

DATA STORAGE AND MANAGERIAL EFFECTIVENESS OF COMMERCIAL BANKS IN SOUTH-SOUTH, NIGERIA

Prof. Sam Otamiri & Wali-Innocent, Violet Nne

**Department of Office and Information Management, Faculty of Management
Sciences, Ignatius Ajuru University of Education, Port Harcourt, Rivers State,
Nigeria**

ABSTRACT

The study examined the relationship between data storage and Managerial Effectiveness in Commercial Banks in South-South, Nigeria. The study adopted the explanatory cross-sectional survey research design. The entire population of 22 Commercial Banks was used without sampling which makes it census research. A total of 218 top level managers were obtained as respondents by selecting two (2) top ICT managers (General Manager and Public Relations Manager) from the state headquarters of each of the banks across the six (6) states in South-South as presented in table 3.2. After validation by the supervisor and other experts and having determined the reliability of the instrument using Cronbach alpha, questionnaire was used as the instrument for data collection. Out of the total of 218 copies of the questionnaire administered, a total of 180 copies were retrieved. Mean and standard deviation were used to carry out the univariate while the bivariate analysis was done using Spearman Rank Order. The findings revealed that a significant positive relationship exists between data storage and managerial effectiveness of Commercial Banks in South-South, Nigeria. The study concluded that organizational memory is a major enhancer of managerial effectiveness of Commercial Banks in South-South, Nigeria. The researcher therefore, amongst other things, recommended that constant technological upgrade and consolidation on organizational memory by managers of Commercial Banks in order to enhance managerial access to information and decision making. Therefore, the study has bridged the knowledge gap that existed concerning the relationship between organizational memory and managerial effectiveness in literature by providing an empirical explanation of how dimensions of organizational memory such as data storage, information management, and knowledge management interact with managerial effectiveness in terms of timely information supply, effective decision making, and service delivery within the context of Commercial Banks in South-South, Nigeria.

Keywords: Data Storage, Managerial Effectiveness, Decision Making, Service Delivery

INTRODUCTION

Ineffectiveness amongst managers especially in the Commercial Banks to be specific is becoming so alarming recently. There seems to be regular cases of delay in the supplying of information which ranges from sending of letters, circulars etc and other forms of information sharing within the office because of the inability of some managers to do their job properly (Akpan, *et al.* in Evans, 2012). Sometimes where this administrative information are being sent, appears not to be done with accuracy. Perhaps, this may be due to the fact that some of them may not have the necessary skills or experience needed in carrying out their core functions (Ikeme and Orela, in Pere, 2021).

It also appears that most policies implemented by managers of deposit money bank in South-South region of Nigeria does not favour their employees. The case of resuming duty by 8am and closing by 5pm-6pm is becoming a growing concern among married men and women working in the bank as they do not have much time to spend with their family which causes work-life imbalance (Senge, 1990; Pere, 2021). And as such employees bear it with grudges which is not healthy for attaining organizational success. By observation, it seems most managers of deposit money bank in South-South region of Nigeria are comfortable attending to their personal issues rather than focusing on organizational activities. This has hampered the operations of these deposit money bank as their employees imitates them by putting their self-first before the organizational goals. This has hampered the productivity and effectiveness of these respective organization (Saddat, *et al.*, 2016; Gitahi, *et al.*, 2017). This brings into question the issue of organizational memory. We do not know the level at which these organizations use accumulation online and offline knowledge base in ensuring effectiveness.

