



Research Article

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« BANKING SYSTEMS ADMINISTRATIVE EFFICIENCY; LEVERAGING ON THE E-COMMUNICATION HELP-DESK »

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Abstract:

Traditional approach in organizational communication where energy is dissipated on paperwork and movement of persons from location to location has become burden to administration and cost to sustainability. This cross-sectional study therefore investigates the relationship that electronic communication has on administrative efficiency of the banking sector in Rivers State. A survey of the active and registered commercial banks in Rivers State revealed that a total of 22 banks are in operation. However, due to the spread of the banks across the states, fourteen accessible banks were sampled using the convenient sample approach. Therefore, a census of 15 senior officers from each of the banks given a total of 210 respondents was derived. These 15 represented the heads of department of the banks sampled for the study. Administration of instrument revealed that 198 respondents actively participated in the survey. A five-point Likert scale questionnaire was designed to extract primary data from 198 active respondents. This instrument was subjected to a reliability test using the Cronbach alpha reliability test on a 95% confidence level. Hypothetical statements were raised and tested. The Pearson moment correlation coefficients statistical tool was used to analyses the tests of hypotheses and results derived showed positive significant relationship between the dimensions of electronic communication and the measures of administrative efficiency in the studied industry. The findings from this study revealed that electronic communication correlated positively and significantly with administrative efficiency. Therefore, the study recommended that an enhanced and upgraded electronic communication system should be adopted in the banking sector so that the full benefits of administrative efficiency can be derived for the bank and her customers in Rivers State.

Keywords:

E-communication, Extranet, Intranet, Social media, E-mail, administrative efficiency.

1. Introduction:

In the last two decades, the development in electronic communication has enabled the fundamental transformation in the banking sector (Oni, Gberevbie, Oni (2016). In developing countries, financial institutions have been inclined to adopt electronic communication and thereby capitalize on the benefits associated with its implementation, namely; simplicity, convenience, usefulness and administrative efficiency. However, Spenklink (2002) defined administrative efficiency as the process of gathering, processing and communicating of information in the most effective manner, which is aimed at employee/customers satisfaction. Also, the dimension specialization (division of labor within the banking sector), standardization of roles and inter-departmental electronic communication within the banking sector contributes in a positive way to the administrative efficiency (Ibrahim and Irfan, 2017). However, investigations have pointed out that administrative efficiency index of the banking sector can be improved from the efficiencies that stem from digital processes such as electronic communication and automation of sensitive banking functions (Daniel, 1999). Consequently, these processes have the potentials to positively affect the effectiveness, efficiency and equity in the service delivery of the banks to its customers (Hasan, 2012). The inefficient service delivery in the banking sector has been identified to be due to lack of electronic communication, accountability, transparency and lack of commitment in administration efficiency (Nfetha and Mostert, 2010). Therefore, the electronic communication is not only intended to improve the administrative efficiency of the banking sector, but also to empower customers by making

available to them an interactive access to information and conducive banking experience from the comfort of their homes (Pikkarainen, 2004). The importance of electronic communication to businesses and financial institutions can never be overemphasized. The banking sector, public and private sector of the economy has relied on electronic communication in order to accomplish their task (Nehmzow, 1997). Accordingly, there is a growing demand from the public and private sector that the banking sector promotes efficiency in service delivery to its employee and customers through the enhancements in electronic communication and administrative efficiency (Garg, 2008). In view of this demand, this study focused on the electronic communication and administrative efficiency of the banking sector in Rivers State Nigeria. The traditional means of communication used in banks before now includes face to face conversation, letter writing and typing of document. The traditional means of communication was more costly because it involved the movement of these letters and document by a person called the messenger/delivery personnel. The bank messenger usually gets exhausted after each days job and sometimes messages are not delivered on time to the receiver. This problem led to the adoption of electronic communication as a modern means of communication in the banking sector. Firstly this study is aimed at addressing the problem of cost reduction through the use of electronic communication in order to achieve administrative efficiency of the banking sector in Rivers State. Technological advancement and upgrade has led to a more efficient means of electronic communication. Recently, customer's acceptability of the electronic communication services of different banks has been a subject of investigation. This acceptability is dependent on administrative efficiency with respect to employee/customers satisfaction. Secondly, this study is aimed to fill the gap between the employee/customers acceptability of the electronic communication services and administrative efficiency within the banking sector in Rivers State Nigeria.

