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The Role of Management Information Systems in the Financial Crisis of a Developing Economy

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Abstract

There has been rampant fold-ups, merger and acquisitions occurring in the Ghanaian banking industry. Then, the questions arise: Is the Ghanaian Financial System in Crisis? This study was conducted to find answers to these problems unsolved with prior literature. A sample of seventy customers of the Royal Bank, 8 employees of the Royal Bank and 2 managers of the Royal Bank were selected for a case-survey. The study also monitored the Trend of the Ghanaian Financial System through the reading and monitoring of daily news on the Financial System and reports of banks. The data from the field and the secondary data from news and reports were analysed symmetrically. The study drew on Minsky's Financial Crisis Theory to explain the phenomenon in the Ghanaian economy and to draw predictions of what would happen in other developing economies. The study found out that: (1) The Ghanaian financial system is fragile and it holds true for most developing economies; (2) The financial system suffers greatly when the confidence level of customers falls significantly; (3) Management information systems raises the confidence level of customers (borrowers and lenders) such that there is a greater fall and impact in times of instability in the economy; (4) The higher the level of MIS adoption in an unstable economy, the more fragile the Financial System becomes and (5) A higher adoption of Management Information Systems in a Fragile Financial System indirectly contributes to Financial Crisis of the Financial System.

Key words: financial crisis; management information system; financial system; confidence level

1. Introduction

The Ghanaian financial sector in 2012 experienced some changes in the competitive environment due to mergers and acquisitions. Notable ones include Access Bank Ghana acquiring Intercontinental Bank of Ghana with a market share of 3.20% adding to the 1.20% of Access Bank. Ecobank Ghana with a market of 9.00% acquired The Trust Bank Limited, whose market share was 2.80%. The growth of the sector was attributed to the discovery of oil in the nation given the rise in Ghana's annual GDP growth rates from 2009 to 2011 (Obuobi, 2012).

According to Obuobi (2012), the most essential factors that are changing the industry include development in information technology, the deregulation of the financial services at both national and regional levels and globalization.

These developments in technological innovations have enabled banks to also create service innovations for the banking industry. According to Mashhour & Zaatreh (2008), most of the new banking innovative strategies are as a result of either new or enhanced banking information systems. Prominent innovations include electronic or internet banking (e-banking), debit and credit cards, automated teller machines (ATM), and so on (Obuobi, 2012). Advances in internet technology have had a big impact on business operations and have brought about a paradigm shift especially in the operations of banks (Lehal, 2012).

Given the already aggressive nature of the banking industry in Ghana and the fact that most banks in Ghana are trying to increase their market share by implementing winning marketing strategies, the banks are adopting innovations in information technology to improve their operations, cut down costs, attract new customers, maintain old customers and to stay competitive amongst other benefits of information technology. The use of the concepts, techniques, policies and implementation strategies of information and communication technology has become fundamentally important and a greater concern for all banks because it has become a requirement for local and global competitiveness (Agbolade, 2011).

Besides the banks competing to stay competitive in their circles of operations, their role in the local and global economy cannot be overemphasized. Bhaduri (2011) indicated that the financial system facilitates trade and asset acquisition. From the macroeconomic perspective, the wellbeing of a country's economy depends greatly on the financial system. Nevertheless, the financial system operates on a network of mutual confidence (Bhaduri, 2011) since the financial system deals with derivatives such as swaps, options, futures which carry higher level of uncertainties. Due to the higher level of uncertainties in the operations of the financial system, consumers enter into contract with them based on confidence that the banks will be able to raise the future priced of assets. Consumers' confidence drop when their divergent expectations are not met. The drop in confidence of consumers have a detrimental potency on the financial systems in General (Reinhart and Rogoff, 2008). Reinhart and Rogoff (2008) narrated cases of prior financial crisis where the financial confidence of consumers had heightened to the peak and the consumers were at the stage of cacoethes and unexpectedly, the financial system collapses and create panic among consumers. This is a plebeian incident that happens in both developed and developing economies. The situation was expected to be better due to the adoption of information system and other complex technologies in the Financial System. This study has shown that the adoption of Information Systems Technology and other Management Information Systems has rather heightened the possibility of financial crisis in the banking industry.

