



The Dual Effect of Information and Communication Technology in Developing Banking Industries. A case study at Ogbomoso. Oyo State South Western, Nigeria

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ABSTRACT: Information and Communication Technology (ICT) is at the centre of this global change and one of the modern yardsticks in rating a business enterprise is its ICT infrastructural layout.

This study was carried out in two commercial banks in Ogbomosho town, Oyo state, Nigeria using research survey methods a procedures in which the attitudes, opinions, behaviours or characteristics of the population were determined. The population of the study comprises of key staffs and functional heads of the branch of the banks selected for the study which are GTB in Ogbomosho, Oyo State, Nigeria and UBA in Ogbomosho, Oyo State, Nigeria. There are a total of 20 staffs of various departments at UBA and 30 staffs at GTB. This random sampling population was gotten from top management staff of both banks with a total sample size of (50) staffs from both banks. Random sampling is selected because of its ease of use and it eliminates bias.

The study revealed information communication technology has improved the efficiency and effectiveness of bank service delivery. Larger percentage of the respondents strongly agreed that bank service delivery, customer satisfaction and bank performance have been improved since the introduction of information communication technology to the banking system and that major challenges faced by Nigerian commercial banks in the use of information communication technology are sporadic and inefficient electricity supply, low internet penetration, telecommunications problems. The results from the regression analysis indicate that it is clear from the model summary that the information and communication technology variables explain 42.3% of the variance on performance of commercial banks in Nigeria. This left a variance of 57.7% that was not accounted for by information and communication technology. This is an indication that however much information and communication technology influenced the performance of commercial banks in Nigeria; there were other more significant factors that also affected the performance of the commercial banks in Nigeria.

The study established that there is a strong relationship between information and communication technology and the banking system in Nigeria.

KEYWORDS: Nigeria banking system, Information and Communication Technology, Respondents, UBA and GTB commercial bank. Ogbomoso.

INTRODUCTION

Several researchers have established that ICT channels have a profitable effect on banks that just have internet start-ups compared to traditional banks (Kamath, et al., 2003; Jayamaha, 2008). Agbolade (2011) and Uppal (2011) assert that ICT is a key aspect that influences profitability of banks. Nigeria's poor infrastructure has been identified as the first major challenge in banks.

United Bank for Africa (UBA) Plc. Founded, 1849, with more than 14 million customers and over 1,000 business offices and customer touch points globally is a leading pan-African financial services group headquartered in Nigeria, is one of Africa's best and most resilient banking Groups with operations in 20 African countries and offices in three global financial centers: London, Paris and New York. Guarantee Trust Bank (GTB) plc, a Nigerian multinational financial institution that offers commercial banking, online/internet banking, retail banking, corporate banking, a limited liability company licensed to provide commercial and other banking services to the Nigerian public in 1990 and commenced operations in February 1991 has 231 branches, over 18 e-branches in Nigeria. (www.banks.com).

Business organizations especially the banking sector are operating in an environment characterized by a complex and competitive climate (Agbolade, 2011). ICT has specifically resulted in the total alteration of the norms on the performance of the banks and on



the provision of clients facilities in the banking sector, also the ICT advancement has a considerable impact on the advancement of additionally accommodating and user friendly banking facilities (Aliyu and Tasmin, 2012) In most developed countries, technology is the central element to deal with challenges in modern banking, such as lowering costs and enabling efficiency improvements. Certainly, most banks worldwide are highly successful at utilizing ICT to provide efficient banking services to their customers (Elgawash and Freeman, 2011). Cracknell (2004) posits that the firms are adopting technology to cope with the dynamics of external environment. This model can be tailored in a manner that can accommodate changes for improved costs reduction and efficiency technology.

internet banking as important part of new technology has presented a competitive advantage via cost reduction, better satisfaction, trust and loyalty of clients. Evans and Sawyer (2009) has identified that the internet has given banks the ability to communicate with customers in a personalized way without the need of face to face interaction, thus saving communication costs. In reality, it has led to the increase in service efficiency of banks, with lower costs of operation towards customers, thus reducing costs and increasing profit margins of banks (Mastoori, 2009; Xu, et al., 2009; Ahmed, et al., 2009). Thus, commercial banks consider the adoption of ICT as a means to increase bank efficiency and performance as well as quality of service. In this context, Ho and Mallick (2006 p.1) cited that "It is believed that IT can improve bank's performance in two ways: IT can reduce operational cost (cost effect), and facilitate transactions among consumers within the same network (network effect)." Acharya, et al (2008) examined the impact of web design features of a community bank's performance using a sample of 55 community banks with online services in the five Midwestern states of the USA.