2. Literature:

Efficiency has long played a central role in the administrative values of the banking sector. Oni, (2017) reported that administrative efficiency can be achieved under the condition of maximizing the result of an action in relation to the result used. On the other hand, administrative efficiency can be assessed in terms of organizational structure, how works are well organized and progressed systematically and how information are gathered, processed and communicated to the client. However, it is obvious that a result oriented bank in terms of service delivery and improved banking value must above any other thing prioritize administrative efficiency. According to Rogars and Ruchlin (1971) efficiency is closely related to productivity and it's through maximized productivity that maximized efficiency is obtained. Administrative efficiency in the public and private sector is established for refining administrators and managers in terms of skill, behavior and excellence, which is aimed at improving the sector (Joseph, 2013). The indicators of administrative efficiency guides the administrators to maintain a higher standard in the organization so the organization can run according to laid down rules and regulations (Fadipe, 2000). In a study carried out by Sababu (2001) on the effect administrative efficiency and business policy on organizational performance among consumer cooperatives in Kenya. The result from the study established that administrative efficiency and strategic communication and management system influenced organizational performance. Also, Marudas, (2004) reported that administrative efficiency is measured as program expense i.e., the expense for administrative with respect to total expense. The key to effective service delivery and economic growth is dependent on administrative efficiency. However, electronic communication is considered as one of the most important factor in improving administrative efficiency and organizational standards. The specialization and standardization of organizational structure contribute in a positive way to administrative efficiency. Thus, the measured of standards in administrative efficiency can be by evaluating the extent to which work or any given task is well organized and done systematically. The results from their study showed that organizational standards are dependent on the administrative efficiency. The categories of organizational standards as reported by Pugh & Hillins, (1963) are the standardization of procedure and standardization of roles. The role definitions and qualifications, role performance measurements, title for office and symbol of role status and reward for role performance are the sub categories under the standardization of role. Results from their study showed that an organization which has more standardization procedures, scores higher on its measurement of administrative efficiency. Also the positive effect of standardization on the reduction of transaction cost on information gathering, negotiating and market positioning has been reported previously (Verlag 2000). However, high standardization of jobs and organizational role result in developing expertise in a particular role which will lead to greater efficiency. Also in other to improve administrative efficiency, organizational standards and role specialization has to be enhanced. Role specialization is the decision of labor within the organization. It also entails the degree to which task/responsibility are assigned to a particular role which is further narrowed down and specific. Friedman (1961) differentiated between specialized and specialist. Furthermore, he reported that 'specialized' is the process of narrowing down a role to a specific task, while the 'specialist' is the person who is highly trained and has a specific skill that other employee do not have

and he/she is otherwise called 'an expert'. Also without minimum level of specialization and standardization role ambiguity may occur and this may negatively affect administrative efficiency in an organization.

Email- The level of communication between banks and its customers could be affected by electronic mail service. As reported by O' Brein (2002) the exchange of computer stored messages by telecommunication is known as Email. The text animation of email enables banks to communicate with their customers, improve product/services reach ability and also enhance the relationship between the customers and the bank. Presently most smart phones have email application originally present in the phone giving the user access to email services. Also banks often seize this opportunity to relate customers' financial transactions directly to their smart phones through the Email services. Also greeting cards, birthday wishes, season compliments are also sent to customers' emails by banks. This process is used to enhance customer/banks relationship which leads to improved services delivery and business relationship. However Lee (1994) highlighted the fact that importance of email improves the level of communication in business organizations. The utilization of email services is however not meant to replace personal conversation (face to face) between the customer and the bank, but intended to use for the convergence of prompt messages, transactions alert, new services that might interest the customers. The password and identification requirements of the email services in other to access messages are also a form of privacy for the confidentiality of the messages.