That is not to debunk that Management Information Technology is not essential in the Banking industry. These developments in technological innovations have enabled banks to create service innovations for the banking industry. According to Mashhour & Zaatreh (2008), most of the new banking innovative strategies are as a result of either new or enhanced banking information systems. Some of the prominent innovations in the banking sector include electronic or internet banking (e-banking), debit and credit cards, automated teller machines (ATM), and so on (Obuobi, 2012). Advances in the internet technology have had a big impact on business operations and have brought about a paradigm shift especially in the operations of banks (Lehal, 2012). What practitioners and researchers have failed to consider and give more attention is the fact that the higher level of Information System Adoption in the banking industry creates higher level of confidence in consumers as stated by Rogoff and Reinhart (2008). Therefore, a venial failure in the information system drops down the confidence of consumers to the barest minimum. What appears to be a menial crisis is compounded by the reactions of consumers to become a grave crisis. Therefore, this study sought to find plausible explanation to the phenomenon happening specifically in the Ghanaian industry. The study draws on the Financial Crisis Theory to explain the reason why Management Information System has increased the potency of financial crisis in the banking industry.

Is there a certified Financial Crisis in the Ghanaian Banking industry? We say, Yes! The financial Crisis in the Ghanaian banking industry has risen as a result of the rampant fold-ups, merger and acquisitions occurring in the industry. This has reduced the financial confidence of customers. Then, the question arises, what has been the role of Management Information Systems in the operations of the Financial sector and how has it contributed to the Financial crisis? Although simple and basic, very limited literatures have investigated this. In the Ghanaian context, no literature has been written to address these questions. Therefore, this study was conducted to seek answers to these simple yet critical research questions.

2. Literature Review

2.1 Management Information System and Bank Performance

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The success of banks is measured by their ability to provide their clients with high quality banking services that meet the financial information needs of clients. The use of Information Systems is strategy used by banks to stay competitive given the rapid changes and strong competition among the financial institutions in Ghana (Eldlimi et al., 2012).

Nasseef (2014) explained that Management Information Systems (MIS) broadly refers to "*all computer-based systems that helps managerial personnel and all other professionals in carrying out their tasks effectively and efficiently related to the managing, the organisation and the evaluation of the various functional areas in an organisation*." MIS can also be explained as a set of procedures responsible for the collection, processing, storing and giving out of information needed to aid decision making and control (Laudon & Laudon, 2012).

According to Tarafdar et al. (2013), MIS includes the software that aids in making decisions, data resources such as database, the hardware aspects of the system, decision support systems, the people involved in its use and their management, project management applications and all other computerized processes that allows for the efficient running of the various departments in the organisation.

Laudon & Laudon (2012) argued that organisations invest heavily in Information System so as to be able to achieve some six strategic business objectives. Therefore, the banks are said to have achieved optimum results when they achieve these six objectives. These six objectives include: (i) operational excellence which involves continuous improvement in operations of an organisation; (2) The creation of new products, services and business models; (3). customer and supplier intimacy; (4) improved decision making. (5) gaining competitive advantage and (6) survival of the organisation. From this standpoint, firms adopt Information Systems in order to achieve these six objectives.

2.2 Mergers and Acquisition

Merger and acquisition has been a practice in the business environment for a period of time. The concept of merger and acquisition has been a significant practice that incenses economic growth. A merger is a combination of two or more corporations in which only one new corporation comes to existence and the individual corporations that have merged go extinct. Acquisition on the other hand occurs when a corporation takes over the controlling ownership interest of another corporation, a legal subsidiary of a corporation, or some selected assets of the firm (Scott, 2003). The terms are usually put together as "merger and acquisition" because the end result of each process is that corporations which initially had separate ownership now come under one ownership.

