of such a person was given, it is also important to note that such people have to be supported by appropriate shareholding and governance structures, as well as overall strategic thinking. It is also apparent that such people come at a price that could upset operational viability if requisite financial resources are not put in place. Various locally owned banks were noted to have been adversely affected by cost burdens of such staff in the absence of sound financial footing. Going forward, therefore, recapitalisation of banks is of paramount importance. Unfortunately, judging by the difficulty that has been experienced in capital raising initiatives, this is going to be a tall order.

For the efficiency trajectory to have more traction, however, it would appear that the introduction of new products such as internet banking and other e-banking channels should not necessarily be a reflection of customer convenience and income generation, but structured and holistic approach to value chain interrogation.

The findings also point to the importance of requisite financial resources to drive the efficiency enhancement drive. Banks such as Bank Griffon might have wanted to reconfigure their operations at a much faster pace but were constrained by inadequate financial resources, particularly pre-2010 before new institutional investors came on board. Be that as it may, efficiency enhancement requires more than financial resources, considering the fact that some large foreign owned banks failed in this respect notwithstanding the abundance of resources.

Much will also depend on measures that are put in place to facilitate mind-set shifts from, inter-alia, profiteering, as well as enhancement of cognitive and strategic management capabilities.

6.2.4 Capital Buffers/Funding Capabilities

The findings also underscore the importance of funding buffers and overall funding capabilities. For instance, banks that had invested in real estate during the hyperinflationary era appeared to have had a competitive edge in an environment of underlying liquidity challenges. The properties could either be disposed of or used as collateral to raise liquidity. The biggest undoing for some of these banks, however, was that they took too long to dispose of the properties in the misplaced expectation that they would capitalise on capital appreciation. As the liquidity situation got worse, however, it became increasingly difficult to dispose when the liquidity was most needed. Bank Candid fell victim to this and paid a huge price. As inflationary pressures surged the pool of buyers became increasingly depleted as the preference for sales in United States Dollars gained momentum.

It was also quite evident from the findings that some of the financially stable banks, mostly foreign owned, had the ability to come up with safe banking models and realistic pricing models that did not compel them to charge high lending rates, hence minimizing the occurrence of non-performing loans. Such banks also have the ability to attract relatively cheaper off-shore funding, significantly lowering the cost of funding. Because of brand capabilities such banks are also able to raise relatively cheaper deposits. Such banks, however, failed to capitalise on these capabilities by enhancing profit and technical efficiency mainly due to their ultra-conservative approach to lending based on risk considerations. This, unfortunately, has tended to promote operational inefficiencies which have resulted in relatively high charges, compared to what they would have ordinarily charged. Being large in stature, such banks have the potential to threaten financial stability, which explains why the banking sector has generally been unable to effectively perform their core functions. With the persistence of a difficult operating environment, the likelihood of the foreign banks to change their business model appeared extremely remote, implying that the scope for efficiency enhancement was poised to remain limited.

6.2.5 Parental Leverage

The shareholding structures of Zimbabwean banks in the Zimbabwean dollarized environment have had a significant impact on efficiency enhancement. Banks with foreign parents with no experiential knowledge of the operating terrain have tended to lag behind in terms of efficiency enhancement, at least from a financial intermediation perspective. These include banks such as Standard Bank and Bank Conservative. On the other hand, banks such as Stanbic Bank, with regional parentage have demonstrated agility, at least from a profitability point of view, albeit also performing poorly in as far as technical efficiency is concerned.

The fact that on-boarding of foreign shareholders for Bank Griffon made a difference in as far as the pace of business process reconfiguration and efficiency enhancement are concerned, speaks volumes of the vital role stakeholders could play. This came on the back of increased market confidence, improved internal governance, stabilization of funding, as well as absence of insider loans. The other advantage of banks owned by institutional shareholders is that there is always the threat of dismissal on the part of employees, hence the motivation for prudent conduct. The scope for increased support from foreign institutional investors, however, remained critically dependent on the Country's risk profile and re-engagement efforts with the international community, particularly in light of the change in Government that occurred in November 2017.

6.2.6 Knowledge & Expertise

The research also established that management skills and competencies provide differentiating leverage in respect of efficiency enhancement. During the transition to dollarization, there was evident lack of strategic management capabilities required to fully appreciate the full meaning of changes in the operating environment and how to successfully navigate it. Banks that at least managed to pose and reflect, mostly foreign owned ones, managed to survive but failed to fully capitalise on the opportunities for reasons already outlined. In all instances, the "Centre" played a part in terms of guidance, based on through experiential knowledge.

Banks such as CBZ Bank and CABS, however, managed to capitalise on growth opportunities reflected by consistent high performance in most of the efficiency indicators.

6.2.7 Supervisory Intervention

It would appear the inordinately long period of time taken by the Reserve Bank to moderate lending rates and bank charges cost the banking sector in terms of efficiency enhancement through dynamic capability development and utilisation. This is premised on the observation that banks could have developed considerable comfort zone by levying unsustainably high lending rates and charges at the expense of efficiency enhancement. It can also be argued that such delays could have inadvertently contributed to threats to financial stability in light of the impact high lending rates have had on asset quality, with high bank charges adversely affecting the ability of banks to mobilise deposits.

The guidance the central bank has now provided in terms of lending rates and bank charges has invariably made a huge difference in terms of efficiency enhancement as banks are now left with limited options to make remain viable, other than pursuing cost containment and profit efficiency enhancing. This has seen most banks going beyond mere staff rationalisation, towards adoption of business process re-engineering in what could prove to be a significant milestone.

By promoting strong internal governance and responding swiftly to violations of prudential guidelines and standards, this is envisaged to contribute towards efficiency enhancement.

The other major study objectives was to determine why banking institutions seemingly opted for pricing strategies, in particular, high lending rates and bank charges, as well as low deposit rates; instead of reconfiguring business models, operating systems and processes with a view to enhancing efficiency. Below is a discussion and interpretation of the research findings.

6.3 ADOPTION OF PRICING STRATEGIES

The assessment of why banks appeared to have pursued the pricing strategy instead of efficiency enhancement was done in the context of the challenges that emerged at the onset of dollarization. The findings suggest that the net interest income /operating expenses mismatch was attributable to various complex factors.

6.3.1 Reduced Earning Capacity

High on the list was the reduced earning capacity in the light of funding constraints that most banks experienced. The absence of fresh capital injections invariably left banks with no option but to use valuation reserves from buildings and land as the predominant form of

recapitalisation. As a consequence banks had limited working capital at a time when external lines of credit and foreign direct investment remained subdued. Most of the financial assets from which the banks could have leveraged in respect of working capital had also been eroded by hyperinflation. In this regard, banks' ability to lend was severely constrained, hence compromising earning capabilities.

6.3.2 High Operating Expenses

Against this background, operating expenses remained high owing largely to the bloated organisational structures and operating processes that had been necessitated by the demands of hyperinflation. Attempts to rationalise operating expenses through retrenchments were initially thwarted by an archaic Labour Relations Act which provided for bureaucratic rigidities. Financial resource requirements of retrenchments also presented constraints in an environment of working capital challenges. While banks such as Bank Conservative might have had requisite financial resources to retrench, the cost realignment processes were not holistic enough, hence failed to significantly impact on overall operating efficiency.

Such a predicament was a manifestation of the cost and timing issues raised by Zott (2003) in respect of sensing and seizing opportunities.

6.3.3 Hyperinflationary Mind-set

It was also observed that the hyperinflationary environment created the motivation for "quick money" at exorbitant rates and prices in the minds of most Zimbabweans, banks, depositors and borrowers. It had been a period when money could be easily made through highly speculative investments. Noteworthy also, was the apparent double coincidence of wants, wherein corporate entities were desperate to retool, with banks gearing to rebuild balance sheets. This, therefore appeared to have created to what could be termed reckless lending and borrowing in some instances where due regard was not paid to the level of lending rates.

The hyperinflationary mind-set, therefore, appeared to have moderated the development and utilisation of dynamic capabilities, including cognitive capabilities as well as knowledge management on the part of Zimbabwean bankers. Judging by the immediate responses to the various fiscal and monetary policy measures of 2018 and 2019, it would appear that the natural tendency of both bankers and industry at large is to increase prices before consideration is made to value chain interrogation and possible efficiency enhancement. This suggests that the inflationary mind-set has been deeply rooted and will be extremely difficult to erase.

6.3.4 Strategic Responses

It was, therefore, against this background that banks sought to bridge the net interest income/operating expenses gap through relatively high lending rates and bank charges. To increase the cushion, it also became necessary for the banks to offer low deposit rates, to the extent possible. It was also determined that most banks sought to enhance income generation through non-funded/non-interest income, by venturing into activities such as international banking, safe deposit box services, and structuring of facilities as a way of addressing the interest income/ operating expenses disconnect that arose at the onset of dollarization.

It was also apparent from the findings that while efforts to streamline costs were indeed pursued by some banks, these remained confined to staff retrenchments, albeit delayed for identified reasons. The problem appeared to have been complicated by the thump-suck approach taken to determine the number of employees to be laid off. There was an apparent lack of wholesome value chain interrogation to improve process efficiency, at least before the current wave of business process engineering projects.

The cautious approach to lending by international banks also contributed to relatively high lending rates and high charges as they attempted to compensate for foregone interest income. Interestingly, Bank Conservative had the highest lending rate (26.12% per annum) as at 31 August 2016, and was offering the lowest deposit rate (1.63%) across the entire banking sector. On the other hand, one of the foreign banks that has persistently out-performed peers had a lending rate of 19.5%, which was its highest during the same month, compared to an industry average of 13.2%.

It was also established that low deposit rates were partly attributable to deliberate actions by some international banks that had taken the position not to lend and were thus discouraging deposits by lowering deposit rates. Offering high deposit rates would have meant incurring unnecessary costs in the absence of alternative investment opportunities.

The sections that follow analyse dynamic capabilities that were identified by banks as a lynchpin for bank efficiency enhancement in the dollarized environment.

6.4 Analysis of Dynamic Capabilities

6.4.1 Overview

It was apparent from the research findings that banking institutions in the Zimbabwean dollarized environment have relied more on operational rather than dynamic capabilities to navigate the operating terrain. Operational capabilities have largely been in the form of

improvements in management information systems, branch distribution networks, risk management systems, sound internal governance, financial resources, marketing, as well as introduction of new products based on customer centric management, among others.

Bank Baroda for instance, managed to leverage on a wide branch distribution network to enhance scale efficiency which also enabled the institution to leverage on online products. The majority of foreign banks managed to leverage on financial resource capabilities to at least attain critical mass in terms of business volumes and revenue to meet operating costs. They also leveraged on risk management capabilities to manage credit, interest rate, liquidity and operational risk. The major downside in terms of efficiency enhancement, however, was that the risk management methodologies remained stuck in traditional philosophies, devoid of the strategic management thrust underpinned by the dynamic capabilities approach.

On the other hand, most locally owned banking institutions had an added challenge in that they struggled to manage the traditional risks amid internal governance deficiencies related to lack of separation between shareholding and management before eventually collapsing.

Management information systems across the banking divide also basically remained an operational capability during the first few years of dollarization, given that the focus of management was on automating processes and integrating various subsystems. There has been no serious attempt to align IT strategy with business strategy. With the emergence of environmental pressures, notably limitation on lending rates and bank charges, the drive towards business process re-engineering and product innovation have increasingly propelled banks to align IT strategy with business strategy.

A number of dynamic capabilities were noted by the participants, although these have not been fully utilised due to a number of factors, as discussed below.

6.4.2 Agility

The situation that obtained at the onset of dollarization, whereat most banks failed to attain critical mass in terms of revenue compared to operating expenses would have required great agility, or the ability to develop and quickly apply nimble and dynamic competitive moves (McCann, 2004). More-so, underlying liquidity challenges had necessitated the need for banks to attract deposits by offering competitive deposit rates, while minimizing the level of bank charges. This would invariably have required reconfiguration of business processes towards a more customer centric management thrust.

It was, however, apparent from the findings that most banks faced various challenges

related to agility, both from idiosyncratic and environment perspectives. From an environmental point of view, the ability to levy high lending rates and bank charges due to a number of factors identified in the findings, appears to have detracted the banks from developing or utilising agility. Foreign owned banks also leveraged on the ability to attract deposits at inordinately low deposit rates, thus ensuring high levels of profitability. This was done notwithstanding the clear risk that potential depositors would shun the banking system while the unsustainably high lending rates would create a bedrock for NPLs. Expectedly, some banks, notably locally owned small banks were to become excessively exposed to NPLs and later succumbed to serious solvency and liquidity challenges before collapsing.

Locally owned banks on the other hand, could have come up with innovative deposit mobilisation strategies in light of the capitalisation and liquidity challenges faced. Unfortunately, their options appeared to have been constrained by compromised market reputation, egotistic tendencies by owner managers, among other factors. Against this background, the strategic imperatives appeared to have been driven more by competitive desperation than customer centrisism. This is premised on the observation that the banks had no choice but to attract deposits at all costs in the light of serious liquidity challenges. It can, therefore, be argued that management were hamstrung by these factors in terms of the development of dynamic capabilities.

During the course of the study, nothing much had changed in terms of deposit rates. In fact, indications were that some banks had actually reduced the deposit rates as they sought to compensate for foregone interest income in light of maximum lending rates. In addition, the “hunger” for funding by foreign owned banks remained subdued as the cautious approach to lending was maintained. Most foreign banks were reported not to be opening new accounts. On the lending side, one could argue that the reduction of lending rates was not so much about competitive pressures, but driven by maximum ceiling imposed by the Reserve Bank.

It can, therefore, be argued that the concept of agility for the generality of banks, going forward, remains a distant possibility and externally driven as long as focus remains largely fixated on revenue generation. One bank that could, perhaps pass this test, as also noted by the former Managing Director, Bank Candid, is Steward Bank, which continues to heighten its innovative capabilities in pursuit of inclusivity and transactional banking model. The high profit efficiency scores recorded by the bank bears testimony to the success of the strategy. Ironically, profit efficiency is being achieved at the expense of lending, hence the relatively low technical efficiency scores.

From an idiosyncratic point of view, agility at most banks appears to have been

adversely affected by knowledge management and cognitive limitations which, incidentally, still appear to be still quite widespread.

6.4.3 Adaptability

The findings point to the difficulty with which Zimbabwean banks faced in attempts to re-establish fit with the operating environment. In particular, has been failure to reconfigure resource bases in the light of a significantly operating environment as the nation transitioned to dollarization.

The above observation is premised on the view that, with dollarization induced liquidity challenges, accompanied by compromised lending capabilities on the back of high operating expenses, there had been an imperative need to complement earnings generation capabilities with reconfiguration of business models and operating systems. This, however, required systematic and company-wide scanning that would have inculcated the need to change course on the part of banks.

From the research findings, it would appear that the expected adaptability was adversely affected a multiplicity of factors. These included the hyperinflationary mind-set, negative parental influences, cognitive shortcomings, lack of experiential knowledge, lax supervisory oversight, as well as infrastructural constraints. The question that arises going forward is whether the ability to adapt and enhance efficiency will improve.

Adaptability to enhance efficiency through dynamic capabilities is likely to be largely dependent on developments in the operating environment. For instance, at the time of the study, the potential for new lending products outside mortgages was minimal as inherent credit risk continued to be high in the light of a difficult operating environment. In fact, after the turbulence that characterised the market following imposition of a 2% mobile transfer tax and separation of NOSTO FCAs and RTGS FCAs, indications were that several companies could face operational viability challenges, hence further increasing inherent credit risk.

It is, however, noted that opportunities to adapt could be enhanced by the surge in inflation during the last quarter of 2018, wherein an annual inflation rate of 42% was recorded as at 31 December 2018. With negative real interest rates of around 30% having arisen, banks could be forced further interrogate their value chains and explore ways of establishing strategic fit. The fact that banks had increasingly resorted to investing in Treasury Bills which have been the most affected by negative real interest rates, could put pressure on the banks to soul-search and consider other avenues to sustain their operations. Continued cash shortages will continue

to exert pressures to reinforce digital payment platforms. A downside risk that could hamstring the development of dynamic capabilities and efficiency enhancement, however, was the potential fall in aggregate demand that could be induced by the 2% mobile transfer tax as disposable incomes fall and consumers become more circumspect in their spending patterns. This is likely to result in company closures – a development that has the potential to compromise technical and profit efficiency, as well as the motivation to develop and utilise dynamic capabilities.

6.4.4 Strategic Flexibility

It is also evident from the research findings that the transition to dollarization required that banks exercise a considerable degree of strategic flexibility if efficiency enhancement was to be achieved. It is, however, noted that the ability to change on relatively short notice and at low cost as contemplated under the strategic flexibility concept was constrained by a number of factors.

Notable were cognitive limitations, knowledge management flaws, as well as speculative mind-set that had been embedded in the minds of most economic players during the hyperinflationary. The problem was aggravated by the lack of effort to leverage on experiential knowledge from dollarized experts who could have easily been hired from countries that had already undergone such experiences, as intimated by the Head of Treasury & International Banking, Bank Conservative. These included El Salvador (2001) and Ecuador (2000). It, however, remains debatable whether the dollarization experts, or even more so, “people of integrity, who are able to do the right things, professional characters, confident, creative, and able to do things differently” as put by the Managing Director, Bank Griffon, would have made a difference in the light of the bureaucratic corporate structures that characterised some banks and banking groups. Environmental factors already alluded to would have also complicated the change dynamics. Going forward, strategic flexibility will continue to be critically dependent developments on the economic front, particularly with regard to currency dynamics and inflation.

