ISTANBUL COMMERCE UNIVERSITY

GRADUATE SCHOOL OF FINANCE

MASTER OF INTERNATIONAL FINANCE

SOUTH AFRICAN AND TURKISH FINANCIAL SYSTEM DEVELOPMENT: A COMPARATIVE ANALYSIS

MA Thesis

Khadijo Ali Mohamed

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ABSTRACT

The motivation of the present study was to compare the financial system development of South Africa and Turkey. The comparison of the financial system development was done along financial institutions, financial instruments and financial regulations. The Public Interest Theory of Regulation (Pigou, 1938) and the financial intermediation theory (Rothschild & Stiglitz, 1976) provided anchorage to the study. While the public interest theory of regulation was used to underpin the variable of financial regulation, financial intermediation theory helped in explaining the whole concept of financial system development and its contribution towards the growth of the economy. The study adopted descriptive survey design focusing on South Africa and Turkey and census was used. Secondary data was collected covering a period of 10 years and the analysis was done using descriptive and inferential statistics covering independent t-test and one way Analysis of Variance. From the results, there is significant difference between the Turkish and South Africa financial market instrument. There is no significant difference between Turkish and South Africa financial regulation. The study recommends that the senior managers of the commercial banks in Turkey and South Africa as well as the insurance firms should invest more resources in salesmanship so as to increase market presence and thus more penetration and market depth.

Key Words: Financial system development, Financial institutions, Financial instruments and Financial regulations, South Africa and Turkey

ÖZET

Bu çalışmanın amacı, Güney Afrika ve Türkiye'nin finansal sistem gelişimini karşılaştırmaktı. Finansal sistem gelişiminin karşılaştırması finansal kurumlar, finansal araçlar ve finansal düzenlemeler üzerinden yapılmıştır. Düzenlemenin Kamu Çıkarı Teorisi (Pigou, 1938) ve finansal aracılık teorisi (Rothschild ve Stiglitz, 1976) çalışmaya demir attı. Kamu yararı düzenleme teorisi finansal düzenleme değişkeninin temelini oluşturmak için kullanılırken, finansal aracılık teorisi, finansal sistem gelişimi kavramının tamamını ve ekonominin büyümesine katkısını açıklamaya yardımcı oldu. Çalışmada Güney Afrika ve Türkiye odaklı betimsel anket tasarımı benimsenmiş ve nüfus sayımı kullanılmıştır. 10 yıllık bir dönemi kapsayan ikincil veriler toplanmış ve analiz, bağımsız t-testi ve tek yönlü Varyans Analizini kapsayan tanımlayıcı ve çıkarımsal istatistikler kullanılarak yapılmıştır. Sonuçlardan Türkiye ve Güney Afrika finans piyasası aracı arasında önemli bir fark var. Türkiye ve Güney Afrika mali düzenlemeleri arasında önemli bir fark yoktur. Çalışma, Türkiye ve Güney Afrika'daki ticari bankaların üst düzey yöneticilerinin yanı sıra sigorta şirketlerinin pazar varlığını ve dolayısıyla daha fazla penetrasyon ve pazar derinliğini artırmak için satıcılığa daha fazla kaynak yatırması gerektiğini önermektedir.

Anahtar Kelimeler: Finansal sistem geliştirme, Finansal kurumlar, Finansal araçlar ve Finansal düzenlemeler, Güney Afrika Ve Türkiye

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
BRICS	Brazil, Russia, India, China and South
CEE	Central and Eastern Europe
EU	European Union
GDP	Gross Domestic Product
IMF	International Monetary Fund
JSE	Johannesburg Stock Exchange
NBFIs	Non-Bank Financial Institutions
PWC	Price Waterhouse Coopers (PWC)
REITS	Real Estate Investment Trusts
SPSS	Statistical Package for Social Sciences
USD	United States Dollar

CHAPTER 1
INTRODUCTION TO ANALYSIS OF FINANCIAL SYSTEM DEVELOPMENT

1.1 Background to the Study

A financial system is made up different actors, instruments, markets and institutions that collaboratively work together within an economy for provision of financial services. Financial system development is manifested in the efforts to enhance the level of efficiency of the financial sector, increasing the range of products, strengthening the available financial regulations and enhancing accessibility to financial products in the population (Arestis, González-Martinez & Dejuán, 2016). Through financial system development, the poor are able to borrow and make investment in assets that would enhance their incomes and this would generate more employment while reducing the poverty levels across the world. Financial system development helps in mobilization of savings that can be used to funding investments while lowering the costs of transaction (Banerjee & Majumdar, 2017).

Financial system development is established in the process where the financial markets, instrument and institutions seek to grow so as to be able to sustain large amount of investments. Financial system development can be regarded as the efforts made to develop the stability, efficiency and size of the financial markets coupled with the need to increase the accessibility to the financial markets (Castelli, 2018). Financial system development is an important factor that drives the growth of the economy since savings are channeled towards the development of the economy, reduction in information costs which allows for optimal allocation of capital assets. Financial system development is the foundation of technological innovations and risk management including the need to diversify and hedge against risks (Zangirolami-Raimundo, Echeimberg & Leone, 2018).

Sustainable economic growth is an emerging practice among different economies around the world and evidence indicates that it is supported by financial system development. These views are echoed by Paun, Musetescu, Topan and Danuletiu (2019) who shared that a developed financial system promotes sustainability in the growth of the economy. Apart from sustainable economic growth, financial system development is also regarded as a key

factor in reduction of poverty. This assertion was confirmed by Khan, Khan and Ahmad (2011) who noted that who covered the banking sector, the insurance firms, stock and bond markets as aspects of financial sector development revealing an inverse relationship. In operationalization of the variables, the asset of the central bank against the gross domestic product (GDP) was used to represent banking sector, non-life insurance was used to represent the insurance sector, market capitalization against GDP was used to represent the bond market (Khan *et al.,* 2011).

While covering a data base of 65 developed and developing economies over a period of 1960-1999, Mavrotas and Son (2006) noted that development in the financial sector is linked with the growth of the economy. In Germany, Seibel (1996) argued that majority of the developing economies have relied on regulation of financial sector as a strategy towards financial development. Da-Silva (2002) shared that highly developed financial systems have implications on information asymmetry and the transaction costs. Castelli (2018) covered 87 countries that bring out the degree of financial development in each of the country with focus on three measures; stability, depth and access. The measure of access was banks for every 1000 adult individuals, the total private credit to GDP represented depth and non-performing loans against gross loan measured stability.

While focusing on Central and Eastern Europe (CEE) countries, Cojocaru, Falaris, Hoffman and Miller (2016) shared that they had poorly developed financial systems because they were operating under communism. Guru and Yadav (2019) focused on Brazil, Russia, India, China and South (BRICS) within the period of 1993 all through to 2014 where the banking and the stock markets were the two indicators of financial system development that the study focused on. The value of traded shares and the domestic credit that has been extended to the private entities were used as proxies of stock market development while the size of the financial intermediaries and credit as a ratio of deposits were used to measure the banking sector (Guru & Yadav, 2019). Another related study by Kaur, Yadav and Gautam (2013) also focused on BRIC countries argued that developed financial systems have an influence on attraction of foreign investors in the economic system. The study used stock market and the banking sector as the measures of financial system development.

In Turkey, Akyüz (1990) focused on the financial policies and systems during the period of 1980s, arguing that there was a high level of repression of the financial systems of Turkey some years before 1980. The key features of financial repression during this period included ceiling the lending and deposits rates, rationing of credit, high level of taxation financial transactions and income, high requirements for reserve and liquidity, poorly developed capital markets and high barriers for new banks. In response to these challenges, Özatay and Sak (2002) focused on the financial reform process in Turkey that was initiated in 1980 arguing that they deepened the financial systems in place. Cetin (2016) focused on Turkey using banking sector as a measure of financial sector development within the pe riod of 1999 all through to 2011.

In Africa, Dauda and Makinde (2014) focused on Nigeria sharing that the credit advanced to the private sector by financial institutions have not significantly helped to reduce poverty. Another related study in Nigeria was conducted by Lawrence, Moni and Eikhomun (2014) where the indicators of financial system development that were covered include stock market with the proxies covering the market capitalization and the value of traded shares. Puatwoe and Piabuo (2017) focused on Cameroon with the indicators of financial system development covering the total deposits to the GDP, broad money and the domestic credit that has been extended to private businesses. The study done by Ndlovu (2013) in Zimbabwe arguing that financial system development is a product of modern financial instruments and the capital markets in the economic system. Kyale (2015) used a case of Kenya where four indicators of financial system development were covered including exports, liquid liabilities, accumulation of capital stock and labor. In Egypt, Elsayed (2013) used the stock market and banking sector as the indicators of financial system development.

In South Africa, Odhiambo (2014) used the commercial banks and stock markets as the measures of financial system development with the related proxies covering stock market turnover, value of traded stock and market capitalization with credit advanced by the banks to credit sector representing the banking sector development. While focusing on the period from 1976 all through to 2014 in South Africa, Muyambiri and Odhiambo (2018) used banking sector and stock market as measures of financial system development. Abel, Nyamutowa, Mutonhori and le-Roux (2019) used the indicators of financial development to

include money supply. According to Muyambirib and Odhiambo (2018), South Africa has a financial system that is well organized and highly developed. By the year 2014, the South Africa Financial Sector Development and Reform Program (FSDRP) was launched by the Swiss State Secretariat for Economic Affairs (SECO) aimed at supporting the government of South Africa in strengthening the financial system in place.

1.2 Research Problem

South Africa and Turkey are two countries operating in different geographical continents and in different stages of development. While the International Monetary Fund (IMF) classifies Turkey as an emerging economy, the CIA World Factbook considers Turkey as a developed Country (IMF, 2018). From 1999 to 2001, there was an economic crisis occasioned by challenging external environment and economic shocks that adversely affected the financial system development of Turkey. This crisis was countered by the IMF stabilization program of 2000-2001. South Africa has a relatively large and sophisticated financial system with key players covering the banking institutions, insurance firms and the stock market. The assets of the financial sector account for 298% of the overall GDP, which is relatively above the emerging economies (World Bank, 2019). The comparison of GDP in South Africa and Turkey is as shown in Table 1.1. The banking sector is dominated by four strong players covering ABSA, FirstRand, Nedbank and Standard Bank Group. Most of the bank liabilities in South Africa are domestic with a high degree of concentration in the financial sector. The aforementioned banks have strong affiliation with the insurance firms in South Africa. South Africa has a relatively larger capital market receiving significant support from the Non-Bank Financial Institutions (NBFIs). There is a larger derivative stock market in South Africa that allows the investors to hedge against fluctuations in exchange and interest rates. A detailed comparison of South Africa and Turkey is well presented as summarized in Table 1.1.

Table 1.1: Comparison of Financial System Development in Turkey and South Africa

Feature	Countries	
	South Africa	**Turkey**
GDP	351.4 Billion USD (2019)	761.4 Billion USD (2019)
Size of Banking Assets	420.5 Billion USD (2019)	756B Billion (2019)
Total loans	281.277 Billion USD Dollars (Oct, 2020)	399.263 Billion USD (JAN. 2020)
Equity Market Capitalization	891.740 Billion USD (Oct, 2018)	184.97 Billion USD (2019)
Total customer deposit	275.574 Billion USD (Sept, 2020)	423.261 Billion USD (Jan, 2021)

Source: World Bank Group (2020)

It is against this background that the current comparative study is seeking to gain further insight into the financial system development of South Africa and Turkey with a focus on financial institutions, financial market instrument and financial regulations.

1.3 Research Objectives

The study was guided by one general and three specific objectives as enlisted in subsequent sections:

1.3.1 General Objective

The general objective of the study is to compare the South Africa and the Turkish financial system development.

1.3.2 Specific Objectives

The study was guided by the following specific objectives

i. To compare the Turkish and South Africa financial institutions
ii. To compare the Turkish and South Africa financial market instrument
iii. To compare the Turkish and South Africa financial regulation

1.4 Research Hypotheses

The study was guided by the following hypotheses:

H_{01}: There is no significant difference between the Turkish and South Africa financial institutions

H_{02}: There is no significant difference between the Turkish and South Africa financial market instruments

H_{03}: There is no significant difference between Turkish and South Africa financial regulation

1.5 Significance of the Study

The regulator agencies of the respective stock markets in South Africa and Turkey would be relying on the findings of the study to strengthen the stock markets in the industry. All these efforts would contribute to the overall growth of the economies of Turkey and South Africa. The study would contribute towards the existing literature and knowledge on financial system development. Future scholars carrying out relate studies would be able to review the literature of this study. The study would contribute to the existing theories on financial system development.

1.6 Scope of the Study

This would be a comparative study focusing on financial system development of Turkey and South Africa. The two countries would be selected because while Turkey is transcontinental (occupying Asia and Europe continents), South Africa is in the continent of Africa with one of most advanced financial systems in the continent. Thus, combination of these features was found to be relevant in selecting Turkey and South Africa as the case study. The study relied on secondary data collected through data collection sheet over a 10 year period (2010-2019). The data was collected from World Bank report, IMF reports, relevant publications and reports from Central banks in Turkey and South Africa and the data was collected on an annual basis.

1.7 Chapter Summary

This chapter provides the background information on the study with the statement of the problem and the objectives as well as hypotheses. The significance and scope of the study are also detailed in this chapter. The next chapter is a review of the literature relevant to the current inquiry including the theories and the past empirical studies.

CHAPTER 2
THEORETICAL, CONCEPTUAL AND EMPIRICAL REVIEW ON FINANCIAL SYSTEM DEVELOPMENT

2.1 Introduction

This chapter is set out to review literature on the theories that guided the study. The past empirical studies on financial system development are also reviewed in this chapter. A critique of the reviewed studies is provided showing the knowledge gaps to be filled by the present study.

2.2 Theoretical Review

This section is set out to review literature on the theories that informed the study. The two theories reviewed in this chapter include financial intermediation and public interest theory of regulation.

2.2.1 Financial Intermediation Theory

The study was guided by financial intermediation theory whose proponents include Akerlof (1970), Spence (1973) and Rothschild and Stiglitz (1976). The theory seeks to explain the role played by financial systems in an economy. The main reason for existence of financial intermediation is the need to counter the issues related with agency and information asymmetry (Gurley & Shaw, 1960). Lack of financial intermediation would increase information asymmetry hence resulting into market imperfections and ultimate rise in transaction costs.