Another issue that necessitated this study is the fact that there appears to be a dearth of empirical studies on how organizational memory interacts with managerial health within the context of Commercial Banks in South-South, Nigeria. Over the years, several authors have their different view of organizational memory as it has been researched from different angles such as Ovoke and Chima (2020) examined organizational memory management and competitive advantage of Oil and Gas Firms in Rivers State, Nigeria. They found that organizational memory dimensions (personal memory, management memory, cultural memory and research and development memory) had a substantial positive relationship with competitive advantage of Oil and Gas Firms in Rivers State, Nigeria; Al-Hashem *et al.* (2021) examined the mediation role of the organizational memory in the relationship between knowledge capturing and learning organization in the Jordanian private universities. The study revealed that there is a significantly positive impact of knowledge capturing on organizational memory and learning organization. There is a significantly positive impact of the organizational memory on learning organization, and the organizational memory has a significantly impact in the relationship between knowledge capturing and learning organization; Zeinab and Hamid (2013) examined a survey of the relationship between organizational memory and organizational learning in public organizations of Kerman. They found that there is a significant positive relationship between each dimension of organizational memory (personal memory, cultural memory, management memory and R&D memory) and organizational learning in the organization. Liudmila (2012) theoretically studied organizational memory systems as a source of learning for new employees in an innovation context. The results show that new employees face a range of memory systems, and this range does not depend on the innovativeness of the work they are involved in; Argote (2015) examined the impact of organizational memory on employee retention in Singapore using four plastic manufacturing companies. The findings revealed that there is a significant positive relationship between organizational memory and employee retention; Bartsch and Maurer (2017) examined organizational memory as correlate of employee competence in Zimbabwe using five manufacturing companies. The findings revealed that is a significant weak relationship between organizational memory and employee competence.

Moreso, Reham *et al.* (2019) examined organizational memory, knowledge management, marketing innovation and cost of quality: empirical effects from construction industry in Jordan. They found that that organizational memory is significantly and positively related

to both marketing innovation and cost of quality, and that knowledge management is significantly and positively associated with marketing innovation and cost of quality construction industry in Jordan; Wageeh (2019) studied organizational memory and organizational performance from the employee perspective: a study in the Egyptian context. It was found that organizational memory (technology organizational memory, marketing organizational memory and organizational memory) on Organizational Performance (marketing organizational performance and management organizational performance); Boma-Siaminabo (2020) examined tacit knowledge strategies and organizational competitiveness in paint manufacturing firms Port Harcourt. The results showed that dimensions of tacit knowledge strategies such as strategic deputization, externalization and information sharing culture significantly and positively affects measures of organizational competitiveness such as product innovation, satisfactory service delivery and outstanding brand image etc.

However, none of these aforementioned studies analyses organizational memory and managerial effectiveness specifically in Commercial Banks in South-South, Nigeria using dimensions, measures and indicators as used in the present study. None of the studies equally analyses the issue of technological infrastructure on how it could moderate the relationship between organizational memory and managerial effectiveness within the context of Commercial Banks in South-South region of Nigeria.

Research Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

- Ho₁: There is no significant relationship between data storage and timely information supply of Commercial Banks in South-South, Nigeria.
- Ho₂: There is no significant relationship between data storage and effective decision-making of Commercial Banks in South-South, Nigeria.
- Ho₃: There is no significant relationship between data storage and service delivery of Commercial Banks in South-South, Nigeria.

Data Storage and Managerial Effectiveness

Organizational information is usually bulk so, managers always find it difficult in ensuring accuracy as a result of loss of file, incomplete information etc. this has really hampered the operation of organizations as managers are tagged ineffectiveness. The aforementioned act has clamoured managers of every organization specifically in Commercial Banks in South-South region of Nigeria to deploy devices of storing data or knowledge of their respective organization for future usage (Salton, 2016). However, Data storage is so important for short term and long-term future usage, both on the organizational and individual levels. It therefore becomes a necessity for organizations to save their electronic documents in order to facilitate their performance in the areas of operations and decision making. The manager in his/her duty post handles some electronic documents in their care, and storage is one of the actions they perform on these documents. Saving these documents skilfully helps the manager in improving his/her efficiency and effectiveness in terms of timely information supply (customer-business communication, timely information access and timely feedback); effective decision making (operational efficiency, compliance to bank standard and decision implementation); service delivery (quality customer service, customer compliant redress and customer time saving).

