An Assessment of the Relationship Between Innovation & Financial Performance: A Case Study of Zanaco Bank.

Rhoda Kakoma[1*], Romeo Yohane[2]

University of Zambia

[*]Corresponding Author

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LIST OF ABBREVIATIONS & ACRONYMS

ZANACO-Zambia National Commercial Bank PLC

RTGS-Real Time Gross Settlements

RBV-Resource Based View

ATM-Automatic Teller Machine

POS-Point Of Sale

R & D-Research & Development

SME- Small & Medium Enterprises

CBK-Central Bank of Kenya

UNCDF-United Nations Capital Development Fund

FinTech-Financial Technology

ABSTRACT

The objective of this study was to understand the impact of innovation on financial performance in the banking sector using mixed methods research and a case study. The study area was Zanaco Bank PLC. Secondary data was analysed through the banks financial reports posted on their website. Categorical data was collected, analysed by simple frequencies using regression analysis. Qualitative textual data was analysed manually using hierarchical coding frames. Quantitative Likert scale data were used to understand the perception of innovation amongst employees. Results of the study are that financial process innovation and financial product innovations had a higher correlation to financial performance as opposed to financial institution innovation alongside financial market innovation. Based on these results, strategic recommendations on how best to produce optimised innovation strategies were then developed.

INTRODUCTION

Innovation, often regarded as a catalyst for organizational growth and adaptation, holds a pivotal role in contemporary literature. Scholars underscore innovation's transformative power, emphasizing its capacity to enhance competitiveness, foster sustainability, and drive economic development. This chapter lays the foundation for the study, providing a comprehensive background and articulating the problem statement. It defines the research's aim, objectives, questions, and significance, outlining the study's scope and relevance to the University of Zambia's body of research.

Background of Study

This research embarked on a compelling exploration into the transformative power of innovation in advanced economies, particularly in the financial sector. As innovation becomes a cornerstone of productivity and economic prowess, its impact extends beyond traditional manufacturing to shape the landscape of service sectors, notably the financial industry. The World Economic Forum underlines the pivotal role of financial innovation in fostering prolonged economic expansion and improving living standards, serving as a catalyst for adaptability in the face of societal and technological shifts (Tech Trends, 2023).

In the unique context of the Zambian banking landscape, this study is propelled by the distinct challenges faced by Zanaco, a major player in the country's financial sector. Established in 1969 to meet the financial needs of the Zambian economy, Zanaco has evolved into a prominent national bank, yet the dynamic evolution of the banking industry in Zambia, marked by intensified competition, regulatory changes, and technological advancements, has presented unprecedented challenges (Mayowa et al, 2019).

Moreover, the broader Zambian banking sector has witnessed significant innovations, including the adoption of digital banking solutions, fintech advancements, and shifts in customer preferences. This dynamic context prompts crucial questions about the overall impact of these innovations on the financial performance of commercial banks in Zambia. In response to these circumstances, this study aims to unravel the specific challenges encountered by Zanaco, investigating how innovation within the bank has shaped its financial performance. Beyond this, the researcher endeavors to provide insights into the intricate dynamics between innovation and performance in the broader Zambian banking sector.

Statement of the Problem

The IMF's 2023 Country Report for Zambia states that banking sector assets account for 41% of the nation's GDP. Innovation is crucial for banks to stay competitive in the financial market. However, there is still a lack of understanding about how different types of innovations affect key financial performance metrics of the banking sector.

This research aims to fill this gap by examining how various innovations impact financial performance using metrics such as profitability, market share, and competitive advantage, focusing on a Zambian bank case study.

Aim of Study

The study aims to address this knowledge gap by investigating how various innovations influence financial performance, using metrics such as profitability, market share, and competitive advantage to measure performance in the financial sector, focusing on Zanaco, with the goal of providing practical strategic insights on Zambia's evolving financial landscape.

Research Objectives

This research seeks to achieve the following objectives:

1. To establish the existing landscape of innovation in ZANACO Bank PLC specifically focusing on perception of its employees on innovation for the bank.

2. To assess the effect of innovations (financial; process, product, and market innovation) on the financial performance of ZANACO Bank PLC and provide an example for the wider Zambian banking industry.
3. To provide potential strategies to enhance ZANACO Bank PLC' s financial performance through optimized innovation strategies.