The various actors of financial systems (institutions and markets) like the stock and bond markets play a role in promotion of economic efficiency through mobilization of funds from those people who lack productive utilization to the individuals who require those funds (Wishlade, Michie, Robertson & Vernon, 2017). This explains the role played by a highly developed financial system towards the growth of the economy. Different undertakings in the financial systems have direct link with personal wealth and business behavior. Financial

systems have direct effect on long term growth as they help savers to pool funds that are allocated to investments attracting higher returns (Edmans, Goldstein & Jiang, 2012).

The theory is established on the basis of the existence of imperfections in information whose origin dates back to 1970s. The existence of financial intermediaries is justified on ground that they help in reduction of the costs of transaction and information access which are shaped by asymmetries arising between those borrowing and those lending. Thus, the essence of the financial intermediaries is to help in sound operationalization if markets and the key issues that shape the amount of credit facility that is channeled via the use of intermediaries. The existance of financial intermediaries is explained by two views: the first view places emphasis on the role that intermediaries play in providing liquidity. The second view offers an explanation of the role that intermediaries play in transformation of risk attributes and features of the assets in place. In the two views, the role of the financial intermediaries is to lower the costs realized in wiring of the funds between the individuals who are borrowing and those who want to lend. This helps in strengthening the level of efficiency in allocation of the facilities and resources.

An analysis of the efforts to provide liquidity by banking entities was done by Diamond and Dybvig (1983). It noted that the manner in which banking entity is run can cause severe economic concerns, since there are circumstances when the relatively larger institutions are likely to fall out and collapse. It was shown that banking entities are sometimes exposed to vulnerabilities that have sparked a debate with respect to prudential regulations. It is important for the bank to stay with the prudential regulations so as to safeguard the deposits of the clients. One of the highly held assumptions is that commercial banks are not able to select risks in their different portfolio and thus being a lender of the last resort, the central bank is able to offer similar services related with insurance of deposits. However, in case there exists a tradeoff between optimum risk and relevant incentives for choice of the portfolio, the credibility of the lender of the last resort will diminish compared to that of a deposit insurer. If the lenders of the last resort were always needed in bailing out banking entities facing challenges with respect to their liquidity, it would be clear for banking entities to ensure that they take part in risky decisions. On the other hand, deposit insurance is

commitment that is so binding to the parties that can be retained to cushion the banking entity in case it collapses.

The essence of financial intermediaries is to ensure that risk attributes of the assets have been transformed since they are able to be cushioned against failures in the market and deal with issues related with asymmetry of information. Within the credit markets, asymmetry of information arises because the borrowing bodies are well versed with their projects for investment as compared to the lending entities. Thus, financial intermediaries have greater probability of lending to the borrowers having relatively higher risk. Asymmetry of information arises from the time when the borrowing bodies are able to have observation of the returns of the projects especially after the end of the project. This creates a moral hazard problem in an entity. In essence, moral hazards arise from the point when the borrowing bodies are involved in actions that bring down the chances of repayment of the loan facility. Good example of moral hazard is where the owners of the entity ensure that funds have been siphoned (either by legal or illegal means) to their own largely through loss making contracts. According to Diamond (1984), the key reason as to why financial intermediaries exist is to diversify the portfolio held. Thus, the theory provided information on the role played by the various actors of financial system in an economy.

2.2.2 Public Interest Theory of Regulation

It was Pigou (1938) who advanced this theory and it argues that the regulations of the government are created to respond to the demands of the public so that there is possibility for rectification of the failures within the market through imperfect competitive pressure. The assumption guiding this theory is that the outcomes of the market are used to gauge the degree of failure and the market is not well positioned in fixing the key issues and concerns. It is only when the government has fixed some concerns that an optimal outcome with greater efficiency is created. Furthermore, the resultant benefits should be more above the associated costs.

The theory operates on the assumption that the regulatory regime strive to ensure there is a high degree of efficiency economically. The theory further argues that regulations need to be instituted by the government as all the individuals including those working in the public

domain are driven by their selfish interests. The theory has been used to provide information on what needs to be carried out by the government as well as detailing the actions that are carried out to offer justification of the desired growth in ownership of the public. The theory provides information on why the government plays a central role in regulating some of the deliberations within an economic system.

The theory provides a discussion of the role played by the State in strengthening the welfare of the citizens while correcting the failures within the market. A market failure can also be regarded as undesired practice within the market. At inception, the theory makes an assumption that regulations seek to ensure that the entire society derives benefit as opposed to some few interested individuals within the economy. As opposed to representing the interests of the privately established investors, the regulator seeks to ensure that the interests of the society have been well represented. In most cases, there may exists some specific groups that are likely to capture the degree of control of the agencies responsible for regulating the economy so as to ensure that only their selfish interests are advanced.

The theory largely focuses on public goods that the citizens or some groupings would derive some benefits. Under this theory, regulations of the banking sector do exist to enhance the benefits of the depositing and investing agencies. Stiger (1972) shared that it is possible to capture regulations especially by incumbent firms so as to ensure the market is protected from entry of the competitors. Pigou (1932) shared that asymmetries of information, monopoly power and externalities provides a strong hand to support the efforts of the government so as to ensure the social welfare of the people is maximized.

The theory experienced recognition and growth in 1930s due to the increasingly turbulent needs of the market. However, this theory has received some criticisms on account that it is not able to account for public goods, it provides unrealistic description of the attributes of the regulating agencies. The theory argues that regulations are required by entities to exist and perform better. The theory provides a description of the State as an omnipresent entity and its role is to ensure there is maximization of the social welfare of the people. This is largely done so as to provide correction of the failures in the market. The theory was used to espouse and support the variable of financial regulations. The implication of this theory to

the study is that financial regulations exist so as to rectify the imperfections within the market.

2.3 Financial System Development

Financial system development is a multi-dimensional term that describes a range of issues including improvement in competitiveness and efficiency of the entire sector, increased range of the available financial products and diversification of the available institutions. A highly developed financial systems leads to more capital accumulation, increased hedging and diversification of the saving options besides increasing the insurance services in place. This section will review literature on financial system development paying attention to three measures: institutions, instrument and regulations in the subsequent sections. Financial system comprises of different actors include insurance firms, stock markets and the commercial banks among other institutions (Hasan & Zhou, 2008). Financial development implies that these institutions are large enough to allow larger firms to access finances and ensure that savers have diversified their risks (Valentine, 2014). Highly developed financial systems enhance the mobilization of savings which are allocated to the projects that earn relatively higher returns to the investors (Arestis, González-Martinez & Dejuán, 2016).

Financial system development is established in the process where the financial markets, instrument and institutions seek to grow so as to be able to sustain large amount of investments. Financial system development can be regarded as the efforts made to develop the stability, efficiency and size of the financial markets coupled with the need to increase the accessibility to the financial markets (Castelli, 2018). Financial system development is an important factor that drives the growth of the economy since savings are channeled towards the development of the economy, reduction in information costs which allows for optimal allocation of capital assets. Financial system development is the foundation of technological innovations and risk management including the need to diversify and hedge against risks (Zangirolami-Raimundo, Echeimberg & Leone, 2018).

Odhiambo (2014) used the commercial banks and stock markets as the measures of financial system development with the related proxies covering stock market turnover, value of traded stock and market capitalization with credit advanced by the banks to credit sector

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The banking and the stock market sector are the key indicators of financial system development in an economy. The proxies of banking sector development include financial depth (liquidity liability of banks against GDP), bank size commercial bank assets (ratio of commercial bank and central bank asset) and credit against deposit ratio (measures financial stability) (Bougheas & Falvey, 2009). For stock market, the common indicators include the stock market size (value of listed shares against GDP), the value of traded shares (value of traded shares against GDP) and turnover ratio (value of traded shares against real market capitalization) (Levine & Zervos, 1998). As noted by Pill and Pradhan (1995), standardized measures of financial system development like broad money against GDP and real interest rates may give misleading and inconsistent results. Thus, the best way to measure financial system development is to consider its key components (bond and stock markets, insurance firms and the banks).

2.3.1 Financial Institutions

The World Economic Forum (2012) defines financial development as the institutions, regulations and factors that enhance the efficiency of the intermediation and effectiveness of the financial markets. In assessing the size of the financial intermediaries, several measures were used by King and Levine (1993) including the liquid liabilities against GDP, credit advanced to credit entities against GDP, asset of commercial banks against sum of bank and central bank assets combined. Demetriades and Hussein (1996) used the bank deposit liabilities against GDP in measuring size of the financial intermediaries. Huang (2005) provides the measures if stock market to include turnover, total value traded and the market capitalization. Antzoulatos and Thanopoulos (2008) advanced a more structured index of measuring financial development determined as a weighted index bond markets, stock market, financial institutions and banks. In measuring banking development, the deposits

were determined against GDP, the development of non-banking financial institutions was measured by non-life and life insurance premiums. For stock market, the market capitalization against GDP was used while bond market was pegged on private bond market capitalization against GDP.

A study was conducted by Adams, Füss and Gropp (2014) on the spillover effect within financial entities. The study measured financial institutions into four variables: insurance entities, hedging funds, investment and commercial banks. The study noted that much of transmission of shocks arise from hedge funds to other financial institutions. Banks and non-banks are important institutions of the entire financial system in an economy. Banks are extremely important to savers and borrowers within the economy since they facilitate allocation of credit. Non-banks include the insurance firms, the investment firms, pension funds, mortgage firms, asset managers and dealers including brokers. These institutions are not able to accept demand demands even though they avail a number of financial instruments to clients. When non-bank institutions lend to the public, it does have an effect on supply of money within the economy. These non-bank institutions carry out operations by borrowing a lower rate over short term and lending at a relatively higher rate over long term (Diamond and Dybvig, 1983). The growing competition between bank and non-bank entities further enhances the development of the financial system.

The study conducted by Wu, Hou and Cheng (2010) relied on evidence from the European Union (EU) covering a total of 13 member countries within the period from 1976 all through to 2005. The study operationalized financial institutions to cover banking and stock markets. The study noted that development of these institutions positively impacts on the growth of the economy. A similar study by Jurek (2014) also covered the EU members to bring out the different financial institutions and their related impact and role on stability and performance of the real estate sector. Some of the financial institutions that were noted by the study include the banking sector, the stock markets and the insurance firms.

In China, there are two broad classifications and categories of financial institutions; the bank and the non-bank financial entities. Within the sector of banking, there are three key policies of these entities with key focus on loans. There are 15 banking entities from which four of them are established by the State. There are about 11 regional as well as national banks and

Bank of Communication happens to be the largest one. Within the non-banking entities, there are investment and trust firms. While the banking entities are organized with some hierarchical ordering, non-banking entities in most cases do follow high degree of decentralization. It is on the basis of their sizes that there is hierarchical ordering of the banking entities. A good example is the Industrial and Commercial Bank of China, which is believed to be among the largest State banking entity having an approximated number of branches of about 37,039 of them. Within the entire country, the total credit entities add up to about 50,745 of them.

There exist differences between the banking and non-banking financial entity. The first difference stems from the fact that they have different scopes geographically. Unlike the non-banking entities, banks have a relatively wider scale and scope of operation. In China, majority of the banking entities are regionally or nationally established with some of them operating on an international scale. On the other hand, a non-bank entity has only its presence within one province. The second distinction stems from the fact that banks are largely driven by the forces of technologies. Banking entities operate by leveraging on different technologies like automated teller machines. Furthermore, the salaries that are paid by the banking entities to the staff are relatively high especially to the new entrants within the job industry including the graduates on any given field of specialization like finance. As such, there are higher chances for the banking entities to ensure that they attract and retain highly competent and qualified staff to carry out the required activities of driving realization of the goals. The other distinction stems from the fact that large branches of the banking entities may derive benefit from expert systems of credit facilities. With emerging economies, the banking entities may derive benefit from sound organizational structures as this helps in bringing down the costs of asymmetrical information (Boyreau-Debray, 2002).

Following Boyreau-Debray (2002), the size of the bank at the province level was constructed, where the size of the bank was pegged on the ratio of savings within the system of the banking against the overall value of gross national income within an economy. The size of the banking entity is used to reflect and gauge the depth of the financial markets within the banking sector. The credit of the bank is an important indicator within the sector, this is gauged on the basis of the entire credit that banking entities advance their customers as a

proportion of the entire GPD of the economic system. This is an indicator that is used to gauge the credit that is provided by the local banking entities as a proportion of the GDP within an economic system. Such credit is used to develop and grow the economy of the country as a whole. The other indicator is bank concentration, determined by the Herfindahl-Hirschman Index (HHI). The indicator is determined on the basis of the share of the market within the market of deposits. Before the coming of the year 1980, China had 3 banking entities where every of these entity enjoyed diverse segment of the deposit market. However, after 1984, there was an increase in the banking entities where the entities started facing competition with respect to their deposits with the authority of the central government (Boyreau-Debray, 2002.

2.3.2 Financial Market Instruments

The term financial market is viewed as a platform that allows individuals to ensure that they are able to trade in financial securities and other related commodities covering relatively lower costs of transaction while ensuring that the price covers the level of demand and supply in the market. Securities cover the bonds and the stocks while commodities cover highly regarded metals as well as agriculturally established products. Financial markets ensure there is efficient flow of investment and savings within the economy in such a way that ensure there is optimal flow of capital within the economy. The accumulated capital goes in production of the required goods and services that ultimately contribute towards the growth of the economy as a whole. Existence of well-developed financial institutions and markets and diversified financial products ensure that borrowers have different options to select hence the overall growth of the economy as w whole. Relatively larger financial markets with different trading activities enhance the level of liquidity for the participants in the market as compared to the markets that are thinner where the available securities are limited. This also limits the choice of the investors who may be willing to trade in shares within the market.

There are different instrument that are exchanged in the financial market covering the debts, equities (securities) and derivatives (Lutsyshyn, Klapkiv, Kucher & Svirskyi, 2019). Financial markets fall into different categories covering stock markets, money markets and commodity markets among others. The key players in the financial markets include the

suppliers of capital, intermediaries and the users of capital. The instruments in the capital markets include the debts and equities. Bonds can cover a medium term to long term perspective (Mirazizov, Radzhabova, Abdulaeva, Rasulov, Faizulloev, Mamatkulov & Ahmadov, 2016). According to Martin (2014), financial market is entities that enhance the exchange of financial assets for instance loans and deposits, government and stock securities and they include the stock and the money markets. Unlike the capital market, the money market deals with financial assets of short term horizon like commercial papers, certificates of deposits, treasury bills among others.