In line with the assertions above, Mahapa (2013) averred that data storage practice can be achieved in Commercial Banks through the use of tools like logbook, which contains records of the guests' comments and complaints; standard operational procedures, containing records of daily, step-by-step operational procedures; and situational. This is because data storage enables the organization to learn from its self by capturing relevant experiences and making them readily available throughout the organization. By having an efficient data storage system and intelligent distribution process, the whole organization can learn from individuals and from groups working within the organization. This will assist in ensuring that the right persons with relevant knowledge are consulted at the most appropriate time. Similarly, Skyrme (2011) posit that through data storage faster access to knowledge is achieved, increased profitability, and shorter time-to-market to new business opportunities is promoted. This is because when data in a given area is considered needful to acquire, such knowledge in order to remain readily accessible on real time within the organization, especially as it concerns potentials and new workforce, must be integrated into the organization's memory using its data bank facilities. Doing this is very critical to organizational performance because access to procedural knowledge enhances employee effectiveness and quality service delivery. In the face of obscurity, knowledge storage facilitates quick access to organizational knowledge, such as procedures, rules and policies which serve as guide for effective service delivery.

Furthermore, managerial effectiveness could be greatly enhanced by data storage indices called database system, data access and data processing. A database management system is intended to be utilized in an operating system (OS) environment that performs scheduling of jobs, processes input/output operations, manages auxiliary storage, and provides conventional data management facilities. The DBMS exists as a set of operational programs analogous to the control programs of an operating system. The overall operation of the DBMS, its scheduling and relation to other jobs running on the system is usually under the supervision of the operating system. Many of the operations that need to be carried out for the functioning of a DBMS (scheduling of application programs working with the database, database access) could be done either by the OS, or by the DBMS itself. This operations make managers job very easy as much as improving the effectiveness such as timely information supply (customer-business communication, timely information access and timely feedback); effective decision making (operational efficiency, compliance to bank standard and decision implementation); service delivery (quality customer service, customer compliant redress and customer time saving).

Beal (2020) supported the aforementioned view that In order to improve the financial organizational capability and enhance its level of competition in the market, financial organizations should understand the dimensions of the knowledge Management, and clearly define and develop the resources in case of human, technological, and internal operations, among others, and manage them well across the organizational boundaries. However, establishing the link between knowledge Management system, planning and decision-making is, at best, tricky. Database management and data access enables the exchange of experiences, which transfers the required information to the management levels to sustain competitive advantage since it affects the decision making to improve the quality of services provided. Therefore, Technopedia (2020) supported that it is imperative that these organizations continuously motivate their employees to share valuable information so that their intellectual capital can be leveraged. Database System will give the banking management a new dimension in managing its knowledge and help in carrying out and

maximizing the management's initiatives in harmonizing the appropriate strategies in the short and long planning.

Social Learning Theory by Albert Bandura in 1976

The social learning theory was propounded by Albert Bandura in 1976. Social learning theory is a theory that explains skills acquisition and transfer of knowledge in individuals. Social learning theory suggests that social behavior is learned by observing and imitating the behavior of others. Psychologist Albert Bandura developed the social learning theory External link as an alternative to the earlier work of fellow psychologist B. F. Skinner, known for his influence on behaviorism. While behavioral psychology focuses on how the environment and reinforcement affect behavior, Bandura put forth that individuals can learn behavior through observation. Social learning theory is grounded by several key assumptions:

- i. People learn through observation. Learners can acquire new behavior and knowledge by merely observing a model.
- ii. Reinforcement and punishment have indirect effects on behavior and learning. People form expectations about the potential consequences of future responses based on how current responses are reinforced or punished.
- iii. Learning does not necessarily lead to change. Just because a person learns something does not mean they will have a change in behavior.

The theorist focused on the part played by models in transmitting specific behaviour, attitudes and emotional responses in different circumstances, indicating that there is much more to learn through role modeling than classical or operant conditioning. It explains that people learn new behaviour through observational learning, suggesting that if an individual observes pleasant, favourable outcome or consequences in the observed behaviour, they most likely imitate, and adopt the behaviour themselves. Therefore, by watching the behaviour of other people, we are capable of learning many behavioural patterns. Every individual has at one time or the other watched and tried to imitate actions of others in the performance of a task. This is particularly true when such activities involve social interaction and interpersonal communications. Bandura proposed that we observe others perform an action and then rehearse them until we become comfortable performing them when there is a need for it. The application of the social learning principles to the training and development of individuals were labelled a long time ago as behavioural modelling technique. The principles of social learning are assumed to operate in the same way throughout life.

