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Import of Research-Data Centre to Development of Banking and Finance Education in Nigeria

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Abstract

The importance of credible research data in conducting empirical studies in banking and finance is well established. Finance scholars face the challenge of finding and using reliable and credible data to provide empirical evidence to support investment and financial decision-making and to meet expectations for evidence-based finance practice. This paper discusses some of the benefits of establishing and operating specialised research-data centre for collection and storage of banking and finance data in Nigerian universities. The paper also emphasises the establishment of research centres with specialisation in specific areas in banking and/or finance as well as discusses the basic stages in establishing such centres.

JEL Classification Codes: C82, Y10

Keywords: Research centres, data repository, banking and finance education, Nigeria

1 Introduction

It is well known that empirical research in banking and finance tests assumptions and observations made about financial institutions, intermediaries, assets, and processes and creates new knowledge that may be used to improve financial system efficiency and/or alter financial practice. The importance of credible research data to banking and finance scholars in conducting empirical research studies in banking and finance can therefore not be overstated. Many erudite scholars in finance recognise that genuine policy-based recommendations that can positively impact banking and financial system can only emanate from credible data. Okafor (2014) for instance, identifies a robust financial data base for research in finance as one of the two essential factors propelling the pace of development of finance both globally and within individual countries. In the same vein, Karpoff, Koester, Lee, & Martin (2014) note that the electronic availability of data on financial restatements, class action lawsuits, and regulatory actions have facilitated an explosion of research on the causes and effects of financial misconduct. This supports the position of Okafor (2014) that availability of credible data provides a major stimulus for empirical research in banking and finance as well as increase the chance of publication in top ranking journals. Establishing a research-data centre to collect and store reliable banking and finance data will not only serve as a foundation for academic research in banking and finance and related disciplines but will also serve as a benchmark for the investment community.

Numerous universities and institutions in developed countries had long recognised the correlation between data collection, storage and development of new knowledge. The global trend is for universities to establish research centres, especially in banking and finance, to provide, through rigorous specialised research, theoretical framework and empirical evidence needed to broaden knowledge in specific areas and to enhance professionalism. The University of Chicago Booth Business School, for instance, has a total of twelve research centres that play important roles in its continuous push to improve state of business knowledge and practice (Kumar, 2014). Allen (2013) notes that eighty nine scholars associated with the University of Chicago have received Nobels, out of which twenty eight¹ received the Nobel Memorial Prize in Economics. Research-data centre derives its value by increasing the credibility of financial data, which in turn increases research recipients' reliance on research findings. As a result, universities are keen on establishing research

¹ Six of these 28 Profs are current faculty members of Chicago Booth. They include: Profs. Eugene F. Fama and Lars Peter Hansen (who won in 2013), Roger Myerson (2007), James Heckman (2000), Robert E. Lucas Jr. (1995), and Gary Becker (1992).

centres, especially in finance. The Auckland University of Technology Business School New Zealand established and operates the Auckland Centre for Financial Research. The University of Cambridge United Kingdom operates the Centre for Financial Research. IE Business School Spain operates the Centre for Finance Research. NYU Stern operates the Salomon Center for the Study of Financial Institutions. University of Bristol operates the Personal Finance Research Center. These centres aim to become globally recognised centres of excellence in financial system developments through research and support for, financial regulators, industry and academia to achieve robust financial system efficiency. This will thus serve as a bridge between academia and the financial industry through empirically-based recommended solutions to industry problems using robust financial data base obtained by either linking/affiliating with a data repository or establishing own data repository.

Despite the global trend in establishing finance research centres and the challenge to find and use credible data to support financial decision-making and to meet expectations for evidence-based finance practice, Nigerian universities, especially banking and finance departments have not been keen to establish research-data centres or do not appreciate its importance. There is need, therefore, to highlight the benefits of establishing and operating research-data centres in Nigeria as well as to identify the stages involved in setting them up.

The major objectives of this paper, therefore, include to highlight the benefits of operating specialised research-data centres as affiliates of Banking and Finance Departments in Nigerian universities and to discuss the stages involved in establishing such centres. The paper will be useful to the university and the department in which the research-data centre is to be domiciled. It will equally serve as a reference literature to researchers in Nigeria and across the globe who have interest in studying research centres and data repositories. The remainder of the paper is organised as follows. Section 2 presents the benefits of research-data centre and brief review of research and data centres. Section 3 provides the stages in establishing research-data centre. Section 4 presents conclusions and recommendations.