The observation by the participants that innovation requires proper strategy and infrastructure appears to have been compromised by sheer lack of appreciation of fundamentals of the strategic management concept. Most of the traditional bankers had been schooled in the classical strategic management paradigm, incorporating formulation of a vision, mission, values and objectives. Traditional planning sessions would be conducted far from the work

place whereat elegant documents would be crafted, only to be filed and gather dust and soon forgotten. The situation was made worse by the fact that the abruptness of the shift to dollarization had not given executives ample time to engage in expansive planning sessions. It would also appear that strategic orientation, particularly pricing strategies, to a large extent slowed down dynamic capability development and utilisation, in the process stalling efficiency enhancement.

During the time of the study, the strategic management concept, which emphasises alignment of key variables such as corporate goals and objectives, internal resources and capabilities, business strategy and the operating environment, more so the dynamic capability construct, was still missing. The problem was aggravated by the fact that risk management was and is still focusing on traditional risks such as credit, liquidity, foreign exchange and interest rate risk, on a solo basis, at the expense of strategic risk. Strategic flexibility also appeared to have been constrained by “*exploitation*” (Wang *et al*, 2015) in light of the early successes achieved by most banks, particularly foreign controlled banks, which saw reinforcement of further exploitation along the same trajectory, thereby preventing the banks from adapting to the shifted environment.

The role of boards of directors has also been critical in determining strategic flexibility. The support rendered by the Board of Bank Baroda, for instance, was instrumental in the attainment of profit and technical efficiency. At Bank Griffon, the old Board, steered by conservatively minded individuals had scuttled strategic flexibility at great cost to the institution. In the same vein, weak Boards at various small locally owned banks contributed to the demise of the institutions. In fact, some Board members served at the mercy of key shareholders and could not dare challenge them in any meaningful way (RBZ, 2013). In this regard, regulatory interventions by the Reserve Bank, including revamping of the Corporate Governance Guideline, are poised to reinforce internal governance thus creating objective conditions for the development and utilisation of dynamic capabilities.

Other critical levers noted in terms of strategic flexibility include the need to fully appreciate risk, and leverage on the civil service which, in essence, presents scope for growth. Group synergies were also noted to aid strategic flexibility, with banks such as Bank Baroda particularly riding on this to introduce new products and grow the business through vertical and horizontal integration.

It was also apparent that strategic flexibility needs to be supported by financial resource capabilities, particularly in respect of substantial investments required to reconfigure operating systems and processes, notably accounting and management information systems. This is a test

which most banks failed in view lack of requisite working capital. In addition, much needed reconfiguration of organisational structures would have been constrained by the then labour law, as well as in ability to fund associated retrenchments packages. Continued foreign exchange shortages in the formal banking system are, therefore, expected to present a challenge in as far as strategic flexibility is concerned given import requirements to support reconfiguration of business operating systems and processes.

6.4.5 Business Process Reconfiguration

The ability to reconfigure business processes came out as one of the fundamental aspects of dynamic capabilities required to enhance bank efficiency in the dollarized environment. An analysis of how this capability has panned out is highlighted below.

Bank Griffon is a typical bank where the difference in terms of vision and strategic direction became a defining factor in terms of business process re-engineering. For instance, the departure of executive manager who were also shareholders and had demonstrated a high degree of conservatism, providing space for new management and the Board to chart a different course. There was an immediate radical shift from an elitist to a broad based market segment approach, making a huge difference in terms of technical and profit efficiency. With full support from new executive management, a formal structure that supported and nurtured innovation was put in place. This culminated in the introduction of new products as well as adoption of business process re-engineering.

It was also apparent from the study that the establishment of business process reconfiguration, entailing establishment of appropriate organisational structures, routines and processes, requires more than just executive support. For instance, while the support provided by the Bank Conservative Managing Director was noted, bottlenecks presented by parental rigidities cost the bank the opportunity to transform.

Noteworthy also is that the scramble to innovate by banks during the latter part of dollarization, as part of a business process reconfiguration drive, has largely been externally driven in line with developments in the operating environment. In particular, it was only after banks had felt the squeeze from the cap on lending rates and bank charges that they started to meaningfully interrogate their value chains and reconfigure business operations. This, therefore, questions the genuineness and willingness of banks to meaningfully implement such programmes. The fact that some banks still have a tendency to adjust deposit rates downwards

each time lending rates and charges are reduced by the Reserve Bank suggests that such doubt may not be misplaced. It became a chicken and egg scenario.

The other driver of efficiency enhancement through business process reconfiguration has been cash shortages, which has left banks with no option but to come up with alternative digital payment channels. Competition by mobile network operators also forced banks to awake from a deep slumber and come to the party. Constraining the business reconfiguration agenda, however continues to be foreign exchange shortages in light of the required investments.

Reconfiguration of business models, operating systems and processes, also continues to be hamstrung by other factors, chief of which is the extent to which the digitalisation drive has been embraced. A major constraint has been the multiple pricing structure which has characterised the dollarized environment, wherein price differentials are based on the form of payment. Some retailers and wholesalers are noted to be charging a premium on RTGS, mobile, and Bond Note based transactions compared to USD based ones. As a consequence, there has been a scramble for USD cash at the expense of other forms of payments, hence creating inefficiencies at banks.

Another constraint that continues to affect efficiency enhancement through business process re-engineering relates to infrastructure challenges. These have constrained the usage of mobile and other forms of e-banking wherein some clients fail to transact for one reason or the other, including “off-line” logjams. The relative high cost of acquiring gadgets required to utilise digital payment systems, in respect of both service providers and consumers, also poses a threat to the efficiency enhancement thrust.

One of the largest let downs to the efficiency enhancement agenda was the delay in transforming distribution and organisational structures. By remaining stuck in brick and motor distribution channels for inordinately long periods of time, banks lost the opportunity to improve operational viability. The reasons have been varied, ranging from cognitive limitations, idiosyncratic and external factors, already alluded to, as well as depressed real estate market owing to liquidity challenges. An added dimension had arisen in 2018 when most sellers out-rightly rejected RTGS payments, preferring dollar based ones, as inflationary expectations gathered momentum.

Judging from the Bank Baroda experience, it would appear that the effectiveness of BPRs will be critically dependent on absolute clarity on the difference between incremental process improvements and radical changes contemplated under the BPR concept. The latter entails an “as is” review of current operating systems and processes before radically reconfiguring the processes in line with corporate goals and business strategies. The

incremental approach, on the other hand, entails gradual improvements of current processes with a view to enhance efficiency. An understanding of the difference, therefore, would ensure that appropriate implementation strategies are adopted. For instance, radical changes may result in significant staff reductions hence requiring different stakeholder management approaches, including buy-in.

6.4.6 Ability to Sense & Seize Opportunities

An interesting aspect of the research findings was the absence of prominence given by the participants to the need to proactively search for signs of organizational decline through, for instance, market probing, listening to customers and scanning elements of the business ecosystem. There was general consensus that banks did not take time to go through a process of knowledge discovery through which cognitive capabilities are used to accumulate, filter and interpret information. There appeared to have been little scope for cognition, mental processes of perception, memory, judgment or reasoning (Nadkarni and Barr, 2008).

Much of the above-noted flaws appeared to have been attributable to a variety of reasons including three firm level factors expected to have a strong bearing on the data collection process Pisano (2015). With regard to *asset position factor*, banks such as Bank Conservative were clearly constrained by path dependency, characterised by ultra-conservatism. *'Higher-order'* routines such as governance structures, resource allocation processes, and management systems, also appear to have adversely affected the ability to sense and seize opportunities. This was relevant for banks such as Bank Conservative, Bank Baroda, and Bank Griffon, which were quite representative of both foreign and locally owned banks. In this regard, as long as there is no substantial change in the shareholding structures, the scope for dynamic capability utilisation and efficiency enhancement will continue to be impaired.

The third factor identified by Pisano (2015) i.e. *paths*, has also played a determinant role, premised on the observation that the manner in which most banks have responded to emerging challenges has largely been based on application of capabilities that have accumulated over time. Going forward, therefore, absorptive capacity, entailing the ability to identify external information, recognize its value, assimilate it with existing internal information, and use it in a value creation process, will be topical for such banks.

With particular regard to the capability to seize opportunities, the observation by Schoenberg et al (2013) on the role played by committed leadership teams, past experience, organizational routines and behaviour, conventional organizational practices and rules in either facilitating or impeding change, was demonstrated.

Issues raised by Zott (2003) in respect of the *timing* of resource deployment, *cost* thereof, and the *learning* of such resource deployment, have also played a critical role in the sensing and seizing of opportunities during the dollarized environment. The impact of organisational inertia, cost of acquisition, creation, modification, and transfer of resources and capabilities, were quite apparent for banks such as Bank Griffon and Bank Conservative. Much also depends on experiential knowledge. In addition, the research findings showed that limitations to the sensing and seizing of opportunities are not necessarily confined to idiosyncratic factors, but include environmental constraints. A lot will, therefore, depend on the success of macroeconomic stabilisation initiatives.

6.4.7 Knowledge Management

The findings underscore the importance of knowledge management as a critical cog of innovative capability which, in turn is a critical determinant of bank efficiency enhancement. Most banks were found lacking in terms of *absorptive capacity* (Cohen and Levinthal, 1990). This is premised on the observation that, notwithstanding pressures brought about by the net interest income/operating expenses disconnect, the banks appeared to have failed assimilate existing knowledge with dynamic capabilities and efficiency enhancement theories and reconfigure business operations accordingly. With the innovative capabilities demonstrated by mobile network operators (MNOs), for instance, the banks remained stuck in brick and motor distributional networks, while the MNOs capitalised on the emerging opportunities and ran away with the market.

Banks also failed the *ambidexterity test*, through inability to continually reinvent their future competitive advantage, opting instead, to protect and defend the status quo. There was glaring inability to establish a strategic fit between organizational components (structure, culture and processes) to not only viably sustain existing businesses while simultaneously increasing variation to evolve new business lines (Burgelman and Doz, 2001).

The failings demonstrated by the banks in terms of continuous generation of economic value through development of new ideas and renewal of existing capabilities, therefore was a manifestation of knowledge management flaws, which significantly negatively impacted bank efficiency enhancement.

6.4.8 Competencies

From the results of the study, this is probably where most bankers appeared to have failed. Being a significantly different operating terrain, dollarization required people with unparalleled training, judgement, experience, intelligence, relationships, and insights of individual managers (Barney, 1991). Issues such a product and technological innovation, alignment of IT and business strategy would have been critically dependent on these capabilities.

The limited agility, as highlighted above, can be attributed to a negation of what Daneels (2002) identifies as functional competencies required in new product development i.e. customer, technical, and managerial competencies, as highlighted in the Literature Review. These deficiencies, however, would have been aggravated by the various environmental and bank specific internal governance and parental influences highlighted elsewhere in this thesis.

6.4.9 Consolidation Capabilities

While these were noted as vital capabilities, this route did not find traction primarily due to lack of value proposition; where international banks already had big brothers. On the other hand, local banks had shown aversion to consolidations for fear of losing control, as well as protect poor internal governance and unethical behaviour.

The fact that most banks that had low technical efficiency scores based on the financial intermediation approach depicted low levels of lending, suggests that the consolidation route would have been an important element of efficiency enhancement, as it ordinarily provides necessary critical mass for banks to lend through wider funding sources. Noteworthy, however, is that any consolidations would not necessarily have led to increased lending given that most banks have already curtailed lending in the current operating environment based on risk considerations and preference for Treasury-Bill holdings. Incidentally, the largest bank in the Country progressively reduced its loan book from \$910.3 million in 2014, to \$339.6 million in 2018 as part of balance sheet repositioning. During the same period, securities and investments increased from \$250.2 million to \$1.3 billion. Such a scenario does not augur well for enhanced efficiency.

6.4.10 Financial Resource Capabilities

The significance of financial resources capabilities had a telling effect on the ability of

banks to enhance profit and technical efficiency. Banks such as Bank Griffon benefited from the coming on board of foreign shareholders who stabilised the banks and created conditions for innovation and growth. The bank was able to grow its loan book and to introduce new products that augmented earnings generation capability, while improving process efficiency and customer convenience. Technical efficiency scores, in particular, bear testimony to this.

An interesting dimension to the financial resource capability dimension was that banks so endowed may not necessarily utilise the capability to enhance efficiency depending on other idiosyncratic factors. In particular, risk appetite, strategic flexibility and agility were defining factors for the majority of foreign banks, as most of them lagged behind in terms of innovation and efficiency enhancement. The fact that Bank Conservative was had a strong market position prior to dollarization, and lost ground thereafter, suggests that for dynamic capabilities to be effective, there has to be holistic support for change management strategies.

The findings also suggest that the lack of adequate financial resources, particularly in respect of small locally owned banks such as Bank Candid, can have serious negative consequences on the development of dynamic capabilities, let alone efficiency enhancement. The inability to attain critical mass in terms of revenue to cover disproportionately high operating expenses, and consequent pressures for competitive desperation, culminated in severe liquidity and solvency challenges that eventually led to business failure. Against this background, there is potential that management can be distracted from thinking strategically and confined to the fire-fighting mode, to the detriment of innovation and other business reconfiguration initiatives. Management of one of the banks that were eventually closed had to seek cover at the Reserve Bank during its last days of operations out of fear of as marauding depositors who were demanding repayment of their deposits.

Zero order, first order, second order and third order capabilities identified by (Wang and Ahmed, 2007) are significant to this study. It would appear most banks fared well in terms of the first two capabilities (“zero order” capabilities, in respect to firm resources based on the VRIN concept and “first-order” capabilities, relating to the ability to deploy resources to attain a desired goal, leading to improved performance. A number of banks struggled with the “second order capabilities” test in respect of attainment of competitive advantage. With regard to ‘third-order’ dynamic capabilities, almost all banks failed the test for constant pursuit of the renewal, reconfiguration and re-creation of resources, capabilities and core capabilities to address the environmental change, due to various idiosyncratic flaws highlighted herein, coupled with environmental constraints.

6.5 EFFICIENCY MEASUREMENT DYNAMICS

Two critical observations can be made from the results of the study. Banks in the Zimbabwe dollarized environment have continued to exclusively focus on financial ratios, notably the cost to income ratio, to measure efficiency. This, however, could have distracted the institutions from addressing value chain issues holistically – hence militating against enhancement of technical efficiency and profit efficiency through, for instance, business process re-alignments. This view is premised on the observation that bank management attention appears to have mostly focused on attaining target cost to income ratios mainly through upward price adjustments, hence obviating the need to interrogate bank value chains and enhance both profit and technical efficiency. This could explain why most of the banks that fared well in terms of the cost to income ratio performed poorly from a technical efficiency point of view, particularly from a financial intermediation perspective.

The second critical observation is the extreme difficulty in interpreting results of the data envelopment analysis technical efficiency measurement in respect of the financial intermediation approach. In particular, technical efficiency scores appear to reward banks that have relatively large loan portfolios, without paying due regard to the efficiency with which the loans are produced and managed. In this regard, there is scope to further interrogate the DEA model.

Important to note also is that key measures of efficiency highlighted by the majority of respondents had an income generating tilt. These included “*breakeven point*”, “*positive net interest income*”, “*revenue generation*”, “*return on equity*”, and “*overall revenue*”. It can, therefore, be reasonably concluded that the undue focus on revenue, would have motivated management.

Below is an analysis and discussion and interpretation of efficiency measurement results

6.5.1 Cost to Income Ratio based Efficiency Results

Interesting about the findings is that banks that had the highest cost to income ratios (which would suggest that they were the least efficient), turned out to be the most efficient based on technical efficiency scores. For instance, BancABC, Agribank, CBZ Bank, and NMB Bank had the highest cost to income ratios of (89.44%), (86.75%), (87.85%), (87.27%), respectively, as at 31 December 2017, yet recorded the highest respective technical efficiency scores of 0.72, 1.0, 1.0, and 0.84.

Notable about these banks is that all are locally owned with relatively higher levels of loans and advances and other earning assets. More tellingly also, is that the three (3) foreign owned banks that performed quite well based on the cost to income ratio, were the worst performers under the technical efficiency test. It is important to note that these banks have traditionally adopted a cautious approach to lending and have substantial holdings in non-earning assets, including balances with the Reserve Bank. The expectation would be that banks that are cost efficient would be more profitable. Noteworthy is that when provisions for bad and doubtful debts, as well as interest expenses, are included in the technical efficiency measure, most of the locally owned banks score quite lowly, while foreign controlled banks register high scores. This would seem to suggest that the production of loans and advances by locally controlled banks may not be as efficient as it should, given that these two variables are part of the productions costs.

The best performer as at 31 December 2017 in terms of the cost to income ratio was Ecobank, which is a foreign owned bank, with a ratio of 43.14%. The strong performance came on the back of relatively low operating and interest expenses. The bank commenced operations in 2012 when the ratio was 94.42%, typical of start-up institutions. The next best performer, was TN Bank (now Steward Bank), which is locally owned. Interestingly, the sharp decline in the Steward's cost to income ratio in 2017 came in the wake of a significant growth in transactional income as the bank widened its catchment area in terms of digital payment platforms. With increasing focus on digital payment platforms, underpinned by the financial inclusion thrust, 79% of the banks' assets as at 30 28 February 2018 were in the form of cash and cash equivalents, as well as other short term investments. Loans and advances constituted a mere 6.9% of total assets. Incidentally, this was the bank which was noted by the former Chief Executive Officer of Bank Candid to be quite innovative.