The study intends to investigate the use and development of some classes of ICT applications namely; automated teller machine (ATM); local area network (LAN), online banking, electronic fund transfer, and mobile banking among others and their impact on selected commercial banks performance which are Guarantee Trust Bank (GTB), Ogbomosho Branch and United Bank of Africa (UBA), Ogbomosho Branch, South Western State, Nigeria.

METHODOLOGY

Study Area: This study was carried out in two commercial banks in Ogbomosho town, Oyo state, Nigeria. The branch of GTB studied is located opposite Nigerian Baptist Seminary, Ilorin – Ogbomosho road, Ogbomosho, Oyo State while that of UBA is located at Oke-Apake, Ilorin – Ogbomosho road, Ogbomosho, Oyo State. The choice of Oyo state was based on the fact that the banks have branches in the state and their proximity to the institution is near.

Study Population: The population of the study comprises of key staffs and functional heads of the branch of the banks selected for the study which are GTB in Ogbomosho, Oyo State, Nigeria and UBA in Ogbomosho, Oyo State, Nigeria. There are a total of 20 staffs of various departments at UBA and 30 staffs at GTB whose views and knowledge can derive the study. This population was gotten from top management staff of both banks.

Sample Size and Sample Technique: This includes total of thirty (30) and Fifty (20) staff from both banks and the sample size is made up of (50) staff. Random Sampling was employed because of its ease of use and it eliminates bias.

Method of Data Collection: Both Primary and Secondary sources were utilized. The primary sources of data were obtained from oral interview with top management staff, questionnaire were also drafted and administered to enable wide range of information while secondary sources of the data involves gotten from already conducted research work that relates to the study which including eBooks, journal, magazines, and internet. The reliability of the instrument is based on the accounting theories.

Administration of Research Instrument: Questionnaire constitutes the first attempt of scaling. The questionnaires designed are in two parts. The first part is the classification section. This requires such details of the respondent sex, age, qualification etc. The second part possesses the questions relating to the subject matter of inquiry. The responses of the second part form the basis of the data presentation and analysis. This represents purely the primary source of data collection. This study employed the use of both open and closed end questionnaires. It also permits easier tabulation and interpretation by the researcher. Since a suitable sampling methods was chosen in administering the questionnaire and no respondent was pressurized to pick specific choices as the adopted test was reliable and valid. Consequently, at Secondary sources: All the data gotten help to describe, analyses, interpret or draw conclusions from the primary data.

Method of Data Analysis: Direct reports of the qualitative data from observation were made while descriptive statistics was utilized in the analysis of the descriptive data collected from questionnaires to generate percentages. Statistical analysis were carried out on each of the research questions based on the data extracted from the computation of data which was effected using sample percentages after which comparisons were done to determine the effectiveness in achieving the desired objectives.

Model Specification and Variable Measurement: The technique of linear regression equation was employed to analyses the response from the field work carried out through the administration of the questionnaires. In order to make the regression analysis possible, the study adopted the following analytical model:

$Y=f(a +X_1 + X_2 + e)$ Where Y= development of each of the chosen banks in terms service delivery, customer satisfaction and efficiency f= functions a= slope/intercept of the regression e= error X_1 = responses on relationship between ICT and bank services. X_2 = responses on effect of ICT on bank service delivery.

RESULTS AND DISCUSSION

The results are well verified using two different variabilities: Demographic/descriptive analysis (Table 1-8) and inferential analysis in line with the study hypothesis (Table 9-17)

Demographic and descriptive analysis of the result obtained from the questionnaires