2 Benefits of Research-Data Centre and a Brief Review

2.1 Benefits of Research-Data Centre in Banking and Finance

A research-data centre in banking and finance will be of immense benefit to scholars, students and any institution in which it is established. The general benefits include the following:

- a. **Access to credible research data:** Academic staff and students of the institution in which the centre is domiciled will have access to credible research data which they can use to conduct empirical studies to test the validity of finance theories and stylized facts in the Nigerian environment. This will enhance teaching and learning in Nigeria as the theories that are not valid in the Nigerian context can be modified thereby contributing to advance knowledge.
- b. **Maintains data history:** Research-data centre will aid accumulating and maintaining data history. This will help in analysing trends in order to make informed decision because a data repository stores large amounts of past data, providing a historical intelligence aspect to financial decision-making.
- c. **Enhance confidence on empirical research outputs:** The confidence of research recipients will be greatly enhanced when they know that the basis of research findings (i.e. the data) is credible.
- d. **Reduction in plagiarism and academic fraud:** Establishing research data centre will boost the war against plagiarism and academic fraud. If, for example, the students know that their supervisors and lecturers have access to the data for their study, the tendency to report cooked results will be reduced since supervisors can re-estimate the variables in the research project reports.
- e. **Income generation from data subscription:** Research-data centre will serve as additional income generating source to the institution or department. Students and even academic staff will pay minimal data subscription fee to the department. Other researchers and scholars from other institutions that want to use data from the depository will pay higher access fees. In this way, the department can generate additional income.
- f. **Publicity:** The department and hence the institution which houses the centre will also enjoy publicity through citations as the source of research data. Readers of such articles will recognise the department as the data source. Again, others who may not have heard about the institution will know it through reference as the data source, and research outputs of academic staff will increase as a result of easy access to data in the department's data repository.
- g. **Enhanced financial market efficiency:** Publishing the information contained in the data repository through index and trend analysis will boost financial market efficiency. Financial market participants will, in this way, have wider information upon which to base their analysis and investment decisions.

- h. **Achieve the university mandate:** University, in every part of the world, is the abode of knowledge. Research-data centre will create an enabling environment for scholars to continually update existing knowledge as new data is observed. This will ensure that the university and banking and finance departments contribute to this noble mandate through providing new knowledge to the ever changing global financial landscape.
- i. **Evolution of departmental journal:** Research-data centre will most likely favour the establishment of a scientific journal that will serve as outlet for some research papers that will emanate from its establishment.

2.2 Conceptual Framework and Brief Review of Research and Data Centres

2.2.1 Conceptual Framework

The need for collection of and storage of financial market data for empirical research in finance was long recognised in the 1930s in the United States of America by the Alfred Cowles Foundation. Data repository, according to Vennapoosa (2008), is a logical (and sometimes physical) partitioning of data where multiple databases which apply to specific applications or sets of applications reside. For example, several databases (share index, volume traded, market capitalisation) which show stock market activities could reside in a single financial data repository. Competing with the concept of data repository is the concept of data warehouse, a term defined as creating a central location and permanent storage space for the various data sources needed to support a company's analysis, reporting and other business functions (Rosencrance, 2011). A database warehouse is one large data repository of all related information including all historical data of interest to the institution implementing the data warehouse.

In academic context, universities, or departments, not only use data repository to gain ranking advantage but also to provide support for decision making processes through comprehensive data analysis. Such data warehouse is essentially created by integrating the data from all available sources. Having all information in a central location allows for the data to be easily organised, analysed and secured.

2.2.2 Brief Review of Research Centres

The first systematic collection of stock market data, according to Miller (1999) in Okafor (2014), was initiated by the Alfred Cowles Foundation in the early 1930s in the United States of America.

Salomon Center for the Study of Financial Institutions, founded in 1972 by a grant from the partners of Salomon Brothers, specialises in the study of financial institutions, including commercial banks, investment banks, managed funds and insurance companies. Recently, the Center has played an important role in the development of the new architecture of global finance and has been instrumental in the organization of several NYU Stern School book projects: Restoring Financial Stability, Regulating Wall Street, and Guaranteed to Fail: Fannie Mae, Freddie Mac, and the Debacle of Mortgage Finance. The Center's research areas include: Credit & Debt Markets, The NASDAQ OMX Derivatives Research Project, Financial Institutions, and the Financial Policy Platform. Two earlier initiatives, still affiliated with the Center, are now on their own-Corporate Governance directed by David Yermack, in the NYU Pollack Center for Law and Business and The Volatility Institute directed by Robert F. Engle² (see the Salomon Center for the Study of Financial Institutions website).