The other foreign banks, Stanbic, Barclays, Standard and MBCA also depicted relative efficiency based on the cost to income ratio, compared to small locally owned banks. The best performer amongst these was Stanbic, which has persistently leveraged on its ability to generate income, notably loan interest income riding on a relatively large lending portfolio. For instance, it would have cost Stanbic Bank 62 cents to produce a dollar of income in 2017, compared to 89.44 cents for BancABC during the same period. At 64.50%, the **average cost to income ratio** for foreign banks was much lower than the average ratio of locally owned banks (79.78%)

Notable also is that the improvement in the cost to income ratio for Bank Conservative during the dollarized period has largely been due to enhanced earnings than cost efficiency. A

decomposition of the income statement shows that the major driver of profitability was non-funded income, in particular, foreign exchange fees and commissions. It would thus, appear that the cost containment efforts the bank had been emphasizing in its published financial statements, were yet to bear fruit.

In the case of Bank Baroda, the fact that the cost to income ratio remained largely unchanged seems to suggest some difficulty in achieving meaningful cost re-alignments. This came on the back of silence in the bank's published financial statements in respect of business process re-alignments. It is, however, noted that the relatively unchanged cost to income ratio could be an indication of the substantial investments in infrastructure which have to be expensed over time.

The foregoing also corroborates the challenge associated with the cost to income ratio (Spony, Sullivan and DeYoung, 1995) in respect of decomposing the exact driver of the change in the ratio.

Noteworthy is that banks that had relatively lower cost to income ratios were the most profitable over the period 2009 to 2017, giving credence to the view expressed by the participants that banks could have been manipulating the cost to income ratio to achieve target profitability ratios.

6.5.2 Technical Efficiency Measurement

Technical efficiency results reveal dynamics that have far reaching ramifications to the scope for enhancing bank efficiency through dynamic capabilities. In particular, the results show intriguing differential outcomes based in input/output combinations, which suggest that what is being measured may not necessary be about cost efficiency after all, but the extent of financial intermediation. The results also bring into focus the paradox of provisions for bad and doubtful debts, as well as interest expenses, as inputs into the production chain. More importantly, results suggest current technical efficiency measurement techniques could, in actual fact, have a potential distractive impact to dynamic capability development and utilisation thereof if applied blindly.

a) Paradox of Technical Efficiency Measurement

In one of the DEA financial intermediation technical efficiency measurement scenarios based on *shareholders' funds, deposits and operating expenses* as inputs, and *loans and advances and other earning assets*, locally owned banks such as Agribank, CBZ Bank, NMB

Bank and FBC, register relatively high scores. In contrast, these banks had the highest cost to income ratios, suggesting that they were the least efficient banks based on that measure. Peculiar about these banks was that they had relatively large proportions of their funds deployed into loans and advances, and other earning assets. Noteworthy is that this scenario excludes provisions for bad and doubtful debts, as well as interest expenses.

The question that arises from the foregoing is whether the DEA measure does indeed measure technical or cost efficiency in the conventional sense, or merely rewards banks that are involved in pronounced financial intermediation. This observation is corroborated by the fact that banks with relatively high levels of “idle funds”, notably Barclays Bank, Standard Chartered Bank and to a lesser extent Stanbic Bank, were penalised by the model.

Table 20 shows the correlation between levels of financial intermediation and technical efficiency scores, for select banks.

Table 20: Correlation between Financial Intermediation and Technical Efficiency

Bank	Total Loans/ Total Assets %	Technical Efficiency Scores*
Agribank	68	1
Barclays	38	0.564695
CBZ Bank	55	0.564695
Standard	42	0.641182
Stanbic	50	0.681719

**financial intermediation approach excluding interest expenses and provisions for bad and doubtful debts as inputs.*

Apparent from the table is that, Agribank, with the highest total loans to total assets ratio had the highest technical efficiency score of 1, compared to Barclays Bank, which had the lowest ratio.

Notable, however, is that bank Baroda scored highly under all technical efficiency scenarios suggests that the bank has been rewarded for its enhanced financial intermediation in the light of the generally high level of the loans and advances to total assets ratio. The bank’s technical efficiency scores were also a depiction of strategic moves taken in respect of broadening delivery channels as highlighted under Data Analysis and Findings. Interviews with the bank’s management also pointed to proactive efficiency enhancement initiatives over the years. Apart from 2013, CBZ also performed well in all technical efficiency scenarios, a manifestation of its aggressive lending strategy over the years. This is in contrast to Bank

Conservative and other foreign owned banks that have been slow to lending and have not fully embraced technological and product innovation.

6.5.3 Paradox of Interest Expenses and Provisions for Bad and Doubtful Debts

Quite intriguing was that when provisions for bad and doubtful debts, as well as interest expenses, are included in the scenario referred to under section 6.5.2, all banks depicted high efficiency, particularly in 2015 and 2016. In 2017, foreign banks performed exceptionally well compared to locally owned banks. In this regard, and to the extent that these two variables represent key operating cost variables in the banking business *production chain*, it could be argued that any financial intermediation efficiency measurement approach that excludes them may be presenting a distorted picture of technical efficiency.

The significant change in the technical efficiency results, wherein the majority of banks perform well when interest expenses and provisions for bad and doubtful debts are included as inputs in the intermediation approach based raises the fundamental question of what is so peculiar about these variables. There are three possible explanations. First, this could be attributable to one of the weaknesses of the DEA model noted by Coelli *et al* (2005), wherein too few observations and many inputs and/or outputs are noted to result in many firms appearing on the DEA frontier.

Second, the results may be emanating from the treatment of inputs/outputs as homogenous commodities when they are, in fact, heterogeneous. This is premised on the fact that level of the additional inputs i.e. interest expenses and provisions for bad and doubtful debts, being profit and loss items, are significantly lower than the other balance sheet-based inputs or operating expenses. Their inclusion, therefore, could have biased the results in a significant way. Third, it could be a reinforcement of the need to incorporate these two critical determinants of technical efficiency, particularly from risk and cost of funds dimensions. Noteworthy, is that 4 out of the 5 banks that had low technical efficiency scores under this scenario had relatively higher levels of provisions for bad and doubtful debts compared to total loans and advances as at 31 December 2017, for instance, which tends to buttress the importance of this variable in more refined technical efficiency measurement. These observations underscore the importance of accurate measures of efficiency which would, in turn, focus attention on development and utilisation of dynamic capabilities required to reconfigure business operating systems and processes.

Noteworthy, also, is that provisions for bad and doubtful debts are an important efficiency measure from a risk perspective as the volume of loans produced from the various inputs (gross loans) can be significantly reduced after factoring such provisions (to come up with net loans). For instance, two (2) banks with equal amounts of deposits can produce different levels of net loans (assuming this is the only output) depending on the level of provisions for bad and doubtful debts held.

Complicating the financial intermediation efficiency measurement approach also is that low levels of interest expenses, particularly in the context of Zimbabwe, may not be ordinarily reflect the efficiency with which a bank is sourcing funds, but could be a mere reflection of brand capabilities, particularly against the backdrop of the flight to quality. In the same vein, low provisions for bad and doubtful debts, which has been the hallmark of most foreign banks in Zimbabwe, may not necessarily reflect prudent risk management, but outright risk aversion. Drawing a conclusion on efficiency based on the inclusion of these two variables, therefore, could be a flawed process. The observation by Seelanatha (2012) that macroeconomic factors may influence the productivity and efficiency of all industries in general was, therefore, corroborated by the results, where foreign banks have had relatively low technical efficiency scores amid risk aversion influenced by the operating environment.

In the light of the foregoing, it would appear that the technical efficiency measure that incorporates all inputs in the production process, including provisions for bad and doubtful debts and interest expenses, would be more representative. The downside risk, however, relates to the concerns highlighted with respect to these variables.

6.5.4 Significance of Technical Efficiency Measurement to Dynamic Capabilities

The technical efficiency results suggest that strategic orientation could impact on the level of bank efficiency, particularly based on the scenario wherein interest expenses and provisions for bad and doubtful debts are excluded. This is premised on the observation that foreign banks such as Bank Conservative, which have depicted conservative mind-sets at bank and parent levels, scored quite lowly, compared to Bank Baroda, which has made significant inroads in terms of lending. More importantly, it would appear that focusing on scenarios that exclude these two variables would make it appear that high scoring banks are efficient based on mere financial intermediation, hence detracting management attention value chain issues that take cognizance of cost efficiencies. Doing so would, invariably, obviate the need to develop and utilise dynamic capabilities that would be required in meaningful cost efficiency

enhancement.

6.5.5 Profit Efficiency Dynamics

Particularly striking from the profit efficiency results is that foreign banks that did not perform well based under the technical efficiency test that does not include provisions for bad and doubtful debts and interest expenses, were the best performers. The only foreign owned bank that has not performed as persistently as its peers is MBCA Bank. On the flipside, local banks that performed well based on technical efficiency scores, did not do so well under the profit efficiency test. Noteworthy also, is that is that most banks performed quite well, particularly from 2015 onwards, although the number of banks with efficiency scores of 1 has been declining. It is also evident that Agribank, a locally owned bank, which performed consistently well under technical efficiency scenarios that **exclude** interest expenses and provisions for bad and doubtful debts, was the worst performer under the profit efficiency scenario.

The analysis hereunder, provides some insights into the profit efficiency dynamics and implications on dynamic capabilities and efficiency enhancement.

a) Bank Size

A closer look at most profit efficient banks shows that they are relatively large in terms of assets. In fact, Stanbic Bank, Standard Chartered and Barclays were ranked third, fourth and fifth, respectively after CBZ Bank and CABS in terms of assets. Apart from size, these banks had the largest number of deposit accounts as at 31 August 2016. The relatively larger asset bases and higher number of deposit accounts appear to provide them with leverage in terms of critical mass to generate sufficient interest income and non-funded income to cover operating expenses. This enables them to post relatively higher net income, which essentially translates to profit efficiency, based on how this measure is constructed. This is significant in that it provides pointers to the dynamic capabilities required to boost profit efficiency, including financial resource capabilities, sensing and seizing opportunities, as well as agility. In relation to number of accounts, however, this may not be attributable to any dynamic capability, but mere flight to quality. It could, however, be argued that the brand factor is a dynamic capability in light of the differentiation that may be required to create and sustain it.

Banks such as CBZ Bank and CABS, however, were both technically efficient and profit efficient, which suggests that the banks were not only riding on technical efficiency, but

scale efficiency in light of the relatively high asset bases, amounting to \$1.95 billion (CBZ Bank) and \$1.06 billion (CABS) as at 31 December 2016.

b) Significance of Balance Sheet Optimisation

The higher profit efficiency score for Stanbic Bank for instance, compared to Agribank, notwithstanding the former's lower technical efficiency scores, was also largely attributable to significantly lower interest expenses (\$0.72 million, compared to Agribank (\$5.6 million), and CBZ Bank (\$74.64 million) as at 31 December 2013. Another telling observation was that Stanbic Bank had relatively higher non-interest income (\$43.72 million), compared to Agribank (\$13.6 million) and CBZ Bank (\$36.96 million). Stanbic Bank's provisions for bad and doubtful debts as at 31 December 2013 were also one of the lowest in the commercial banking sector, at \$2.33 million compared to an average of \$6.02 million.

Steward Bank, a locally owned bank, and known to have been quite innovative over the past few years, progressively improved its scores post 2013. The POSB's scores were inconsistent, increasing from 0.44 to 1 before declining to 0.74, during the same period. The only local bank that consistently registered a high profit efficiency throughout the review period was CBZ Bank. CABS, a locally owned building society with foreign parental linkages, also recorded high profit efficiency levels. An analysis of the profit and loss accounts of locally owned banks showed that they have been generating, on average, much lower net interest income after provisions for bad and doubtful debts, compared to the relatively large foreign banks and the two largest domestically owned banks.

The above-noted observations are significant to this study in that they reinforce the need for cost efficiency in the production of loans and advances, for instance, particularly with respect to minimisation of provisions of bad and doubtful debts. This requires reconfiguration of credit risk management systems as well as strategic orientation. It is, however, noted that the non-funded income aspects has two dimension, one relating to diversification of income streams, invariably reflecting higher efficiency, and the other relating to possible resort to increased charges and lending rates. This has implications on the scope for dynamic capability development.

Noteworthy also is the fact that Barclays Bank had the highest maximum effective lending rate of 22.13% in October 2017, followed by Stanbic Bank, at 19.85%. Standard Chartered, however, had one of the lowest maximum effective lending rates (15%), with POSB and Ecobank recording the lowest (12% per annum). The fact that banks with relatively low level of loans and other earning assets, such as Barclays and Stanbic, have the highest lending

rates suggests that the banks could be compensating foregone interest income with high pricing. Such banks can also afford to maintain lower loan portfolios and compensate for foregone interest income through non-funded income in the light of their large deposit account bases, as well as higher charges.

The case of Agribank as at 31 December 2013 is quite illustrative. The bank had a technical efficiency score of 1 (based on the financial intermediation approach excluding interest expenses and provisions for bad and doubtful debts) and a low profit efficiency ratio of 0.48. Further analysis of banks' income statements as at that date shows that weak earnings performance was largely due to relatively high interest expenses (which constituted 44.57% of interest income). This was way above the ratios for banks such as Stanbic (2.0%), Standard Chartered (14.1%), and Ecobank (25.2%). Agribank also had a higher operating cost base compared to total operating income, reflected by a ratio of 92.3%. This was way above the ratios of peer banks, including NMB Bank (50.8%), CBZ Bank (38.4%), MBCA (59.9%), and Standard Bank (73.9%).

Of interest was the general significant improvement in profit efficiency during the year ended 31 December 2016 compared to the corresponding period in 2015. Although this was mainly attributable to lower loan loss provisions and interest expenses as well as cost rationalisation, increasing reliance on non-funded income, particularly on the back of high volumes of point of sale transactions and multiple cash withdrawals also played a major role (RBZ, 2016). The upward trajectory in profitability continued in 2017 wherein net profit increased by 33.9% (RBZ, 2017) mainly due to the growth in non-funded income, in the main, reflecting the contribution of high volumes of digital payments and fee income from multiple cash withdrawals against the background low withdrawal limits. This suggests that results of the profit efficiency test do not necessarily imply that the banks were necessarily profit efficient.

The fact that profitability continues to be driven by non-funded income not necessarily linked to improved efficiency in the conventional sense continues to point to the continuance of structural challenges that pose threats to efficiency enhancement in the banking sector.

Analysis of Profit Efficiency Dynamics

A number of issues can be gleaned from the above-noted profit efficiency dynamics. First, an analysis of technical efficiency and profit efficiency results reveals some inconsistency with the *scale-efficient firm* hypothesis (Seelanatha, 2010), which suggests that entities that are technically efficient produce goods and services at a relatively lower cost and, hence, are able

to gain a high profit which leads to a high market share (Isik and Hassan, 2003). To the contrary to the scale-efficient hypothesis, the study shows that banks with the lowest technical efficiency scores e.g. Barclays Bank, Stanbic Bank and Standard Bank (under scenario that excludes provisions for bad and doubtful debts and interest expenses), actually persistently performed well under the profit efficiency measurement methodology.

On the other hand, banks that had the highest technical efficiency scores, notably, Agribank, had relatively low profit efficiency scores. The scale-efficient hypothesis was, however, consistent with the results for all large foreign banks and CBZ Bank (the largest bank in the Country in terms of asset base) based on a technical efficiency scenario that incorporates interest expenses and provisions for bad and doubtful debts. This gives credence to the observation that size, coupled with enhanced financial intermediation, are important ingredients of both technical and scale efficiency, which in turn drive profit efficiency.

From the foregoing, it can be argued that the ability of banks to generate profits, notwithstanding the level of technical efficiency, can detract the institutions from the need to develop and utilise dynamic capabilities and interrogate value chains with a view to reconfigure and enhance technical and profit efficiency. In essence, banks can afford to be overly cautious and still make money because of size and brand capabilities, while compensating for foregone net interest income through high lending rates and fees and commissions.

This above-noted apparent contradiction could have contributed to the lack of motivation by the foreign banks to develop and/or utilise dynamic capabilities with a view to enhancing efficiency. It could, however, also be argued that the seeming contradiction is actually misplaced in that the technical efficiency measurement scenario is in actual fact flawed in light of the differential outcomes based on the inclusion/or exclusion of provisions for bad and doubtful debts, and interest expenses.

The fact that profit efficiency, particularly post 2014 has largely been driven by non-funded income relating to increased use of digital payment platforms and charges incidental to cash shortages, as well as increased holdings of Treasury-Bills, reinforces the view that it is not about deliberate use of dynamic capabilities, but environmentally induced. The scenario also represents a clarion call to policy makers of the dire need to urgently address economic fundamentals.

It is also quite evident that Zimbabwe has a classic example of the '*quiet life*' hypothesis (Punt and Van Rooij, 1999), which suggests that firm managers with relatively large market shares give less attention to the efficient use of resources since they can make profits using their price-setting power. Such firms are presumed to use their market power to be quiet in the

market and earn profit without improving productivity and efficiency. This has been evident from the findings through some of the foreign owned banks, as highlighted Chapter 4. This is a significant observation in as far as the scope for enhancing bank efficiency through dynamic capabilities. The fact that large banks, riding on brand capabilities and risk aversion, coupled with the comfort zone associated with financial resource buffers, points to some form of laxity that could be created in respect of development and utilisation of dynamic capabilities.