Internet- According to O'Brien (2000) internet is a worldwide system of computers networks that support the communication of data services such as file transfer, electronic mail and World Wide Web (www). Internet technology enables bank customers and the general public to access goods, services and exchange of information. The internet technology can also offer services like video conferencing meeting, online cash transfer and resource sharing services (Kalakota and Whinston, 1996). The utilization of the internet technology by business organizations to market their products and services online has been reported to reach a wider range of target customers interested in the products/services. However, these business organizations are integrating and adopting these internet technologies as a new marketing and business strategy. Although the internet can be used to accomplish business online it requires an electronic device such as mobile phone, computers network equipment. However the banking sector needs to improve in their internet security mechanisms which in turn will protect customers' financial transactions from the dubious activities of internet fraudsters.

Intranet- According to Cunningham and Frosh (1999) is an internal communications and computing system with support of the internet. The intranet is a private network with limited access capability. The intranet being a private network can be used by banks to communicate their common aim and objectives and services to their customers and partners. However using the intranet as a means of internal communication may lower the risk of exposing the bank or organization to external threat i.e. security and privacy issues while limiting its benefit to only within organization.

Extranet- This is a collaborative network that uses the internet to function. It links suppliers with their business and customers. The extranet is also known as the extended form of the intranet with more than one intranet. Extranet is regarded as a safer network than the internet to conduct business as a result of the limited accessibility for the public. Extranet is only available to trusted parties, agents and groups for the purpose of a collaborative network. Rogers, (1995) reported the acceptance of new innovation of electronic communication. They further indicated that the rate of acceptance of new innovation is dependent on the projected relative advantage. The relative advantage and acceptance of electronic communication is defined as the degree to which an innovation is believed to be better than the idea it supersedes. Similarly other researchers in the same argument supported the motion as they believed that electronic communication offers a better advantage over the traditional way of communication and it will enable the bank to outperform rivals in the banking sector. This fact was also supported by the empirical studies of (Adams, Nelson & Todd, 1992). Also, the effect of relative advantage on the acceptance of electronic communication indicated that electronic communication adoption in the banking sector has the potential to affect the bank ability to compete in the industry. Therefore it is expected that if a bank management believes that the adoption of electronic communication would enhance banking service, and could offer convenient banking service delivery, he/she would have the tendency to adopt electronic communication. The following issues are believed to influence the relative advantage to adopt electronic communication in the banking sector.

3. Methods:

This study was focused on all the commercial banks operating in Rivers state. A survey of the active and registered commercial banks in Rivers State revealed that a total of 22 banks are in operation. However, due to the spread of the banks across the states, fourteen accessible banks were samples using the convenient sample approached. Therefore 15 senior officers were sample from each of the banks given a total of 210 respondents. These 15 represented the heads of department of the banks sampled for the study. However, 198 of the target respondents participated actively in the survey. A five-point Likert scale questionnaire was designed to extract primary data from the target respondents. The study instrument was subjected to a reliability test using the Cronbach alpha reliability test on a 95% confidence level. Then the structured questionnaire was administered over a three months period. The relationship between the results as indicated by the coefficient of determination (R^2) was evaluated using IBM SPSS version 24. The reliability test was also anchored on the 95% confidence level which

estimated how well the items in the questionnaire correlated each other. The Pearson moment correlation coefficients statistical tool was used to analyses the tests of hypotheses.