The Financial Markets Group Research Centre (FMG) was established in 1987 at the London School of Economics. The FMG is a leading centre in Europe for academic research into financial markets. It is the focal point of the LSE's research communication with the business, policy making and academic finance communities. The Centre focuses its activities in four thematic research programmes: Asset Pricing and Portfolio Management, corporate finance and governance, Capital Market Dysfunctionality, and Financial Regulation and Risk Management. Each thematic programme hosts a number of associated projects on key research areas. The Centre's dissemination activities include seminars, numerous high-profile conferences, specialised workshops, public lectures and the publication of over 30 research papers per year. These are all organised around the core research programme structure (see FMG website).

The Centre for Financial Research (CFR) University of Cambridge was founded in 1996 as a centre of academic excellence with interests in mathematical and computational finance. The Centre's research is primarily in the formulation, analysis and estimation of advanced models of financial markets, and the interests of its members include econometrics, option pricing, computational finance, market microstructure modelling, information effects and other forms of interaction. The Centre has a membership of highly-qualified academic

² Robert F. Engle is the 2003 Nobel Laureate in Economics.

staff and graduate research students. Currently 7 staff members working together with 7 doctoral students are active in the Centre. It was amalgamated with the Centre for Research in Quantitative Finance (CRQF) in 2008 and moved from the Judge Business School to the Centre for Mathematical Sciences (see CFR website).

The Personal Finance Research Centre was established in 1998 as an independent research centre based at the University of Bristol, which specialises in social research across all areas of personal finance, mainly from the consumer's perspective. The Centre focuses on the following areas: financial confidence, capability and wellbeing; money management and decision making; financial exclusion and inclusion; credit use and over-indebtedness; and saving and retirement planning. The interdisciplinary team combines extensive empirical research skills with a detailed understanding of a range of social policy issues to provide technical and policy advice to government departments and others (the Personal Finance Research Centre website).

The Financial Fraud Research Center (FFRC), established in 2009, is a joint project of the Stanford Center on Longevity and the Financial Industry Regulatory Authority (FINRA) Investor Education Foundation. The Center's particular focus is individual financial fraud—particularly fraud achieved using deception. This includes crimes such as lottery fraud, investment scams, and online phishing schemes. The Center identified three urgent initiatives necessary to further fraud prevention: consolidating information, connecting research to policy, and providing funding (see FFRC website).

The Centre for Asset Pricing Research (CAPR) was established at the end of 2011 to serve as a bridge between academia and the financial industry. CAPR is a nexus of people and projects devoted to further the understanding of how asset price dynamics are determined. The Centre supports faculty research groups, workshops, internal seminars and industry seminars. The Centre's mandate encompasses broad themes in empirical and theoretical asset pricing and portfolio choice. The long term aim of the centre is to build up an internationally visible research group (see CAPR website).

The Auckland Centre for Financial Research (ACFR) strives to achieve excellence in empirical finance and applied financial econometric research by nurturing and developing world-class researchers, establishing relationships with leading academics and centers/institutes in the field, developing research capacity of postgraduate and PhD students, and engaging with industry. The Centre focuses its activities in three main areas: financial econometrics, corporate finance and governance, and financial markets (see ACFR website).

The Finance Research Center IE Business School Spain was established to produce and disseminate high quality research output in the area of financial economics. The Center has a multidisciplinary approach, comprising full-time professors and research fellows across different disciplines (strategy, control, economics and finance) and schools with a common and broad interest in financial economics research topics. Among its activities, the Center conducts new research across a wide array of financial topics; promotes high profile conferences and workshops for academics, practitioners and regulators and contributes to the diffusion of cutting-edge knowledge in financial economics for the academic community and the whole society (see the Finance Research Center website).

The Centre for International Finance and Regulation (CIFR) is a centre for research and education in the financial sector. It brings together leading Australian universities, research centres and financial organisations to assist the financial sector, government and regulators to meet emerging challenges and opportunities locally, regionally and internationally. Sponsored by the Commonwealth and NSW Governments, comprising a consortium of universities and associates, CIFR focuses on financial market developments and financial system regulation (for more details, see CIFR website in the reference).