Transforming a small business into a big one, or a big business into an even bigger one, essentially occurs in one of two ways. Companies can grow their revenues and profits from within by cultivating and growing demand for their products and services. This strategy, known as organic growth, requires patience, but pays big dividends when executed successfully. A riskier way that companies can grow is through a merger and acquisition (M&A) strategy. An M&A strategy can create synergies when companies with complementary products, services and missions unite. However, it can also create tensions and failures when corporate cultures clash, or the acquirer fails to successfully integrate the acquired company's assets, systems and brands. Some corporate unions fail to create synergies and thereby destroy shareholder value (DePamphilis, 2010). Mergers and acquisitions are more common than ever in today's business climate. Chances are, if a firm haven't gone through some sort of integration, it may integrate with another firm sometime to come. Yet studies show that many, if not most mergers are doomed to fail. The failures result in poor shareholder results, layoffs and in some cases a complete dissolution of the merger (Jacobsen, 2014). One of the reasons why mergers and acquisitions fail is because the top management do not first of all, enter into the merger and acquisition with the right motive. Moreover, there is not much preparation prior to the entry of the merger and acquisition arrangement. The first to be done is to understand the culture and strategies of the individual firms involved in the merger and acquisition arrangement. There should be so much communication among the management of all the individual firms involved in the merger and acquisition. Furthermore, the cultures of the firms must be integrated in a prearranged administrative process before the merger and acquisition deal takes off. One approach toward improving the probability of successful IS integration focuses on alignment of firm and IS level integration strategies. There are so many instances where mergers and acquisitions have failed due to the lack of proper planning prior to the merger and acquisition deal. A typical example is the Daimler and Chrysler merger case: When German Daimler (the makers of Mercedes-Benz) merged with American company Chrysler in the late 1990s, it was called a "merger of equals." A few years later it was being called a "fiasco – meaning a disastrous or embarrassing failure." Discordant company cultures had the two divisions at war as soon as they merged. Differences between the companies included their level of formality, philosophy on issues such as pay and expenses, and operating styles. The German culture became dominant and employee satisfaction levels at Chrysler dropped off the map. One unhappy joke circulating at Chrysler at the time was "How do you pronounce DaimlerChrysler? 'Daimler'—the 'Chrysler' is silent."

By 2000, major losses were projected and, a year later, layoffs began. In 2007, Daimler sold Chrysler to Cerberus Capital Management for $6 billion.

3. Overview of Incidences in the Ghanaian Banking Industry

3.1 GCB Takes Over UT Bank and Capital Bank

Within three years (2016 to 2019), several banks in Ghana were folded up, acquired or merged with other banks because they were facing financial crisis. GCB was rated behind UT bank as the riskiest indigenous Ghanaian banks listed on the stock exchange in 2016. It looks so surprising and paradoxical to have GCB take over the Unique Trust (UT) Bank. The previous year's risk assessment of the indigenous banks showed that the rate of growth in the banks indicate that GCB was riskier than UT bank. Nevertheless, the capital base of GCB bank which appeared quite substantial over UT Bank allowed GCB Bank to take over UT Bank. In the prospect of Shareholder returns, UT bank was ahead of GCB Bank.

Following the progressive trend of GCB, GCB struggled for survival in 2007 and underwent recapitalization to raise GHC45, 000 additional capital. In 2007, before the devaluation of the Ghanaian Cedi, GCB was struggling for survival due to stunt growth. Shares were floated to raise additional capital and the bank was re-branded. The name was changed from Ghana Commercial Bank to GCB Bank and the logo was changed from the eagle on a star to the interlocked eagle. One of the drawbacks of the GCB was its long queues and longer waiting time. GCB has been identified over the years for overcrowding and protracted queues at most of its branches. One of the notable causes of the long queue and overcrowding was the experience of frequent network failures. The breakdown of the network slowed down the speed of services provided by the bank. This was also an aspect that the banks taken over by GCB outcompeted it. A review of the interest payout on deposits revealed that the GCB Bank had relatively low interest payout on deposits, compared to the firms it took over. In the first Quarter of 2017, just before the announcement of the assumption, GCB's Average Interest on deposit was 9.3% whiles Capital Bank's AI was 13.5%, and UT's AI was 12%.

The strongest area of operation that GCB has outcompeted all the firms in the banking industry is the e-zwich services. GCB has been awarded as the active e-Zwich Bank for three consecutive years. This success is yet to be investigated, but that could be because of the compulsory payout of national service allowance through the e-zwich platform.

Another stronghold of the GCB Bank was its timely delivery of Information. Considering its position as a bank having a part-state ownership, it stood to be more accountable to the citizenry than the various private sector owned banks. Possibly, this has translated into its services to stay highly accountable to its customers.

GCB hooked unto the mobile banking (i.e. mobile money transfer to account) in November 2016 according to Business World (2016). This appears to be a late adoption because the private firms assumed by GCB were hooked unto the platform in 2011.