Table 1: Reliability coefficients of the variables

| S/N | Measures/dimension of study variable | No of item | No of cases | Cronbach alpha level |
|-----|--------------------------------------|------------|-------------|----------------------|
| 1 | Cost reduction | 4 | 198 | 0.912 |
| 2 | Customers satisfaction | 4 | 198 | 0.909 |
| 3 | Employee satisfaction | 4 | 198 | 0.936 |
| 4 | Intranet | 4 | 198 | 0.894 |
| 5 | Extranet | 4 | 198 | 0.922 |
| 6 | Social media | 4 | 198 | 0.881 |
| 7 | Electronic mail | 4 | 198 | 0.951 |

Source: Research data, 2019 (SPSS output, version 24)

Table 2 Correlation of Extranet with the measures of administrative efficiency

| | | Extranet | Cost reduction | Employee satisfaction | Customers satisfaction |
|------------------------|---------------------|----------|----------------|-----------------------|------------------------|
| Extranet | Pearson correlation | .813** | .832** | .916** | .963** |
| | Sig. (2 tailed) | 0.001 | 0.002 | 0.00 | 0.001 |
| | N | 198 | 198 | 198 | 198 |
| Cost reduction | Pearson correlation | .934** | .856** | .825** | .879** |
| | Sig. (2 tailed) | 0.003 | 0.001 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| Employee satisfaction | Pearson correlation | .892** | .906** | .916** | .901** |
| | Sig. (2 tailed) | 0.00 | 0.001 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| customers satisfaction | Pearson correlation | .937** | .891** | .884** | .872** |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.003 | 0.00 |

N 198 198 198 198

** Correlation is significant at the 0.01 level (2 tailed)

Source: Research data, 2019 (SPSS output, version 24)

The hypotheses investigations (H_{01} to H_{03}) and correlation of extranet with the measures of administrative efficiency is presented in Table 2 above. Hypothesis one (H_{01}) with a significant correlation at $r = .832^{**}$ and p-value (sig) = 0.002 indicated a strong significant relationship between the variables at 95% confidence limit. Thus, the null hypothesis was rejected as the analysis affirmed that there is a statistical significant relationship between extranet and cost reduction. Similarly, investigations on hypothesis two (H_{02}) showed a significant correlation at $r = .916^{**}$ and p-value (sig) = 0.00. This observation indicated a strong significant relationship between the variables under consideration at 95% confidence level. Therefore, the null hypothesis was rejected as there is a statistical significant relationship between extranet and employee satisfaction. Hypothesis three (H_{03}) also indicated a significant correlation at $r = .963^{**}$ and p-value (sig) = 0.001 indicating a significant effect at 95% confidence level. The null hypothesis was rejected as there is a statistical significant relationship between extranet and customers satisfaction.

Table 3: Correlation of Intranet with the measures of administrative efficiency

| | | Intranet | Cost reduction | Employee satisfaction | Customers satisfaction |
|------------------------|---------------------|----------|----------------|-----------------------|------------------------|
| Intranet | Pearson correlation | .894** | 1 | .906** | 1 |
| | Sig. (2 tailed) | 0.00 | 0.002 | 0.00 | 0.001 |
| | N | 198 | 198 | 198 | 198 |
| Cost reduction | Pearson correlation | .941** | 1 | .911** | .894** |
| | Sig. (2 tailed) | 0.003 | 0.00 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| Employee satisfaction | Pearson correlation | .945** | .806** | .918** | .907** |
| | Sig. (2 tailed) | 0.00 | 0.001 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| Customers satisfaction | Pearson correlation | .904** | .971** | .811** | .921** |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.003 | 0.00 |
| | N | 198 | 198 | 198 | 198 |

** Correlation is significant at the 0.01 level (2 tailed)

Source: Research data, 2019 (SPSS output, version 24)