2.2.3 Brief Review of Data Repositories

As one of the twelve Research and Learning Centers at Chicago Booth, Center for Research in Security Prices (CRSP) bridges theory and practice with trusted data solutions. Since 1960, CRSP has provided research-quality data to researchers and advanced the body of knowledge in finance, economics and related disciplines. Today, nearly 450 leading academic institutions in thirty five countries rely on CRSP data for academic research and to support classroom instructions. Investment practitioners rely on CRSP data to backtest strategies and to benchmark investment performance. The CRSP Indexes are investable indexes which include cap-based, industry sector and value-growth indexes. More than 500 entities for whom data quality, accuracy and completeness are essential rely on CRSP data products. CRSP portfolio of stock, indexes, mutual fund, treasury, and REIT market databases are relied on by academics whose research and publications must withstand rigorous analysis for accuracy. Quantitative analysts in the commercial market depend on CRSP's historical depth and unrivalled quality in order to perform backtesting and modeling calculations. In the government sector, regulators and policy makers value CRSP's complete data sets as the basis for financial and economic research (see CRSP website).

Amadeus (Bureau van Dijk) is a database of comparable financial and business information on Europe's biggest 510,000 public and private companies by assets covering 43 countries. Amadeus includes standardised annual accounts (consolidated and unconsolidated), financial ratios, sectoral activities and ownership data. The database is suitable for research on competitiveness, economic integration, applied microeconomics, business cycles, economic geography and corporate finance. Amadeus is updated weekly, providing standardised annual accounts with up to ten years archive. Data is collected and harmonised by Bureau van Dijk from company returns and reports (see Amadeus website).

Bankscope is a database containing financial information on over 13,000 public and private banks worldwide. It provides up to 8 years of detailed information available for European banks (top 6,300), North American banks (top 1,600), all 930 Japanese commercial and sogo banks, and over 4,100 other major banks. Each report contains detailed consolidated and/or unconsolidated balance sheet and income statement, and also ratings, ownership, security and price information (see Bankscope website).

Wharton Research Data Services (WRDS) is a web-based business data research service from The Wharton School at the University of Pennsylvania. Developed in 1993 to support faculty research at Wharton, the service has evolved to become a common tool for research for over 290 institutions around the world. WRDS is the de facto standard for business data, providing researchers worldwide with instant access to financial, economic, and marketing data through a uniform, web-based interface. This hosted data service has become the locus for quantitative data research and is recognized by the academic and financial research community around the world as the leading business intelligence tool. WRDS provides access to COMPUSTAT, CRSP, IBES, NYSE-TAQ, Bureau van Dijk, Global Insight, OptionMetrics and other important business research databases (see WRDS website).

The Bloomberg Professional stations seamlessly integrate historical information on about five million bonds, equities, commodities, currencies, and funds. Bloomberg's electronic library comprises data on almost every publicly traded company in the world and biographies of more than one million people (see Bloomberg website).

The CSMAR (China Stock Market & Accounting Research) research database system is jointly produced by GTA Information Technology Co. Ltd, the University of Hong Kong and the China Accounting and Finance Research Center of the Hong Kong Polytechnic University to meet the needs for China economic analysis and research by experts and

scholars from universities and financial institutions. It integrates the 50 GTA major databases and consists of several parts, including Macroeconomics, China's Listed Companies, Stock Market, Bond Market and Banking. CKGSB Library has subscribed to 24 databases from CSMAR's research database system, and the Web version is now available (see CSMAR website).

Global Financial Data (GFD) is the most comprehensive collection of financial and economic data ever to be compiled from original data sources. Covering more than 200 countries and extending back to 1265, GFD is the source that analysts around the world use to complete their research, past and present. Also included is an unsurpassed compilation of proprietary total return data on stocks, bonds, and bills that extends back to the 1800s. GFD charts the changes in financial markets and the economy in the 1900s as the world went through two world wars, the Great Depression, recovery from World War II, stagflation, the emergence of Asian markets and the internet bubble in the 1990s. The past few years have shown that without a full understanding of the past, you cannot understand how markets behave (see GFD website).

Thomson Reuters Datastream Professional is a global financial and macroeconomic database covering equities, stock market indices, currencies, company fundamentals, fixed income securities and key economic indicators for 175 countries and 60 markets (see Datastream website).

The Central Bank of Nigeria Statistics Database is an online store of a range of time series data on all the sectors of the economy. The platform provides a rich source of high frequency data sets across the monetary & financial, the external & the real sector. The fiscal sector data sets are annual time series. Available sector statistics range from monetary aggregates, money market interest rates, government securities and asset prices to balance of payments, external trade statistics, exchange rates, external reserves, consumer price indices and gross domestic product statistics as well as debt statistics. Others include federal, state and local government finance statistics. (see CBN statistics database website).