2.3.2.1 Money Market Instrument

Ndugbu and Ojiegbe (2016) focused on Nigeria to bring out the money market instrument and their link with performance of the banks. The variables covered include treasury bills, commercial papers and government bonds and these were seen to positively contribute towards ability of the banking entities to perform. On the contrary, the banker's acceptance and performance were inversely linked with each other. Focusing on East Africa, Odunga and Ayoyi (2016) looked at financial markets and their role towards the growth of the economy. The financial markets were represented by money markets, bond markets and stock markets. It was noted that financial markets link with foreign markets for the growth of the economy.

The Africa Financial Markets Index for 2017 and 2018 report by Absa Group ranks South Africa as the most developed financial market in Africa. At the same time, the African Capital Markets Watch 2018 report prepared by the PriceWaterHouse Coopers (PWC) rank South Africa as one of the active capital markets across the world. This is because South Africa has strong financial infrastructure with strong regulatory and legal framework. The capital market of South Africa is made up equities (the Johannesburg Stock Exchange, JSE), which is the largest market in the entire African continent having above 400 listed entities and market capitalization of USD. 13.7 trillion. The other instruments within the capital market of South Africa include bonds, derivatives that facilitate trading in agriculture commodities, equities, and interest rate and currency derivatives. There is also the real estate investment trusts (REITS), with South Africa having the well-established and largest market across Africa. The key issues that have allowed South Africa to establish a strong capital

market include the fact that progressive policies have been established, promotion of financial inclusion and investor education and leveraging on technologies. In order to improve financial regulation, South Africa has separated the role of the regulator performing prudential supervision and the one that carry out market conduct supervision (African Capital Markets Watch, 2018).

Money market is a component of the financial markets that has higher level of liquidity coupled with assets taking a shorter time horizon. The participants in the money market do borrow or lend at a relatively shorter time horizon covering a number of days to different years. The instruments within the money market include treasury bills and commercial papers well as repurchase agreements. Money markets ensure that the individual with funds are provided with an avenue of sale short term and liquid investments while borrowers are able to access funds at a relatively lower cost (Ross. 2004). Money market is a general term that comprises of different types of markets that portray variations in terms of the needs of the lending and borrowing entities.

Across the region of East Africa, money market has played a key role in promoting resilience and growth while spurring the growth of the economy as a whole. This is especially evident with the rise of information and communication technology arena for the instance the issue of electronic banking. Technology has revolutionized the way banks carry out their process and activities. For instance, M-pesa with its roots in Kenya is striving to ensure it overtakes other different avenues and forms of transactions of money within the east Africa region as whole.

Money markets are recognized because they facilitate exchange of the securities taking a shorter time horizon. Such securities are easily converted into cash forms with ease. The key example of money markets includes the mutual funds and commercial papers. The money markets are made up of relatively larger share of the financial entities across the region of east Africa as a whole. There exist differences on how some of the instrument in the money market is trade. The highly familiar instruments within money markets in east Africa is bank deposit and these are not regarded as securities. Depositors that are lending money to the banking entities focus more on credit worthiness besides any programs that are funded and

sponsored by the government which strive to ensure they insure the deposits of the banks. The loan facilities transacted across different banks do not have security and thus lenders are largely informed by the level of credit worthiness of the borrowing agencies.

Money market is one of the safest avenues for making investments, since the securities in it mature after a shorter period of time. Good example is the Treasury bill that is the safety alternative for investing in. Most of the markets for these treasury bills are deemed to be deeper and highly liquid with well-established laws to guide trading. It is possible for the investor to leverage on the treasury bills in settling up any pending transaction. There are some treasury bills that are issued through electronic form and they can easily be converted into cash. The other component of the money market is the repos that have competitive interest rate for the sake of borrowing and for lending on a shorter time horizon of not over two weeks or even overnight. There are some cases where a security is sold by the borrower for some cash and enters into an agreement to purchase it back at a specified time horizon. There is a security at the bottom of the transaction that act as collateral for the lending entity. Repo markets are very important, especially when selling is done on s shorter time horizon. There are also the money market mutual funds, seen as securities that firms offer as they make investment in other instrument within the money markets for instance the commercial paper or the T-bills or even the certificate of deposit. In some areas, most of the money markets are regulated just like other investment entities. Most of the money market mutual funds attract low risk return over a shorter time horizon to the institutional as well as retail investors.

The other component of the money market is the dysfunctional markets; these are not simple and plain. Examples of these markets include the asset backed commercial papers. As compared to the normal commercial paper, the asset backed one ensure that a special purpose enterprise has been established which help in purchasing the illiquid asset from the entity. Most of the activities within the financial sector are done within the secondary financial markets. These are markets that allow for trading of the securities among investors without the need for flow of capital.

2.3.2.2 Stock Market

The basic definition of a stock market is that it is a financial entity that boosts formation of capital and enhancing the degree of competencies in allocation of capital. Through the stock markets, the private entities and the government is well placed to ensure that new projects have been financed while strengthening any commercial concerns. Osinubi (2007) shared that it is important to provide resources in capital form to the entities especially when such entities have the required capacities to raise the overall level of production. The development of the stock market is an important aspect for any economy to grow. In fact, the development in the stock market is seen to have a direct link with the growth of the overall economy. The stock markets play a role in ensuring there is supply of debts covering a long term horizon. It also seeks to ensure that adequate capital is continuously in place for the development of the economy.

In real sense, the actual role of the financial markets arises from the information related function of the prices in the market. It is important to provide a new definition of price efficiency so as to make relevant decisions. Any stock market always strive to provide the secondary markets for the investors and other financial entities, empirically, stock market has been shown to enhance the growth of the economy as a whole. There are some costs that are incurred when seeking to mobilize the savings and these costs be relatively larger which may support the ability to invest in technologies that are said to be dynamic. The available information from past inquiries indicates that the stock market has significantly predicted the growth of the economy as a whole. In fact, the stock market has been seen as one of the forces behind direct investme4nts within an economy. Stock market seeks to provide the secondary market to the investors who may wish to invest more and thus generate more profits.

2.3.2.3 Bonds

Bonds are other components of the financial market instruments that are needed for supporting of long term investment projects. The development of the financial markets plays a role in ensuring that all the domestically established savings have been expanded so that they can be used to support the development of the economy. The established investments

can help in widening the number of jobs that are available while growing and developing the overall economy of the country. In Africa, equity markets are relatively small listed entities characterized by a low level of liquidity. On the other hand, the bond market has some attributes including low level of benchmark on how to provide the price for the securities. The level of liquidity for the bond market is low while the regulatory framework is still rigid.

In the year 2008, there was financial crisis that made it hard to obtain loan facilities. Different countries across east Africa have explored ways of how to raise capital for the sake of the development projects. It has been argued that bonds help in supporting the growth of the economy by supporting projects related with infrastructure. In most countries especially in Kenya, capital markets have not fully developed coupled with low regulatory structures to raise the level of confidence of the shareholders and investors ion the entity. Presently, absence of well-established bond markets would slow down the growth of the economy to some degree. The rise and growth of the firms that are so innovative is largely pegged and informed by the equity market.

Presently, high tech entities are the key drivers of the structural and economic changes within the country. This helps in maintenance of potential at the country level while giving the economy a long term, growth perspective. Financial markets helps in shaping and supporting the competitive pressure and positioning of the firms and the country at large. There are always emerging markets for the growing and the relatively younger firms and financing through the use of equities is of essence to these entities.

2.3.3 Financial Regulation

Strong financial regulations are important for stability and resilience in the financial system. This assertion was supported by Boissay, Cantú, Claessens and Villegas (2019) who noted that enhancing the strength of the financial regulations increases the long term capital stock within the economy. Shaddady and Moore (2019) used a total of 47 countries to bring out the role played by supervision and financial regulations on stability of the banking industry. The study period of consideration was 2000 all through 2016. It was noted that increased capital regulations enhance the stability of the bank. On the other hand, too much supervision

with tight restrictions and deposit insurance would adversely affect stability of the banking system.

Killins, Johnk and Egly (2019) focused on policy certainty of the financial regulations and their link with riskiness and profitability in the banking entity. In total, 4,760 banking entities were covered within the period of 2000 all through to 2016. The inquiry noted that uncertainty in the financial regulation policies is inversely linked with profitability of the banking entities. Banerjee and Majumdar (2017) focused on the financial regulations and their link with efficiency of the banking entity with emphasis on United Arab Emirates. Financial regulation was represented by loans to deposit ratio, loan loss provisions and total capital adequacy provisions.

Shaddady and Moore (2019) covered 2210 banking entities from 47 EU members to link financial supervision and regulations with stability. The inquiry focused on the time period from 2000 all through to 2016. It was noted that more financial regulation enhances the stability of the banking entities. The study conducted by Manamela (2012) looked at financial regulation and its link with the growth of the economy covering Asia, America and Africa. From trend analysis, financial regulation was found to have desirable outcomes on the growth of the economy. To measure financial regulation, the study used financial freedom index. The study noted that financial regulation contributes towards the growth of the economy. Makokha (2016) used a case of Nairobi to link between some identified financial market regulations and financial performance. The variables of interest covered by the study included capital requirement and liquidity management and a significant relationship was noted.

Existence of strict capital requirements in the financial system would increase the level of competition for loan forcing the banks to increase the interest rate hence increasing the profits of the institutions (Pébereau, 2015). Capital requirements may allow banks to maximize their values through enhancement of the confidence of the investors while enhancing the reputation of the banks. Supervision is an effective mechanism of overcoming market failure occasioned by information asymmetry (Limodio & Strobbe, 2016). Sound supervision had potential to improve the level of efficiency within the banking industry while allowing banks to counter any constraints likely to impact on performance (Macey, 2012). Financial

regulations have the potential to reduce credit risk shown through reduced information asymmetry between the financial institution and the borrowers. Financial regulations call for deposit protection that provide buffer within the financial system (Borrius, 2012).

The definition of the term capital is informed by the context in which it is being applied in. More broadly, capital is used in reference to the financially established resources that are in place for utilization in carrying out the required activities. It is argued that firms having huge amount of capital are better as compared to those entities whose capital is small and limited. It is the level of efficiency within the production system that would inform the degree and level of performance of the entity. Thus, the need to create wealth requires that capital is combined with other forms of labor. One can invest in capital by sacrificing the level of current consumption and this helps them to derive more benefits in future. Entities and individuals are able to ensure that they claim ownership of the capital in place. It is also possible for the individuals to ensure that their ownership in a given asset have been transferred to other entities or individuals. The regulations by the government help in limiting the usage of capital while diminishing its overall value.

Banking entities have capital that is regulated to a greater extent. This is so because capital helps in reducing failure at the bank level as well as the losses that are incurred by the investors. Capital adequacy is a highly acknowledged component that drives performance of the banking entity. Within the CAMEL framework, C stands for capital adequacy and these were established on the basis of the Basel system. As argued by Beckmann (2007, when there is high level of capital, the profits would diminish since the banking entities are supported by high capital ratio. This is because there are some banking entities that are highly regarded risk averse such that they ignore high risks.

Capital adequacy is among the highly available regulations among countries. Capital adequacy requirements exist in different forms. Majority of the countries are aware of their lowest and required level of capital. Majority of the countries require the commercial banks to set aside adequate capital so as to be cushioned against eventualities that are likely to occur in future that is so uncertain. It was in the year 2004 when the Basel Accord received modification where more complicated means of computation of capital requirements were

introduced. During this modification, more emphasis was also paid on policies to manage risk and the available systems within the banking entity.

Acharya (2003) shared that the minimum requirements of capital are some of the platforms that are relevant in preventing the banking entity from managing the costs of failure of the entity. It was noted that from perspective, the stiff requirements of capital are resulting into a rise in minimum capital. On the other hand, from the perspective of the regulator agency, there is a rise in the optimal capital of the bank when the surveillance is strict. The requirements for capital include the policies from the banking context at the globe. There are different policies and rules that shape the actual amount of capital in question that banking entities need to maintain. With reference to the amount of capital to be maintained, this is characterized on the basis of the ratio of capital to the overall assets in place. On the basis of the nature of capital, there exists some guidelines that provide an explanation of the capital that is extended beyond the normal cash balances.

Bris and Cantale (2004) noted that the regulations of capital of the banking entity should allow various entities to hold various levels of capital informed by control and separation of ownership and this result into a challenge of underinvestment. It also supports the ability of the managers to take up low risk because of the self-interest of the management of the entity. In contrast, Gorton and Rosen (1995), noted that the behaviors of avoiding risk is largely supported and informed by the conservative attributes and behavior. In case there is predominance of bad manager's in the entity, conservative behavior may not support the ability of the managers to ensure that their jobs have been sold.

Gudmundsson, Ngoka-Kisinguh and Odongo (2013) did an inquiry to bring out the role played by requirements for capital in the Kenyan context. The inquiry covered a total of 36 banking entities covering the period of 2001 all through to 2011. In order to gauge the level of competition in the Kenya's banking entities, Lerner index and the Panzar and Rosse H-statistic were adopted. It was shown that within the period of consideration by the inquiry, the degree of competition in Kenya gone down. Odunga *et al., (*2013) looked at capital adequacy and liquidity and their link with the level of operating efficiency. The inquiry covered the Kenyan banking entities covering the period from 2005 all through to 2011. It was noted that the performance of the bank is shaped and informed by how the entity moves

open so as to ensure that the operations have been streamlined. It was further noted that those banking entities with adequate level of assets are highly attracted to the customers since they are able to ensure they address the long term financial concerns and implications. In spite of the regulatory framework, the essence of the holding capital is to strengthen the level of efficiency from the internally established means. This helps the banking entity to avoid eventualities and frictions especially in case there are losses. However, too much capital would bring in issues of opportunity cost that may slow down performance. Furthermore, a higher ratio of cash may signify reduction in risk.