Research Questions

The study seeks to answer the following research questions:

1. What is the existing landscape of innovation in ZANACO Bank PLC?
2. Why is innovation vital to the financial performance of ZANACO Bank PLC within the context of the Zambian banking industry?
3. How can ZANACO Bank PLC enhance its financial performance through optimized innovation strategies?

Significance of study

Due to the considerable significance of financial innovation, there is an escalating demand worldwide for financial regulators to evaluate the innovation performance of financial institutions and its effects. Gauging and evaluating innovation capabilities and performance present a gratifying yet challenging endeavour. The measurement of financial innovation holds pivotal importance for various reasons.

Firstly, it aids financial institutions in comprehending their prevailing innovation practices and capabilities, pinpointing areas necessitating attention to optimize innovation success. In essence, it identifies strengths to capitalize on and avenues for enhancing innovation.

Secondly, financial regulators can gauge the probability of a financial firm engaging in process and product innovation, along with the factors impacting the success of such innovation. This assessment can also discern whether specific financial firms or sectors are outpacing others in terms of innovation [Heffernan et al. (2008)].

Thirdly, it facilitates financial regulators in attaining critical policy objectives, including promoting competition and curbing financial service costs. As demonstrated by King and Levine (1993), financial innovation can narrow the gap between deposit and loan rates while fostering sustained growth in the broader economy.

Fourthly, policymakers can identify and manage barriers that stymie creativity and innovation.

Fifthly, gauging process and product innovation serves to ascertain the satisfaction levels of financial service users, particularly customers, investors, and other participants in financial markets.

Sixthly, the measurement of financial innovation aids in formulating a firm level index of innovativeness for industrywide applications. It also aids in benchmarking innovation within the domestic financial sector against international best practices.

Lastly, it contributes to disseminating awareness regarding the significance of the innovation concept and embedding an innovation culture within organizations.

Scope of Study

This research was only bounded to Zanaco, Lusaka, Zambia, but the results would be used cautiously in other commercial banks as well as other financial institutions within and outside Lusaka. In conducting this research, the emphasis was on the effects of digital innovations on customer satisfaction in financial institution, using Zanaco Zambia, Lusaka as a case study.

THEORETICAL FRAMEWORK

Diffusion Innovation Theory

The theory of diffusion of innovation seeks to explain and depict the mechanisms by which novel inventions, exemplified by internet banking, ATMs, POS terminals, mobile banking, and digital wallets, are embraced and attain success (Clarke, 1995). Sevcik (2004) emphasized that not all innovations, even if beneficial, are swiftly adopted, as the adoption process might be time consuming. He also noted that resistance to change can impede the diffusion of innovation, albeit not entirely halting it, yet causing a deceleration in its progress. It is for this reason that Rogers (1995) identified five pivotal attributes that significantly impact the adoption pace, encompassing relative advantage, compatibility, complexity, trialability, and observability. Rogers asserts that the adoption rate of innovations hinges on an organization's perception of these attributes in terms of relative advantage, compatibility, trialability, observability, and complexity.

In the context of a bank in Zambia, particularly in Lusaka, if the benefits of digital banking become evident, these innovations were embraced, contingent upon other factors such as the availability of requisite resources. These banks will diligently work towards establishing their presence within the industry and bridging the technological gap. The adoption of innovations is likely to be faster in organizations equipped with internet access and dedicated information technology departments compared to those lacking such provisions.

The diffusion of innovation theory tends to exhibit a pro-innovation bias by championing the cause of innovations. In essence, it underscores that the rate of successful innovation adoption can be studied and researched. While it is effective in highlighting successful diffusions that are readily identifiable and investigable, it may not adequately account for unsuccessful diffusion scenarios, which often lack evident traces amenable to easy study.

Circumvention Innovation Theory

The circumvention innovation theory was pioneered by the American economist Kane in 1981. Kane (1981) argued that certain forms of government oversight and control, which have the same implicit tax assets, undermine the company's economic activity and the opportunity to make a profit. Market innovation and regulatory innovation should therefore be seen as a continuous process of struggle between independent economic strength and political strength. Because the financial sector is special, it has stricter regulations. Financial institutions are dealing with a situation such as the reduction of profits and the failure of governance induced by government regulations to reduce the potential loss to the minimum. As a result, financial innovation is mostly driven by the aim of earning a profit and by circumventing government regulations.