Based on these general principles, learning can occur without a change in behavior. In other words, behaviorists say that learning has to be represented by a permanent change in behavior; while in contrast social learning theorists say that because people can learn through observation alone, their learning may not necessarily be shown in their performance. Learning may or may not result in a behavior change. This theory is based on the idea that we learn from our interactions with others in a social context. Separately, by observing the behaviors of others, people develop similar behaviors. After observing the behavior of others, people assimilate and imitate that behavior, especially if their observational experiences are positive ones or include rewards related to the observed behavior. Imitation involves the actual reproduction of observed motor activities.

Implication of Social Learning Theory to the Study

The implication of this theory as the theoretical base of this study is based on the fact that the theory is related to both the independent and dependent variables. The theory is predicated on the fact that the theory describes the interactions and relationship between a manager and how he gains and store data, information management and knowledge application. Through observation, imitation and modeling, the manager in a deposit money bank can acquire knowledge and as well transfer such organizational memory/knowledge to other staff in the organization. Through technological infrastructure and other requirements, the manager can build and store data, information management and knowledge application, which will enhance the managerial effectiveness in terms of timely information demand, decision making and task accomplishment.

Research Design

The study adopted the explanatory survey research design. The population of the study consisted of twenty-two (22) Commercial Banks operating the six (6) states in South-South, Nigeria. The states include: Akwa Ibom State, Cross River State, Bayelsa State, Rivers State, Delta State, and Edo State. Each of these Banks have their Zonal Headquarters domiciled in Port Harcourt City. The entire population of twenty-two (22) Commercial Banks was used without sampling since the population was considered to be small. Thus, the study was a census study. Questionnaire was the instrument for data collection.

Method of Data Analysis

Mean and standard deviation were used for the univariate analysis while the bivariate analysis was done using Pearson's Product Moment Correlation Coefficient (PPMCC) in SPSS Version 22.0. Pearson's Product Moment Correlation Coefficient (PPMCC) was considered to be the most appropriate for the study as it has the capacity to measure the relationship between the two sets of variables (the predictor and the criterion. However, to ascertain that, numbers were assigned to scale value and represent the rank order of value.

If our statistical analysis shows that the significance level is below the cut-off value we have set (which is 0.05), we reject the null hypothesis and accept the alternate hypothesis. Alternatively, if the significance level is above the cut-off value, the null hypothesis is accepted. In testing the hypotheses one to ten, the following rules were upheld in accepting or rejecting our null hypotheses. All the coefficient (r) values that indicated levels of significance (* or **) as calculated using SPSS was accepted and thus our alternate hypotheses were accepted and when no significance is indicated in the coefficient (r) value we rejected the null hypotheses. We set out a confidence interval at 0.05 level of significance to test the statistical significance of the study. Both the significance values and the coefficient values were used. For the coefficient values, the following interpretation scheme was applied as stated thus: (a) No Relationship = 0, (b) Low/Weak Relationship = 0.1-0.2, (c) Moderate or Relatively Strong Relationship = 0.3-0.5, (d) High/Strong Relationship = 0.6-0.7, (e) Very High/Very Strong Relationship = 0.8-0.9, (f) Perfect Relationship = 1. These interpretations have been drawn from diverse instances of their usage (Zeb-Obipi, 2007:218). The Partial Correlation Technique was used to test the moderating role of technological infrastructure.

Data Storage and Managerial Effectiveness

Ho₁: There is no significant relationship between data storage and timely information supply of Commercial Banks in South-South, Nigeria.

Ho₂: There is no significant relationship between data storage and effective decision-making of Commercial Banks in South-South, Nigeria.