The hypotheses investigations (H_{04} to H_{06}) and correlation of extranet with the measures of administrative efficiency is presented in Table 3 above. Hypothesis four (H_{04}) with a significant correlation at $r = 1$ and p -value (sig) = 0.002 indicated a perfect fit correlation, which implies strong significant relationship between the variables at 95% confidence level. Thus, the null hypothesis was rejected as the analysis confirmed that there is a statistical significant relationship between intranet and cost reduction. Also, investigations on hypothesis five (H_{05}) showed a significant correlation at $r = .906^{**}$ and p -value (sig) = 0.00. This observation indicated a strong significant relationship between the variables under consideration at 95% confidence level. Therefore, the null hypothesis was rejected as there is a statistical significant relationship between intranet and employee satisfaction. Hypothesis six (H_{06}) also indicated a significant correlation at $r = 1$ and p -value (sig) = 0.001 indicating a significant effect at 95% confidence level. The null hypothesis was rejected as there is a statistical significant relationship between intranet and customers satisfaction.

Table 4: Correlation of Social media with the measures of administrative efficiency

| | | Social media | Cost reduction | Employee satisfaction | Customers satisfaction |
|------------------------|---------------------|--------------|----------------|-----------------------|------------------------|
| Social media | Pearson correlation | 1 | 1 | .948** | 1 |
| | Sig. (2 tailed) | 0.00 | 0.003 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| Cost reduction | Pearson correlation | .922** | 1 | 1 | .991** |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| Employee satisfaction | Pearson correlation | .917** | .962** | .984** | .949** |
| | Sig. (2 tailed) | 0.00 | 0.001 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| Customers satisfaction | Pearson correlation | .911** | .957** | .998** | .952** |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.003 | 0.00 |
| | N | 198 | 198 | 198 | 198 |

** Correlation is significant at the 0.01 level (2 tailed)

Source: Research data, 2019 (SPSS output, version 24)

The hypotheses investigations (H_{07} to H_{09}) and the correlation of social media with the measures of administrative efficiency are presented in Table 4. Hypothesis seven (H_{07}) with a significant correlation at $r = 1$ and p -value (sig) = 0.003 indicated a good correlation, which implies strong significant relationship between the variables at 95% confidence level. Thus, the null hypothesis was rejected as the analysis confirmed that there is a statistical significant relationship between social media and cost reduction. Also, investigations on hypothesis eight (H_{08}) showed a significant correlation at $r = .948^{**}$ and p -value (sig) = 0.00. This observation indicated a strong significant relationship between the variables under consideration at 95% confidence level. Therefore, the null hypothesis was rejected as there is a statistical significant relationship between social media and employee satisfaction. Hypothesis nine (H_{09}) also indicated a significant correlation at $r = 1$ and p -value (sig) = 0.00 indicating a

significant effect at 95% confidence level. The null hypothesis was rejected as there is a statistical significant relationship between social media and customers' satisfaction.

Table 5: correlation of Electronic mail with the measures of administrative efficiency

| | | Electronic mail | Cost reduction | Employee satisfaction | Customers satisfaction |
|------------------------|---------------------|-----------------|----------------|-----------------------|------------------------|
| Electronic mail | Pearson correlation | .961** | .924** | 1 | 1 |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| Cost reduction | Pearson correlation | .901** | 1 | .997** | 1 |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| Employee satisfaction | Pearson correlation | .938** | 1 | 1 | .989** |
| | Sig. (2 tailed) | 0.00 | 0.001 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| Customers satisfaction | Pearson correlation | .878** | .897** | .919** | .936** |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.003 | 0.00 |
| | N | 198 | 198 | 198 | 198 |

** Correlation is significant at the 0.01 level (2 tailed)

Source: Research data, 2019 (SPSS output, version 24)