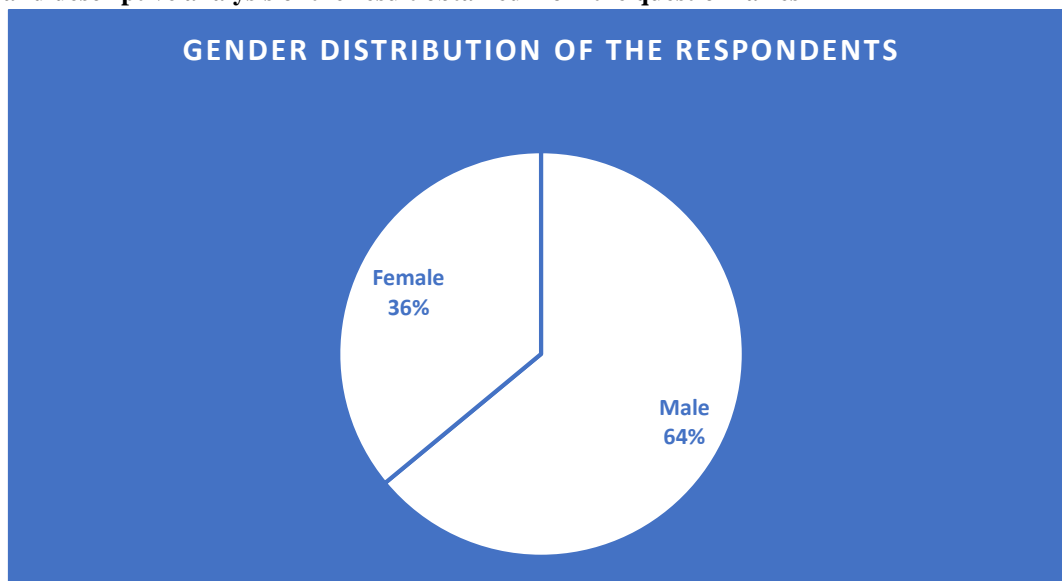


Figure 1. Gender distribution of the respondents

From the table above 64.0 % of the respondents making a total of 32 indicates male while 36.0% reveals the total percentage of female responded to the questionnaire. Inference drawn from the above result shows that larger percentages of the respondents were male.

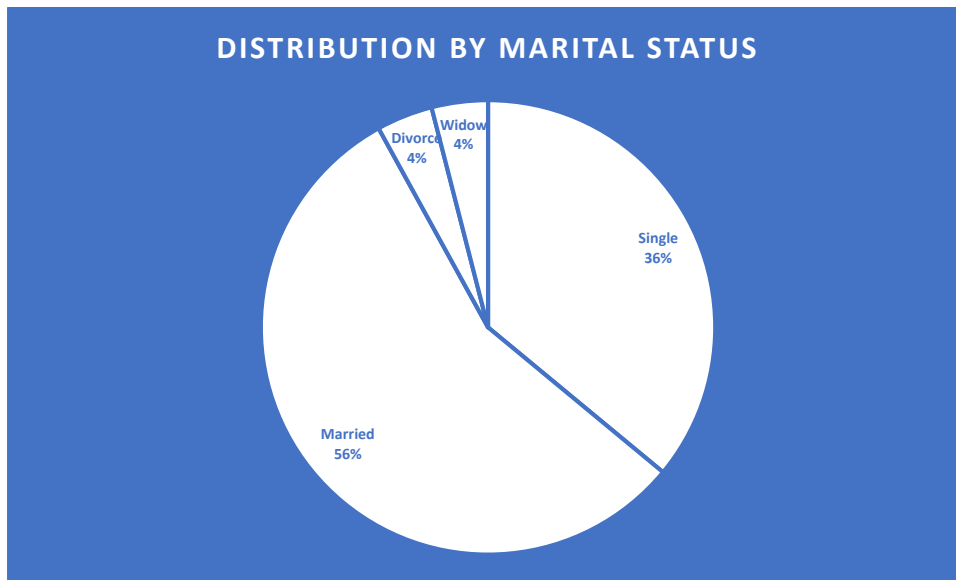


Figure 2. Distribution by Marital status

From the above table 36.0% of the respondent making 18 indicate singles while 64.0% reveals the total percentage of married respondent who answered the questionnaire. Also 4.0% of the respondents are divorced while 4.0% are widow. Inference drawn from the above result shows that larger percentages of the respondents were married.

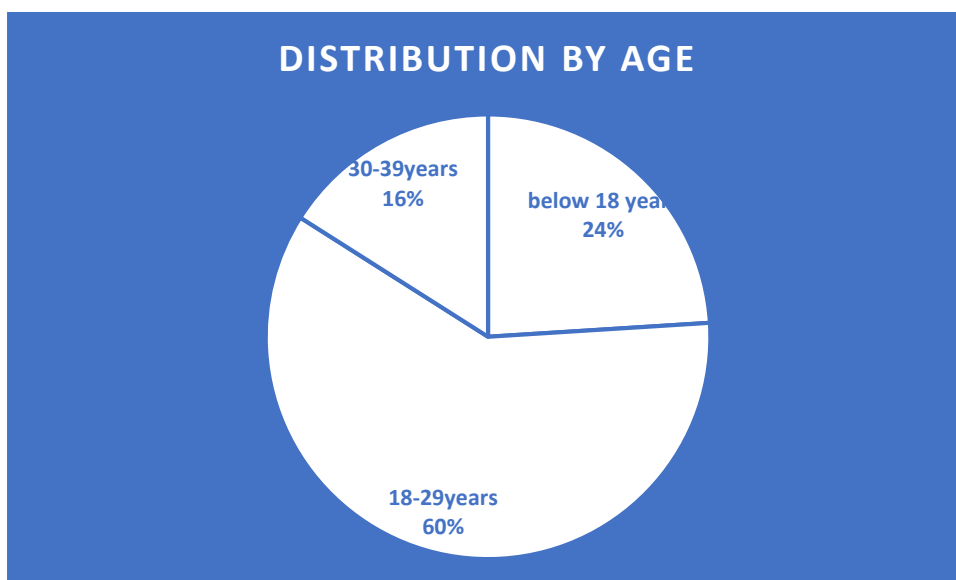


Figure 3. Age distribution of the respondents

From the table above 24.0 % of the respondents making a total of 30 falls within age 18 years and below, 60.0% falls within the age of 18-29 years, 16.0% falls within the range of 30-39. Inference from the above result shows that larger percentage of respondent in terms of age falls within 18-29 years.