Liquidity can be reflected in the ability to un-cash the bank's assets especially when the need arises. Liquidity can be viewed as the quality of the assets in place through which a banking entity is able to ensure that it reacts to any financial demand that need more flow of money. Liquidity concerns enable the entity to project and make an internal assessment and evaluation on whether is better placed to attain the daily needs. Such efforts direct towards minimizing reliance on the reserves of the firm. When banking entity strive to increase liquidity, the associated decision is faced with a risk return trade off since such amounts could have been used in funding projects to earn more returns. The shift from short to long term, securities may be used to demonstrate the tradeoff between liquidity risk and the returns. This means that a relatively higher liquidity ratio signify less risky and lowly profitable banking entity (BIS, 2013).

Liquidity is the extent which a banking entity is well positioned to attain its financially related obligations and concerns in a way that is timely and efficient as desired. There exists different variations with respect to the measures to use in gauging the level of liquidity for instance, Samad (2004) gave its proxies to include overall assets in place against overall deposits. Ilhomovich (2009) determined liquidity through use of the cash against deposits with focus on Malaysian banking entities. The essence of liquidity extends beyond the specific bank as issues of liquidity at the bank level may have significant outcomes. Ideally, when banking entities hold on high liquid instruments, they do so basing on the opportunity costs of some given investments that would enhance the level of returns generated by the banking entity (Kamau, 2009).

The statutory minimum liquidity requirement in some countries in Africa like South Africa is 20%. However, the report of central bank of South Africa in 2009 indicated that average liquidity ratio was 39.8% for the year 2009 and at 37.0% for the year 2008. These figures were above the minimum requirement and thus improve results. This has sparked debate on how the banking entities could manage to transaction such amount of cash in the economy with more need for credit like South Africa. Kamau (2009) argued that when banks hold high liquidity, they do so at the opportunity cost of some investment, which could generate high returns. The author added that trade-offs generally exist between returns and liquidity risks that are demonstrated by a shift from short term securities to long term securities. This shift in securities raises a bank's return thereby increasing bank's liquidity risks and the inverse is true. Recent studies suggest that by combining exposure to liquidity risk in both deposit-taking and lending yields a risk-reducing synergy

Strahan (2008) argue that when the liquidity wishes and demands of the borrowers and the depositors, and the existance of an intermediary brings down the cash buffer of the entity through ensuring both customers have been served. Holding of cash increases the costs related with taxation and agency. Diamond and Dybvig (1983) said that financial intermediaries may provide liquid deposit accounts that cushion them against liquidity risk. This also helps in implementing smoothing out especially after retirement. A banking entity like a bank is viewed as a platform through which investors are allowed to ensure that their illiquid assets have been well financed covering projects that would earn relatively higher returns.

Odunga *et al. (*2013) used a case of Kenya's 40 banking entities to link liquidity and capital adequacy with operating efficiency. It was established that the performance of the bank played a role in shaping how the bank moved forward with aims of driving operational strategies and means. Shown from the findings was the fact that banking entities with adequate liquid assets would increase the level of confidence top the end users since the firm is able to meet short term financial challenges. Thus, the responsibility of central bank is to safeguard the level of compliance with some of these provisions.

Loutskina (2005) did an inquiry covering liquid asset and securitization. It was shown that when there are hikes in the interest rate, banking entities will be forced to use internal sources of funds hence securitizations. This is particularly true when the entity is faced with a challenge of an increase in the interest rates that would affect business of test.

Improving performance of the firm require pursuance of profitability and liquidity of the firm.

2.4 Summary of Literature and Knowledge Gaps

Table 2.1 gives a summary of the reviewed studies with gaps to be filled by the proposed study.

Table 2.1: Summary of Literature and Knowledge Gaps

Author	Study	Findings	Knowledge Gaps	Focus of Present Study
Wu, Hou and Cheng (2010)	Financial institutions and the growth of the economy among EU members	Development of these institutions positively impacts on the growth of the economy	The study focused on EU Member States	The present study focused on South Africa and Turkey
Ndugbu and Ojiegbe (2016)	To bring out the money market instrument and their link with performance of the banks	The banker's acceptance and performance were inversely linked with each other.	The study focused specifically on money market instrument	The present study looked at the financial market instrument
Makokha (2016)	To link between some identified financial market regulations and financial performance	Capital requirement and liquidity management was seen to be significantly linked with performance of the banking entities	The study linked financial regulations and financial performance	The present study only focused on financial regulation

Banerjee and Majumdar (2017	The financial regulations and their link with efficiency of the banking entity with emphasis on United Arab Emirates	Financial regulation was represented by loans to deposit ratio, loan loss provisions and total capital adequacy provisions	The study focused on United Arab Emirates	The present study focused on South Africa and Turkey
Shaddady and Moore (2019)	To link financial supervision and regulations with stability.	that more financial regulation enhances the stability of the banking entities	covered 2210 banking entities from 47 EU members	The present study focused on South Africa and Turkey

2.5 Operationalization of the Variables

Table 2.2 gives a breakdown of the variables and how they will be operationalized:

Table 2.2: Operationalization of the Variables

Type of Variable	**Indicators**	**Measurement**	**Scale**	**Data Collection**	**Data Analysis**
Financial Institutions	Banks	Commercial bank assets against sum of commercial bank and central bank assets	Ratio	Data Collection Schedule	Descriptive analysis Inferential analysis
	Insurance Firms	Life Insurance Premium/GDP Non-life insurance premium/GDP			
Financial Market Instrument	Equities	Equity stock market capitalization/ GDP	Ratio	Data Collection Schedule	Descriptive analysis Inferential analysis

	Bonds	Bond market capitalization/ GDP			
Financial Regulation	Capital requirement regulation (Capital Adequacy Ratio)	Commercial bank equity/ commercial bank total assets	Ratio	Data Collection Schedule	Descriptive analysis Inferential analysis
	Liquidity Management Regulation (Liquidity Ratio)	Commercial banks total customer deposit/ commercial banks total loan			

2.6 Chapter Summary

This chapter has reviewed the theories and the past empirical studies related with financial system development. The next chapter details the methodologies that guided the study in realization of the objectives and response to the following hypotheses:

H_{01}: There is no significant difference between the Turkish and South Africa financial institutions

H_{02}: There is no significant difference between the Turkish and South Africa financial market instruments

H_{03}: There is no significant difference between Turkish and South Africa financial regulations.

CHAPTER 3
RESEARCH METHODS OF FINANCIAL SYSTEM DEVELOPMENT

3.1 Introduction

Research design provides the foundation on how the actual study is to be carried out detailing the key activities to be undertaken. It provides the basis of how the study realizes its formulated objectives. More specifically, this chapter details the methodologies that were used in achieving the stated objectives. These cover the adopted design, target population and determination of sample size. The means of gathering and analysis of the data are also indicated.

3.2 Research Design

Research design refers to the approaches that guide how the study is to be conducted. The design provides a path that informs how the study is to be done. A research design is viewed as a road map which provides guidance to the study under consideration. Research design can also be viewed as a plan designed by the researcher to guide the study. It is through the design that the researcher is able to get evidence that is relevant for a given criteria and the research questions that are of relevance to the study. It is through the research design that the entire methodology of the study from the time of conceptualization of the inquiry all through to when data is being generated and findings being examined and explained. Research design can be viewed as the overall plan that provides information regarding how the formulated questions in the study are going to be answered (Berg, 2001).

The typical essence of the study design is to provide a description of the objectives that are drawn from the established research questions in the study, while giving specifics on the various sources of gathering the data. Besides being specific on the data to gather, the study design of the inquiry helps to bring out the key issuers to pay focus on when it comes to processing of the data through analysis including the ethical issues of importance that should be adhered to in an inquiry. Any discussion on research designs can revolve around three methods: quantitative, qualitative or mixed methods. While qualitative methods largely focus on stories, quantitative emphasizes the essence of numbers in a study and thus limit more use

of stories and words. Research design can further be recognized on the basis of its key natures: exploratory, descriptive and explanatory designs. While explanatory design is essentially suited for a topic that is relatively new and thus limited availability of literature, an explanatory design seeks to bring out the causal link between the variables while descriptive design is essentially designed to provide narration and descriptions with regard to a given phenomenon under consideration (Mugenda & Mugenda, 2003).

The study adopted descriptive survey design to achieve the stated objectives. A description of survey design was offered by Cooper and Schindler (2011) to include the fact that it is a technique of collecting the views of the participants where the relevant subjects directly involved in a given issue are questioned to provide the required information. In most cases, surveys are viewed as scientifically established inquiries that involve studying the entire sample from the population that is of interests as established through probability procedures of sampling. Mugenda and Mugenda (2003) shares one of the attributes and strengths of survey design as its ability to ensure that some measurements are recorded within a given time period while supporting the use of data collected through descriptive and explanatory methods. Survey is the most efficient method of gathering the views of the participants including the data from the already documented records. During analysis of data, surveys can leverage on either qualitative or quantitative data. In a typical survey, systematic error is reduced as the hypotheses derived from the objectives are carefully designed in the tools to use to obtain such information.

Alpi and Evans (2019) argue that through a descriptive design, one is able to report things the way they exist in their original state. Through descriptive design, the study was able to gather relevant information that allowed for comparison of the financial system development of South Africa and Turkey. This was also relevant to the research questions that guided the study. The descriptive design helped the researcher to gather information with regard to status of financial institutions, financial market instrument and financial regulations while taking a comparative approach of Turkey and South Africa. This descriptive design was largely supported by quantitative since the study entailed gathering of the views from the already available records. The main attribute of quantitative methods is that the analysis of the data is carried out numerically so as to provide a description that is precise. By being

highly numerical, quantitative methods can best help in establishing a hypothesized direction and link in the variables of the inquiry.

In this study, the analysis was designed to cover quantitative aspects alone, with the help of descriptive and inferential statistics. The main descriptive statistics that were4 used in this study include means and standard deviations and graphs to illustrate the trend in the variables. On the other hand, the inferential statistics covered one way Analysis of Variance (ANOVA) and independent t-tests. These inferential statistics helped in testing the formulated hypotheses to make informed decisions on whether to reject or accept the hypotheses.

3.3 Target Population

Population is any grouping of elements also covering individuals that have related attributes (Yin, 2017). The other definition of population advanced by Litosseliti (2018) is that it covers all components of the hypothetical or real sets of items or individuals that offer a basis for generalization of the evidence from the inquiry. On the other hand, target population is a large collection of subjects that provides basis for sample selection. It is the specified objects that provide the basis for generalization of the findings (Karasar, 2017).

The term population can best be viewed as any collective individuals that form interest of the study. Population can be said to be the rest of the group where it is possible to obtain information in a given inquiry. The other definition of the targeted population as advanced by Cooper and Schindler (2003) is that it refers to a collection of individuals that provides the basis for an inquiry to make generation of the established evidence. Inquiries are largely done to provide statistics that should be generalized and this is best done on the basis of the targeted respondents.

This study targeted two countries: South Africa and Turkey. More specifically, this was a comparative study focusing on these two countries. The broad issue that was central to this study was the concept of financial system development. Specifically, the study focused on the following three indicators of financial system development: financial institutions, financial market instrument and financial regulations. Different proxies were utilized in

operationalization of these indicators into measurable indicators that would generate data for the study and analysis. The comparison of these two countries in terms of their financial system development was aimed at giving relevant information for strengthening of policy formulation to guide the overall economies.

3.4 Sample Size and Sample Design

Sample size is viewed as the smallest unit which help top represent the attributes of the entire population (Park & Park, 2016). On the other hand, the sample design is the specific method used to select the respondents in forming the sample (Mohajan, 2018). Sample size is among the categories within the greater targeted respondents that is selected for providing a representation of the attributes of the entire population. It is through sampling that some items within the population can be selected for proper generalization.

It is from the sample size that an analysis can be conducted with ease. It is good to ensure that the declaration of the sample size should be accurate as possible. The rationale for carrying out sampling is to provide saving on money, to fasten the procedure of gathering data, to ensure correct findings have been sought and to access the basics of the population. Since the population of the study is small, census was used. Zangirolami-Raimundo, Echeimberg and Leone (2018) shared that census is appropriate when the elements of the population are relatively small (less than 200). The use of census allowed the study to include both South Africa and Turkey in the collection and analysis of the data from auxiliary sources. The use of census was further justified on account that it supported generalization of the results of the inquiry to make informed decisions on financial system development. Three variables were covered in the study including financial institution, financial markets and financial regulations.

3.5 Data Collection Instrument

The basic definition of data collection is that it is the process where data can be gathered from the field to support generalization of the findings. This is a great step in an inquiry since it seeks to make sure that all the necessary data in an inquiry is gathered to support the general analysis (Mugenda & Mugenda, 1999). Generally speaking, data can be collected from two key sources; the primary and the secondary sources. The underlying difference is that

primary sources of gathering data largely focus on first-hand information hence limited possibility of biasness. The first hand sources of information for an inquiry can include the use of the questionnaires, the interviews and observation (Cooper & Schindler, 2006).

Apart from first hand sources, data can also be gathered from second hand and already existing sources. This is referred to secondary data, and it can be obtained from publications and periodicals, journals, magazines, relevant reports as published by different institutions among other sources. Being second hand, secondary data has been shown to be linked with possible biasness. This may compromise the efficacy and quality of such information gathered from the already existing sources. The study collected secondary data using data collection schedule (appendix I). This data was collected on annual basis covering the period from 2010 to 2019 hence a total of ten years. The sources of data collection included relevant publications by respective Central Banks and Stock Exchange Markets of the Turkey and South Africa as well as the publications by the World Bank Group and IMF.

3.6 Data Analysis Methods

Data analysis of the process conducted to draw meaning from the raw facts and figures gathered from the field (Wahyuni, 2016). Once data had been gathered from the field, it was cleaned and entered into the Statistical Package for Social Sciences (SPSS). Cleaning of the data was done through excel, where incomplete entries concerning the variables were deleted from spreadsheets. The value of means and standard deviations were computed to describe the variables of the study besides. Trend analysis was also conducted as supported by graphs.