Constraint Induced Financial Innovation Theory

This theory was advanced by an American Economist Silber. Silber (1983) attributes financial innovations to attempts by profit maximizing firms to reduce the impact of various types of constraints that reduces profitability. He defines a constraint as something that limits or restricts progress. According to Silber (1983), the main reason for financial innovation is profit maximization. However, in the process of pursuing profit maximization, financial institutions tend to face some restrictions which are either external or internal. These constraints can either be self-imposed, market imposed, or government imposed.

Silber (1983) views a financial firm as a utility maximizing entity which operates in each environment constrained by some set of internal rules, set of macroeconomic conditions in each regulatory environment, set of tax laws and given levels of technology and knowledge. Although these restrictions not only guarantee the stability of management, but they also reduce the efficiency of financial institutions, so the institutions strive to cast them off.

Conceptual Framework

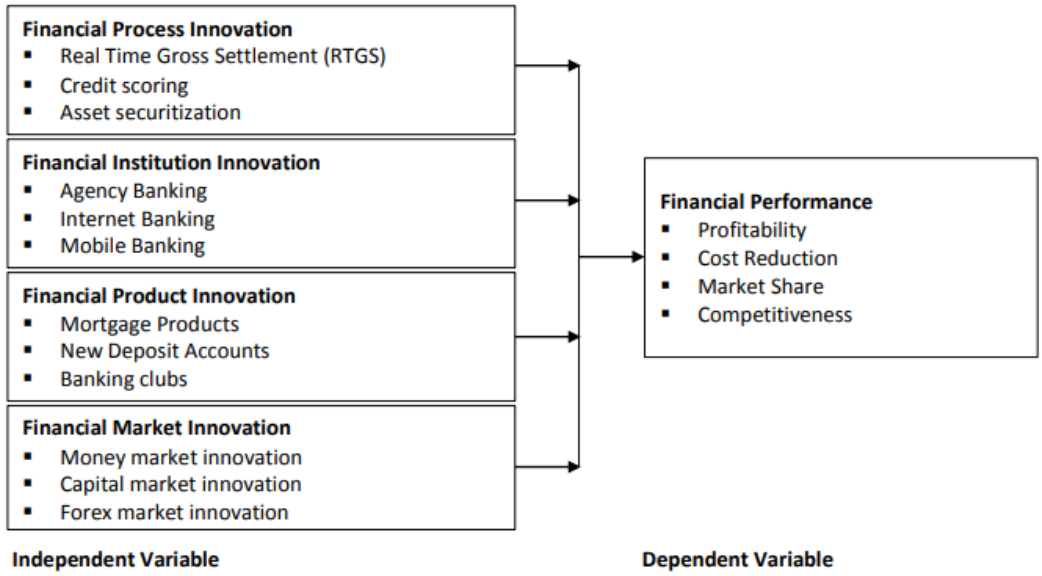

Figure 1 Conceptual Framework Author (2023)

A conceptual framework serves as a visual or written illustration that outlines the key variables and their relationships within a study, offering a theoretical foundation for research endeavors (Mugenda & Mugenda, 2013). In the context of this study, the conceptual framework is designed to elucidate the intricate connections between financial innovation and corporate performance in the banking sector.

Independent Variables

1. Financial Process Innovation

The introduction of novel processes and technologies within the financial systems of Zambian banks, impacting operational efficiency and customer service.

2. Financial Institution Innovation

Initiatives that reshape the structure and operations of financial institutions, including changes in organizational structures, partnerships, and technological advancements.

3. Financial Product Innovation

The development and implementation of new and diverse financial products and services to meet the evolving needs of customers in the banking sector.

4. Financial Market Innovation

Strategies and initiatives that explore new market opportunities, adapt to changing customer behaviors, and enhance the competitive position of banks within the financial market.

Dependent Variable

Financial Performance

Assessed through key financial performance indicators, including growth ratios in equity, assets, net profit, and total operating incomes, measured in Kwacha amounts derived from financial statements available on public domain.

Theoretical Underpinnings

1. Innovation Diffusion Theory

This theory, pioneered by Rogers (1962), helps understand the process through which innovations are adopted within an organization. It posits that innovation adoption is influenced by factors such as perceived qualities, communication channels, social systems, and the extent of organizational change.

2. Resource Based View (RBV)

RBV, as articulated by Barney (1991), emphasizes the role of internal resources and capabilities in achieving a sustainable competitive advantage. In the context of this study, organizational resources and capabilities contribute to the successful implementation of financial innovations, impacting corporate performance.