The results, therefore, suggest that profit efficiency goes well beyond cost efficiency, to include more of revenue dynamics. This observation lies at the heart of this study, in the light of the proposition that banking institutions have been addressing the net interest income/operating disconnect through price adjustments and not necessarily through cost effectiveness and scale efficiency.

6.6 SCOPE FOR ENHANCING EFFICIENCY

This section discusses the scope for enhancing bank efficiency through dynamic capabilities in light of current idiosyncratic and environmental factors that confront banks, going forward.

One of the key drivers of dynamic capabilities has been reduced profit margins on the back of an agreed pricing regime between banks and the Reserve Bank, which has brought about an impetus towards realignment and reconfiguration of distribution and organisational structures. A number of banks are embarking on business process re-engineering or business efficiency projects. These include Bank Griffon, Bank Conservative, and lately, Bank Baroda. With ongoing product innovation based on digital payment platforms, supportive information technology systems stand to play a critical role in efficiency enhancement. A lot will, however, depend on the ability to ensure that upgrades to information technology are not done merely to automate processes, but to re-engineer business processes with a view to enhance efficiency. There will, however, be need to ensure that infrastructural bottlenecks that have stalled the smooth functioning of digital payment platforms are addressed to the extent possible.

It is, however, the researcher's view that, while the customer-centric capability noted by various respondents is to be effectively employed to enhance efficiency, it has to be proactively deployed and not reactive or externally driven. This is premised on the observation that much of the product innovation that has taken place has mainly been driven by factors such as competition by mobile net-work operators, directives by the central bank on interest rates and charges, and not necessarily based on customer centric considerations, supported by dynamic capabilities.

The scope to enhance bank efficiency, both profit and technical, will also be largely dependent on the extent to which cognitive capability deficiency and hyperinflationary mindset, among other factors, are addressed, as this would ensure proactiveness. A classic example of the challenges still faced in this regard was the immediate hike in prices to compensate for the imposition of the 2% money transfer tax in October 2018. The price hikes were experienced across the wholesale and retail business divide. With respect to banks, the researcher's bank, for instance, was charging a flat USD50 fee for telegraphic transfers to South Africa given such transfers were now supported to be remitted through the NOSTRO FCA, which is dollar denominated. Such a flat fee would be quite steep if for instance, one is remitting USD100.

Another interesting observation pointing to the slow response by banks to policy developments is in relation to the operational modalities of the NOSTRO FCA. Notwithstanding clarity provided in the Monetary Policy Statement of 1 October 2018 to the effect that banks are required to avail the foreign currency deposited each time the depositor wishes to withdraw, several banks were still waiting for guidance from the Reserve Bank on how the deposited funds should be utilised, and whether the funds were payable on demand or not. It is the researcher's view that an astute banker would have realised that a dollar based liability should be deployed to create a dollar based asset in a ring-fenced manner to ensure that there is sufficient capability to meet the maturing dollar liabilities. It should have immediately dawned upon the bankers that the new requirement exposed the institutions to amplified liquidity risks that could translate to foreign exchange risk and, hence required strengthened risk management systems.

Much will also depend on the ability to align organisational cultures as well as enhance research capabilities. Leadership cultures that promote a shift from operational to strategic thinking will be critical given the current focus on traditional risk management, notably credit, liquidity, operational and interest rate risks, at the expense of strategic risk. For the banks that have indeed embraced strategic management, the approach has, however, been more of the planned approach where emphasis is placed on the crafting of strategic plans through traditional strategy meetings discussing visions, missions, and values, as opposed to the emergent approach to strategic management.

The fact that Bank Griffon and Bank Conservative have since commenced business process re-engineering gives credence to the importance of the executive support capability. A lot will, however, on shareholder influence which, for Bank Conservative, has significantly stalled the efficiency enhancement agenda.

Overall, the development and utilisation of dynamic capabilities will depend on

strategic orientation. This is premised on the observation that efficiency gains made by banks such as bank Griffon and Bank Baroda, were very much supported by strategic orientation, as depicted in their published financial statements, as well as interviews with management.

From an environmental perspective, a lot will depend on the extent policy makers ensure there is an enabling set up for business growth, strategic flexibility and agility.

CHAPTER 7

CONCLUSION & RECOMMENDATIONS

The Chapter concludes the investigation on the scope for enhancing bank efficiency in the Zimbabwe dollarized environment through dynamic capabilities. The study explored the various challenges and opportunities presented to the banking sector at the onset of dollarization, with a view to contextualising the scope for enhancing bank efficiency through dynamic capabilities. It reviewed the factors that could have motivated management to seemingly rely on pricing strategies and non-funded income to address interest income/operating expenses gap that emerged at dollarization, instead of pursuing the efficiency enhancement route as per the dictates of the dynamic capabilities construct.

Central to the study also, was the quest to establish the adequacy and effectiveness of efficiency measurement methodologies and whether any flaws in this regard could have distracted management attention from enhancing bank efficiency. Against this background, the study sought to determine the scope for enhancing bank efficiency through dynamic capabilities, going forward. Finally, the study was aimed at enriching the dynamic capabilities and efficiency measurement constructs in the light of conceptual and definitional ambiguities that have characterised them.

In concluding, the Chapter compares and contrasts the findings with previous findings. It also highlights the uniqueness of the results and their contribution to the body of knowledge in the research area. The lessons learnt are clearly articulated while, like in any study, limitations faced are highlighted. The Chapter also discusses new questions raised from the findings, while indicating areas of possible focus for future research in this area. The Chapter concludes by proffering recommendations.

7.0 Conclusion

7.1 Pursuant to the study the following conclusions hereunder are made.

7.1.1 Proposition 1: Resort to Pricing Strategies

From the results of the study, it is hereby concluded that all banking institutions opted to pursue the pricing strategy to compensate for the net interest income/operating expenses disconnect that emerged at the onset of dollarization in 2009, instead of enhancing efficiency

through reconfiguration of internal and external competencies. . The reasons are varied, ranging from various idiosyncratic and environmental factors.

It would appear from the findings that the peculiar nature of the shocks brought about by dollarization were instrumental in determining the pace of efficiency enhancement. Far from the traditional triggers of discontinuities and disequilibria, including technological innovation and changing customer tastes, the structural nature of the shocks inhibited the development and utilisation of dynamic capabilities. Uppermost were structural funding challenges which adversely imposed timing and cost limitations on the seizure of opportunities for efficiency enhancement through dynamic capabilities. For instance, product and technological innovation, to a large extent, rides on huge investments into infrastructure and equipment, which invariably requires foreign currency and other funding requirements.

The structural constraints also extended to customers who did not have the financial wherewithal to invest in supportive gadgets that facilitate digital payment systems. More importantly was the initial lackadaisical approach by the Reserve Bank, wherein interest rates were left to the discretion of banks which, unfortunately, capitalised on high charges and lending rates to compensate for the interest income/ operating expenses disconnect.

The study also demonstrated the extent to which idiosyncratic flaws impeded efficiency enhancement. These included strategic management flaws rooted in, inter-alia, cognitive limitations, knowledge management challenges, lack of experiential knowledge on requirements of dollarized environments, bureaucratic rigidities, negative parental influences, hyperinflationary mind-sets and risk aversion, which in turn affected the banks' agility, strategic flexibility and adaptability, amongst others. Because of such idiosyncratic limitations, it invariably escaped the minds of most bank management that the challenges at hand required value chain interrogation and efficiency enhancement to ensure sustainable operational viability, and not necessarily price increases.

It is also concluded that the motivation to pursue what the researcher considers to have been a "lazy approach" of high bank charges and lending rates was mainly driven by the apparent high bargaining power banks had over the banking public. This was particularly so with regard to foreign owned banks who appeared to have taken advantage of the failure of several locally owned banks prior to dollarization, and took advantage of "desperate" depositors and investors who merely wanted a "home" for their funds. The ability of foreign banks to sustain dollarization shocks on the strength of financial buffers on the part of foreign banks also contributed to the reliance on pricing strategies.

It is also hereby concluded that the increase in non-funded income was not exclusively due to higher bank charges, but was also partly attributable income stream diversification as banks introduced new products when it became apparent that lending capabilities had been severely constrained. As dollarization progressed, however, most of the non-funded income has largely been attributable to increased utilisation of digital payment platforms against the background of continued cash shortages, as well as charges on more frequent cash withdrawals, in light of cash withdrawal limits. This, unfortunately, has been lost to various analysts, the regulator included, as the sector is applauded for “remarkable resilience” notwithstanding the contextual circumstances of the profitability. This has had two detrimental pronged effects. First, banks appear to have developed some level of laxity in terms of the development and utilisation of dynamic capabilities to enhance efficiency. Second, the regulatory authority has not rigorously pursued the efficiency enhancement thrust as the banks are deemed to be already resilient to the underlying vulnerabilities, underpinned by the said profitability.

It is also the researcher’s submission that the assertion by foreign owned banks that they have been levying relatively low lending rates is a misconception based on nominal rates. This is premised on the fact that the banks’ effective rates, including other charges (notably, Bank Conservative and Stanbic Bank), are in actually fact, much higher than most locally owned banks. The only foreign bank with relatively low effective lending rates is Standard Bank, which partly explains its low level of profitability.

It is, therefore, concluded that the combination of environmental challenges and idiosyncratic flaws have not only distracted bank management from developing and utilizing dynamic capabilities to enhance efficiency, but also slowed down the process in light of cost and timing constraints. The drive towards efficiency enhancement was only heightened when the Reserve Bank took charge and started to dictate the pace of interest rates and bank charges, in the process forcing banks to interrogate their value chains.

7.1.2 Proposition 2: Implications of Strategic Responses

It is also hereby concluded that the pursuit of pricing strategies, reflected by high lending rates and bank charges, did contribute to underlying vulnerabilities in the banking sector.

The high lending rates invariably bred fertile ground for non-performing loans which were to crystallise with the progression of time. Associated provisions for bad and doubtful debts, particularly in respect of locally owned banks have had the effect of impairing earning

capability. This, coupled with funding gaps occasioned by non-performing loans, created serious liquidity and solvency challenges that led to the collapse of banks such as bank Candid. It can also be argued that the squeezed profit margins adversely affected the ability to develop dynamic capabilities, in turn impairing resilience capability management. In this regard, one can conclude that the turbulence that characterised the banking sector in the aftermath of wholesome failures of 10 banking institutions in 2004 and nine (9) in the dollarized environment could have been minimised, had banks taken the efficiency enhancement route. In fact, with enhanced dynamic capabilities, the banks could have more effectively withstood the vagaries of dollarization.

The fact that banks with high level of provisions for bad and doubtful debts registered low technical efficiency scores was another manifestation of the extent to which high lending rates adversely affected the operations of banks.

In the same vein, high bank charges and low deposit rates had the effect of discouraging savings, further compromising the ability of banks to generate earnings through optimum lending portfolio levels. This has, in turn, created a vicious cycle wherein continued inability to attain critical mass in terms of earnings, persistently impairs the ability of banks to invest in requisite infrastructure for development of dynamic capabilities and efficiency enhancement.

It is, therefore, also be concluded that by pursuing the pricing strategy while riding on associated comforts, conditions for financial stability shocks were created, which the Country is still reeling from. These include underlying asset quality, earnings and liquidity challenges that have militated against banks ability to effectively perform their core function of financial intermediation. The post 2012 experience shows that total banking sector loans and advances have not meaningfully grown as banks took a cautious approach to lending against the backdrop of high inherent credit risk. The problem was also aggravated by market distortions brought about by fiscal vulnerabilities manifested by issuance of Treasury Bills that banks ended up holding in preference for loans and advances.

Aggravating the problem has been sub-optimal macroeconomic policy management and regulatory approaches that appear to have invariably contributed to the shocks.

Overall, the cushion provided by high lending rates and charges in respect of the interest income/operating expenses disconnect appear to have distracted banks from developing and utilising dynamic capabilities that could have been deployed to enhance efficiency. This invariably delayed reconfiguration of business models and operating systems.

7.1.3 Proposition 3: Implications of Failure to put in place Effective Efficiency Measurement Methodologies

The study concludes that exclusive reliance by banks on financial ratios, notably the cost to income ratio, did contribute to the delay in efficiency enhancement through business model, systems and process reconfiguration. The efficiency measurement framework, therefore, became extremely reliant on manipulating the ratio to achieve set targets through upward price adjustments. This was amply demonstrated by the fact that banks could afford to place huge balances with the Reserve Bank at zero percent and still perform extremely well in as far as profitability is concerned. The cost dimension was mainly managed through cost reductions driven by staff retrenchments in the absence of holistic business process re-engineering, which was only pursued much later into dollarization.

The study, however, also determined that while the non-parametric approach to efficiency measurement, particularly the financial intermediation technical efficiency and profit efficiency measurement techniques provide a much more holistic approach, they are inconclusive and require further scrutiny and interrogation.

Putting in place effective efficiency measurement methodologies and techniques are, therefore, envisaged to facilitate bank efficiency enhancement.

7.1.4 Proposition 4: Scope for Enhancing Efficiency through Dynamic Capabilities

The study determined that objective conditions to enhance bank efficiency do in fact, exist. The fact that banks face an underlying challenge to attain critical mass in terms of revenue to meet disproportionately high operating expenses due to, either inadequate funding or risk aversion, presents opportunities to enhance profit and technical efficiency through dynamic capabilities. Opportunities for enhancing bank efficiency through dynamic capabilities include continued operational viability challenges which call for innovative ways of doing business, cash shortages, vast largely untapped informal sector, potential infrastructural cost sharing, as well as enhanced macroeconomic policy and regulatory frameworks. The stumbling blocks have basically been at idiosyncratic and environmental levels.

At a micromanagement level, however, a lot will depend on reinforcement of resilience capability management, knowledge management and expertise, strategic flexibility, agility, adaptability, decision making, sound internal governance, supportive parentage, and cognitive capabilities. Enhanced knowledge management could address some of the current cognitive limitations which have seen most banks relying on the incremental change management

approach underpinned by traditional risk management methodologies such as credit risk, liquidity risk, interest rate risk, operational risk and foreign exchange risk. There is a sense that most of the bankers are struggling to grasp the holistic approach to strategic management, which emphasises the alignment of corporate goals, internal resources and capabilities (encompassing organisational structures, operating systems and processes, financial and resource capabilities), and business strategy, in the context of the operating environment. It was quite evident that the bankers are yet to grasp the theoretical appreciation of the dynamic capabilities concept.

It is also apparent that the scope of enhancing efficiency through dynamic capabilities will also largely depend on strategic orientation, based on the experiences of Bank Baroda and Bank Griffon, on one hand, and Bank Conservative, on the other. This, however, will need to be supported by adequate internal resources and capabilities, including parental support. Such capabilities will need to be fully applied as banks institute business process re-engineering of the entire production value chain.

More importantly the scope for enhancing bank efficiency through dynamic capabilities will continue to be constrained by the operating environment which is militating against banks' abilities to lend. These include macrostructure and microstructure rigidities as highlighted in this paper, destabilising effects of fiscal vulnerabilities which have given rise to currency dynamics that have created uncertainties in the operating landscape. Sound macroeconomic management, therefore, remains a critical pre-requisite in the bank efficiency enhancement agenda. In this regard, the increasing focus by Government on fiscal consolidation via national budget statements and policy prescriptions, is a welcome development.

7.2 Study Findings in Comparison with Previous Findings

Unlike previous studies, this study demonstrates, in a very practical manner, the extent to which the particularity of disequilibria and discontinuities could stall the development and utilisation of dynamic capabilities which could otherwise be used to enhance efficiency.

In addition, most of the previous findings, as articulated in this study, have been guided by theoretical propositions by various scholars and researchers. With regard to technical efficiency measurement, for instance, most of the current studies have calculated the efficiency scores and come up with conclusions without necessarily interrogating the credibility of underlying methodological issues. For instance, conclusions are made based on DEA technical or profit efficiency scores which, in essence, could be merely a determination of the extent to which financial intermediation, and not necessarily the efficiency with which the production

process is undertake. By demonstrating that there could be more to technical efficiency than the DEA model would seem to suggest, this study has gone further in questioning internal validity of the DEA financial intermediation technical efficiency measurement approach. It is quite apparent that banks that are more into lending are being rewarded more than those that are taking a cautious approach to lending.

The researcher is yet to come across a study that shows differential results of a financial intermediation approach based on scenarios that exclude or include interest expenses and provisions for bad and doubtful debts. Results where a bank performs extremely well in a scenario that excludes these two variables and badly when these are included brings in the dimension of how efficiently the production of assets is being done. Such a distinction is critical and brings in the conversation of whether these variables should be included or not.

The study also calls for the need to be cognizant of the homogeneity or heterogeneity of the outputs/assets in terms of earning capability when technical efficiency scores are being determined. The technical efficiency measurement techniques, for instance, could have an inbuilt mechanism to distinguish between assets with lower yields and those with higher yields, otherwise it ends up as a mere financial intermediation test.

7.3 Uniqueness of Results

Most studies in the areas of bank efficiency and dynamic capabilities have largely focused on theoretical, conceptual and empirical issues pertaining to the two variables. Scholars and researchers that have undertaken empirical studies on dynamic capabilities have mainly focused on the link between this capability and overall firm performance as highlighted under Literature Review. One of the rare studies that has attempted to link dynamic capabilities and firm efficiency (Wilhelm, 2015) was, however, restricted to dynamic capabilities and operational efficiency in relation to the purchasing function only.