UT Bank was awarded the best in SME banking. The core focus of the UT Bank was on Small and Medium Enterprises. Therefore, most of its products were geared towards the development of the SMEs in Ghana. UT Bank offered mortgage facilities to SMEs and individual customers as well. One of the innovative products sold by UT Bank was the UT Car Imports designed through a web-based system. The UT Bank developed an online platform where foreign car sellers were hooked on, and the customers of the bank who wanted to import cars could also be hooked unto the platform and then UT Bank mediated the transaction and ensured the smooth transfer of funds and ownership title. This was a unique product which made use of the different wings of the UT Group. This product was introduced in March 2011. GCB Bank has no such product. Considering the Uniqueness of this product, what is the implication to the GCB Bank? Will they continue to adopt this IS strategy or they will discard it entirely?

UT bank started in 1997 as a financial house named as Unique Trust Financial services. The financial services purchased a former bank called BPI Bank in June, 2010 and got listed on the GSE as UT Bank. 6 years later it has gown down the drain – (Ghanatrade, 2017.) What possibly could have gone wrong for a firm which was strong enough to take over another firm to go down the drain in just six years? This shows that a merger and acquisition in itself does not mean success. Several other factors come to play for a purchase and assumption to yield success to the acquiring firm.

Capital bank was established as Savings and loans in 2009, and attained a license to operate as a bank in 2013. Three years after that, it has gown down the drain.

Capital Bank positioned itself to timely and relevant financial solution to the SME Market. Looking at Capital Bank and UT Bank, it is clear that these banks positioned themselves in the market of SME banking. That has been their competitive edge, and it is not so for the assuming firm, GCB. Therefore, the challenge of aligning strategies can be a critical in the success of the acquisition. Failure to deal effectively with the alignment issues can cause a problem to GCB sometime to come. An effective management of the alignment of the various strategies can also yield success.

In August, 2016 Capital Bank was awarded as the best Growing Bank, the best Bank in Household/Retail Banking and the best Bank in Savings and Deposits. In October, 2013, Capital Bank was awarded the 10th best performing company for the year 2012 and the best in the Non-Bank Financial Institutions sector at the Ghana Club 100 Awards organized by the Ghana Investment Promotion Center. This shows that the Capital bank had a good growth prospect. However, there had been some internal challenges that could not be dealt with and this has caused the fall of Capital Bank.

3.2 Royal Bank, Unibank, Beige Bank, Sovereign Bank and Construction Bank Merger

In March, 2018 the Bank of Ghana (the central Bank) announced the collapse of five banks (Allotey, 2018). Prior to the Collapse of these banks, the researcher conducted a case study on the Management Information System of Royal Bank. The Royal Bank was established in August 2012 as a fully Ghanaian owned bank with a capital base of fifty-one million U. S. Dollars. The bank performed extremely well in its first three years of operation and grew its loan book by 322 percent (B&FT, 2018). In the third year, the bank's loan book underperformed and struggled to meet the Bank of Ghana's prudential ratios. The Central bank (Bank of Ghana) made an Asset Quality Review on the Royal Bank and recommended that the bank impair its capital (B&FT, 2018). The Royal Bank was granted liquidity Support of two hundred million Ghana Cedis in 2016 by the Bank of Ghana. Eventually, the banks performance advanced and in 2017 made a quarter repayment of the liquidity support given by the Central Bank. According Business and Financial Time (2018), the Royal bank suffered with liquidity issues due to Higher amount of Loan granted to Finatrade. Finatrade borrowed one billion Ghana Cedis (GHC1,000,000,000) from twenty-six Banks, even though the total stated capital of the Ghanaian banking industry was GHC 2.6 billion (Frimpong, 2016). The Royal Bank was a victim which explains why it faced liquidity issues in 2015. However, in 2017, its performance had improved significantly. According to the Business and Financial Times (2018), the collapse of UT Bank and Capital Bank had a greater toll on the Royal Bank. Customers lost confidence in the Financial System. According to Allotey (2018), there were very few deposits and several withdrawals from customers. Coupled with the Central Banks capital requirement of GHC 400 million, the Royal Bank declined in its performance, and by the end of 2018, it was declared as insolvent.

Construction bank had an ill fate because it started in 2017 when UT Bank and Capital Bank had collapsed and the confidence of consumers had dropped. Therefore, the bank struggled with liquidity right from its inception.