In order to make inferences on acceptance and rejection of the formulated hypotheses, the study used independent t-test and one-way Analysis of Variance (ANOVA). These two tests were used to make comparison of the means of the financial institutions, financial market instrument and financial instrument of both Turkey and South Africa. The interpretation of the p-values was done at 5% level of significance. It follows that any p-value above 0.05 showed that

3.7 Chapter Summary

The chapter covers the methodologies that guided the study in realization of the objectives. The details covered by this chapter include the adopted design, targeted respondents, and means of gathering and analysis of data. The adopted design was descriptive survey where the unit of analysis was 2 countries, Turkey and South Africa. The study was therefore set out to survey financial system development of Turkey and South Africa. The inquiry relied on data as gathered from auxiliary sources. Purely quantitative methods were adopted by the study during analysis of the findings. The next chapter details the findings of the analysis including presentation and discussion.

CHAPTER 4
DATA ANALYSIS, PRESENTATION AND DISCUSSION ABOUT FINANCIAL SYSTEM DEVELOPMENT OF TURKEY AND SOUTH AFRICA

4.1 Introduction

This chapter is set out to detail the findings of analysis on the data that was gathered from secondary sources including the World Bank reports. An excel spreadsheet was prepared for capturing secondary data collected from where it was exported to the Statistical Package for Social Sciences (SPSS). The study utilized descriptive statistics covering means and standard deviations as well as graphs to describe the data. In order to test the hypotheses, mean differences were utilized. A discussion of the analyzed findings is also presented through interaction with the reviewed literature.

4.2 Descriptive Statistics

The study collected data on the operational indicators of financial institutions, financial markets and financial regulations. The operationalization of the variables in Table 2.2 guided the indicators to use in the analysis for each of the study variables. For instance, financial institutions had banks and insurance firms. The insurance segment of the financial institutions was operationalized to cover both life and non-life insurance. The value of the total assets of the commercial banks against the sum of assets of the central bank and the commercial banks was used to represent the banking segment of the financial institutions while life and non-life insurance premiums to GDP were used to represent the insurance segment respectively.

In respect to the financial instrument, the study covered equities and bonds. The equity market was represented by the equity stock market capitalization against the GDP while the bond market was operationalized as bond market capitalization against GDP. With regard to financial regulation, the study used capital requirement regulation (that was measured by capital adequacy ratio) and liquidity management regulation (measured by the liquidity ratio). Capital adequacy ratio was represented by commercial bank equity against commercial bank total assets while liquidity ratio was represented by commercial bank total

customer deposits against commercial bank total loans advanced to customers. The selection of these ratios and measures was informed by a thorough review of literature on how the previous related studies have operationalized the variables.

The information was gathered through an integrated approach since it was not possible to gather all the information from a single source. The issue of standardization also emerged, now that this was a comparative study covering two countries (Turkey and South Africa) both with different currencies. So, the need to have a uniform way of standardizing the values of the collected data emerged hence the reason why data was obtained in dollar form. The various sources that helped to generate the data that was used in this study include World Bank reports, IMF reports and publications, OECD data, reports from respective central banks in South Africa and Turkey as well as relevant internet sites like Khoema. There were some incidences when different sources gave inconsistent figures, in such a case; an average of the figures was taken as the absolute value for analysis. The values of means and standard deviations were generated as the descriptive statistics of the study. These were meant to describe the data to be used in the study. The findings were established and summarized as shown in Table 4.1

Table 4.1: Descriptive Statistics

	Country	**N**	**Mean**	**Std. Dev**	**Std. Error Mean**
Commercial bank assets against sum of bank and central bank assets	Turkey	10	.5114	.04854	.01535
	South Africa	10	.5439	.10677	.03376
Life Insurance Premium/GDP	Turkey	10	.0390	.01411	.00446
	South Africa	10	.1075	.05011	.01585
Non-life insurance premium/GDP	Turkey	10	.0374	.01150	.00364
	South Africa	10	.1071	.04758	.01504
Equity stock market capitalization/ GDP	Turkey	10	.0395	.01169	.00370
	South Africa	10	.1012	.05461	.01727
Bond market capitalization/ GDP	Turkey	10	.0453	.01336	.00422
	South Africa	10	.1195	.04827	.01526
Commercial bank equity/commercial bank Total assets	Turkey	10	1.0722	.19829	.06270
	South Africa	10	.9249	.31776	.10049
Commercial bank total customer deposit/ commercial bank total loan	Turkey	10	.8984	.21386	.06763
	South Africa	10	1.4832	1.38894	.43922

Table 4.1 indicates that Commercial bank assets against sum of bank and central bank assets for South Africa were .5439 while that of Turkey is .5114. The life insurance premium/GDP for Turkey and South Africa stood at .0390 and .1075 respectively. The non-life insurance premium/GDP had a mean of .0374 and .1071 for Turkey and South Africa respectively. The mean for Equity stock market capitalization/ GDP for Turkey and South Africa was .0395 and .1012 respectively. For the bond market capitalization / GDP, the mean was .0453 and .1195 for Turkey and South Africa respectively. In regard to commercial bank equity/ commercial bank total assets, the value of mean for Turkey and South Africa stood at 1.0722 and .9249 respectively. For the total customers deposit/total loan, the value of mean stood at .8984 and 1.4832 for Turkey and South Africa respectively.

4.3 Trend Analysis

The researcher generated graphs to describe the movement in the variables of the study over the ten ear period of consideration as illustrated in subsequent sections. The three variables of interest include financial institutions, financial markets and financial regulations.

4.3.1 Financial System Development in South Africa

Financial institutions were one of the variables in the study, operationalized into non-life insurance, life insurance and the commercial bank institutions. Both non-life and the life insurance segment were used as operationalized into two proxies, to represent the insurance sector as a financial institution in South Africa. Figure 4.1 is the trend analysis for the financial institutions in South Africa.

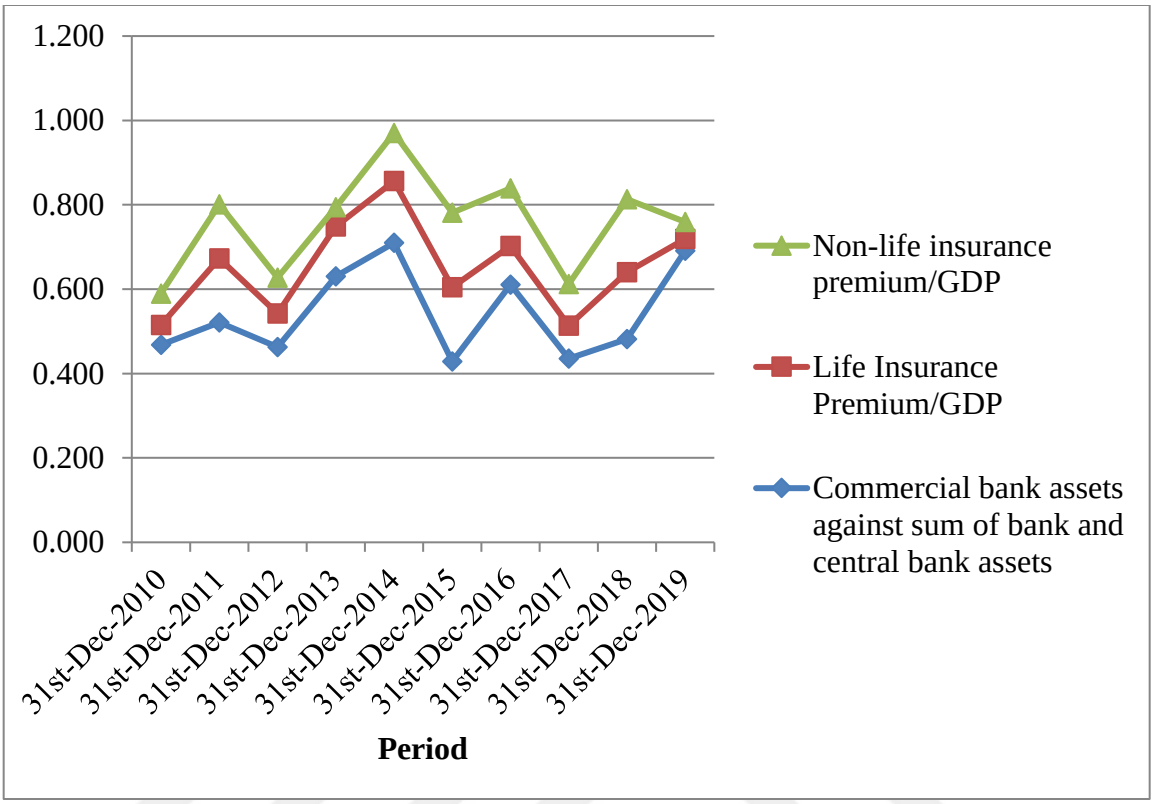

Figure 4.1: Trend Analysis for Financial Institutions in South Africa

Figure 4.1 gives the trend analysis of financial institutions in South Africa. From the findings, non-life insurance is far above life insurance and the commercial banking sector. Furthermore, life insurance is much far above the commercial bank segment of the financial institutions in South Africa. Thus, it can be inferred that South Africa has more developed non-life and life insurance institutions as compared to the commercial bank institutions.

The other variable of the study was financial markets, that was operationalized into two proxies covering the bond and the equity market. The findings of trend analysis on the financial markets are as shown in Figure 4.2.

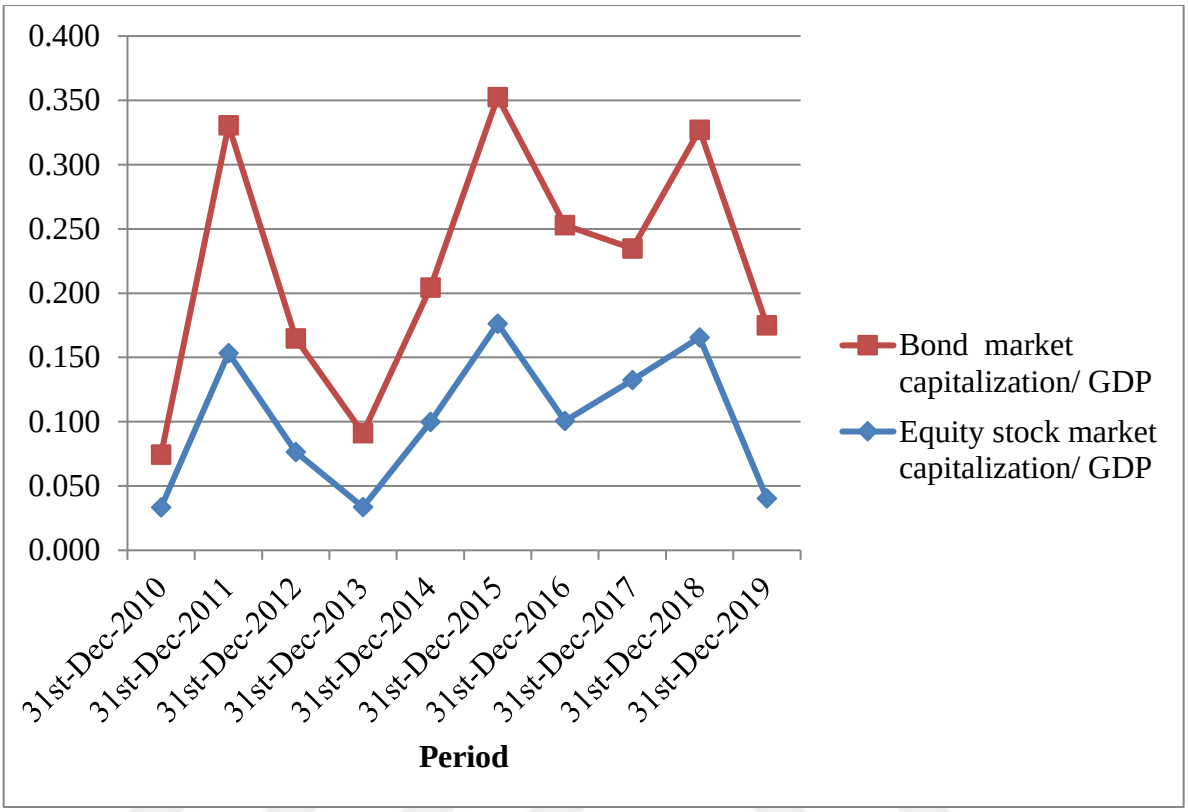

Figure 4.2: Trend Analysis Financial Markets in South Africa

From Figure 4.2, the graph representing bonds is far above the one for equities, an implication that bond market is more developed than equity market in South Africa. The results of the trend analysis for financial regulations of South Africa are as indicated in Figure 4.3.