This study is, therefore unique in that it specifically broadens the investigation to the scope to which dynamic capabilities could not only enhance overall firm efficiency, but in the banking sector in particular. The results illuminate, in a very insightful manner, the nature of dynamic capabilities required to enhance bank efficiency, particularly in the context of dollarized environments. In doing, so the results illuminate the nature of the discontinuities and disequilibria that have characterised the dollarized environment, and contrasts them to the traditional ones contemplated by the dynamic capabilities construct. This, in particular, relates to macrostructure and microstructure rigidities hitherto noted in the dollarized environment. In

this regard, some of the shortcomings of classical and neoclassical dynamic capabilities constructs are laid bare, necessitating further research and interrogation thereon.

The results are also unique in that they take the dynamic capabilities-enhancement conversation from idiosyncratic to macro-level constructs. From an idiosyncratic point of view, the study demonstrated the extent to which, inter-alia, cognitive limitations, path dependency, strategic management flaws and bureaucratic rigidities, could stall bank efficiency enhancement. The study also demonstrated such limitations, coupled with macrostructure and macroeconomic policy shocks, could also, not only hinder the efficiency enhancement journey, but also threaten financial stability, economic growth and development in general. The analysis thus, does not only provide useful practical guidance on resilience capability management for bankers, but is also facilitates sound regulatory and macroeconomic policy formulation.

7.4 Contribution to Body of Knowledge

The results of the study contribute to knowledge in a significant way. There is no study to date that has come up with comprehensive results on why Zimbabwean banks in the dollarized environment opted to resort to pricing strategies instead of reconfiguring their business models, systems and processes. As highlighted above, results of the link between efficiency constraints and financial stability also adds to knowledge.

By exploring the scope and nature of dynamic capabilities that could be applied to enhance overall bank efficiency in the current operating environment, the study substantially adds to knowledge, particularly in the light of ongoing challenges. By its very nature, the study will not only find traction in respect of bankers, the Reserve Bank and scholars, but non-bank corporate entities, as they are not immune to the environmental challenges and the need to successfully navigate it through the use of dynamic capabilities. The study also provides useful insights into how environmental factors, particularly monetary and fiscal policy interventions, could limit the scope for enhancing bank efficiency through dynamic capabilities. The various policy options proffered in terms of holistic resolution of the challenges, therefore, facilitates informed scholarly discourse and practical guidance on how to deal with serious impediments to financial stability and economic growth.

The study also contributes to the development of both the dynamic capability and efficiency constructs, while shedding some light on the longstanding theoretical and conceptual controversies therein.

In particular, the study is expected to:

- a) Facilitate active application of strategic management techniques, notably the dynamic capabilities construct, as banks navigate the operating environment through proper alignment of corporate goals, business strategy, internal resources and capabilities, in light of developments in the operating environment. The researcher was yet to find an article that speaks to the role dynamic capabilities could play in addressing challenges that have characterised the Zimbabwe dollarized environment pertaining to both bank and non-bank corporate entities;
- b) Improve earnings performance through holistic interrogation of value chains and possible reconfiguration of business models, systems and processes;
- c) Enhance supervisory capacity through increased focus on bank value chain issues. Insights into bank efficiency also provide practical guidance on enhanced assessments of the health of banks, as well as a sound platform for appropriate supervisory interventions that minimise systemic risk. The study also builds a strong case strengthening macro-prudential supervision as a compliment to micro-prudential supervision, taking into account macro-financial linkages between the financial system and the real sector of the economy;
- d) Provide a sound platform for further research on dynamic capabilities and efficiency measurement theories by both practitioners and those in academia; and
- e) Provide invaluable input to macroeconomic policy management.

7.5 Lessons learnt

From the study, various important lessons can be derived, as highlighted below.

7.5.1 Macroeconomic Management

An important lesson from the study is the need for financial sector regulators and policy makers to be acutely aware of potential constraints imposed on the development and utilisation of dynamic capabilities as well as bank efficiency enhancement by the operating landscape, particularly in dollarized environments. These in particular, relate to macrostructure and microstructure rigidities. In the Zimbabwean scenario, banks' inability to fully deploy their resources, either because of risk considerations or funding constraints arising from environmental constraints, was clearly demonstrated. It is, therefore, incumbent upon Government, the Reserve Bank, and other key stakeholders such as the Postal & Regulatory Authority of Zimbabwe (responsible for telecommunications oversight) to ensure that environmental issues raised in this Thesis, are adequately addressed.

The said stakeholders should be cognizant of possible responses by banks as they exercise resilience capability management. There will always be a group that is risk averse and take a cautious approach to lending, and another that will be adventurous and take risk that is not calculated.

It will be important to understand that in the unfolding drama, mistakes with far reaching ramifications on the economy will be made requiring appropriate policy reactions. In this instance, there was need for the authorities to have taken a holistic approach to the challenges and not focus on symptoms.

In light of the foregoing, there was an imperative need for both bankers and policy makers to have leveraged on experiential knowledge from countries that had undergone similar experiences before embarking upon the dollarization journey. For instance, guidance could have been sought from Countries such as El Salvador (2001) and Ecuador (2000) that had gone through the dollarization route before, as explained in Chapter 6.

Such experiential knowledge would have also assisted in facilitating appropriate policy responses in respect of early implementation of the lender of last resort facility. The same would have applied in terms of meaningful and timely compensation of depositors for loss of Zimbabwe dollar deposits, fiscal consolidation, capitalisation of the central bank, arrangement of external lines of credit (Calvo 2001), and attraction of foreign direct investment. The immeasurable dent in confidence in the banking sector arising from delayed compensation of depositors in respect of lost Zimbabwe dollar balances, could have been avoided. The turbulence that characterised monetary and fiscal policy measures of October 2018, and consequences thereof, could have also been avoided.

It is against this background that the pegging of the minimum prudential liquidity ratio for banks at 30%, though providing a reasonable liquidity cushion in a generally tight financial environment should have been supported by contemporaneous liquidity enhancement measures given that earnings performance had already been impaired. Noteworthy also, was the need to have taken a more cautious approach to foreign exchange market liberalisation in a bid to minimize capital flight. To the contrary, limits on the amounts individuals could take out were set so high that the Country lost millions of dollars of foreign currency.

The above-noted are critical observations that should facilitate the establishment of an operating environment that is conducive to the development and utilisation of dynamic capabilities required to enhance bank efficiency.

7.5.2 Strategic Management Dynamics

A major lesson from this study is the vital importance of fully grasping the meaning of shifting operating landscapes and implications thereof. Critical capabilities in this regard include cognitive, agility, strategic flexibility and adaptability, experiential knowledge, financial resource capabilities, customer centricism, proactive decision making, executive support, innovation, competencies, and knowledge management. The study underscored the importance of awareness of the dangers of core rigidities (notably traditional risk management capabilities), negative parental influence, and hyperinflationary mind-sets (should hyperinflation precede dollarization), among other factors. As noted by Zott (2003), cognizance must be taken of the timing and cost of dynamic capabilities. Had attention been paid to these issues, the outcome of efficiency enhancement through dynamic capabilities could have been significantly different. The perils of exploitative learning were also highlighted.

The important role played by parentage also provides a key learning point. While foreign banks can potentially leverage on, inter-alia, parental financial resources capabilities, experiential knowledge, strong risk management and internal governance systems, they can be susceptible to parental bureaucratic rigidities, exploitative learning which can cause success traps, and other path dependencies that could derail the ability to enhance efficiency through dynamic capabilities. The failure to appreciate the demands of the local operating environment can also have devastating effects. Such banks can also be victims of the ‘resources as environmental buffers’ syndrome. Bureaucratic rigidities indeed stood in the way of innovation and with it, the opportunity to enhance efficiency and minimize challenges brought about by the interest income/operating expenses disconnect.

Another take-away is that if not properly managed, the operating environment can promote reckless abandon (in as far as lending is concerned) on the part of small banks without sound financial footing, particularly if internal governance deficiencies are not addressed in a timely manner. As a consequence of misplaced incentives, such banks are amenable to pressures to capitalise on opportunities brought about by dollarization, including the quest to catch up and build business empires, oblivious of the risks associated with uncontrolled growth in a dollarized environment. There was failure to consider the perils of lending at unsustainably high interest rates of around 60% per annum. The problem can be aggravated by objective conditions that may promote competitive desperation. These factors have the potential to derail the development and utilisation of dynamic capabilities required to enhance efficiency.

Important to note also, are limitations which small banks may face, depending on the particularity of contradictions. For instance, strategic options for small locally owned banks

were limited in light of undercapitalisation and flight of deposits to foreign owned banks, developments which forced the banks to offer high deposit rates. Such rates exert pressure for relatively high lending rates, exposing them to the risk of failure, particularly in the light of possible adverse selection, wherein riskier clients are more likely to access highly priced loans. This invariably breeds fertile ground for NPLs, with adverse consequences on profit efficiency as provisions for bad and doubtful debts are charged to profit and loss accounts. Policy makers and regulators, therefore, have to be alive to these issues if holistic policy prescriptions are to be proffered.

From the foregoing, it can be concluded that apart from constraints imposed by structural rigidities in the dollarized environment, strategic management limitations also contributed to the slow pace of efficiency enhancement, with banks resorting to pricing strategies and other revenue enhancing strategies by banks. The study, however, determined that the increase in non-funded income was not exclusively due to increases in bank charges, but also due to diversification of revenue streams through introduction of new products.

More tellingly also is that resorting to pricing strategies and revenue enhancement without addressing efficiency dynamics has far reaching ramifications on financial stability and economic growth. This is premised on the observation that unsustainably high lending rates, for instance, have the potential to create a bedrock of non-performing loans, which in turn deters banks from realising their full potential in terms of lending. Should this happen, as has been the case since 2014 when most banks have scaled down lending in the light of high default rates experienced in the dollarized environment, productive sectors are deprived of much needed life-blood, resulting in the banking system failing to optimise efficiency. The resultant high credit and other related risks as espoused herein, create a vicious cycle that undermines financial stability.

It is also evident from the findings, that the pace of technological and product innovation, which is an integral cog of efficiency enhancement, can also be stalled by telecommunication rigidities as well as failure by the sector to devise cost sharing. As a consequence, the cost of doing business can remain high with far reaching ramifications on operational viability. There is, therefore, an imperative need for shared services in respect of core banking systems and disaster recovery sites, branches and ATMs, as well as security arrangements. Because of competitive considerations, however, this process requires facilitation by the Reserve Bank and other relevant regulators such as the Postal Regulatory Authority of Zimbabwe. This would, invariably, enhance the scope for efficiency.

Another critical lesson is the important role the central bank/prudential regulator can play in efficiency enhancement through dynamic capabilities. It would also appear that the initial liberal attitude by the Reserve Bank with regard to interest rates and bank charges indeed contributed to the comfort zone banks fell into, while charging with impunity and be assured of healthy profit margins. It was only after the Reserve Bank began to play an active role in determination of lending rates and bank charges that banks awoke from their deep slumber and sought to devise ways of enhancing efficiency to manage the net interest income /operating expenses disconnect. The problem, however, appears much bigger than most people would want to believe. This is premised on the observation that, no sooner than the Central Bank intervened in terms of interest rate deductions, did some banks respond by increasing certain charges and reducing deposit rates, to compensate for foregone interest income and non-funded income. Such dilemmas, however, call for the need for holistic policy interventions that address macrostructure, microstructure and micromanagement problems.

In light of the demonstrated strategic management flaws, there is a compelling need to not only include a strategic management module much earlier in the academic curricula. The course/module, however, should be crafted in such a way as to be mindful of the pitfalls that have characterised some of the classical and neoclassical strategic management constructs. There will be need to take cognizance of the particularity of contradictions and historical materialism that may characterise individual countries.

7.5.3 Efficiency Measurement Dynamics

A key lesson from the study is the need to exercise caution when utilising financial ratios, notably the cost to income ratio, as a measure of efficiency as failure to appreciate this could have serious implications on the pace of efficiency enhancement through dynamic capability development and utilisation. This is premised on the observation that the cost to income ratio, for instance, is derived from both cost and income factors that may not necessarily reflect production efficiency. In the case of income, for example, the increase could be driven by a rise in prices to compensate for escalating operating costs or simply to enhance profitability. This is precisely what appears to have happened in the Zimbabwean case when, due to various idiosyncratic and environmental constraints, banks failed to interrogate value chain chains and reconfigure business operations, opting instead to rely on pricing strategies. This can result in banks that are not fully deploying their resources and capabilities outperforming their peers in terms of profitability. Such a ‘lazy approach’, which results in

higher lending rates and bank charges, have serious ramifications in respect of the development of dynamic capabilities, efficiency enhancement, and financial stability.

It was also apparent that while DEA provides a more viable alternative to financial accounting ratios, it also faces challenges that must be addressed if the predicament in which Zimbabwe finds itself in are to be resolved. The diametrically different efficiency scores recorded for the various banks depending on the inputs used raise fundamental questions on the efficacy of the measure. The fact that a bank such as Agribank, with most of its investments in loans and other earning assets had the highest score under the financial intermediation approach that excludes interest expenses and provisions for bad and doubtful debts as inputs, and yet had very low scores when these variables are included, suggests that the scores are more of a measure of financial intermediation, than technical or cost efficiency, in the conventional sense.

In addition, the fact that banks such as Stanbic Bank, Barclays Bank and Standard Bank could fail the technical efficiency test when interest expenses and provisions for bad and doubtful debts are excluded, yet perform extremely well in terms of profit efficiency, demonstrate the dilemma, calls for further interrogation of the profit efficiency measure.

In light of the foregoing, the choice of which scenario to adopt poses serious technical concerns. Going by the scenario that excludes interest expenses and provisions for bad and doubtful debts would result in a measure that ignores critical cost items in bank production chains. In banking, high provisions for bad and doubtful debts are, more often than not, an indication of weak credit risk management systems which can result in considerably lower net loans (gross loans less provisions for bad debts). Such a scenario would, therefore, provide useful insights into both technical and profit efficiencies. On the other hand, low provisions for bad and doubtful debts could be indicative of mere risk aversion, hence not an accurate measurement of the efficiency with which a bank is producing loans. With regard to interest expenses, a low cost base may not necessarily be due to optimisation of funding costs, but a mere reflection of brand capabilities and the flight to quality syndrome.

The profit efficiency measure, on the other hand, underscores the importance of size and business volumes. This is amply demonstrated by banks such as Stanbic and Barclays Banks which, notwithstanding relatively low technical efficiency scores, performed extremely well in terms of profit efficiency, based on their ability to leverage on asset size and number of deposit accounts (from where non-funded income is generated). In this regard, there is a tendency for such banks to levy relatively high lending rates and charges, particularly in high inherent credit risk scenarios wherein cautious lending strategies are adopted. Such

environments also discourage the development and deployment of requisite dynamic capabilities for technical and profit efficiency dynamics. It is also important to note that such “*splendid financial disintermediation*” also threatens financial stability in light of the consequences of high lending rates and bank charges, as well as low deposit rates. This recognition underscores the importance of holistically addressing the underlying challenges.

The above-noted weaknesses of DEA underscore the importance of exploring observations noted by Berger and Humphrey (1997), wherein a call is made for adding more flexibility to the nonparametric approaches and introducing a degree of random error. This would address limitations of each of the approaches and presumably yield efficiency estimates which are more consistent across the approaches

7.5.4 Scope for Enhancing Bank Efficiency

Another important lesson from the study is that, while there is immense scope for bank efficiency enhancement in the dollarized environment, much needs to be done to stabilise the macroeconomic environment and to reinforce the supervisory approach. For instance, persistent cash shortages have forced banks enhance efficiency through alternative payment methods which, more often than not are more cost effective. These include plastic money and digital payment platforms. The cap on lending rates and bank charges also brought an added dimension to the efficiency enhancement agenda.

Apparent from the study, however, is that these measures need to be properly contextualized. This is premised on the observation that restricting price levels without creating conditions that are conducive to business growth would only aggravate underlying income generating challenges which, invariably exert pressures for lower deposit rates. In the same vein, the mere promotion of digital payment platforms, without addressing the structural causes of cash shortages, will merely provide temporary relief.

Important to note also, is that, while business process re-engineering/bank efficiency projects present immense scope for enhanced bank efficiency, there is need to ensure that the projects are not mere business improvement processes/automation but radical shifts in the way business is conducted. Unless the approach changes, the benefits are likely to be limited

Much will, however, depend on the extent to which Government and the Reserve Bank address structural rigidities that continue to bedevil the Country. For instance, industrial capacity utilisation remains subdued due to foreign exchange shortages. The ability and /or willingness of banks to lend, will thus largely depend on what happens to the operating

environment. A lot will also depend on the manner in which the authorities manage currency dynamics, which culminated in a crisis of October 2018 when the value of RTGS balances and the Bond Note crashed by a massive 1:650 following the Monetary Policy Statement and fiscal measures issued during the same month.

Serious consideration to implementation of infrastructure cost sharing in respect of, inter-alia, distribution channels, security arrangements, importation of cash, telecommunications, and data management, should provide scope for efficiency enhancement.