3. Dynamic Capability Theory

Building on RBV, Teece et al. (1997) introduced dynamic capabilities, emphasizing the ability of organizations to adapt and respond to changing environments. Dynamic capabilities are vital in navigating the complexities of financial innovation, influencing corporate performance.

Operationalization of Variables

Quantitative metrics was employed to assess the variables, utilizing financial reports, innovation indices, and organizational performance indicators. Questionnaires captured qualitative data, providing insights into the organizational culture, leadership, and strategic initiatives influencing financial innovation. These measures collectively contribute to a comprehensive understanding of the relationship between financial innovation and corporate performance within Zambian banks, with a specific focus on Zanaco.

Operation Definitions

This section gives clarification on the meaning of the terms to be used in the research paper; basically, the term that was discussed under this section is digital innovation with other supporting terms defined below according to the Oxford English dictionary.

Digital Innovation: Digital innovation means innovating products, processes, or business models using digital technology platforms as a means or end within and across organizations.

Digital innovation allows for the convergence and generativity of different forms of innovations in the information technology sector.

Digital banking: banking driven by technology. (That is E-banking, Digital wallets like PayPal, Mobile banking, ATMs, RTGS and POS terminals.

Customer Satisfaction: a measure of how a customer responds having used digital banking platforms that makes them remain loyal to the bank, or lead to increase in the numbers of customers using the various digital channels platforms to do their banking.

Commercial Bank: is a bank that works with businesses handling banking needs for large and small businesses including lending money for real and capital purchases, foreign exchange etc.

Speed of Transactions: A measure of the quickness of a transaction using digital banking, to deliver desired result in a timely manner.

Accessibility: Extent to which a consumer or user can obtain a good or service at the time it is needed and at the convenient location and contact the organization which oversees that particular good or service.

Adaptability: Ability of a bank customer to alter their responses to the changed circumstances or environment brought about by digital banking. Adaptability shows the ability to learn from experience.

Affordability: A price or cost that is believed by bank customers to be within their financial means.

1.0 Chapter Summary

The data on innovation in the banking sector in Zambia and the world at large is very scanty, the need for this study is since many authors focused on only determining innovation and its influences or rather evaluating its effectiveness, in their settings and did not research on the challenges and their impacts on customers and workplace environments.

LITERATURE REVIEW

Introduction

In the ever-evolving banking landscape, the relationship between innovation and performance stands as a central theme deserving thorough exploration through review of literature. This literature review delves into the various dimensions of financial innovation, scrutinizing history, performance initiatives, and the interplay between innovation and overall performance of banks.

a. Definition of Terms and General Concepts

1) Financial Performance Indicators

In the context of the conceptual framework, the growth ratios refer to specific financial metrics that measure the expansion or contraction of key elements within a bank's financial structure and performance.

2) **Growth Ratio in Equity**
This ratio assesses the percentage increase or decreases in a bank's equity over a specific period. Equity growth is indicative of the change in the bank's net assets attributable to shareholders, reflecting the overall financial health and shareholder value.
3) **Growth Ratio in Assets**
This ratio evaluates the percentage change in a bank's total assets over a defined time frame. Asset growth is a crucial indicator of the bank's ability to expand its operations, make profitable investments, and manage its financial resources effectively.
4) **Growth Ratio in Net Profit**
This ratio measures the percentage variation in a bank's net profit over a given period. Net profit growth indicates the bank's profitability trends, reflecting its ability to generate income, control expenses, and deliver value to shareholders.
5) **Growth Ratio in Total Operating Income**
This ratio assesses the percentage change in a bank's total operating income, which includes revenue generated from its core business activities. Growth in total operating income signifies the bank's ability to generate revenue from its operations, providing insights into its operational efficiency and market competitiveness.

These growth ratios collectively provide a comprehensive view of the financial performance and operational dynamics of a bank, contributing to the understanding of how financial innovation may impact these key indicators within the Zambian banking sector, particularly focusing on Zanaco.

6) Innovation and Performance

Recognizing the significance attributed to innovation within the literature, numerous studies have undertaken comprehensive investigations. Several studies delve into its impact on the performance of companies, regions, and countries. Laursen and Salter (2006) examined 2,707 factories in the United Kingdom, discovering that

strategies focused on the external environment facilitated innovation. This finding underscores the value of combining external sources with internal resources as a potent tool in innovation development.