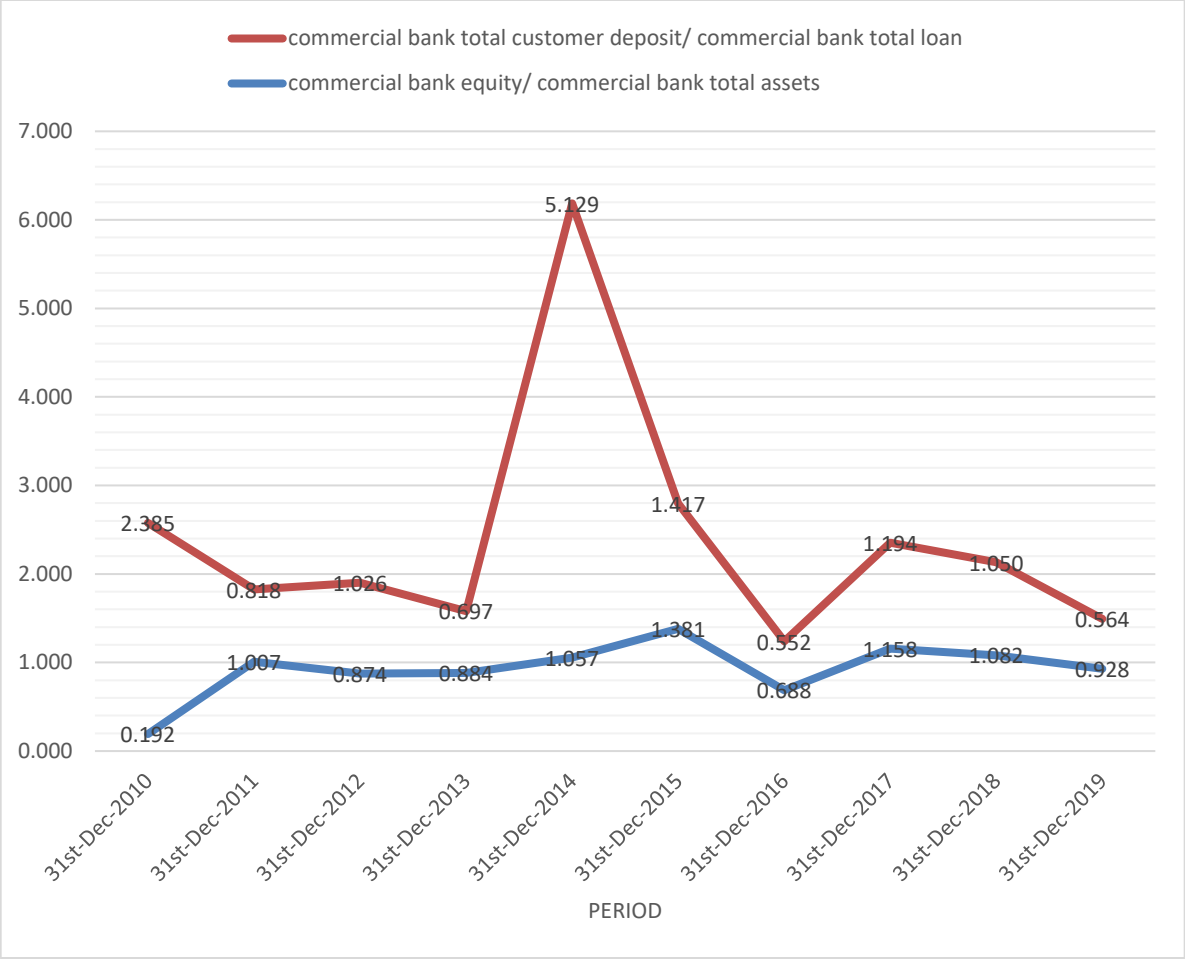

Figure 4.3: Trend analysis of Financial Regulations in South Africa

From Figure 4.3, the line graph of liquidity management regulation (measured by total customer deposit against total loans) falls above that of capital adequacy regulation (as measured through equity to total assets). This implies that South Africa has a relatively stronger liquidity management regulation as compared to its capital adequacy regulation.

4.3.2 Financial System Development in Turkey

The study sought to establish the financial institutions, financial markets and financial regulations of Turkey. Figure 4.4 gives the findings of trend analysis on financial institutions of Turkey.

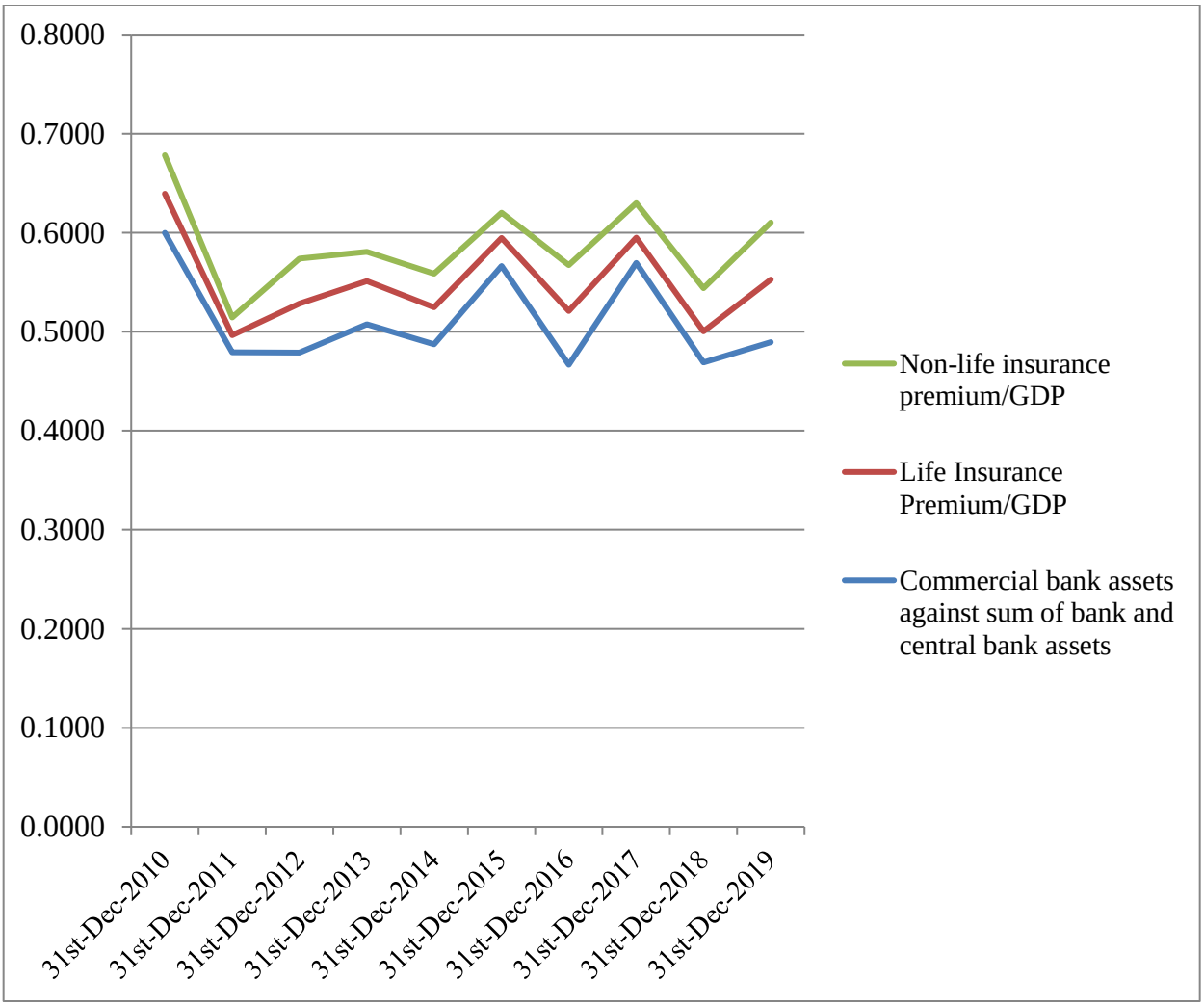

Figure 4.4: Trend Analysis of the Financial Institutions in Turkey

As per Figure 4.4, the line graph of non-life insurance is above that of life insurance and commercial bank. This implies that Turkey has a more rentable insurance sector as compared to the commercial bank sector. Figure 4.5 gives the results of trend analysis of financial markets of Turkey.

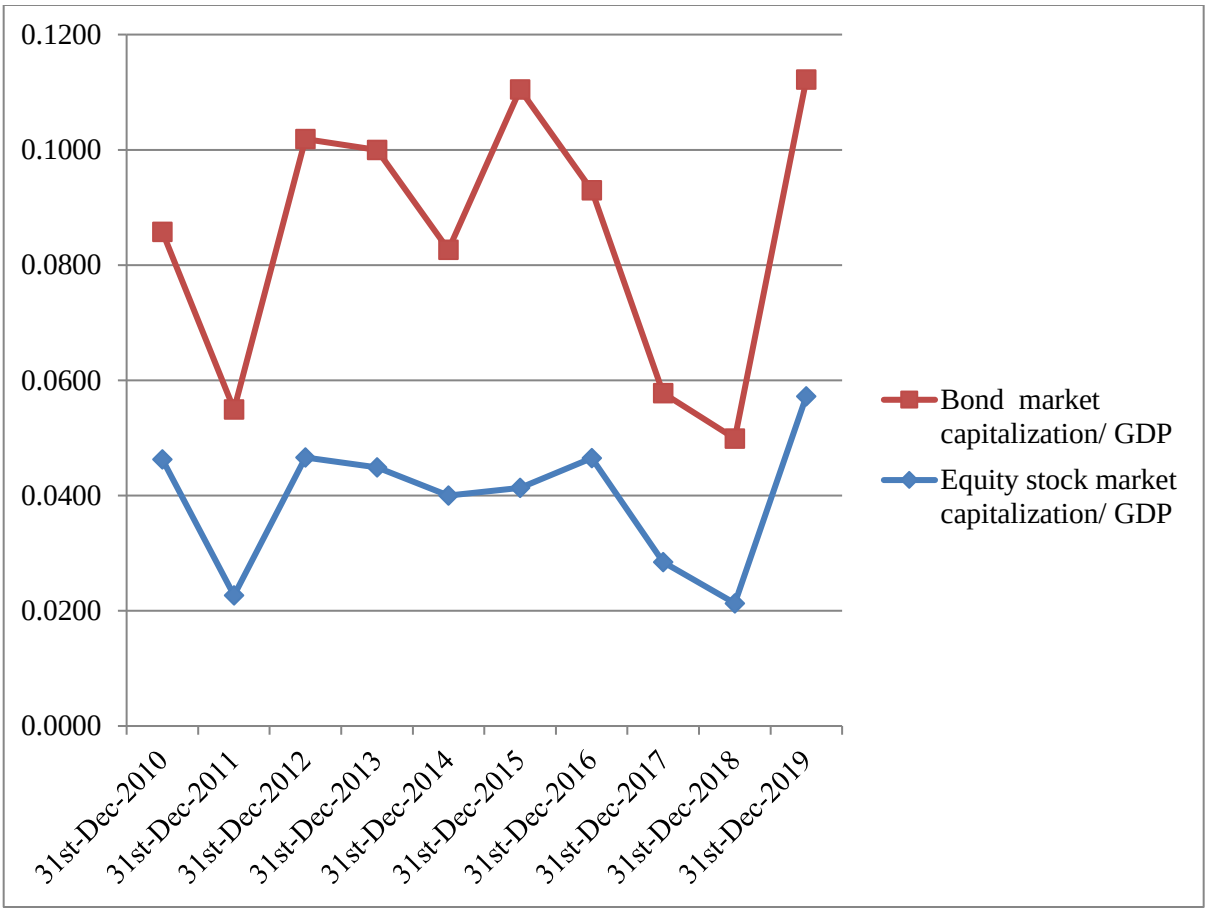

Figure 4.5: Trend Analysis of the Financial Markets in Turkey

From Figure 4.5, the line graph of bond market is far above that of equity market. Thus, it can be inferred that Turkey has a more developed bond- as compared to equity financial market. The findings of trend analysis of financial regulations are as summarized in Figure 4.6.

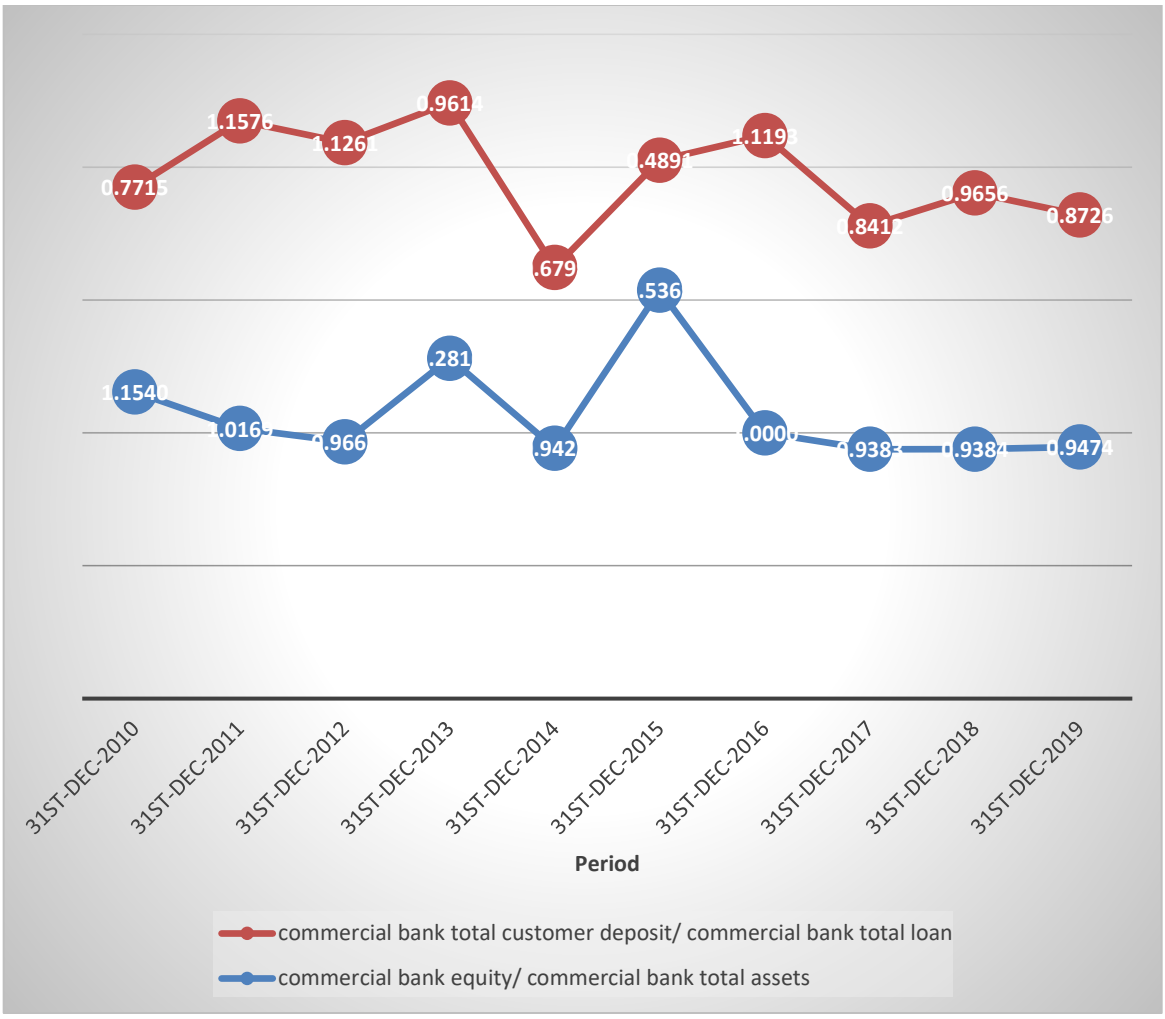

Figure 4.6: Trend Analysis of Financial Regulations in Turkey

The results in Figure 4.6 indicate that existing quasi liquidity requirement practices depicted in the ratio of "commercial bank total customer deposits to commercial bank total loans" in Turkey are more stringent than the capital management regulatory practices in form of "commercial bank equity to commercial bank total assets". This means that Turkish banks are putting more emphasis in liquidity management as they have a more secured base of capital adequacy and management foundations in their systems.