4. The Financial Crisis Theory

The phenomenon happening in the Ghanaian banking industry was passed through the lens of the financial crisis theory to examine whether the Ghanaian Financial System is in Crisis. Minsky's financial instability theory is used to explain the phenomena occurring in the Ghanaian Financial Sector. According to Minsky's financial instability theory, every economy has some financial regimes under which it is stable and some financial regimes under which it is unstable and then also in periods of prosperity, the economy can move from the stable financing regimes to unstable financing regimes (Diamond and Rajan, 2011). In Minsky's (1986) theory, he asserted that a financial system is stable and robust when moderate changes in cash flows, capitalization rate and payment commitments does not suppress its ability of the units in the Financial System to meet their commitments. On the other hand, an economy is fragile when small changes in the cash flows, capitalization rate and payment commitments have damaging effects such that the units within the financial system are not able to meet their financial commitments.

Passing the happenings in the Ghanaian Financial System through the theory proves that the Ghanaian Financial system is a fragile one. The bases for this conclusion are these: (1) the UT Bank and Capital Bank were performing well, but the failure of some borrowers to make payment resulted in their bankruptcy (2) The collapse of the UT Bank and Capital Bank resulted in a huge drop in the capital base of the Financial System due to less deposits and higher withdrawals (3) the change in capital requirement by the bank of Ghana resulted in the collapse of over 20 banks. Minsky's theory posits that when the hedge units against the speculative and ponzi schemes are relatively less, then the Financial system is more prone to fragility. Developing on the theory, it is explained that in the first phase, it is assumed that the economy goes through crisis and the speculative units are used up to run the economy. Lenders and borrowers become more conservative when they go through the crisis. Lenders would give out their funds to the financial units when they are offered higher margins of safety. Borrowers also become pessimistic in the prospect of their businesses and perceive that they need higher margin of safety in order not to borrow and run at a loss. At this stage, investment and profits, though low, are very stable (Minsky, 1986). Because of this natural occurrence leading to stability, the consumers eventually gain higher confidence in the financial system. Borrowers become optimistic in their profit making and begin to accept lower margin of safety. At this point, profit is maximized due to the stability. Lenders also begin to give out funds at a lower margin of safety judging from the profit records of borrowers, having the expectations that profit will increase more and they will be in a good position to pay back the funds lent out. The financial sector moves to a boom. Then the second phase appears. In the second phase, the boom becomes a bust. Because of borrowers increase in profitability and access to lower rate funds, there is increased demand for finance for investment projects. Dertzer and Herr (2014) stated that "as long as the supply curve for finance is infinitely elastic, this circumstance does not lead to increase in the interest rate." The profounder of the theory Minsky (1982) explained in the theory that this statement holds true when at this stage, the financial system is loaded with financial innovations or the Central Bank is willing to supply further reserves to banks. Nevertheless, bottlenecks in the financial system and external pressures such as inflation and exchange rate forces the Central Bank to increase interest rate. Then the downturn begins. This is where this study took a critical look at the role of Management Information System in the fragility of the Ghanaian Financial System. Drawing from the theory, it can be explained that during the boom session, banks invest in Management information system that boosts the confidence of the borrowers and lenders in the Financial System. In essence, the Management Information System creates extra confidence in consumers which leads to a much detrimental impact on them during the downturn.

5. Materials and Methodology

The study uses a more dynamic methodology to gather data from existing literature, reports of banks, observations of daily occurrences in the Financial System and a case survey to arrive at the findings of the study. The researchers took a critical look at the happenings of the Financial System by monitoring the operations of banks. Daily reports on the Financial System were read to understand the happenings in the Ghanaian Financial System. A survey-case study was conducted on the Management Information System of the Royal Bank with emphasis on the role of MIS on the performance of the Royal Bank and the influence of MIS on consumers' confidence level. An interview was conducted with two strategic managers of the Royal Bank and questionnaires were distributed to seventy (70) conveniently sampled customers of the Royal Bank and eight (8) employees of the bank. The data gathered from observation, existing literature, reports and the case survey were all put together for the analysis. The field data was gathered using a carefully designed questionnaire. The data gathered from the field were inputted into SPSS and analysed.

6. Discussion of Findings

6.1 Level of Digitalization in the Royal Bank of Ghana

Data was gathered in 2017 to determine the level of Digitization at The Royal Bank. The study focused on the various processes within the various relationships management and how information systems are used in the operations of the bank. The level of digitization of the Royal Bank's operations were measured from the perspective of customers, employees and the top managers.