Ho₃: There is no significant relationship between data storage and service delivery of Commercial Banks in South-South, Nigeria.

Correlations between Data Storage and Managerial Effectiveness

		Data Storage	Timely Information Supply	Effective Decision-Making	Service Delivery
Spearman's rho	Correlation Coefficient	1.000	.855**	.778**	.688**
	Data Storage				
	Sig. (2-tailed)	.000	.000	.000	.000
	N	180	180	180	180
	Timely Information Supply				
	Correlation Coefficient	.855**	1.000	.855	.855
	Sig. (2-tailed)	.000	.	.000	.000
	N	180	180	180	180
	Effective Decision-Making				
	Correlation Coefficient	.778**	.	1.000	.778
	Sig. (2-tailed)	.000	.000	.000	.000
	N	180	180	180	180
Service Delivery					
Correlation Coefficient	.688**	.710	.688	1.000	
Sig. (2-tailed)	.000	.000	.000	.000	
N	180	180	180	180	

** . Correlation is Significant at the 0.01 level (2-tailed).

Source: SPSS Output, 2023

Column two of table above shows r value of 0.855 at a significant level of 0.00 which is less than the chosen alpha level of 0.05 for the hypothesis relating to data storage and timely information supply. Since the significant level is less than the alpha level of 0.05, the null hypothesis (Ho₁) which states that there is no significant relationship between data storage and timely information supply of Commercial Banks in South-South, Nigeria was rejected

and the alternate hypothesis (H_{a1}) was accepted. The correlation value of 0.855 indicates that data storage has a very high positive correlation with managerial effectiveness in terms of timely information supply in Commercial Banks in South-South, Nigeria. This implies that high usage of cloud-based data storage will bring about corresponding improvement in the effectiveness of managers in terms of timely information supply.

Column three of table above shows r value of 0.778 at a significant level of 0.00 which is less than the chosen alpha level of 0.05 for the hypothesis relating to data storage and effective decision-making. Since the significant level is less than the alpha level of 0.05, the null hypothesis (H_{o2}) which states that there is no significant relationship between data storage and effective decision-making of Commercial Banks in South-South, Nigeria was rejected and the alternate hypothesis (H_{a2}) was accepted. With a correlation value of 0.778, the result indicates that internet capability has a high positive correlation with managerial effectiveness in terms of effective decision-making in Commercial Banks in South-South, Nigeria. This implies that high internet capability in Deposit Banks in South-South, will be associated with high level effectiveness in decision making and vice versa.

Column four of table above shows r value of 0.688 at a significant level of 0.00 which is less than the chosen alpha level of 0.05 for the hypothesis relating to data storage and service delivery. Since the significant level is less than the alpha level of 0.05, the null hypothesis (H_{o3}) which states that there is no significant relationship between data storage and service delivery of Commercial Banks in South-South, Nigeria was rejected and the alternate hypothesis (H_{a3}) was accepted. The correlation value of 0.688 indicates that data storage has a high positive correlation with managerial effectiveness in terms of service delivery in Commercial Banks in South-South, Nigeria. The results above show that there is a significant positive relationship between data storage and managerial effectiveness in terms of timely information supply, effective decision-making and service delivery in Commercial Banks in South-South, Nigeria.

Data Storage and Managerial Effectiveness

The test of hypotheses one, two and three revealed that there is a significant positive relationship between data storage and measures of managerial effectiveness such as timely information supply, effective decision making, and service delivery in Commercial Banks in South-South, Nigeria. This implies that increase in data storage brings about corresponding increase in managerial effectiveness in Commercial Banks in South-South, Nigeria. These findings are consonance with the research opinion of Mahapa (2013) that digital data storage enhances managerial functions in terms of information handling and decision making. Organizational information is usually bulk so, managers always find it difficult in ensuring accuracy as a result of loss of file, incomplete information etc. this has really hampered the operation of organizations as managers are tagged ineffectiveness. The aforementioned act has clamoured managers of every organization specifically in Commercial Banks in South-South region of Nigeria to deploy devices of storing data or knowledge of their respective organization for future usage (Salton, 2016). However, Data storage is so important for short term and long-term future usage, both on the organizational and individual levels. It therefore becomes a necessity for organizations to save their electronic documents in order to facilitate their performance in the areas of operations and decision making. The manager in his/her duty post handles some electronic documents in their care, and storage is one of the actions they perform on these documents. Saving these documents skilfully helps the manager in improving his/her efficiency and

effectiveness in terms of timely information supply (customer-business communication, timely information access and timely feedback); effective decision making (operational efficiency, compliance to bank standard and decision implementation); service delivery (quality customer service, customer compliant redress and customer time saving).