The hypotheses investigations (H₁₀ to H₁₂) and the correlation of electronic mail with the measures of administrative efficiency are presented in Table 5 above. Hypothesis ten (H₁₀) with a significant correlation at r =.924** and p-value (sig) = 0.000 indicated a good correlation, which implies strong significant relationship between the variables at 95% confidence level. Thus, the null hypothesis was rejected as the analysis confirmed that there is a statistical significant relationship between electronic mail and cost reduction. Also, investigations on hypothesis eleven(H₁₁)showed a significant correlation at r = 1 and p-value (sig) = 0.00. This observation indicated a strong significant relationship between the variables under consideration at 95% confidence level. Therefore, the null hypothesis was rejected as there is a statistical significant relationship between electronic mail and employee satisfaction. Hypothesis twelve (H₁₂) also indicated a significant correlation at r =1 and p-value (sig) = 0.000 indicating a significant effect at 95% confidence level. The null hypothesis was rejected as there is a statistical significant relationship between electronic mail and customers' satisfaction.

Table 6: Correlation of Technology as the moderating variable for E-Communication

| | | Technology | Intranet | Extranet | Electronic mail | Social media |
|-----------------|---------------------|------------|----------|----------|-----------------|--------------|
| Technology | Pearson correlation | .881** | 1 | 1 | 1 | 1 |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 | 198 |
| Intranet | Pearson correlation | .968** | 1 | .974** | 1 | .937** |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.00 | 0.00 | 0.001 |
| | N | 198 | 198 | 198 | 198 | 198 |
| Extranet | Pearson correlation | .888** | 1 | 1 | .918** | .915** |
| | Sig. (2 tailed) | 0.00 | 0.001 | 0.00 | 0.00 | 0.003 |
| | N | 198 | 198 | 198 | 198 | 198 |
| Electronic mail | Pearson correlation | .978** | .986** | .889** | .956** | .964** |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.003 | 0.00 | 0.002 |
| | N | 198 | 198 | 198 | 198 | 198 |
| Social media | Pearson correlation | .897** | .911** | .923** | .899** | .904** |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.00 | 0.001 | 0.003 |
| | N | 198 | 198 | 198 | 198 | 198 |

** Correlation is significant at the 0.01 level (2 tailed)

The moderating effect of technology on the dimensions and measures were also investigated and presented in Table6 above. From the results of hypothesis thirteen (H_{13}) in Table 4.19, the correlation of technology as the moderating variable with $r = 1$ and p -value (sig) = 0.000 for all the dimensions of electronic communication indicated a perfect moderating correlation. This indication implies strong significant relationship between the variables at 95% confidence level. Therefore, the null hypothesis (H_{13}) was rejected as the analysis confirmed that there is a statistical significant relationship between technology as the moderating variable and the dimensions of electronic communication.

Table 7: Moderating effect of Technology on Administrative Efficiency

| | | Technology | Cost reduction | Employee satisfaction | Customers satisfaction |
|------------------------|---------------------|------------|----------------|-----------------------|------------------------|
| Technology | Pearson correlation | .881** | 1 | 1 | 1 |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| Cost reduction | Pearson correlation | .968** | 1 | .974** | 1 |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| Employee satisfaction | Pearson correlation | .888** | 1 | 1 | .918** |
| | Sig. (2 tailed) | 0.00 | 0.001 | 0.00 | 0.00 |
| | N | 198 | 198 | 198 | 198 |
| Customers satisfaction | Pearson correlation | .978** | .986** | .889** | .956** |
| | Sig. (2 tailed) | 0.00 | 0.00 | 0.003 | 0.00 |
| | N | 198 | 198 | 198 | 198 |

** Correlation is significant at the 0.01 level (2 tailed)

Also, the correlation of technology as the moderating variable and the measures of administrative efficiency were investigated in Table 7. From the results in Table 7, the correlation of technology as the moderating variable with $r = 1$ and p -value (sig) = 0.000 for all the measures of administrative efficiency indicated a perfect correlation, which was statistically significant at 95% confidence level. Therefore, the null hypothesis (H_{13}) was also rejected as the analysis confirmed that there is a statistical significant relationship between technology as the moderating variable and the measures of administrative efficiency.