6.1.1 Level of Digitization at The Royal Bank from the Perspective of Employees

With respect to the employees sampled for the study, 3 were female and 5 were male. 2 employees were within the ages of 18-25 years whilst the other 6 were within the age range of 26-35. Whilst 6 of the employees were working with a bachelor's degree, 2 had master's degree. These employees had been with the bank for 1 to 2 years.

Table 1. Level of Digitalization from the perspective of Employees in the Financial System

Level of Digitalization	Min	Max	Mean	Std. Dev.
Information technology and systems are employed at TRB	3	6	5.38	1.188
Information technology and systems play a role in all interactions with suppliers.	2	6	4.50	2.070
Information technology and systems play a role in all interactions with customers.	3	6	5.13	1.356

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All internal operations at TRB are enabled by Information technology and systems	3	6	5.25	1.165
TRB has state of the art Information technology and systems.	2	6	4.75	1.753
TRB offers its customer's internet enabled transactions.	3	5	3.63	0.744

Source: Field Survey (2017)

Generally, the employees expressed that processes at the bank were digitized to a higher extent. This means that given the various levels to which the various processes are performed at the The Royal Bank, information technology and information systems were applied to a high extent.

The interview with the Top Managers showed that the information technologies employed at the bank included desktop computer, Automated Teller Machines (ATMs) that had both withdrawal and deposit capabilities, Closed Circuit Televisions (CCTV) for surveillance inside the bank, Employee Sign-in Device, Cheque Passports for digitally sending signed cheque from one branch to another. Temenos 24 was the main software used by the bank for its internal operations. The software enabled the following transactions; opening of all types of accounts, processing of credit facilities, international wire transfers, withdrawals and deposits.

Communication between the branch and the head office in Accra was mostly carried out using either e-mails or telephone calls. According to the Managers, the bank's online platform had transactional capabilities; the portal on the website allowed for the creation of new accounts, checking of financial statements, making request for cheque books, making wire transfers and making customer complaints.

In addition to the various information systems and information technology aforementioned, the bank used intercoms for internal communication, and money counters for counting and checking the genuineness of both local and foreign currencies. The managers also mentioned that the intranet platform enabled the sharing of information with all branches. It was revealed that there was a "Learn Viewer platform" which allowed communication and training on how to use the various information systems of the bank. The Server of the bank provided client stations that gave electronic access to files and printers as shared resources. It was also indicated that the computer network and the CCTVs could be replayed in the Data Room of the bank whenever the need arose.

The bank had just introduced E-Zwich Cards and E-zwich Machines for Customers as at when the data were gathered in 2017.

6.1.2 Level of Digitization at The Royal Bank from the Perspective of Customers

Questionnaires were administered to 70 customers of the Bank. 26 of the customers were female (37.1%) and 44 (62.9%) were male. 51.4% of the customers had a Master's Degree, the rest had lower qualification from Bachelor's Degree to Diploma. 42.9% of the customers were between the ages of 26 to 35 years; 14.3% were between the ages of 18-25 years; and 28.6% were between the ages of 36 to 45 years and 10% were over 45 years. This shows that the Royal Bank (and the Financial System) at large has a relatively youthful customer base.

70% of the 70 customers (49 customers) had bank account with other banks and 68.6% of the 70 customers (48 customers) had stopped banking or closed their accounts with other financial institutions to be with the Royal Bank. 30.6% (15) of the customers who indicated that they have closed accounts with other banks said that they did so because of the lower customer service provided by their previous bankers and 28.6% (14) mentioned that they left their previous bankers because they had lower level of technology.