The Nigerian Stock Exchange provides a broad range of real-time, end-of-day reference and historical data products. The objective is to meet the diverse requirements of all of users who want to keep up to date with our markets. To this end, NSE speedily delivers accurate and high-quality information and makes it easily accessible to all parties believing that the delivery mechanisms and platforms associated with market data are essential to transparency in the capital marketplace and to informed investment decision-making. The

NSE also maintains close relationships with leading data vendors³ and distributors, who disseminate a wide range of NSE market data via the exchange's Market Data Feed service. These Authorized Data Vendors give individuals and corporations access to the NSE's real-time, delayed and end-of-day quotation, trade and market summary data under license agreements with the NSE (see NSE website).

From the review presented above, it is clear that universities, especially finance departments, around the world are establishing research centres and data repositories as a stimulus for conducting empirical research to understand what financial markets are doing today, where they may go in the future, and how they have changed over time. It is also glaring that while some institutions establish research centres or data repository, others combine the two (see for example, University of Chicago Booth School CRSP). Those centres which establish only research centres subscribe to data access from renowned data providers. But data centres, in most cases, also specialise in specific areas of empirical finance research. It is not difficult to see, from the brief review, that majority of Nobel Prize winners in finance are affiliated to these centres. Little wonder then that Okafor (2014) emphasis the import of a robust financial data base as a key factor propelling the pace of development of finance both globally and within individual countries. The question therefore is: what are the stages involved in establishing research-data centre?

3 Stages in Establishing Research-Data Centre

The stages involved in establishing centre for research data (i.e. data repository) are not too much different from those of a database project. Specific to data repository is the fact that they are established through an iterative process, which comprises identification of data requirements, development of a solution in accordance with these requirements and implementation of data repository architecture (Velicanu and Matei, 2007). Given the importance of credible data in producing excellent research outputs, the following stages are involved in developing a research-data centre: development of a feasibility study, business line analysis, data repository architecture design, selection of the technological solution, planning the project iterations, detail designing, data ware-house testing and implementation, deployment and roll-out.

³ The current list of the NSE Market Data Vendors comprises 12 companies including: Applied Logic Ltd, Bloomberg, MSCI, S&P Dow Jones, Thomson Reuters, etc.

3.1 Development of a Feasibility Study

This stage involves strategic analysis, including the evaluation of department areas of specialisation. More areas of specialty may be included in the long term, but in the short term it is better to choose the areas of study having the greatest strategic priority. The feasibility study defines the activities, costs, benefits and critical factors for the future system success. In this stage, both short term and long term strategies are pursued, the immediate and future costs are identified, so that a proper budget plan could be developed. Velicanu and Matei (2007) note that the roles and responsibilities for all the people involved in the project must also be established in this stage, as it leads to a clear establishment of the relations between the team members, to a better understanding of the project and to an improved communication between the participants.

3.2 Research-Data Centre Objective Analysis

Research-data centre objective analysis is an important stage in the data repository development cycle. Its main purpose is Research-data centre requirements identification. The users of a Research-data centre are heterogeneous and have varied data requirements, which only partly can be foreseen in data centre development stage. The following goals must be achieved in this stage: achieving a global view on institution activity and users requirements, establishing the Research-data centre scope, identifying the institution mission and vision, and establishing the priorities of users requirements. On the basis of information obtained from the feasibility study, the Centre priorities are established, depending on their relative importance, the costs and availability of the necessary data. This priority list is used to establish the scope of the first and the subsequent iterations of research-data centre development.

3.3 Research-Data Centre Architecture Design

The architecture is the logical and physical foundation upon which the Research-data centre is built. This stage involves designing data repository so that it can allow further development with a minimal impact on the existing model (Velicanu and Matei, 2007). It specifies the relational and multidimensional databases that are to be used for data collection, storage and access. Once the logical configuration is defined, the next is to design the data,

application, technical and support architectures needed for data repository implementation. A carefully analysis has to be made concerning the requirements of these four architectures:

- *The data architecture* has the purpose to organize the data sources and collections and to define the quality and management standards, both for data and metadata.
- *The application architecture* presents the software components that provide the implementation of the centre functionality within the data repository, as well as the data transfer from its source to users, that is data extracting, cleaning, transforming, loading, refreshing and accessing.
- *The technical architecture* provides the proper infrastructure for data and application architectures. It includes the server, network, hardware and software components for connecting and communication. The technical architecture must respond to the requirements of scalability, performance, availability, stability and security. It must be robust, reliable, flexible, extensible, and parallel (Velicanu and Matei, 2007; Walls and Scott, 1999).
- *The support architecture* includes tools for backup/recovery, archiving, performance monitoring, as well as the institutional functions necessary for the technological investment management.