Quite promising though, are efforts by the central bank to establish credit infrastructure, incorporating a credit reference system and collateral registry. The credit reference system is expected to address the problem of information asymmetry, hence facilitating enhancement of risk management systems, and hopefully, more lending by banks. The collateral registry, on the other hand, is envisaged to capacitate those with movable property to access loans, thereby enhancing scope for economies of scale in respect of the bankable population.

The enhancement of strategic management in the banking sector, particularly in respect of knowledge and expertise in the dynamic capability construct, would also significantly shape the bank efficiency promotion agenda. Presently, the risk management thrust in the banking sector continues to be rooted in the management traditional risks such as credit, interest rate and liquidity. In this regard, tailor-made in training strategic management facilitated by the Reserve Bank would go a long way in addressing current challenges.

It is also apparent from the study results that, while dynamic capabilities have a role to play in enhancing bank efficiency, managerial choice may be severely influenced by the moderating effect of the external business environment (Greenley and Oktemgil, 1997). In this regard, current efforts by Government towards macroeconomic stabilization, through the Transitional Stabilisation Plan and budgetary pronouncements underscoring the importance of fiscal consolidation, must religiously followed through if bank efficiency is to be meaningfully enhanced through dynamic capabilities.

7.5.5 Realignment of Financial Sector Supervision

A key lesson from the study is the need for a radical shift from exclusive focus on microprudential supervision to incorporate the macroprudential supervisory methodology. The study results raise fundamental issues on financial sector supervision. This is premised on the observation that the microprudential supervisory approach, which anchored on the

CAMELS supervisory methodology that focuses on the adequacy of management systems and corporate governance structures, as well as profitability, has proved to be grossly inadequate. By merely focusing on safety and soundness issues, the approach negates financial stability concerns as demonstrated herein, with far reaching ramifications on economic growth and development.

Of particular concern is that the supervisory approach's lack of focus on banking sector structural dynamics could have contributed to the delay in adoption of efficiency enhancement initiatives by banks, through dynamic capabilities. Had the supervisory authority paid attention to these issues, cognizance could have been taken of the challenges banks experienced at the onset of dollarization in respect of revenue generation at a time when operating expenses had inordinately remained high. In this regard, the high lending rates and bank charges could have been contextualised and the need to address the structural rigidities considered. For instance, consideration could have been given to the creation of a conducive environment to lending by banks while calling for the value chain interrogation.

The import of the afore-noted observations is that undue focus on the narrow concept of CAMELS detracts the supervisor from broader financial stability as well as efficiency issues. In this regard, the study has taken the bank efficiency enhancement conversation from being a micromanagement to macroeconomic management dimension. To buttress this point, it is noted that, notwithstanding the turbulence that was experienced in the Country in October 2018, pointing to deep-rooted structural anomalies, the supervisory lens continues to paint an extremely positive picture of the banking sector, based on safety and soundness concerns.

It is in this regard that the Reserve Bank needs to realise that its mandate as per the Reserve Bank Act is to ensure "financial stability", in its broadest sense and not "banking sector stability", which appears to have been the main thrust. This can only be achieved within the context of the macroprudential supervisory approach which, in contrast, is concerned with enhancing the resilience of the financial system by mitigating the consequences of systemic vulnerabilities. This, therefore, calls for assessment of overall risk, taking cognizance of the four financial stability channels, incorporating the **financial system** (i.e. *financial institutions i.e. banking institutions, insurance companies and pension funds*; **financial markets** – made up of *capital and money markets*; and *financial infrastructure/national payments systems*); as well as the **real economy**. A clear understanding of the sources of risk/shocks in these channels and how they affect each of the channels must be comprehensively assessed within the context of a robust macro-prudential

framework supported by appropriate tools and methodologies. These go beyond the scope of this Thesis.

7.6 Overall Conclusion

The overall conclusion from the study is that while dollarization in Zimbabwe has been characterised by opportunities for bank efficiency enhancement, it also came along with various structural challenges that have impeded the process. The problem has been aggravated by multidimensional idiosyncratic bottlenecks. Such bottlenecks, which include cognitive, knowledge management, path dependence, and parental related challenges, however, are within the control of banks and could be addressed. In this regard, going forward, the scope for enhancing bank efficiency through dynamic capabilities indeed exists. Much, however, will depend on macroeconomic policy and financial sector management in respect of the various structural and other environmental constraints that continue to characterise the operating landscape, if meaningful progress is to be made.

For the dynamic capability construct to have more traction, it should also take cognizance of the particularity of contradictions as well as historical specificities. In the same vein, the efficiency measurement methodologies require further interrogation if they are to become more effective.

7.7 Recommendations

7.7.1 Macroeconomic policy management

In the light of macrostructure and microstructure rigidities as well as macroeconomic policy challenges that have characterised the dollarized environment in Zimbabwe and related limitations imposed on banks in terms strategic management options with far reaching ramifications on financial stability, there is a need for holistic measures to stabilize the macroeconomic environment. Such measures can, however, only be meaningfully adopted once there has been a full appreciation by all stakeholders of the exact nature of the problems facing Zimbabwe. There is also an imperative need for key stakeholders to fully comprehend the broad based concept of financial stability.

There has to be recognition that challenges facing the banking sector, including efficiency enhancement constraints, cannot be resolved on a piecemeal basis or through targeting of symptoms, but addressing the various structural vulnerabilities. Stabilization of

the macroeconomic environment and creation of a conducive environment for both domestic and foreign investment should, thus, focus on unlocking liquidity logjams that have seen the banking sector operating at sub-optimum levels. It requires an appreciation of the underlying sources of illiquidity, including persistent current account deficits, banking sector confidence issues, value chain issues, limited foreign direct investment and external lines of credit, ease of doing business, as well as fiscal sustainability. An appreciation and resolution of these factors is the only sustainable way to ensure that an environment conducive to the development and utilisation of dynamic capabilities to enhance efficiency can be created.

In the light of the shocks to the banking sector emanating from fiscal vulnerabilities, it is recommended that measures outlined in the 2018 and 2019 National Budgets in respect of fiscal consolidation be earnestly implemented. Addressing would deal with the single major source of vulnerabilities that has manifested in through unprecedented money supply growth Real Time Gross Settlement System balances and Treasury Bills in the dollarized environment on the back of high recurrent expenditures, at a time when there is a limited stock of foreign currencies. Doing so would ensure that the crowding-out of the private sector is mitigated and inflation abated. Stabilisation of the operating environment would also ensure that inherent credit risk recedes – a development that would promote lending by banks, hence increasing the scope for scale efficiency and profit efficiency. In this regard, there is also need for serious follow-through of measures outlined in the 2019 -2021 Transitional Stabilisation Plan that rolled out by Government in 2018.

It is in this regard that various financial stability enhancement initiatives by the Reserve Bank are most welcome. These include establishment of a credit reference system and collateral registry, which are envisaged to inculcate credit risk management culture and spur bank lending.

The **Credit Registry** is designed to enhance credit risk management through efficient, timely and accurate credit information sharing thus promoting effective and efficient distribution of loanable funds while fostering credit discipline. At the time of the study, the Registry was operational, incorporating banking institutions as data providers. The second phase of the Credit registry system entailed incorporation of other data providers such as deposit-taking microfinance institutions, credit only microfinance institutions, hire purchase providers and utility bodies. This would effectively broaden the scope of credit data warehoused by the credit registry for the benefit of all subscribers.

The **Collateral Registry**, on the other hand, is a publicly available database of interests on ownership of assets, which allows borrowers to prove their credit worth, and potential

lenders to assess their ranking priority in potential claims against registered collateral. The establishment of a collateral registry is expected to improve access to finance to the previously excluded segments of the population, including Small & Medium Scale MEs and individuals. The Reserve Bank should also continue championing the implementation of a National Financial Inclusion Strategy (NFIS) as part of financial stability enhancement. The overarching objective of the Strategy is to deepen financial intermediation for the marginalised and the unbanked to have access to appropriate financial services during the Strategy period of 2016 – 2020 (RBZ, 2016). The effective implementation of NFIS is expected to increase sources of deposits for the banking sector and enable diversification of funds from current sources. The strategy is expected to avail a wide client base for banking institutions, which gives potential for enhanced income for banks. On their part, banks are expected to leverage on dynamic capabilities and tap into this segment of the market using appropriate strategies.

It is also recommended that the Reserve bank continues to spearhead other financial stability enhancement strategies that include the following:

- a) Afreximbank Trade Debt –Backed Securities (Afrades facility) of \$200 million meant to revitalise the banking sector through lender of last resort
- b) Interventions that ensure sustainable lending interest rates to the productive sectors, as well as bank charges;
- c) Productive and Empowerment Financing through facilities that promote exports, tourism, production and empowerment of targeted groups.
- a) Issuance of Consumer Protection Standard on the back of ever-increasing complexity and diversity of the range of products and services offered by financial institutions through traditional and electronic channels, and the increasing transfer of opportunities, pricing and transactional risks.

As noted, the extent to which the banking sector will respond will to the above-noted initiatives will depend the extent to which the operating environment permits.

7.7.2 Financial Sector Supervision Enhancement

In light of the highlighted deficiencies of micro-prudential supervision, which traditionally focuses on idiosyncratic risks and the safety and soundness of individual institutions, there is an urgent need for the Reserve Bank to fully embrace the macro-prudential supervisory approach– based on a system-wide perspective that provides for both macro-financial linkages and interconnections within the financial system (IMF, 2013). In view of the fact that

traditional macro-prudential supervision primarily entails the use of prudential tools to limit systemic risk, however, without necessarily addressing the sources of risk, there is also need for Zimbabwean financial regulators to fully embrace the financial stability approach.

This line of thought is predicated on the observation that classical and neoclassical supervisory methodologies such as CAMELS ordinarily work smoothly in development countries that do not face structural rigidities commonly found in developing countries. These include supply-side constraints and fragmented financial markets, where financial institutions may not be operating at optimum levels. Supervisory concern therefore should go beyond restoring equilibrium to financial markets and banking institutions, to addressing underlying shocks. It is these shocks that have been creating conditions that constrain the application of dynamic capabilities in banking institutions.

In applying the financial stability concept, the primary focus should be to ensure that banks perform their core functions of financial intermediation, oiling the national payment systems and facilitating monetary policy implementation. In this regard, the macroprudential supervisory approach should be underpinned by holistic analysis of the four (4) financial stability channels. With regard to *financial institutions*, the focus should be on the potential shocks that could affect the institutions' ability to perform their core functions in a sustainable manner. Key indicators that could be used in the assessment of the consequences for this channel include capital adequacy, loan losses, profitability, and liquid assets.

Analysis of *financial markets* would, for instance, focus on estimating the consequences a shock may have on the functioning of the channel, which ordinarily comprises access to liquidity, funding and capital for financial institutions and other companies. Developments on four different sub-markets should be critically analysed. These are the stock market, the money market, the bond market and the foreign exchange market.

As far as **financial infrastructure** is concerned, the analysis would focus on assessing how the systems that make up the national payments system (including the Real Time Gross Settlement System (RTGS), Central Securities Depositories for Government Securities and Equities (CSDs) as well as retail payment systems such as cheque, mobile, cards and internet) could be affected in a specific risk scenario. The focus should not only be on increased utilisation of these channels, for instance, RTGS, but on the structural causes, including for instance, cash shortages. Such an approach would ensure that underlying challenges are also addressed.

Finally, analysis of the **real sector** would entail an assessment of how shocks or vulnerabilities therein would affect the financial system or vice versa. A forward looking

approach, incorporating micro and macro-stress tests and other macro-prudential tools could be employed as part of systemic risk assessment to ensure that proactive risk mitigation measures are employed. Such a holistic assessment of systemic risk should, in the researcher's view, assist in proffering solutions that ensure that shocks arising from within and outside the financial system do not stall efficiency enhancement through the development and utilisation of dynamic capabilities.

In light of the foregoing, there is therefore need by financial regulators, i.e. the Reserve Bank, the Deposit Protection Corporation, the Securities Exchange Commission of Zimbabwe, and the Insurance & Pensions Commission to come up with a macroprudential policy framework designed to minimize the costs that financial crises and turmoil can impose on the entire economy by strengthening the resilience of the financial system and mitigating the risks created by procyclical tendencies and network interconnectedness (Group of 30, 2010). It is also in this context that the researcher recommends the development of a Financial Sector Development Plan as part of a broader national economic development plan.

7.7.3 Efficiency enhancement

By addressing structural constraints in the dollarized environment, Government and the central bank, would ensure the creation of and conducive environment for economic growth, as this would only facilitate optimum deployment of resources by banks. This would also not only enhance technical, scale and profit efficiency, but would also capacitate banks to develop and apply dynamic capabilities.

With close to 90% of Zimbabweans considered to be informally employed, there is great scope for financial institutions to be innovative and capitalise on opportunities presented by this vast market segment.

There is also great scope for the Reserve Bank and other regulatory authorities such as the Posts and Telecommunications Regulatory Authority to, financial institutions, and other stakeholders to facilitate cost sharing in relation to various product and technological deliverables.

Focusing on fundamentals and symptoms by all relevant stakeholders would ensure that market forces take over for the benefit of the economy. At a micro-level, banking institutions should leverage on the dynamic capability construct and enhance efficiency to the extent possible in light of environmental constraints.

7.7.4 Enhanced Analytical Framework

The various flaws identified by the study during the transition to dollarization, at all levels, underscore the need deep reflection before adoption of major policy shifts. In this regard, The Framework (Ritchie and Spenser, 1994), provides an insightful analytical framework that could prove useful going forward. The Framework has four (4) dimensions; Contextual, Diagnostic, Evaluative and Strategic.

The *Contextual Dimension* facilitates identification, and clarity about the nature and context of the problem one is facing. Had this been fully comprehended, bankers would have utilised financial indicators in Table 1 (Introduction) to at least appreciate the shift in operational dynamics, and respond accordingly, notwithstanding the structural challenges that existed. Mere appreciation of the challenges that had emerged, could have resulted in a different approach. At policy level, an appreciation of the context, or particularity of contradictions in the Zimbabwean dollarized environment, could have facilitated adoption of appropriate policies in the light of structural rigidities that had emerged, including absence of lender of last resort, the need for external lines of credit and integration in the global arena.

The currency dynamics debate that ensued in the wake of the October 2018 turbulence also demonstrated the dearth of capabilities in this regard. For instance, one school of thought was of the view that the Country needed to discard the Bond Note and RTGS and re-dollarize as a way of stabilizing the economy. Lost in the minds of the proponents, however, was lack of appreciation of the distinction between full dollarization and partial dollarization and required pre-requisites. By advocating for “re-dollarization”, it escaped their minds that Zimbabwe was already dollarized but is in the partial dollarization mode. In addition, no consideration was given to the fact that the banking sector was already holding almost 10 billion worth of RTGS balances while the biggest employer, Government, had already indicated that it did not have the capacity to pay its workers in United States Dollars. Moreover, the generality of citizens are not earning United States Dollars or any other multicurrency.

The *Diagnostic Dimension*, entailing an understanding of the exact source and nature of the underlying causes of the problems, assists in the determination of strategic choices and resolution programs. Such an analysis could have assisted in identifying skills and experiential gaps wherein dollarized experts could have been invited and appropriate training programs arranged. By the time of concluding this Thesis, the February 2019 Monetary Policy Statement had just been issued, providing for a market determined exchange rate for RTGS Dollars (formerly Bond Note and RTGS FCA) on one hand, and NOSTRO Dollars on the other. Although it was too early to anticipate how the market would react, one could argue that the

envisaged stabilisation of the foreign exchange market would invariably face challenges given that the fundamental supply issue had not been addressed. This could have been one of the critical tests of what could go wrong when primary shocks are not fully addressed.

The *Evaluative Dimension* assists in determining the impact of the problem at hand. Such a powerful analytical tool could have alerted policy makers and bankers alike of the impact of dollarization in the absence of appropriate policy responses. In particular, the perils of potential financial disintermediation and non-performing loans could have been anticipated and appropriate policy responses crafted. Examples here include the 2% money transfer tax imposed as part of fiscal measures on 1 October 2018 without sufficient consultation on the impact thereof, with far reaching consequences on price stability.

The last dimension, *Strategic*, speaks to strategic options that have to be taken to address the problem. With the problem clearly contextualised, diagnosed and impact thereof defined and quantified, appropriate strategic thrusts can be crafted. It is the researcher's conviction that before any major policy action is adopted, such an analytical framework should be carefully employed to avoid future pitfalls that were highlighted in this report. In this regard, one could argue that unless some of the fundamental issues that have been stalling foreign direct investment are addressed, the economy will still experience adverse consequences of this vulnerability. These issues go beyond the scope of this study.