Table 2 Level of Digitalization from perspective of Customers

Level of Digitalization	Min	Max	Mean	Std. Dev.
I am able to check my TRB account details on my Phone or computer.	1	4	2.64	1.036
I am able to place orders with TRB with my Phone or Computer.	1	5	2.61	1.354
I am able to create new accounts or sign up for new services or products with TRB on my Phone or Computer	1	4	2.11	0.808
I am able to make cash deposits with TRB ATMs.	2	5	3.03	1.049

TRB websites has transactional capabilities	1	5	2.69	1.161
TRB has a functioning call center	2	5	3.74	1.337

Source: Field Study (2017)

From the table above, it shows that from the perspective of the customers, the Bank is not digitalized enough. This is quite inconsistent with the perspective of the management and employees of the Royal Bank. However, there is a plausible explanation to this inconsistency based on the responses to other questions asked: 28.6% (14) customers had left their previous bankers because they had lower level of technology, implying that Royal Bank had a relatively higher level of Technology. 15 of the customers who indicated that they have closed accounts with other banks said that they did so because of the lower customer service provided by their previous bankers. This also implies that The Royal Bank was providing a relatively higher level of customer service. The higher level of customer service is enhanced by the implementation of the Information systems. For instances, the managers disclosed that the online platform allowed customers to transact with the bank at the comfort of their homes. The conclusion drawn from the data gathered is that the customers still wanted some more advanced Information Technology.

6.2 Discussion of Findings

"Ponzi banks are banks that increase debt to pay debt. Their case is like the case of Mansa who borrowed 10GHC from Kojo at 10 per cent interest. Unable to pay back Kojo, Mansa borrows 11GHC (10GCH loan plus 1GHC interest) from Salifu to pay Kojo. Now Mansa owes Salifu 11GHC and when the time is up for Mansa to pay Salifu, again unable to pay, Mansa borrows 11GHC at 10 per cent interest from Segbefio to pay Salifu and now Mansa's loan increases to 12.1GHC. What's interesting is that, Mansa doesn't know when she will ever find the money from here own business to pay back the loans she owes and so continues borrowing from one person to pay the other until she can't borrow anymore and finally declares bankruptcy. As it stands now, the plight of many banks in Ghana are analogous to the plight of Mansa. This in so many ways explain why several banks in Ghana are collapsing" (Mohammed, 2019).

The Royal Bank received the 'New Era Award for Technology, Innovation and Quality at an awards ceremony held in June 2014, in Rome, Italy by the Association of Otherways Management Consulting Firm. It was also declared the 'Best Bank in Bank Growth' at the 13th Ghana Banking Awards. The bank was also declared a Top Emerging Brand at the Ghana Super Brands Awards in December, 2014. From the study conducted, the lenders and borrowers had much confidence in the Financial system and as such they were willing to transact with the banking industry. For instance, some customers had left their previous banks to The Royal Bank because they wanted a more advanced Information System that will enhance their banking experience. If customers left one bank to another for technological reasons, then it implies that the customers have higher confidence in their new bank's technology than their previous bank's technology. Thus, the higher the level of Management Information System, the more the confidence level of customers. Whiles the customers had built their confidence level to a peak and were expecting some advanced form of Management Information Systems, the Financial System started having a downturn. The sudden Collapse of UT Bank and Capital Bank (which were bigger banks and well known as highly advanced in Management Information System and performance) was an indicator that the Financial System is Fragile. Therefore, the lenders and borrowers were hit hard by the sudden downturn. According to Minsky's Financial Crisis Theory, the borrowers were not ready to borrower unless offered a higher margin of safety and lenders were not willing to lend unless offered a higher margin of safety. Because the Financial system was unstable, the bank could not rely much on its reserve and speculative units to meet its financial commitments. Thus, the change in cash flows, coupled with the change in capital requirement had a detrimental effect on the bank.