In summary, the exploration of innovation within the literature underscores the pivotal role of external sources and collaborative efforts in fostering idea generation and promoting transformative products and processes. The interplay between universities, government, and businesses as catalysts for innovation aligns with the triple helix model. The profound impact of innovation on business performance, regional growth, and international collaboration necessitates a nuanced understanding of its dynamic effects across diverse sectors and countries.

7) Types of innovation

To explain the concept of financial innovation, it was necessary to examine the different dimensions of innovation in general. According to the Oslo manual [OECD (2005)], there are four types of innovation: Product innovation, process innovation, marketing innovation and organizational innovation.

1. Process innovation is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software. Process innovations can be intended to decrease unit costs of production or delivery, to increase quality, or to produce or deliver new or significantly improved products.
2. Marketing innovation is the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing. Marketing innovations are aimed at better addressing customer needs, opening new markets, or newly positioning a firm's product on the market, with the objective of increasing the firm's sales.
3. Organizational innovation is the Measuring and Reporting Financial Innovation 4 implementation of a new organizational method in the firm's business practices, workplace organization or external relations.
4. Organizational innovations can be intended to increase a firm's performance by reducing administrative costs or transaction costs, improving workplace satisfaction (and thus labor productivity), gaining access to non-tradable assets (such as noncodified external knowledge) or reducing costs of supplies.

b. Measuring Financial Innovation Components

Innovation involves a combination of inputs and a creation of outputs [Stone et al. (2008)]. Something novel is created or improved on during innovation. Certain crucial inputs must be available for innovation to occur, and the exact nature of those inputs differs depending on the desired outputs and outcomes. This section briefly reviews how innovation components can be measured in the financial sector, with particular focus on the measures of innovation inputs and outputs applicable in the financial services industry.

Financial Innovation Inputs

Inputs for financial innovation encompass the resources and assets engaged or utilized throughout the innovation process. Generally classified as assets, these inputs are frequently employed even beyond their initial application in a single innovation endeavor. Innovation activities rely on a diverse array of inputs, encompassing both tangible and intangible components [Gamal, (2011)].

Tangible inputs manifest physically and entail costs, while intangible inputs lack a physical form yet may incur expenses. In economic discourse, intangible inputs are commonly termed "knowledge assets," while business management literature designates them as "intellectual assets." Inputs attain the status of assets when they generate future benefits. Notably, knowledge assumes a pivotal role as an input for innovation, entailing its application within creative undertakings.

An understanding of the resources, tools, technologies, materials, markets, and demands specific to the given context is an imperative forerunner for innovation. Acknowledging knowledge's paramount significance to the innovation process, innovative entities willingly allocate substantial resources to research and knowledge acquisition (e.g., intellectual property).

Empirical analyses of financial innovation yield insights into various inputs instrumental in the financial innovation process, thus forming a basis for modeling innovation performance:

1. Financial R&D Intensity: Quantified by Financial R&D Expenditures as a percentage of Total Operating Costs, investment in research and development (R&D) emerges as a prominent input fostering novel products and processes.

2. Human Capital: The presence of a highly educated workforce, particularly proficient in IT and engineering, often drives R&D and stands as a pivotal factor for firm level innovation [Heffernan et al. (2008)]. Metrics such as the Share of Research/Technical Staff to Total Staff Strength or Staff Education/Training Expenditure as a Proportion of Total Operating Costs gauge human capital's impact.

3. IT Capital: Technological progress significantly propels financial innovation, with financial technology development playing a pivotal role. Advances in technology, facilitated by suppliers and vendors of financial information systems, underpin innovations not only in retail banking but also in data-driven endeavors like valuation and risk management. Gauging IT Capital input involves evaluating IT Expenditure as a Proportion of Total Operating Costs.

4. Composite Input Measure: A composite input measure amalgamates financial R&D expenditure, IT capital expenditure, and human capital expenditure, resulting in Financial R&D Expenditure + IT Expenditure + Staff Education/Training Expenditure as a Proportion of Total Operating Costs. As highlighted by Arnaboldi and Rossignoli (2015), measuring financial innovation inputs within the financial services sphere presents challenges for two main reasons.

First, banks aren't exclusive creators of financial innovation. They also function as end-users of innovations originating in other sectors, often collaborating with nonfinancial entities or clients to develop novel solutions. Crediting new financial products solely to banks can be misleading. Second, conventional measures like research and development (R&D) spending, commonly used to gauge manufacturing innovation, might not be suitable for banking. Unlike traditional sectors, banks generally lack dedicated R&D departments driving new product launches.