7.8 Theoretical Propositions

From the findings therein, various theoretical propositions can be postulated, as follows:

- a) In turbulent environments, bank efficiency enhancement through dynamic capabilities is likely to be stalled by large and financial strong banks that ride on brand capability and ability to withstand shocks. Such banks are likely to hold back from lending, particularly in light of structural rigidities and high inherent credit risk, while capitalising on non-funded income, hence inhibiting the development and utilisation of dynamic capabilities. This risk can be mitigated a push from a parent with experiential knowledge on the environment;
- b) In turbulent environments characterised by structural rigidities that constrain funding and capitalisation, as well as corporate governance practices, efficiency enhancement at small and medium scale banks is likely to be impaired by asset quality, earnings and liquidity vulnerabilities largely driven by competitive desperation and adverse

selection. Such vulnerabilities expose banks to the risk of failure to develop and utilise dynamic capabilities;

- c) While turbulent environments, including dollarized operating terrains, present scope for enhanced bank efficiency through dynamic capabilities, various idiosyncratic and environmental set-ups may affect the pace of efficiency enhancement. This requires both bank management and supervisory authorities to play ball and address these issues;
- d) Paying attention to financial stability issues facilitate the creation of operating environments that are conducive to the development and application of dynamic capabilities that in turn promote bank efficiency enhancement and economic growth. This is premised on the various lending constraints that have been imposed on the Zimbabwean banking system, resulting in stalling of both profit and technical efficiency;
- e) Objective conditions in dollarized environments, latent or actual, have the potential to pose challenges to that could affect the scope for efficiency enhancement through dynamic capabilities in the banking sector. In the Zimbabwean context, these included spill-over effects of hyperinflationary conditions, which included decimation of bank balance sheets, loss of Zimbabwe Dollar deposits by the banking public. The decimation of bank balance sheets, through erosion of the value of financial assets, invariably created working capital constraints for the majority of banks. Left with buildings as the predominant source of capital, it was always going to be difficult for banks to lend in a meaningful way.
- f) Inherent structural rigidities, such as absence of monetary policy levers such as interest rate policy management, lender of last resort facility, and statutory reserve requirement, that ordinarily characterise dollarized environments, not only create underlying liquidity problems in the banking sector, but also the functionality of the secondary market for financial instruments. This, inevitably affects banks' ability to generate interest income through impaired lending, but also income from money market investments. These challenges are magnified by the absence of external lines of credit, as well as low direct foreign investment. It, follows, therefore, that scale, technical and profit efficiency will tend to be significantly affected, hence requiring proactive mitigation measures. Such an operating environment invariably increases inherent credit risk. This, coupled with unsustainably high lending rates, and crystallisation of non-performing loans discourage banks from lending, further aggravating earnings

challenges. Such an environment stalls development and application of dynamic capabilities expected to spur bank efficiency enhancement.

- g) The assumption by classical/neoclassical strategic management thought that assumes that “value” already exists somewhere out there, and that it is the role of strategy to appropriate this value to the organization by designing a fit between the organization and the environment (D'Aveni, 1994) is inherently flawed when dealing with certain operating environment with peculiar challenges. In the circumstances, Ashby’s law of requisite variety, which states that to manage a complex system one needs a system of at least equal variety, where organizations create equivalent or additional variation by constantly innovating, would have been quite handy in dealing with the obtaining situation. The flexibility to innovate or for that matter, appropriate the perceived value, were however, severely constrained by structural rigidities and idiosyncratic bottlenecks.

7.9 Areas of Further Research

In light of the weaknesses of DEA approach to efficiency measurement, there is scope for interrogating the model and provide clarity on inherent distortions that inhibit effective measurement of technical efficiency. Ongoing efforts to incorporate aspects of the stochastic parameters to take care of statistical noise should therefore be vigorously pursued.

In the light of some of the practical challenges depicted in this study, there have been various initiatives that seek to develop and implement a stochastic version of DEA. These works attempt to provide a theoretical foundation for statistical hypothesis testing in a DEA environment. The results of this study are poised to aid this scholarly work.

There is also scope to reinforce and amplify the dynamic capabilities construct to take into account particularities and contradictions and historical specificities of certain operating environments. The pursuit of micro-foundational aspects of dynamic capabilities is also imperative if a holistic appreciation of this topical issue is to be achieved.

There is also scope to enhance profit efficiency models to distinguish between the impact of price increases and volumes and income stream diversification on

profitability. Had such literature been available, it would have gone a long way in clarifying some of the issues raised in this study.

7.10 LIMITATIONS

The major limitation faced in this study was that one of the main banks that was targeted to be part of the sample eventually refused to cooperate. Its participation would have provided useful insights into the study in light of relative success it has made in managing the shifted operating environment. This risk was however, mitigated by the fact that a number of participants once worked for that bank and had some interesting insights into its operations.

Limited knowledge of the dynamic capabilities construct by the generality of participants tended to deprive the study of the richness that could have been derived.

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Appendix I
Questionnaire

Questions	
A. DYNAMIC CAPABILITIES	RESPONSES
Dollarized Shocks/ Opportunities	
1. What do you consider as the major shocks/ operational jolts that faced the Zimbabwean banking sector at the onset of dollarization in 2009? In what way was the banking sector affected?	
2. What opportunities did the dollarized environment present to banks from strategic/ operational points of view?	
3. With the benefit of hindsight in what way could you have capitalised on opportunities that arose	
Motivation for Price Increases	
4. What do you think motivated the resort to high lending rates by banks?	
5. What could have motivated the level of deposit rates in the dollarized environment?	
6. To what do you attribute the level of fees and commissions during the early stages of dollarisation?	
7. What could have been driving operating expenses during that period?	
Scope for Enhancing Efficiency...	

8. What idiosyncratic factors could have stalled cost/technical efficiency enhancement?	
9. What idiosyncratic factors could have affected profit efficiency enhancement?	
10. What institutional constraints stand against profit/technical efficiency enhancement?	
11. What is the scope for enhancing bank efficiency through dynamic capabilities?	
Effectiveness of Efficiency Measurement...	
12. Would you say your bank is operating efficiently, if so what is the basis?	
13. What efficiency measurement techniques/methods are being employed?	
14. What could be done to enhance efficiency measurement	
Scope for developing and utilising Dynamic Capabilities...	
15. What type of DCs are required to enhance efficiency in dollarized environment?	
16. What institutional constraints to DCs development are faced by banks?	
17. What environmental constraints exist?	
18. Do you think there was sufficient reflection on what the new environment meant in terms of processes, strategic position and strategic options?	

<p>18.1 With the benefit of hindsight, what could your bank have done differently to capitalise on these opportunities?</p>	
<p>19. Empirical evidence shows that, for the first time, most banks failed to generate sufficient net interest income to cover operating expenses at the onset of dollarization. 4.1 What would you attribute this to?</p>	
<p>20. How did your bank respond to this disconnect? 21. With the benefit of hindsight, what could you have done differently?</p>	
<p>22. What do you think were the implications of the net interest income/operating expenses gap in terms of pricing of banking products and services?</p>	
<p>23. What do you think could have stalled fundamental rethink and radical redesign of business processes, systems to manage reduced earnings?</p>	
<p>24. Would you say your bank is deploying capital, deposits and other liabilities optimally? If not, why?</p>	
<p>25. To what extent do you think these limitations are attributed to the operating environment? Bank specific factors? Particularly in the last 12 months?</p>	

26. What specific resources/competencies/capabilities would have been required to adapt to the new operating environment?	
27. What role could the following have played in the adaptation/reconfiguration of business models/ operating systems and processes? process: a) Decision making capabilities.	
b) Innovative Capability	
c) Alignment capability	
d) Product development skills	
e) Matching shifting customer demands	
f) Alliance and acquisition capabilities	
g) Managerial capabilities	
h) Strategic flexibility.	
i) Ability to sense and seize opportunities.	
j) Which of the above capabilities has your bank employed in the dollarized environment?	
28. What role could corporate path dependency/asset resources have played in change management process?	
29. What could have impeded adaptive processes within the context of the capabilities noted in 13 above, from: (i) Institutional, and (ii) environmental perspectives?	
30. What factors have been constraining bank lending in the dollarized era, notably post 2014?	

B. EFFICIENCY DYNAMICS	
31. Is there scope to reduce bank charges and lending rates? / increasing deposit rates in a sustainable manner at the moment? Why?	
32. What is your understanding of the concept of Efficiency?	
33. Was there scope to enhance bank efficiency to address the revenue/operating expenses disconnect, apart from pricing strategies?	
<p>34. What do you think could be done to enhance:</p> <ul style="list-style-type: none"> • <i>technical efficiency</i> • <i>cost efficiency</i> • <i>scope efficiency</i> • <i>scale efficiency</i> <p>34.1 What has your bank specifically done to enhance these forms of efficiency?</p>	
35. What is your response to the view that banks were slow in enhancing operational efficiency, realignment (digitalisation/technology driven products, shift from brick and mortar models); resorting more on pricing?	
36. What specific capabilities/competencies are required to enhance bank efficiency? What could be constraining adoption of these?	

37. What has your bank done to enhance various forms of efficiency; technical, scale, scope efficiencies since 2009? Any distinct phases? What has constrained this if any, institutionally, environmentally?	
REGULATORY IMPACT	
38. To what extent do you think regulatory requirements have contributed to some of the challenges your bank has been facing in the dollarized regime.	
39. Does the RBZ pay due regard to bank efficiency issues in its supervision of banks?	

4.2 DATA PRESENTATION

The Table below summarises findings of the investigation based on responses from interviewees from the four (4) participating banks in line with the study's objectives.

<p>Bank Conservative</p>	<ul style="list-style-type: none"> • Agile banks to gain market share – Financial Controller (FC) • Opportunity for strategic flexibility and agility by banks – Legal • Lower transaction volumes in dollarized environment- scope for increased 	<ul style="list-style-type: none"> • High Country Risk – Internal Audit (IA). • Low business volumes and high staffing levels – Financial Controller (FC); MD • Banks stating afresh with new products- FC • Banks starting from zero – FC • Loss of confidence in banking system – ICT • Capital and asset depletion - Marketing 	<ul style="list-style-type: none"> • Hyperinflation on mind-set -CB • Lack of critical mass in terms of revenue to meet operating costs-Legal • Easiest option, keep lending rates and charges high and deposit rates low- Legal • Serious power and water shortages, 	<p>(i) Drivers:</p> <ul style="list-style-type: none"> • Competition from Mobile Network Operators (MNOs) - ICT • Retrenchment route, reduced staff from 1200 to 650 FC • Regulatory intervention on prices – FC • Less exchange control regulations, ease of doing business – ICT • Automation, Straight Through Processing - HO • Automate all processes- Marketing • BPR does not work, you need incremental improvements – MD • Foreign payments- same day value, no RTGS payment backlogs – MD • Stability of encourages investments in technology- Treasury & Markets • Appropriate MIS- CB • Products- twitter, Zipit, Eco cash – IA • Staff and staff benefits rationalisation – ICT 	<ul style="list-style-type: none"> • Brand capability- MD • Strategic flexibility and agility by Stanbic – CB • Perils of path dependency: Merits of parental experiential knowledge – CB • Delayed strategic –response: lending- Financial Controller (FC). Lack of agility: - • Ability to notice and take quick decisions-IA. • Organisational culture- Marketing • Strategic shift in product offerings – FC • Risk appetite to government business and commodities - MD
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	<p>efficiency- Treasury</p> <ul style="list-style-type: none"> • Opportunity for system upgrades – availability of foreign exchange • Shareholding structure: Regional versus international parentage– Head of Operations (HO) 	<ul style="list-style-type: none"> • Underlying liquidity challenges – ICT • Environmental uncertainty – Treasury & Markets • Hyperinflation mind-set –CB • High political risk - IA 	<p>resort to generators against background of low deposits – MD</p> <ul style="list-style-type: none"> • Cash importation and storage costs- MD • High cost base on back of gradual lending in light of uncertain risk regime- hence resort to non- 	<ul style="list-style-type: none"> • We focus on people, process and systems- MD • Mobile banking platforms, to improve efficiency and customer experience- IA • (ii) Constraints: • Parental Inertia to mobile banking- Head Operations (HO) • Expensive telecoms, limited telecoms industry; one dominant player who is also a bank- infrastructure sharing becomes challenge; expensive POS gadgets; bad network in rural areas – Marketing • Loss of skilled manpower- uncompetitive remuneration- Marketing • Client infrastructure constraints-digital platforms- HO. • Political Risk (investor) – IA 	
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	<ul style="list-style-type: none"> • Strong supervisory authority promoting good corporate governance and sound banking practices- Head of Corporate Banking (HO CB) • Stability of USD compared to other Currencies, and associated 		<p>funded income – FC</p> <ul style="list-style-type: none"> • High Country risk, aggravated by printing in dollarized environment – Treasury & Markets (T&M) • Pricing based on need to cover operating expenses- FC • Liquidity constraints 	<ul style="list-style-type: none"> • Bond coins cost burden – staffing implications - MD • ICT reconfiguration delays-parental bureaucracy - CB • Economic stagnation affecting scale efficiency – IA • Small market size affecting scale efficiency- MD • Lack of infrastructure sharing – MD • Too many regulatory requirements – compromising efficiency (MD) • Need for national data base for regulatory requirements – cost effectiveness- MD • Lack of effective macro- cash management – externalisation early days – depleting liquidity – Treasury • Confusing directives, regulatory inconsistencies and cash management issues – IA • Restrict off-shore borrowing to promote local lending-Treasury 	
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	benefits- ICT		pushed up rates – T&M	<ul style="list-style-type: none"> • Multiple bank data centres, servers and switching systems- need infrastructure sharing- MD • Global wave towards electronic channels was not there in 2009, hence delay in uptake in Zimbabwe- FC 	
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				<ul style="list-style-type: none"> • System change inertia – bureaucratic Centre Processes – HO • Lack of autonomy from parent – HO • Compliance and corporate governance requirements – Marketing • Giving people opportunity to think outside the box. Give people freedom to make mistakes, Giving people freedom to try things, think around problems- IA • Punitive tax on plastic money gadgets- Marketing • Lodged funds with RBZ to minimize credit risk, non-earning – T&M 	<ul style="list-style-type: none"> • Strategic flexibility: Adaptation-effective management of current resource bases; flexibility to change resource positions to respond to dynamic market conditions. – • Environment conducive to idea generation – MD Supportive of ideas – HO • Open door policy to idea generation – HO • Laboratory philosophy; entertaining all ideas – Marketing • High staff morale, thinking outside the box- Legal • Knowledge and expertise- HO
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					<ul style="list-style-type: none"> • Leveraged on liquidity and associated non-funded income (ATMs) – MD • Timing of capability development – IA • Sensing and seizing opportunities – MD • Target civil service and government projects and instruments for business opportunities- MD • Understand customer touch points - MD • Realigning market segments – Legal • Thorough vetting of employees; competencies function of culture- Marketing
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<p>Bank Baroda</p>	<ul style="list-style-type: none"> • Banks with real estate at onset of dollarization – Retail & Mortgages (R&M) • Export based companies and USD balances – scope for higher market share- R&M 	<ul style="list-style-type: none"> • Flight to perceived quality- detriment to local banks – Retail & Mortgages (R&M) • Inefficient distribution of liquidity- T&IB • Organisational structure shocks. CB • Little capital and liquidity – R&M • Lax foreign exchange management- 	<ul style="list-style-type: none"> • Sudden shrinkage in interest margins on back of relatively lower lending rates: - legacy cost base- MD • Operating cost base had risen in hyperinflation era- MD. • High bargaining power for banks – CB 	<p>(i) Drivers</p> <ul style="list-style-type: none"> • MNOs competition- IT • Opportunities for scope efficiency; new products, relationships- Corporate Banking • Very critical, transferring money ZIP IT (transferring money on the mobile), international banks not yet there, Stanbic- R&M <p>(ii) Constraints</p> <ul style="list-style-type: none"> • Economies of scope and scale limited due to economic stagnation.- Retail & Mortgages • Risk Aversion (International banks- (T&IB) • Security considerations – cyber risk fears; uncertainty about regulatory response; delayed digital breakthroughs – IT • IT skills implementation challenges- IT • Asset volumes not big enough, businesses were closing down-R&M 	<ul style="list-style-type: none"> • Funding capabilities – big banks: Lending ability- Treasury & International Banking- (T&IB • Organisational structure fit – CB • Group synergies- product diversification (R&M). • Larger customer base, geographic spread, branch network, online linkage- real time-MD • Alignment between business strategy and IT strategy-IT • First mover advantage, value chain financing – CB • Strategic partnerships – MD • Volumes based customer centric approaches in light of destructive nature of price competition – CB.
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		<p>externalisation - cash problems- T&IB</p> <ul style="list-style-type: none"> • Had no dollars, no foreign trading licence, no capital, liquidity, zero, no deposits; only asset, good 	<ul style="list-style-type: none"> • High inherent cost structures – CB • Borrowers prepared to pay any price – CB • Loan Interest rate elasticity by borrowers to compensate through high prices – hyperinflationary mid-set- Finance • Absence of USD coins pushed 	<ul style="list-style-type: none"> • Big banks with liquidity were not lending- T&IB • Limited financial instruments – T&IB • Toward Paperless banking- Finance • Automating credit system – MD • Offline challenges- network; switch, fibre lines malfunction – rains -IT • Scope efficiency. Diversifying into mortgages and other no traditional products- CB • Increase volumes to attain scale efficiency- MD • Tried to diversify deposit base from wholesale to retail- T&IB • Need for central importation of cash to reduce costs- T&IB 	<ul style="list-style-type: none"> • Thrust toward informal sector- CB • Right skills - MD • Human capital – T&IB • Need to scan environment, customers and their networks and relationships – CB • Learning capability – MD • Enhanced channel distribution, both products and agencies – R&M • Largest network of POS – R&MB •
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		<p>customer base- MD</p>	<p>general level of prices- R&M</p> <ul style="list-style-type: none"> • Costly wholesale funds- T&IB • High cost of funding for tier 2 and tier 3 banks – inefficient distribution of liquidity- T&IB • Low interest margins and resort to non-funded income- R&M 		
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<p>Bank Griffon</p>	<ul style="list-style-type: none"> • Opportunity to reconfigure business model – MD • Growth opportunity for small banks- offered high deposit rates to attract deposits: ignored associated risks- competitive 	<ul style="list-style-type: none"> • No customer track records - CB • Decimation of middle class, corporates – MD • Minefield led for NPLs – Risk • Lack of experiential knowledge and expertise to manage dollarized environments – Risk • IT system reconfiguration challenges – MD • No lender of last resort- Treasury 	<ul style="list-style-type: none"> • Depositors price givers – threaten flight to quality- MD • Distorted USD pricing regime – Finance • High cost base and lack of appreciation of value of USD – Finance • High margin mind-set with expectation to recover 	<p>(iii)Drivers</p> <ul style="list-style-type: none"> • Mobile banking- cost effective. Brick & motor falling away-Risk • Conglomeration in banking driven by unfair competition from unregulated entities- scope efficiency- Risk • Reconfiguration of business models – from brick and motor- Retail • Demand for high deposit rates by depositors – CB • Branch network reduction, automation, internet banking; POS mobile banking, rationalisation-MD • Technology key driver in business alignment; paperless thrust, implement automated workflow – IT • Delay in Business Process Re-engineering (BPR) implementation- cost consideration- Retail 	<ul style="list-style-type: none"> • Recognition of Strategic Role of IT- ICT • Lack of strategic reflection - Retail • Lack of strategic flexibility and agility on part of international banks- had resources to ride the shock without taking appropriate responses- Treasury • Consolidations- no value proposition- MD • Business process re-engineering – Treasury • Agility – Finance • Strategic flexibility, group synergies (Stanbic), foreign exchange generation clients.
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	<p>desperation - Treasury</p> <ul style="list-style-type: none"> Foreign shareholder s: stabilise ship; bring best practice, better corporate governance , no insider loans; market confidence; source of deposits- Treasury 		<p>from clients – Risk</p> <ul style="list-style-type: none"> High staff costs from hyperinflation period, overstaffing in dollarized environment , Labour Act constraints- MD 	<ul style="list-style-type: none"> Introduced; POS, Griffon Lite current account; SME products and value chain financing- Finance Risk to play important role in BPR- Risk BPR driven by environmental pressures- Finance 	<ul style="list-style-type: none"> Proactive and anticipatory management – Risk Study what other markets are doing - Finance Research and development – Treasury Continuous training and development - CB
				<p>Constraints</p>	<ul style="list-style-type: none"> Lack of ability to reflect on environmental changes:

				<ul style="list-style-type: none"> • Conservative approach to banking. Risk aversion. ICT • Blocking of product roll-out by influential management • Costly RTGS Batching systems – CB • Customer resistance to cash-lite banking- Retail • Failure to rationalise operations at smaller banks at onset due to lack of skills and experiential knowledge - Treasury • Weak credit risk management skills – Treasury • Inhibitive costs of reconfiguration of systems – MD • Reckless lending in unfamiliar operating landscape, creating bedrock for NPLs - CB • Hope by banks things would improve, hence delaying rationalisation- Finance • Resistance to change by staff- Finance 	<p>International banks: - Treasury [Cognitive and creative skills, opportunity discovery]-</p> <ul style="list-style-type: none"> • Path dependency: organizational processes, systems, and structures that inhibit inn). • Formal innovation structures; committees- Finance • Psychological safety and deep social capital - MD
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				<ul style="list-style-type: none"> • Consolidation Inhibition- international bank big brother relationships- Finance 	
Bank Candid		<ul style="list-style-type: none"> • Lack of USD assets- recourse to non-funded income – FD 	<ul style="list-style-type: none"> • High cost of foreign lines of credit – FD • Banks involved in non- core activities- profit sharing – FD • Local banks had little capital, offered high lending rates – FD 	<ul style="list-style-type: none"> (i) Drivers of Efficiency: • Cash crisis – MD • Industry competition • Producing more with fewer resources- MD • Shortage of cash driving innovation- MD 	

				<p>(ii) Constraints</p> <ul style="list-style-type: none"> • Banking consolidation threats-small bank weak corporate governance: owner selfishness and power dynamics- FD [Organisational inertia] • Lack of internal working capital- MD: <i>Existing resources determine scope of dynamic capabilities</i> • Labour law on retrenchments. Staff resignation constraints- limited job opportunities - FD • Lack of infrastructure sharing; could share banking halls – POSB Causeway not fully utilising cubicles- FD 	<ul style="list-style-type: none"> • Top management failed to sense threats and opportunities; to seize opportunities and transform capabilities and resources to fit new environmental conditions (T FD) • Leaders who garner support from all stakeholders - FD
				<ul style="list-style-type: none"> • Economic stagnation, consumptive tendency- FD. 	

				<ul style="list-style-type: none">• Failure to rationalise branch network- branches using as selling point for investors, yet loss making -FD• Failed to close branches for the sake of customer convenience - MD	<ul style="list-style-type: none">• Indication of lack of strategic flexibility, and agility
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Appendix III

Assessment of Strategic Initiatives from Published Financial Statements

In line with the study methodology, a review of participating banks' published financial statements and other documents between 2009 and 2017 was also conducted to establish the possible impact of strategic thrusts on profit and efficiency.

Bank Griffon

Below is a chronology of the bank's strategic milestones and commentary in published financial statements from 2009-2016.

- 2009 Published Financial Statements- (2009) no reference is made to strategic thrusts, the focus was on accounting policies and risk management as per RBZ requirements.
- 2010 Report – scant reference is made to pursuance of value adding strategies in the Chairman's report – no elaboration is, however provided.
- 2011 Chairman's statement talks of continuance of strategy to pursue profitable opportunities. No explicit reference is made to efficiency enhancement.
- 2012 Corporate strategy: Launch of Visa card International Debit Card, SMS alerts, E-Statements; DSTV payments, Real Time Interface ZIMRA Payments. - Not contextualised to efficiency enhancement.
- 2013. Added analysis of developments in the operating environment, tight liquidity, increasing default risk, rise in NPLs: Corporate strategy- introduction of Mobile Banking, Teller Point of Sale, Aprta Promote & Ecocash; as well as Lines of credit.
- 2014: Commentary on operating environment, company closures, deflationary pressures, lack of liquidity and increasing default risk; NPL ratio at 15.92% as at December 2013, increasing to 20% as at Sept. 14 before receding to 16% Dec. 14. Operating expenses increase by 11% to \$27.98 million. No particular reference is made to cost containment measures, against this background. Continuously reviewing electronic delivery channels: Continued focus on high net worth individuals: Founder directors and shareholders retire. Chairman also retires.
- 2015: Tight liquidity, retrenchments, company closures, increasing default risk: Widen client base to include SMEs & broader market segment through branded technology: Operating expenses decline 4% on the back of product and technological innovation.

- 2016: Launch of Bank Griffon Lite- targeted at low income segment: Strategy- accelerated deployment of POS and enhanced e-channels. Operating expenses decline 3% to \$26.18 million.

Bank Conservative

Chairman's Statements

2009:

- Bank's loan portfolio will continue to be rebuilt and increased as market and credit risk factors in the economy improve.
- Efforts to broaden the Bank's product range will be equally supported.
- The year 2009 saw significant changes in the economic landscape characterised by a marked end to a decade long episode of hyperinflation with the introduction of a multi-currency system.
- Bank welcomes positive changes experienced during the year and took initiatives to ensure it was well adapted to the new environment.
- Some key results of those initiatives are evident in the Bank's capital and liquidity conditions being sustained at well above regulatory benchmarks and providing sufficient headroom for projected future business growth.
- In the process your Bank also introduced new products whilst maintaining a wide distribution network to ensure customer needs in the new environment were met.
- This thrust became paramount especially as the world wide economy sought strategies to contain the effects of the global financial crisis.
- Local banking and finance industry had to deal with structural issues that included the absence of a viable inter-bank market, lack of independent credit rating arrangements, increased pressure on physical security arrangements as well as redundancy of some traditional banking products.
- Bank met the minimum capital requirements well ahead of the March 31, 2010 deadline with almost twice as much as the regulatory benchmark.

- Bank sustained a highly liquid condition during the year to close at a liquidity ratio of 80%, also compared to the regulatory minimum of 10%. The Bank continued to adhere to prudent lending principles that will ensure a quality loan book into the future.
- Bank's commitment to providing facilities stands strong but the Bank considers the need to minimise the risk of future default critical. Revenue of US\$17,849,429 was achieved during the year. This was mostly from service fee and commission income.
- Of the total costs, staff costs comprised 56%. Systems, security and equipment costs were the other major cost lines at 44%. **The business continued initiatives to streamline processes and contain costs. Bank reduced its staff compliment from 1,205 at the beginning of the year to less than 930 by the end of the year by not renewing contracts for term staff.**
- Bank benefited from Group support without which navigating this transitional period would have been more difficult.

2010 Report

- Bank remained cognizant of the difficult operating environment and maintained cautious lending strategy.
- The rest of the Chairman's Report related to corporate governance, financial performance, and regulatory compliance.

2013 Report

- Chairman focuses on economic developments, noting slowdown in economic activity. Deterioration in balance of payments also noted. Strategic thrust is on value proposition to customer through appropriate product offerings.
- **Managing Director speaks to cost containment and optimisation, although there is no clear articulation of how this would be done.**
- Reference is also made of customer centricity; through digital channel agenda, with launch of two new services whilst enhancements of Internet banking were done. Registration for all our digital channels remains free to all customers.
- App (Application) available in Apple iTunes Store and the Google Play Store for Android devices as dynamic extension of Internet Banking- improved to allow for Real Time Gross Settlement (RTGS) and Inter-account transfers to take place.
- Non-customers can also access bank ATMs with the introduction of two new services on the ATM. These are Cash-send and Zimswitch. Cash send, a simple money transfer

solution allows bank customers to send money to non-customers who can redeem the cash sent across the country through a card-less transaction at any of bank's ATMs.

2015 Report

- Chairman's report focuses on cautious growth underpinned by prudent risk management and internal controls.
- Cognisance is also taken of need to satisfy various stakeholders, including efficient and cost effective service delivery.

2016 Report

- While bank notes continued deterioration in operating environment, no concrete strategies are laid out from a dynamic capability construct point of view.
- Bank responds positively to cash demands by introducing weekly limits, and broadening of digital payment platforms.

Appendix IV

THEMATIC FRAMEWORK

Concepts	Basic Themes	Global Themes
<p>SHOCKS/CHALLENGES</p> <p>a) Idiosyncratic Shocks</p> <ul style="list-style-type: none"> • Balance sheet decimation • Little capital and liquidity- starting all over again. • Low deposits • Transitory deposits • Flight to quality • High Country Risk. • Hyperinflationary Mind-set • Skills, people, banks lost good skills to diaspora. • Undercapitalisation. <ul style="list-style-type: none"> • Legacy operational costs. • High cost of funds- bargaining power of suppliers of money. • High cost funds, • Net interest disconnect. • Cost of funding declines with progression of dollarization (Treasury) <ul style="list-style-type: none"> • Weak Risk Management • Failure to reflect on meaning of shifted operating terrain • Weak Internal Governance • Risk Aversion (foreign banks) • Aggressive lending (local banks). • Bureaucratic rigidities, internally and parental induced. <ul style="list-style-type: none"> • Low interest income • Squeeze in interest margins, aggravated by cap on lending rates (Treasury) • Absence of vibrant secondary market. • Limited lending 	<p>a) Liquidity Challenges</p> <ul style="list-style-type: none"> • Working capital constraints arising from, inter-alia, low volatile deposits, undercapitalisation, and low foreign direct investments. <ul style="list-style-type: none"> • Combination of legacy operational costs (hyperinflationary environment); high cost of funds, on back of limited lending, trigger net interest income/operating expenses disconnect. <p>Strategic management flaws, reflecting cognitive capability limitations, negative parental rigidities, and competitive desperation (local banks), and weak internal governance.</p>	<p>a) Idiosyncratic Deficiencies and Efficiency enhancement</p> <p>Constrained lending ability on bank of underlying liquidity and disproportionately high operating expenses genesis of bank viability problems.</p> <ul style="list-style-type: none"> ▪ Dynamic capability flaws negatively impact on ability to appreciate need to reconfigure business models and operating systems in timely manner. ▪ Ability to generate income through high lending rates and bank charges creates false sense of comfort and distracts management from development and utilisation of dynamic capabilities to enhance efficiency. ▪ Parental lethargy delays financial and product innovation and reconfiguration of operations, adversely affecting efficiency enhancement.

<p>b) Environmental Shocks</p> <ul style="list-style-type: none"> • Absence of Monetary Policy Instruments. • Depressed demand • Liquidity problems • High Country Risk • Weak regulation of banking sector • Macroeconomic management flaws. • Desperation by borrowers to get loans • Restricted lending volumes. • Absence of Lender of last Resort. • High bargaining power of banks – low deposit rates. • Lending rates. • Currency shocks causing uncertainty. 	<p>Revenue constrained by low interest income, and limited trading opportunities, further aggravating bank operational viability.</p> <ul style="list-style-type: none"> • Macrostructure and microstructure (banking sector specific rigidities, as well as macroeconomic and financial sector management deficiencies. • High cost of funds, hyperinflationary mind-sets, borrower desperation and bargaining power of banks exert upward pressure on lending rates and bank charges. 	<ul style="list-style-type: none"> • Underlying funding challenges stall reconfiguration of operational capabilities due to cost and timing issues. • Monetary policy constraints inhibit business growth and hence scale efficiency. • Delayed intervention by regulator stall development and utilisation of dynamic capabilities and efficiency enhancement. • Currency and other macroeconomic management shocks discourage banks from lending, also affecting efficiency enhancement.
<p>STRATEGIC RESPONSES</p> <ul style="list-style-type: none"> • Recourse to non-funded income • International banking, other types of services; safe deposit boxes; structuring of facilities. • High charges by foreign banks • Baroda increase lending • Broaden distribution channels • Bank Griffon widen market segment. • Bank Baroda introduced various products, and is now catering for all sectors. • Bank Baroda diversifies deposit base and reduce cost of funds. • Banks would try and maximise on pricing, taking cognizance of the market, cost of funds. • Big banks risk averse- were not lending • Bank Baroda increase mortgage and personal lending at dollarization. • Reckless lending by banks. 	<ul style="list-style-type: none"> • Banks forced to resort to non-interest income to complement reduced net interest margins. • Profiteering by some foreign banks to compensate for risk aversion. 	<ul style="list-style-type: none"> • Strategic orientation affects pace of dynamic capability development and utilisation. • Risk averse banks score lowly on technical efficiency. • Bank demonstrating agility, strategic flexibility and adaptability, supported by group synergies, financial resource capabilities, and responsive boards of directors. • Driven by competitive desperation, weak internal governance and under-funding, most small local banks struggle to build and utilise dynamic capabilities to enhance efficiency.

<p>Capabilities</p> <ul style="list-style-type: none"> • Innovative Capability: digital platforms • Matching customer demands: Very important, launch products at the right time. • Strategic, agility, and reconfiguration • Alliances and Acquisition Capabilities: • Experiential knowledge and financial resource capabilities in respect of foreign parentage. • Decision making capability. 	<ul style="list-style-type: none"> • Capabilities constrained by bureaucratic rigidities, including parental lethargy, path dependency, and lack of traction in terms of bank consolidations. 	<ul style="list-style-type: none"> • Scope for enhancing efficiency through dynamic capabilities being stalled by both idiosyncratic and environmental factors • Improved macroeconomic and financial sector management, required to enhance efficiency enhancement.
<p>Efficiency Enhancement Opportunities</p> <ul style="list-style-type: none"> • De-risking: correspondent banks migrating to new technological platforms • Scope to migrate from branch networks to for digital payment platforms. • Business Process Re-engineering. • Leveraging on group synergies. • Availability of foreign currency • Shrinking margins as competition heightened. • Cash shortages. • Tapping into informal sector segment. • High o 	<ul style="list-style-type: none"> • Cash shortages force banks to migrate to digital payment platforms. • Depressed net interest margins, and de-risking and increased, provide scope for efficiency enhancement. 	<p>a) Utilisation of opportunities to largely depend on successful macroeconomic stabilisation and reconfiguration of financial sector supervision from micro-prudential to macro-prudential supervision, envisaged to make operating environment more enabling and refocus banks on value chain interrogation.</p>
<p>Efficiency Constraints</p> <ul style="list-style-type: none"> • Automation restricted by regulatory reporting requirements- paper based. • Clients lacked complementary digital payment platforms. • Limited financial resources • Infrastructure bottlenecks • Foreign exchange shortages. • Cultural mid-set of clients used to cash transactions. • Multiple pricing 	<ul style="list-style-type: none"> • Inflexible regulator, financial resource constraints on part of banks and clients, and infrastructure bottlenecks constrain efficiency enhancement efforts. 	<p>See comment on Efficiency Enhancement</p>
<p>Efficiency Measurement</p> <ul style="list-style-type: none"> • Currently using Ratio Analysis, notably; cost to income ratio, ROE, ROA, Net interest margin. • Alternative measurement approach, data envelopment analysis (DEA) determined by investigation to have inherent flaws. 	<ul style="list-style-type: none"> • Predominant use of accounting ratios present distorted picture of level of efficiency and distract management from need to enhance efficiency. • Conflicting results between cost to income ratios and DEA calls for further interrogation of methodology, going forward. 	<ul style="list-style-type: none"> • Reconfiguration of efficiency measurement methodologies expected to motivate efficiency enhancement through development and utilisation of dynamic capabilities.