4.4 Test for Assumptions of Independent t-test

Before carrying out independent t-test, the researcher tested for homogeneity of variance. This test was performed to ascertain that variance in the two groups (Turkey and South Africa) are equal. Violation of this assumption requires some adjustment in the data set of

the study. It is the F -statistics and the significance as indicated by the p-values that guide this test.

The decision rule is as follows: When the F - value has $p<0.05$, then variance of the two groups under comparison are different. As such, the condition of homogeneity of variance will not have been attained. Furthermore, it is the results of F - statistics that will determine the decision of whether to use equal variance assumed row or the equal variance not assumed raw when an evaluation of the t-test is conducted. Table 4.2 gives a summary of the findings

Table 4.2: Test for Homogeneity of Variance

		Levene's Test for Equality of Variances	
		F	Significance
Commercial bank assets against sum of bank and central bank assets	Equal variances assumed	11.920	.003
	Equal variances not assumed		
Life Insurance Premium/GDP	Equal variances assumed	17.441	.001
	Equal variances not assumed		
Non-life insurance premium/GDP	Equal variances assumed	13.207	.002
	Equal variances not assumed		
Equity stock market capitalization/ GDP	Equal variances assumed	14.940	.001
	Equal variances not assumed		
Bond market capitalization/ GDP	Equal variances assumed	16.582	.001
	Equal variances not assumed		
Equity/Total assets	Equal variances assumed	.583	.455
	Equal variances not assumed		
Total customer deposit/total loan	Equal variances assumed	5.373	.032
	Equal variances not assumed		

From the findings in Table 4.2, the p-value for commercial bank assets against the sum of bank and central bank assets between South Africa (SA) and Turkey is .003, which is less than 0.05. Thus, the null hypothesis of Levene's Test was rejected where the study inferred that equal variance was not assumed. The same case applies to life insurance, non-life insurance, equity and bond market as well as liquidity requirement regulation ($p<0.05$). However, for capital adequacy regulation ($p>0.05$) and thus equal variance assumed was inferred.

4.5 Hypotheses Testing

The study developed three hypotheses covering financial institutions, financial markets and financial regulations. Testing of these hypotheses was done using both independent t-test and the One-way Analysis of Variance (ANOVA). The findings were determined and presented as indicated in subsequent sections.

4.5.1 Turkish and South Africa Financial Institutions

This section is set out to present the results of independent t-test and the One-way ANOVA on financial institution as the first variable of the study. The calculations were obtained from the SPSS tool. Table 4.4 indicates the results of the independent t-test on financial institutions.

Table 4.3: Independent T-Test of Financial Institutions

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Commercial bank assets against sum of bank and central bank assets	Equal variances assumed	11.920	.003	-.884	18	.388	-.03279	.03709	-.11071	.04513
	Equal variances not assumed			-.884	12.56	.393	-.03279	.03709	-.11320	.04762
Life Insurance Premium/GDP	Equal variances assumed	17.441	.001	-4.162	18	.001	-.06851	.01646	-.10309	-.03393
	Equal variances not assumed			-4.162	10.41	.002	-.06851	.01646	-.10499	-.03203
Non-life insurance premium/GDP	Equal variances assumed	13.207	.002	-4.501	18	.000	-.06967	.01548	-.10219	-.03715
	Equal variances not assumed			-4.501	10.04	.001	-.06967	.01548	-.10413	-.03521

From Table 4.3, since Levene's Test had the p-value less than 0.05 (obtained from the significance column), the Equal variances not assumed will be utilized during the

interpretation of the findings. The results are that ($t_{12.567}$=-.884, p>0.05), which infer that there was no significant difference in Commercial bank assets against sum of bank and central bank assets in dollars between Turkey and South Africa. In terms of the insurance sector (determined by both life and non-life insurance), ($t_{10.418}$=--4.162, p<0.05) and $t_{10.048}$=--4.501, p<0.05). This means that there was significant difference in life and non-life insurance institutions between Turkey and South Africa.

In order to complement the independent t-test, the researcher extracted the values of One-way ANOVA on financial institutions as summarized in Table 4.4.

Table 4.4: One Way ANOVA

		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Commercial bank assets against sum of bank and central bank assets	Between Groups	.005	1	.005	.782	.388
	Within Groups	.124	18	.007		
	Total	.129	19			
Life Insurance Premium/GDP	Between Groups	.023	1	.023	17.321	.001
	Within Groups	.024	18	.001		
	Total	.048	19			
Non-life insurance premium/GDP	Between Groups	.024	1	.024	20.262	.000
	Within Groups	.022	18	.001		
	Total	.046	19			
	Total	19.484	19			

The results in Table 4.4 indicate that the banking sector (F=.782 & P>0.05), which infer that it was not significantly different. On the other hand, the life and non-life insurance (F=17.321 & p<0.05) and (F=20.262 p<0.05) was significantly different in South Africa and Turkey.

The following hypothesis was used to support the study:

H_{01}: *There is no significant difference between the Turkish and South Africa financial institutions*

Thus, based on the findings in Table 4.5.3 and 4.4, the study obtained mixed results creating indifference on whether to accept or reject hypothesis H_{01}.Thus, the neither failed to accept nor reject hypothesis $H_{01.}$

4.5.2 Turkish and South Africa Financial Market Instrument

The section is set out to detail the findings of the independent t-test and the One-way ANOVA on financial markets. In Table 4.5, the results of the independent t-test are detailed.

Table 4.5: Independent Samples Test of Financial Market instrument

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equity stock market capitalization/ GDP	Equal variances assumed	14.940	.001	-3.493	18	.003	-.06168	.01766	-.09878	-.02458
	Equal variances not assumed			-3.493	9.82	.006	-.06168	.01766	-.10113	-.02223
Bond market capitalization/ GDP	Equal variances assumed	16.582	.001	-4.683	18	.000	-.07417	.01584	-.10744	-.04090
	Equal variances not assumed			-4.683	10.3	.001	-.07417	.01584	-.10929	-.03905

Equity and bonds were the two financial market instruments that the study covered. From Table 4.5, it can be noted that equities ($t_{=9.823}$=9.823 & p<0.05) and bonds t=10.370 & p<0.05) were all significant. Thus, the study inferred that the financial market instrument of Turkey and South Africa were significantly different. In Table 4.6, the results of one-way ANOVA are detailed.

Table 4.6: One-Way ANOVA of Financial Market Instrument

		Sum of Squares	df	Mean Square	F	Sig.
	Total	.046	19			
Equity stock market capitalization/ GDP	Between Groups	.019	1	.019	12.198	.003
	Within Groups	.028	18	.002		
	Total	.047	19			
Bond market capitalization/ GDP	Between Groups	.028	1	.028	21.931	.000
	Within Groups	.023	18	.001		
	Total	.050	19			
	Total	19.484	19			

As shown in Table 4.6, the equity and bond markets had **(F=**12.198, P<0.05) and (F=21.931 P<0.05), thus they were significant. Hence, the study deduced that there existed significant difference in financial market instruments between Turkey and South Africa. The following hypothesis was developed and tested by the study:

H_{02}: *There is no significant difference between the Turkish and South Africa financial market instruments*

Thus, on the basis of the findings in Table 4.5 and 4.6, the study rejected hypothesis ***H_{02}.*** Thus, the study inferred that there is significant difference between the Turkish and South Africa financial market instrument. In other words, the financial market instruments in

Turkey are slightly different from those in South Africa, probably because of the aspect of financial innovations.

4.5.3 Turkish and South Africa Financial Regulation

The findings on financial regulations of Turkey and South Africa determined through independent t-test and the one-way ANOVA are detailed in this section. Table 4.7 is a breakdown of the findings of the independent t-test.

Table 4.7: Independent Samples Test

		Levene's Test for Equality of Variances		**t-test for Equality of Means**						
									95% Confidence Interval of the Difference	
		F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**	**Lower**	**Upper**
Commercial bank equity/commercial bank total assets	Equal variances assumed	.583	.45	1.242	18	.230	.14711	.11844	-.10173	.39595
	Equal variances not assumed			1.242	15.08	.233	.14711	.11844	-.10522	.39944
Commercial bank total customer deposit/	Equal variances assumed	5.37	.03	-1.316	18	.205	-.58477	.44440	-1.51842	.34888

commercial bank total loan	Equal variances not assumed			-1.316	9.426	.219	-.58477	.44440	-1.58318	.41364

As shown in Table 4.7, capital requirement regulation (t18=1.242 p>0.05) while liquidity requirement regulation ($t_{9.426}$=-1.316, p>0.05) were all insignificant. Thus, the study inferred that there is no significant difference in financial regulations of South Africa and Turkey. The researcher performed one-way ANOVA with the findings as indicated in Table 4.8.

Table 4.8: One Way ANOVA of Financial Regulations

		Sum of Squares	df	Mean Square	F	Sig.
	Total	.046	19			
Commercial bank Equity/ commercial bank Total assets	Between Groups	.108	1	.108	1.543	.230
	Within Groups	1.263	18	.070		
	Total	1.371	19			
Commercial bank Total customer deposit/commercial bank total loan	Between Groups	1.710	1	1.710	1.732	.205
	Within Groups	17.774	18	.987		
	Total	19.484	19			

As per the results in Table 4.8, the study noted that capital adequacy regulation (F=1.543 & P>0.05) and that liquidity management regulation (F=1.732 & P>0.05) were all not significant. Thus, the study inferred that financial regulations of Turkey and South Africa were not significantly different. The study was guided by the following hypothesis:

H_{03}: *There is no significant difference between Turkish and South Africa financial regulations*

As shown by the findings in Tables 4.7 and 4.8, the study noted p-values to be greater than 0.05. Thus, the study accepted hypothesis H_{03}. This means that financial regulations existing in Turkey are similar to those in South Africa.

4.6 Summary of the Hypotheses Tested

Table 4.9 provides a summary of the hypotheses that were tested by the study and the decision making criteria.

Table 4.9: Summary of the Hypotheses Tested

Hypothesis	p-value	Inference Drawn
H_{01}: There is no significant difference between the Turkish and South Africa financial institutions	p-values mixed	Unable to reject/accept H_{01}
H_{02}: There is no significant difference between the Turkish and South Africa financial market instruments	$p<0.05$	Reject H_{02}
H_{03}: There is no significant difference between Turkish and South Africa financial regulations	$p>0.05$	Accept H_{03}

4.7 Discussions

The first hypothesis of the study was H_{01} there is no significant difference between the Turkish and South Africa financial institutions. Based on the findings, the study obtained mixed results creating indifference on whether to accept or reject hypothesis H_{01}. Thus, while both life and non-life insurance financial institutions between Turkey and South Africa were statistically significant, there was no statistical difference in the banking sector between the two countries. This finding is consistent with Akyüz (1990) who focused on the financial policies and systems during the period of 1980s, arguing that there was a high level of repression of the financial systems of Turkey some years before 1980. The key features of financial repression during this period included ceiling the lending and deposits rates, rationing of credit, high level of taxation financial transactions and income, high requirements for reserve and liquidity, poorly developed capital markets and high barriers for new banks.

The second specific objective of the study was to compare the Turkish and South Africa financial market instrument. The study used the indicators of equity and bond as the key financial market instrument. From the results of trend analysis, the study noted that bond market is more developed than equity market in South Africa. This finding is consistent with a report of the Central Bank of South (2018) which indicated that South Africa has a relatively large and sophisticated financial system with key players covering the banking institutions, insurance firms and the stock market. The assets of the financial sector account for 298% of the overall GDP, which is relatively above the emerging economies. The banking sector is dominated by four strong players covering ABSA, FirstRand, Nedbank and Standard. Most of the bank liabilities in South Africa are domestic with a high degree of concentration in the financial sector.

It was noted that Turkey has a more developed bond as compared to equity financial market. Financial markets fall into different categories covering stock markets, money markets and commodity markets among others. The key players in the financial markets include the suppliers of capital, intermediaries and the users of capital. The instruments in the capital markets include the debts and equities. Bonds can cover a medium term to long term perspective (Mirazizov, Radzhabova, Abdulaeva, Rasulov, Faizulloev, Mamatkulov & Ahmadov, 2016). According to Martin (2014), financial market is entities that enhance the exchange of financial assets for instance loans and deposits, government and stock securities and they include the stock and the money markets. Unlike the capital market, the money market deals with financial assets of short term horizon like commercial papers, certificates of deposits, treasury bills among others.

The second hypothesis of the study was H_{02} there is no significant difference between the Turkish and South Africa financial market instrument. From the results of the independent t-test and the one way ANOVA, the study rejected hypothesis H_{02} and inferred that there is significant difference between the Turkish and South Africa financial market instrument. There are different instrument that are exchanged in the financial market covering the debts, equities (securities) and derivatives (Lutsyshyn, Klapkiv, Kucher & Svirskyi, 2019). Financial markets fall into different categories covering stock markets, money markets and commodity markets among others. The key players in the financial markets include the

suppliers of capital, intermediaries and the users of capital. The instruments in the capital markets include the debts and equities. Bonds can cover a medium term to long term perspective (Mirazizov, Radzhabova, Abdulaeva, Rasulov, Faizulloev, Mamatkulov & Ahmadov, 2016). According to Martin (2014), financial market is entities that enhance the exchange of financial assets for instance loans and deposits, government and stock securities and they include the stock and the money markets. Unlike the capital market, the money market deals with financial assets of short term horizon like commercial papers, certificates of deposits, treasury bills among others.

The study sought to compare the Turkish and South Africa financial regulation. Two indicators of financial regulation covered by the study included capital adequacy regulation and liquidity management regulation. Based on the findings of trend analysis, it was noted that South Africa has a relatively stronger liquidity management regulation as compared to capital adequacy regulation. The study further indicated that Turkey has a more developed capital adequacy regulations as compared with liquidity management regulations. Strong financial regulations are important for stability and resilience in the financial system. This assertion was supported by Boissay, Cantú, Claessens and Villegas (2019) who noted that enhancing the strength of the financial regulations increases the long term capital stock within the economy. Shaddady and Moore (2019) used a total of 47 countries to bring out the role played by supervision and financial regulations on stability of the banking industry. The study period of consideration was 2000 all through 2016. It was noted that increased capital regulations enhances the stability of the bank. On the other hand, too much supervision with tight restrictions and deposit insurance would adversely affect stability of the banking system.