In line with the assertions above, Mahapa (2013) averred that data storage practice can be achieved in Commercial Banks through the use of tools like logbook, which contains records of the guests' comments and complaints; standard operational procedures, containing records of daily, step-by-step operational procedures; and situational. This is because data storage enables the organization to learn from its self by capturing relevant experiences and making them readily available throughout the organization. By having an efficient data storage system and intelligent distribution process, the whole organization can learn from individuals and from groups working within the organization. This will assist in ensuring that the right persons with relevant knowledge are consulted at the most appropriate time. Similarly, Skyrme (2011) posit that through data storage faster access to knowledge is achieved, increased profitability, and shorter time-to-market to new business opportunities is promoted. This is because when data in a given area is considered needful to acquire, such knowledge in order to remain readily accessible on real time within the organization, especially as it concerns potentials and new workforce, must be integrated into the organization's memory using its data bank facilities. Doing this is very critical to organizational performance because access to procedural knowledge enhances employee effectiveness and quality service delivery. In the face of obscurity, knowledge storage facilitates quick access to organizational knowledge, such as procedures, rules and policies which serve as guide for effective service delivery.

Furthermore, managerial effectiveness could be greatly enhanced by data storage indices called database system, data access and data processing. A database management system is intended to be utilized in an operating system (OS) environment that performs scheduling of jobs, processes input/output operations, manages auxiliary storage, and provides conventional data management facilities. The DBMS exists as a set of operational programs analogous to the control programs of an operating system. The overall operation of the DBMS, its scheduling and relation to other jobs running on the system is usually under the supervision of the operating system. Many of the operations that need to be carried out for the functioning of a DBMS (scheduling of application programs working with the database, database access) could be done either by the OS, or by the DBMS itself. This operations make managers job very easy as much as improving the effectiveness such as timely information supply (customer-business communication, timely information access and timely feedback); effective decision making (operational efficiency, compliance to bank standard and decision implementation); service delivery (quality customer service, customer compliant redress and customer time saving).

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provided. Therefore, Technopedia (2020) supported that it is imperative that these organizations continuously motivate their employees to share valuable information so that their intellectual capital can be leveraged. Database System will give the banking management a new dimension in managing its knowledge and help in carrying out and maximizing the management's initiatives in harmonizing the appropriate strategies in the short and long planning. These necessitate the test of hypotheses one, two and three stated below:

CONCLUSIONS

Based on the results and discussion of findings, the study concluded that organizational memory is a major enhancer of managerial effectiveness in Commercial Banks in South-South, Nigeria. Technology-driven organizational memory enhances managerial effectiveness in Commercial Banks because it facilitates access to operational information, knowledge contents and relevant data contents. The study also concluded that data storage enhances managerial effectiveness in terms of timely information supply, effective decision making and service delivery. It was also concluded that information management optimizes managerial effectiveness by supporting timely information supply, effective decision making and service delivery. The study equally concluded that knowledge management optimizes managerial effectiveness in terms of timely information supply, effective decision making and service delivery.

RECOMMENDATIONS

Based on the findings and conclusion, the following are recommended:

1. Management should endeavour to periodically update and upgrade their virtual database management system with reporting systems to enable managers have seamless and secured access to operational and managerial information.
2. Management should provide decision support systems to enable managerial staff access, make and implement information-driven decisions.
3. Management should virtualize their data processing system across branches to enhance managerial decision-making functions as well as improve the quality of service delivery.

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