4. Discussions of findings

Inferential statistics and sectional design survey methods were used in this study to investigate the relationship between electronic communication and administrative efficiency in the Rivers State banking sector. The moderating functions of technology in relation to administrative efficiency and electronic communication were also investigated. Deductions made from the present study revealed a positive and statistically significant relationship between electronic communications and administrative efficiency using Pearson Moment correlation coefficient at 95% confidence level. These findings are also in agreement with previous studies.

From the analysis of the first, second and third hypotheses, it was identified that there is a positive relationship between intranet and each of the measures of administrative efficiency in the Rivers State banking sector. This finding supported previous studies that states that the intranet services enhance sharing of co-operate information within the banking sector. However, it is worthy to note that the intranet service is more beneficial to the employees within the banking sector as it enhances data sharing and collaborations within the banking sector. The intranet service has also contributed to the reduced operational cost due to the improved data sharing within the banks. Also, the significant effect of the intranet on the measures of administrative efficiency has also contributed to an increased to the employees' satisfaction through the improvements in workforce productivity of the employees.

Hypotheses four, five and six explores the relationship between the extranet service and each of the measures of administrative efficiency. The results obtained from the analysis showed a positive relationship of the extranet service in the banking sector. However, the extranet service is a broader network that accommodates both the customer and the employee in the banking sector. The extranet service for the client in the banking sector also known as the "customer's portal" enables the customer to access support information's, inquiry and lay general complaints. The significance of the extranet service has also contributed immensely to cost reduction and employee satisfaction as indicated by the service interface which enables productivity within the banking sector. Also, the extranet service enables the employee to perform jobs faster due to the ease of assessing information on the banks data base thereby reducing the cost of work while satisfying the customers.

Results derived on the social media impact on the measures of administrative efficiency in the River state banking sector showed a positive and statistical significance relationship between the social media and the measures of administrative efficiency in the River state banking sector. However, the use of the social media in the banking sector has brought about customer and employee satisfaction and subsequently reducing the cost of banking.

The obtained result derived from the analysis of Email indicated strong statistical significance of the on the measures of administrative efficiency in the rivers state banking sector. The significance of the electronic mail as observed in this study was also corroborated by previous works, as Kalakota and Whinston, (1997) reported that no other form of written communication is faster than the electronic mail service. Electronic mail uses electronic devices (mobile phones, laptop, desk top computers etc) as a medium of exchanging messages between people

The Pearson moment correlation coefficient indicated that Technology moderates the relationship between electronic communication and administrative efficiency. The moderating effect of technology emphasized that the technology through the services of the internet influences how organizations compete and do business in the cooperate world. Technology is the most important transformational change in an economy as it regulates moderates and enhances product manufacturing and service delivery.

5. Conclusion:

Electronic communication and administrative efficiency in the River state banking sector has been found as an important service delivery channel for easy cash transaction to customers. Therefore, it is pertinent to conclude that the adoption of electronic communication in the River state banking sector has been seen to enhance administrative efficiencies and the quality of service rendered to customers. Some challenges such as cash security and privacy still pose serious threat to electronic communication and administrative efficiency in the banking sector. These challenges necessitate a political and technological will capable of tackling these challenges at both the federal and state level so as to place the banking industry on a sustainable path.

5. Recommendations:

Based on the findings of this study, the following recommendations are hereby made:

Since there is a significant relationship between electronic communication and cost reduction, decisions makers in the banking industry should as a matter of importance encourage utilization of the various electronic communication platforms in order to reduce the cost of banking.

The significant relationship between electronic communication employees and customers satisfaction suggests that a periodic upgrade and improvements in electronic communication in the banking sector is highly recommended

During the course of this study, the researcher discovered a little knowledge gap from the respondents on some of the dimensions of electronic communication. Therefore, an awareness campaign is recommended to further enlighten the respondents on the benefits and roles of these dimensions in the banking sector.

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