In banking, innovation often evolves incrementally, propelled by "trial and error" across different business units and functions. Marketing, business units, IT, and an intricate network of IT suppliers and consultants drive the innovation process [Frei, Harker, and Hunter (1997)].

Financial Innovation Outputs

Innovation outputs are the products of innovative activity. Well known measures of innovation outputs are the number of innovative products and processes introduced, number of patents on financial products and services, number of scientific publications, workforce size and experience, and qualitative changes to the organizational structure, values or business model. Knowledge is also a key output of innovation. Whatever the outputs of innovation may be, they incorporate the firm’s knowledge at the time.

Every tangible and intangible output reflects the firm’s knowledge of its resources, technologies, markets and consumers [Gamal (2011)]. Today, many innovative financial products are driven by technology (i.e. efinance). These innovative financial products can be categorized according to the various business units within financial services:

- Innovations in retail banking: Internet banking, automated teller machines (ATMs), online payment methods, mobile banking platforms, agent banking units.
- Innovations in investment banking: online security trading and entrusted investment, online investment and property management, electronic exchanges.
- Innovations in insurance: Insurance agent services, online quotations, and claim management.

- Innovations in SME banking: credit scoring, psychometric scoring, and online peer-to-peer lending
- Innovations in information services: accounting financial information, electronic bank statements (PDF downloads), text message alerts, email alerts, etc

Other financial services: personal financial management, payroll processing, and accounting management. The outputs of innovation are, however, unpredictable. The inputs to innovation are easy to characterize; they will always be resources and assets. The outputs, however, are difficult to characterize, especially before the process is complete. The outputs are unpredictable because innovation is complex, nonlinear, and risky; responds to opportunities; and inherently includes elements of chance.

Regional Perspective

Mayowa et al. (2019) conducted a study in Nigeria to investigate the impact of digitalization on the performance of commercial banks. Their findings revealed a mild significant and positive correlation between the digitalization process and the performance of commercial banks ($r = 0.114$; $p < .05$). Additionally, they identified a positive significant relationship between product innovation and the performance of commercial banks in Nigeria ($r = 0.186$; $p < 0.001$). Their study suggests that well-implemented digitalization processes can have a positive impact on commercial bank performance in Nigeria, all else being equal.

Although Mayowa et al. (2019) used an appropriate method like what we intend to employ in this study, their focus was on evaluating commercial bank performance through digitalization enhancement. Notably, their study did not delve into the challenges associated with digital innovations, thereby underscoring the need for this current study.

Multiple studies suggest that the success of the renowned MPesa since its inception in 2007 is attributed to the Central Bank of Kenya's (CBK) willingness to support a mobile money pilot and strike a balance between regulations, oversight, and flexibility for mobile operators to experiment and adapt (Digitized payments in Kenya, 2015).

Local Perspective

The digital financial services sector in Zambia has witnessed substantial expansion, evident in the growth of active customers, agents, and digital financial service providers. The industry's progress is exemplified by the transition from a mere 2% active digital financial services accounts offered by four providers in 2014 to an impressive 44% active accounts provided by 18 entities in 2018 (UNCDF and Bank of Zambia, 2019). This period also saw a remarkable 89% surge in active digital financial services accounts between December 2017 and December 2018. In tandem with the rise in active customers, the number of active agents surged from 22,965 to 46,747 during the same timeframe (Tech Trends, 2023). The Bank of Zambia has played a pivotal role in nurturing the growth of digital financial services. One significant step was the issuance of the National Payment Systems Directives on Electronic Money Issuance in 2015, updated in 2018 (World Bank, 2020).

Chapter Summary

The review provides a comprehensive position of various literature on innovation and corporate performance.

RESEARCH METHODOLOGY

INTRODUCTION

To effectively conduct this research, a mixed methods approach was incorporated with regression analysis of

data variables, this chapter explains more on the most feasible way discovered to conduct the study.

Research Design

In investigating the relationship between innovation and financial performance among commercial banks in Zambia, a case study approach was adopted to delve into the scope of the problem. A case study was chosen due to its suitability for in-depth analysis of innovation's impact on financial performance. The quantitative research was chosen as it allows for the collection of numerical data that can be subjected to statistical analysis. This method enables researchers to identify patterns, trends, and correlations within the data, leading to objective and reliable findings.