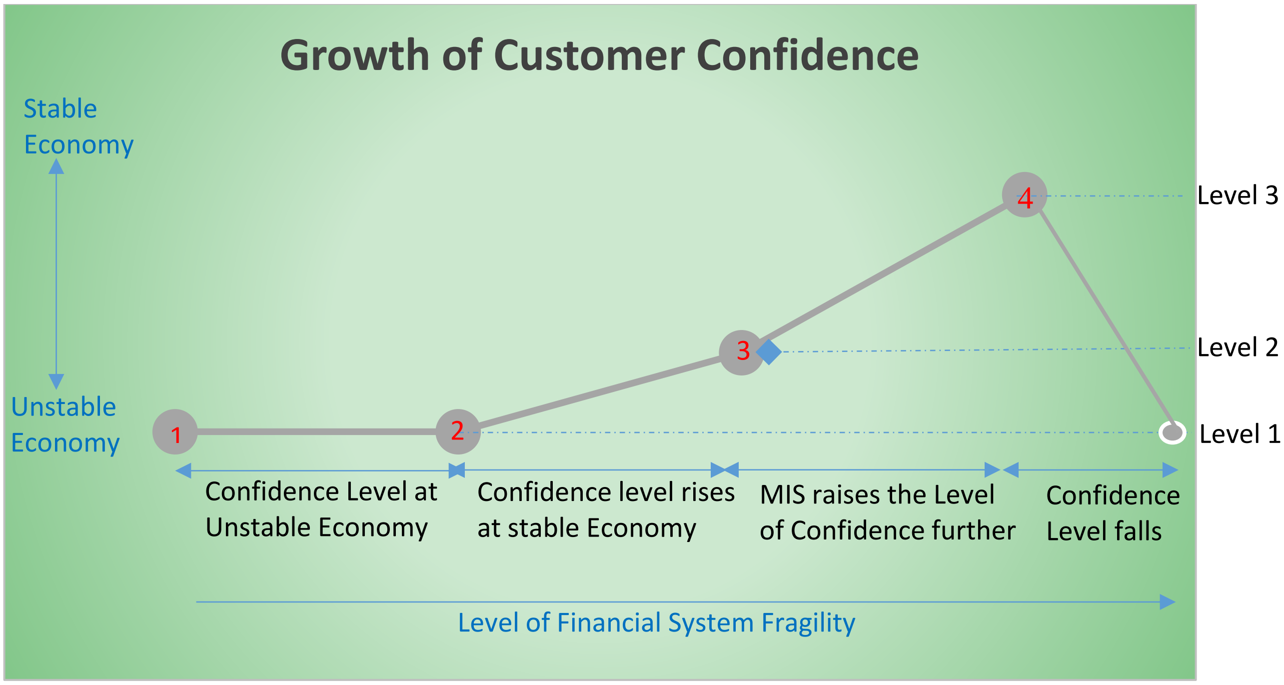
The direction of the study points to the fact that Management Information Systems, though enhance service provision and increase the level of customer service, has some devastating effects on a Fragile Financial System. This explains why the Ghanaian banking industry suffers much in this era when the adoption of complex Management Information System is a requirement for survival in the industry.

7. Conclusion and Recommendation

The study drew on Minsky's Financial Crisis theory to show that the Ghanaian Financial System is a fragile one. The Economy transits from stability to instability at various points in time. The Fragility of the Financial System has consequences on the economy at any regime it reaches. Because of the Fragile nature of the Ghanaian Financial

System, the Financial system will suffer detrimental effects at any point in time when the economy is unstable. The study has shown that at the regime when the economy is stable, the Management Information System level in the banking industry raises the confidence of lenders and borrowers very high. Figure 7.1 shows the rise and fall in the confidence level of customers in the Financial System and the level of fragility. In an unstable economic period, the fragility of the Financial System is less yet the confidence level of customers is low. When the economy becomes stable, the confidence level begins to rise from level one to level two and the fragility of the Financial system increases. At this period, the adoption of Management Information Systems increases the Confidence Level of Customers further from Level 2 to Level 3 and the Financial system becomes more fragile. External factors cause changes in capital requirement, cash flows and payment commitments and the banks begin to struggle with the payment of its obligations and commitments. Eventually, the confidence of customers falls drastically from Level 3 to Level 1. Just as a fall from a higher height has greater impact than a lower height, so is the fall in the confidence level from a higher level to a lower level. Considering the Fragility of the Ghanaian Financial system, it takes long for the system to recover from the fall.

Figure 1 Growth of Customer Confidence



Source: Author's own Construct (2019)

The raising of the Capital requirement affected the Ghanaian owned and Local banks more than the multinational banks. The study explains from the Financial Crisis theory that the local banks rested solely on the Fragile Ghanaian Financial System whiles the multinational banks had rest on less fragile Financial System due to their reliance on other stable economies. In other words, during the unstable economic period in Ghana, they are able to meet their commitments from the reserves in other stable economies whiles the local banks have no reserves to fall on. The study therefore concludes that: (1) The Ghanaian financial system is fragile and it hold s true for most developing economies. (2) The financial system suffers greatly when the confidence level of customers falls significantly. (3) Management information systems raises the confidence level of customers (borrowers and lenders) such that there is a greater fall in times of instability in the economy. (4) Management Information System adoption in a Fragile Financial System adoption indirectly contributes to the Financial Crisis of the Financial System.

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