3.4 *Selection of Research-Data Centre Technology*

The purpose of this stage is to identify the possible tools for implementing data and application architecture, and for providing technical and support architecture functions. It involves selection and acquisition of the most suitable tools for data repository architecture. The instrument selected must consider the data volume estimated to be uploaded into the data repository.

3.5 *Research-Data Centre Detail Designing*

In this stage the data repository physical model is designed, metadata is defined and data source list is updated to include all the information necessary for the implementation of that subject. The Research-data centre physical model must respond to the users' informational demands. The Research-data centre schema may be developed in accordance with the relational model, based on data normalization, or the multidimensional one, based on denormalization.

3.6 *Research-Data Centre Testing and Implementation*

Once the planning and design stages are completed, the current iteration for data repository implementation may start. In this stage, the development and testing environments are established, the hardware and software components are installed and the configuration management process is implemented. After the initial test made by the development team, the final users are involved. They have to use the system as they will do after data repository transition to production. This manner makes possible to find out and correct the errors, to identify the requirements for performance enhancement, and to allow the users become familiar with the new system. It is possible that other changes will need to be done after the transition to production, but starting this activity with a proper performance represents one of the project success keys (Velicanu and Matei, 2007).

3.7 *Research-Data Centre Deployment*

In this stage, the production database is created and the programs for extracting, cleaning, transforming and loading data are run against the source systems. The users training is completed, the team for change management is created, and the control procedures for future development cycles are established. In the operation stage, besides the data repository employment by the final users, its maintenance and development are provided too. The centre administrators have to do several specific activities for achieving this purpose:

- *Periodical refreshing of the data repository.* From time to time, the new changes made in the operational systems have to be loaded into the data repository, so that its users could have the most recent information at their disposal. Usually, this process is performed when the operational systems are not in use and it consists in extracting, cleaning, transforming and loading data into the data repository.
- *Evaluation of the database size.* The data repository size increases at every loading operation and can cause serious troubles. There are several techniques that can be used for reducing the negative consequences the increase of the data repository volume over certain limits:
 1. aggregating the detailed data, and then archiving and deleting it from the data repository;
 2. limiting the storing interval at a certain period of time, and then archiving and deleting the data;

3. deleting the unused data, which can be identified on the basis of statistical indicators regarding the data repository.
- *Database disaster recovery.* The information within the data repository has a strategic importance for the researcher both within and outside the university. That is why a special attention has to be given to disaster recovery procedures.

It is obvious, therefore, that the process of data repository development is a very complex one, which can be achieved only in an iterative manner, one subject area at a time. A data repository development cannot be performed if its goals are not clear and well understood. At the same time, all the users' requirements must be identified and the way they will interact with the data repository must be established (Velicanu and Matei, 2007).

4 Conclusions and Recommendations

4.1 Conclusions

The standard for today's global banking and financial profession is to use best evidence and create best practices for banking and financial system stability. Establishing research-data centre to provide the facility to obtain, evaluate, store and use credible data will help to enhance evidence-based banking and finance profession competencies.

This seminar paper provides a highlight of the benefits of establishing research-data centre within banking and finance department as a stimulus to empirical research in banking and finance as well as discusses the stages in setting it up. As credible data makes its way to the frontlines of banking and financial research, the data analysis skills acquired by scholars translate to better information for professionals and improved banking and financial decision-making. Lecturers and supervisors of research projects can influence development of banking and finance by emphasising the indispensability of credible data to research in banking and finance, and mastering analytical software, from the early stage of studentship to presentation of research project report.

4.2 Recommendations

Given the importance of credible and research-quality data to empirical research in banking and finance, and the need for evidence-based banking and finance practice, the following are recommended:

1. The establishment of research-data centres in the departments of banking and finance in Nigerian universities.
2. The National Universities Commission should include establishing research-data centre as a key requirement for accreditation of banking and finance departments in Nigerian universities.
3. The Federal Governments (and by implication, the Vice Chancellors) should provide funding for the initial take-off of research-data centres in banking and finance departments in Nigeria.

Implementation of these recommendations will enhance banking and finance education, and hence banking and finance profession in Nigeria.

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