Study area or Site

Zambia National Commercial Bank Plc (ZANACO) Head Office is located along Cairo Road Lusaka in between FINDECO house and Indo-Zambia Bank, this was the chosen study site. The bank is one of the largest banks in Zambia both in terms of its assets and its earnings. Reference was made to secondary financial data published on the bank's website.

Study population

One way to think about the connection between a statistical research's population and its sample is as follows: "The population in a statistical study is the total group of people about whom we seek information" (Moore et al., 2009, p. 178). The study population consisted of about 1,361 employees.

Study sample

The formula for determining the sample size was using a simple random sampling technique which is given by:

$$n = \frac{N}{1+Ne^2}$$

Where:(n) is the sample size, (N) is the population size (1,361 employees at Zanaco), and (e) is the margin of error (a value between 0 and 1, representing the desired level of precision).

Assuming a margin of error ((e)) of 0.1 (10%), let's substitute the values into the formula:

$$n = \frac{1361}{1+1361\times(0.1)^2}$$

Solving this equation yielded the sample size of 50. The resulting value will represent the number of respondents required for a representative sample from the population of 1,361 Zanaco employees, considering a 10% margin of error.

The findings were then interpreted within the context of the study objectives, and the extent to which results could be generalized to the broader employee population at ZANACO Bank was considered.

Data collection instruments

The data collection instrument employed for this research was a carefully designed structured questionnaire, strategically crafted to delve deeper into the intricacies of the subject matter.

To ensure the reliability of responses and capture nuanced opinions, Likert scales were strategically incorporated into the questionnaire (Rajasekar, Philominathanet, & Chinnathambi, 2013). Respondents were presented with

a range of statements or questions related to innovation and financial performance, and they were asked to express their level of agreement or disagreement on a scale, typically ranging from "Strongly Disagree" to "Strongly Agree." This approach allowed for the quantification of qualitative data, providing a structured framework for analysis.

Data Analysis and Presentation.

After the data was obtained, the methods and tools that were utilized to collect it were scrutinized to ensure that they are exhaustive, consistent, and accurate. Going over all the answers that were given to each respondent. Following the assignment of a code to each category, the data was be entered into SPSS version 21.0 windows to be analyzed. Later, the findings were presented in the form of tables, graphs, and charts, with the goal of quantifying the degree of uncertainty or variability connected with the data. To generalize the findings, using inferential statistics was helpful.

The researcher continued the investigation by carrying out a regression analysis to ascertain the nature of the link that exists between the independent variables and the dependent variable which was shown via the use of hierarchy regression table with a confidence level of 95% and a level of significance of 5%.

Regression Model

To investigate the impact of innovation on popular measures of commercial banks' financial performance this, the following multiple linear regression models were specified in line with the objectives of the research. These key financial performance indicators are equity, assets, net profit and total operating income

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

Y = Financial performance; α = Constant Term β_1, β_2, β_3 and β_4 = Coefficients of the independent variables; X_1= Financial process innovation; X_2= Financial institution innovation; X_3= Financial product innovation; X_4= Financial market innovation; ε = Error term

Reliability and validity of methodology: Pilot Survey

Addressing the reliability and validity of the methodology, a pilot survey was conducted before data collection to confirm the reliability and validity of the research instruments (Kasonde-Ngandu, 2013). A pilot survey involving ten individuals at Zanaco provided an overview of respondents' components and rationale. To ensure research reliability, the distribution of questionnaires and interviews was limited to the participants of interest.

Ethical Considerations

Before beginning the research, approval from the University of Zambia ethics committee was sought out. This was done in accordance with the guideline provided by Creswell (2014), which recommends placing a high level of priority on ethical concerns related to research to protect the respondents' right to privacy. As a result of the survey respondents was provided with advance notice before taking the survey as well as the guarantee that any information shared with the researcher would be handled with the greatest possible level of secrecy.

Before distributing the questionnaire to the participants in the study, the researcher made it a point to ensure that the following ethical concerns are respected and followed.

Right to be informed consent: The right to informed consent was upheld by ensuring that respondents received ample information regarding the study's purpose. Participants were given the right to agree or disagree to

participate in the research. The individuals to be involved will explicitly be informed that the acquired information will solely be used for educational purposes, irrespective of their specific company engagements.

Non-guarantee to respondents: Furthermore, the non-guarantee to respondents was emphasized, ensuring that participants are not coerced or bribed in any manner during the process. The research was conducted ethically and in an academically sound manner.