The third hypothesis of the study was H_{03} there is no significant difference between Turkish and South Africa financial regulation. From the results, the study accepted hypothesis H_{03}. This finding is echoed by Özatay and Sak (2002) who focused on the financial reform process in Turkey that was initiated in 1980 arguing that they deepened the financial systems in place. Strong financial regulations are important for stability and resilience in the financial system. This assertion was supported by Boissay, Cantú, Claessens and Villegas (2019) who noted that enhancing the strength of the financial regulations increases the long term capital stock

within the economy. Shaddady and Moore (2019) used a total of 47 countries to bring out the role played by supervision and financial regulations on stability of the banking industry. The study period of consideration was 2000 all through 2016. It was noted that increased capital regulations enhances the stability of the bank. On the other hand, too much supervision with tight restrictions and deposit insurance would adversely affect stability of the banking system.

Killins, Johnk and Egly (2019) focused on policy certainty of the financial regulations and their link with riskiness and profitability in the banking entity. In total, 4,760 banking entities were covered within the period of 2000 all through to 2016. The inquiry noted that uncertainty in the financial regulation policies is inversely linked with profitability of the banking entities. Banerjee and Majumdar (2017) focused on the financial regulations and their link with efficiency of the banking entity with emphasis on United Arab Emirates. Financial regulation was represented by loans to deposit ratio, loan loss provisions and total capital adequacy provisions.

Shaddady and Moore (2019) covered 2210 banking entities from 47 EU members to link financial supervision and regulations with stability. The inquiry focused on the time period from 2000 all through to 2016. It was noted that more financial regulation enhances the stability of the banking entities. The study conducted by Manamela (2012) looked at financial regulation and its link with the growth of the economy covering Asia, America and Africa. From trend analysis, financial regulation was found to have desirable outcomes on the growth of the economy. To measure financial regulation, the study used financial freedom index. The study noted that financial regulation contributes towards the growth of the economy.

Makokha (2016) used a case of Nairobi to link between some identified financial market regulations and financial performance. The variables of interest covered by the study included capital requirement and liquidity management and a significant relationship was noted. Existence of strict capital requirements in the financial system would increase the level of competition for loan forcing the banks to increase the interest rate hence increasing the profits of the institutions (Pébereau, 2015). Capital requirements may allow banks to maximize their values through enhancement of the confidence of the investors while

enhancing the reputation of the banks. Supervision is an effective mechanism of overcoming market failure occasioned by information asymmetry (Limodio & Strobbe, 2016). Sound supervision had potential to improve the level of efficiency within the banking industry while allowing banks to counter any constraints likely to impact on performance (Macey, 2012). Financial regulations have the potential to reduce credit risk shown through reduced information asymmetry between the financial institution and the borrowers. Financial regulations call for deposit protection that provide buffer within the financial system (Borrius, 2012).

On overall, it can be inferred that the results of financial system development of South Africa and Turkey give mixed evidence based on the specific elements of the financial system covering the institutions, market instruments and regulations. The term financial market is viewed as a platform that allows individuals to ensure that they are able to trade in financial securities and other related commodities covering relatively lower costs of transaction while ensuring that the price covers the level of demand and supply in the market. Securities cover the bonds and the stocks while commodities cover highly regarded metals as well as agriculturally established products. Financial markets ensure there is efficient flow of investment and savings within the economy in such a way that ensure there is optimal flow of capital within the economy. The accumulated capital goes in production of the required goods and services that ultimately contribute towards the growth of the economy as a whole. Existence of well-developed financial institutions and markets and diversified financial products ensure that borrowers have different options to select hence the overall growth of the economy as w whole. Relatively larger financial markets with different trading activities enhance the level of liquidity for the participants in the market as compared to the markets that are thinner where the available securities are limited. This also limits the choice of the investors who may be willing to trade in shares within the market.

Financial system development is established in the process where the financial markets, instrument and institutions seek to grow so as to be able to sustain large amount of investments. Financial system development can be regarded as the efforts made to develop the stability, efficiency and size of the financial markets coupled with the need to increase the accessibility to the financial markets (Castelli, 2018). Financial system development is

an important factor that drives the growth of the economy since savings are channeled towards the development of the economy, reduction in information costs which allows for optimal allocation of capital assets. Financial system development is the foundation of technological innovations and risk management including the need to diversify and hedge against risks (Zangirolami-Raimundo, Echeimberg & Leone, 2018).

4.8 Chapter Summary

This chapter details the analysis of the data as gathered from the field. The chapter covers the descriptive statistics and trend analysis using graphs. The test of assumptions of independent t-test and the testing of hypotheses is also detailed in this chapter. The next chapter is set out to detail a summary of the findings with conclusions and recommendations.

CHAPTER 5
SUMMMARY, CONCLUSION AND RECOMMENDATIONS FOR FINANCIAL SYSTEM DEVELOPMENT OF TURKEY AND SOUTH AFRICA

5.1 Introduction

This chapter is set out to detail the findings of the analysis as informed by the objectives and hypotheses. The conclusion is given as guided by the key findings from the analysis. The recommendations for policy and practice are also indicated with the implications of the findings in theory. The limitations of the study are raised with the areas that require further deliberation.

5.2 Summary

The study was set out to compare the South Africa and Turkish financial system development. More specifically, the comparison of financial system development was done along three variables: financial institutions, financial market instrument and financial regulations. Financial intermediation and the public interest theory of regulation were used to provide anchorage to the study. The adopted design was descriptive with collection of auxiliary data from published reports by respective central banks of Turkey and South Africa as well as the reports by the World Bank Group.

The first specific objective was to compare the Turkish and South Africa financial institutions. In achieving this objective, both descriptive and inferential statistics were utilized. Three indicators of financial institutions were considered, the banking, life and non-life insurance. The results from trend analysis indicated that South Africa has more developed non-life and life insurance institutions as compared to the commercial bank institutions. The trend analysis findings further indicated that Turkey has a far developed insurance sector as compared to the commercial bank sector. The first hypothesis of the study was H_{01} there is no significant difference between the Turkish and South Africa financial institutions. Based on the findings, the study obtained mixed results creating indifference on whether to accept or reject hypothesis H_{01}.Thus, the neither failed to accept nor reject hypothesis $H_{01.}$ Thus, while both life and non-life insurance financial institutions between

Turkey and South Africa were statistically significant, there was no statistical difference in the banking sector between the two countries.

The second specific objective of the study was to compare the Turkish and South Africa financial market instrument. The study used the indicators of equity and bond as the key financial market instrument. From the results of trend analysis, the study noted that bond market is more developed than equity market in South Africa. It was noted that Turkey has a more developed bond as compared to equity financial market. The second hypothesis of the study was H_{02} there is no significant difference between the Turkish and South Africa financial market instrument. From the results of the independent t-test and the one way ANOVA, the study rejected hypothesis H_{02} and inferred that there is significant difference between the Turkish and South Africa financial market instrument.

The study sought to compare the Turkish and South Africa financial regulation. Two indicators of financial regulation covered by the study included capital adequacy regulation and liquidity management regulation. Based on the findings of trend analysis, it was noted that South Africa has a relatively stronger liquidity management regulation as compared to capital adequacy regulation. The study further indicated that Turkey has a more developed capital adequacy regulations as compared with liquidity management regulations. The third hypothesis of the study was H_{03} there is no significant difference between Turkish and South Africa financial regulation. From the results, the study accepted hypothesis H_{03}.

5.3 Conclusion

The first specific objective was to compare the Turkish and South Africa financial institutions. In achieving this objective, both descriptive and inferential statistics were utilized. The study concludes that South Africa has more developed non-life and life insurance institutions as compared to the commercial bank institutions. Turkey has a far developed insurance sector as compared to the commercial bank sector. While both life and non-life insurance financial institutions between Turkey and South Africa were statistically significant, there was no statistical difference in the banking sector between the two countries.

The second specific objective of the study was to compare the Turkish and South Africa financial market instrument. The bond market is more developed than equity market in South Africa. Turkey has a more developed bond as compared to equity financial market. There is significant difference between the Turkish and South Africa financial market instrument.

The study sought to compare the Turkish and South Africa financial regulation. South Africa has a relatively stronger liquidity management regulation as compared to capital adequacy regulation. Turkey has a more developed capital adequacy regulations as compared with liquidity management regulations. There is no significant difference between Turkish and South Africa financial regulation.

5.4 Recommendations for Management, Policy and Practice

Management: The study recommends that the senior managers of the commercial banks in Turkey and South Africa as well as the insurance firms should invest more resources in salesmanship so as to increase market presence and thus more penetration and market depth.

Policy: The policy makers including respective central banks of South Africa should formulate sound policies and regulations that would guide financial system development. The policy makers in the respective insurance and commercial banks as the financial institutions in South Africa and Turkey should formulate proper policies that would promote resilience of the financial institutions.

Practice: The various practitioners including the market and trade development specialists and advisors of the respective commercial banks and insurance firms in Turkey and South Africa should guide the financial markets to realize growth.

5.5 Implications of the Findings to Theories

The results have demonstrated that the financial regulations of Turkey and South are not statistically different from each other. The finding has an implication on the public interest theory of regulation that calls for government regulations in correction of market failures. The theory operates on the assumption that the regulatory regime strive to ensure there is a high degree of efficiency economically. The theory further argues that regulations need to be instituted by the government as all the individuals including those working in the public

domain are driven by their selfish interests. The theory has been used to provide information on what needs to be carried out by the government as well as detailing the actions that are carried out to offer justification of the desired growth in ownership of the public. The theory provides information on why the government plays a central role in regulating some of the deliberations within an economic system.

The theory provides a discussion of the role played by the State in strengthening the welfare of the citizens while correcting the failures within the market. A market failure can also be regarded as undesired practice within the market. At inception, the theory makes an assumption that regulations seek to ensure that the entire society derives benefit as opposed to some few interested individuals within the economy. As opposed to representing the interests of the privately established investors, the regulator seeks to ensure that the interests of the society have been well represented. In most cases, there may exists some specific groups that are likely to capture the degree of control of the agencies responsible for regulating the economy so as to ensure that only their selfish interests are advanced.

The results of the study further indicated that there is significant difference between the Turkish and South Africa financial market instrument. In light of the financial intermediation theory, efforts should be made to enhance the depth of the financial market instrument of both South Africa and Turkey. The financial intermediation theory seeks to explain the role played by financial systems in reduction of transaction and information costs in the economy. The main reason for existance of financial intermediation is the need to counter the issues related with agency and information asymmetry. Lack of financial intermediation would increase information asymmetry hence resulting into market imperfections and ultimate rise in transaction costs.

5.6 Limitations of the Study

The study was limited to one variable, financial system development. The study was further limited to two countries, Turkey and South Africa. The use of two countries allowed for comparison of their financial system development. The study was limited to three indicators of financial system development covering financial institutions, financial market instrument and financial regulations. The study was further limited to a ten year period of 2010-2019.

The period was selected due to ease and availability of secondary data that was to be utilized in analysis of the findings.

5.7 Suggestions for Further Research

The study suggests further research to be done covering other countries away from South Africa and Turkey. Future studies should cover atheist tow variables, dependent and an independent variable. Future studies should cover a relatively longer time period apart from ten years covered in the current study.

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APPENDICES

Appendix I: Data Collection Schedule

Year	Commercial bank assets	Central bank assets	Life Insurance Premium	Non-life insurance premium	Equity stock market capitalization	Bond market capitalization	Equity	Total assets	Total customer deposit	Total loan	GDP
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											

Appendix II: Raw Data Collected for South Africa

Year	Commercial bank assets against sum of bank and central bank assets	Life Insurance Premium/GDP	Non-life insurance premium/GDP	Equity stock market capitalization/ GDP	Bond market capitalization/ GDP	Equity /Total assets	total customer deposit/total loan
31st-Dec-2010	0.468	0.047	0.074	0.034	0.041	0.192	2.385
31st-Dec-2011	0.522	0.151	0.128	0.153	0.177	1.007	0.818
31st-Dec-2012	0.463	0.080	0.085	0.076	0.088	0.874	1.026
31st-Dec-2013	0.630	0.119	0.046	0.034	0.058	0.884	0.697
31st-Dec-2014	0.710	0.146	0.114	0.100	0.105	1.057	5.129
31st-Dec-2015	0.429	0.176	0.176	0.176	0.176	1.381	1.417
31st-Dec-2016	0.611	0.092	0.137	0.101	0.152	0.688	0.552

31st-Dec-2017	0.436	0.078	0.098	0.132	0.102	1.158	1.194
31st-Dec-2018	0.482	0.158	0.173	0.166	0.161	1.082	1.050
31st-Dec-2019	0.691	0.028	0.040	0.040	0.135	0.928	0.564

Appendix II: Raw Data Collected for Turkey

Year	Commercial bank assets against sum of bank and central bank assets	Life Insurance Premium/GDP	Non-life insurance premium /GDP	Equity stock market capitalization/ GDP	Bond market capitalization / GDP	Equity/ Total assets	total customer deposit/ total loan
31st-Dec-2010	0.5999	0.0395	0.0390	0.0463	0.0395	1.1540	0.7715
31st-Dec-2011	0.4793	0.0173	0.0179	0.0226	0.0323	1.0169	1.1576
31st-Dec-2012	0.4790	0.0494	0.0456	0.0466	0.0552	0.9665	1.1261
31st-Dec-2013	0.5075	0.0435	0.0298	0.0449	0.0551	1.2810	0.9614
31st-Dec-2014	0.4874	0.0372	0.0340	0.0400	0.0426	0.9427	0.6799
31st-Dec-2015	0.5665	0.0282	0.0255	0.0413	0.0692	1.5369	0.4891
31st-Dec-2016	0.4667	0.0543	0.0465	0.0465	0.0465	1.0000	1.1193
31st-Dec-2017	0.5695	0.0256	0.0349	0.0285	0.0293	0.9383	0.8412
31st-Dec-2018	0.4689	0.0314	0.0437	0.0213	0.0286	0.9384	0.9656

31st-Dec-2019	0.4894	0.0635	0.0574	0.0572	0.0550	0.9474	0.8726