Right to privacy: In terms of the right to privacy, information that respondents are uncomfortable revealing will strictly be kept confidential and not shared with anyone else. Respondents' anonymity was carefully considered, with their titles not recorded to foster trust.

Value neutrality: The principle of value neutrality was followed, ensuring that respondents are not subjected to the researcher's personal values, and their behavior does not conform to the researcher's preferences.

Chapter Summary

Chapter 3 was a collection of the entire research methodology from data collection analysis and ethical procedures.

RESEARCH FINDINGS

INTRODUCTION

This chapter summarizes the findings from the research based on secondary financial data from the banks website.

Findings

Finding 1. In line with Research Objective number 1, to establish the existing landscape of innovation in ZANACO BANK PLC specifically focusing on perception of its employees on innovation for the bank, the following were the main findings:

1. A significant majority of employees (48%) perceived ZANACO's financial process innovation as very high, concurrently attributing a high impact on financial performance (35%).

2. Financial Process Innovation consistently emerges as a robust predictor of the bank’s performance across all models, with Beta Coefficients ranging from 0.197 to 0.289.

3. These findings align harmoniously with studies such as Tajeddini (2016), reinforcing the affirmative influence of robust financial process innovation on overall financial performance.

Finding 2. In line with Research Objective number 2, to assess the effect of innovations (process, financial, product, and market innovation) on the financial performance of ZANACO BANK PLC and provide an example for the wider Zambian banking industry, the following are the main findings:

- The hierarchical regression models underscore the unique contributions of different innovation types on financial performance. Financial Process and Product Innovations consistently emerge as positive predictors, aligning with existing literature. Conversely, Financial Institution and Market Innovations exhibit more nuanced effects, highlighting the necessity for a deeper comprehension of their roles within the ZANACO context. These findings significantly contribute to a broader understanding of the intricate relationship between financial innovation and corporate performance. While some results align with prior research, the study unveils unique dynamics within ZANACO, underscoring the importance of context specific analyses in evaluating the impact of financial innovation on organizational success.

Dependent variables: Corporate performance					
		Beta Coefficients for model 1 to 4			
Independent variables		Model 1	Model 2	Model 3	Model 4
Financial Process Innovation		0.289	0.197	0.269	0.251
Financial Institution Innovation			0.132	0.183	0.171
Financial product innovation				0.403	0.312
Financial market innovation					0.104
	R^2	0.091	0.121	0.258	0.273
	Change in R^2	0.091	0.030	0.137	0.014
	F	5.342	4.285	3.336	2.724
	p	0.023	0.042	0.009	0.040

Year	Financials, PAT Growth in %
2019	Profit After Tax grew by 9% to K200 Million
2020	Profit After Tax grew by 9% to K235Million
2021	Profit After Tax grew by 343% to K1 billion.
2022	Growth in Profit after Tax by 16% to K1.20 billion.
2023	Growth in Group Profit After Tax by 44% to K1.74bn.

Year	Equity	Assets	Net profit	Total operating income
2018	20%	11%	61%	0%
2019	15%	12%	17%	7%
2020	29%	63%	9%	39%
2021	77%	35%	34%	53%
2022	39%	37%	16%	11%
2023	40%	40%	44%	34%

The table above indicates the growth rates of four key financial indicators at banks specifically focusing on Zanaco Bank. These key financial performance indicators are equity, assets, net profit and total operating income.

Finding 3: In line with Research Objective number 3, to provide potential strategies to enhance ZANACO BANK PLC' s financial performance through optimized financial innovation strategies, the following are the main strategy recommendations:

- Continued emphasis on diverse and innovative financial products is crucial for sustaining and enhancing corporate success, aligning with the positive findings in this study.
- Examining financial institution, product, and market innovations revealed their interconnected impact on Zanaco's financial performance. The synergistic effect of these innovations significantly contributes to the bank's success within the dynamic Zambian banking industry. It is imperative to drive more innovation aligned strategies as the bank's financial performance will be impacted.

All the strategic frameworks from the study are meticulously designed to enhance performance, ensuring the bank remains adaptive, competitive, and resilient in the evolving financial landscape.

CONCLUSION

This research extensively explored the multifaceted landscape of financial innovation within the Zambian banking sector, with a particular focus on Zanaco. The findings contribute to a better understanding of the current state of financial process innovation and its implications for corporate financial performance.

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