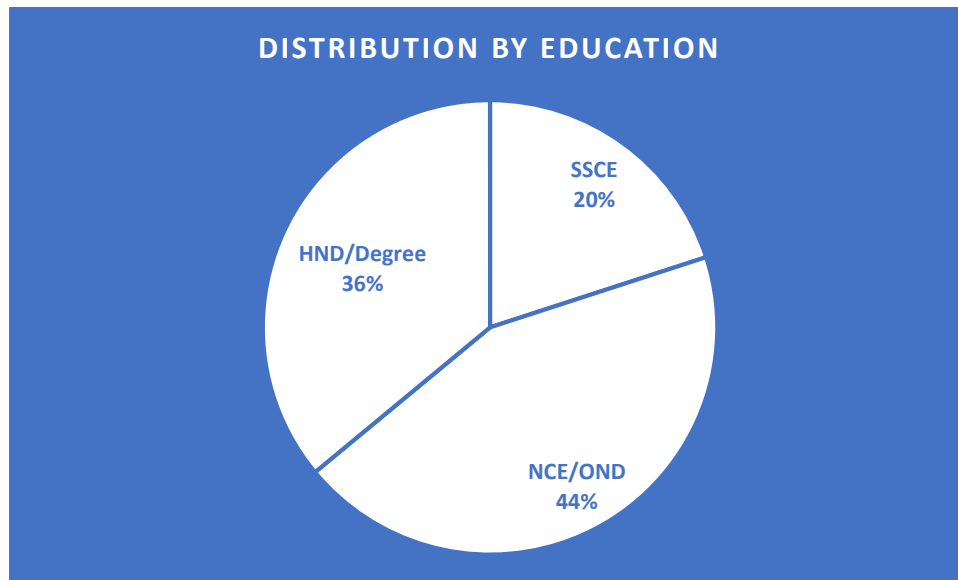


Figure 4. Educational Qualification of the Respondents

From the above table 20% of the respondent making 10 indicate SSCE qualification, 44% of the respondent making 22 indicate OND/NCE, 36.0% of the respondent making 18 indicate HND/DEGREE. Inference drawn from the above result shows that larger percentages of the respondents were NCE/OND

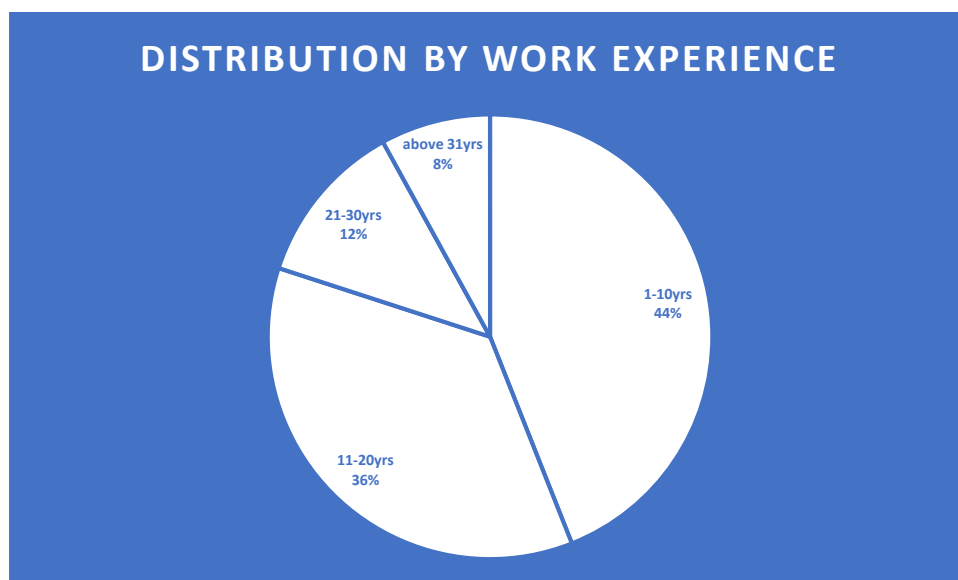


Figure 5. Distribution of Respondents by Work Experience

From the table above 44.0 % of the respondents making a total of 22 falls within age 1-10 years, 36.0% falls within the age of 11-20 years, 12.0% falls within the range of 21-30 years and 8.0% falls within the age 31 years and above. Inference drawn from the above result shows that larger percentage of respondent in terms of working experience falls within 1-10 years.

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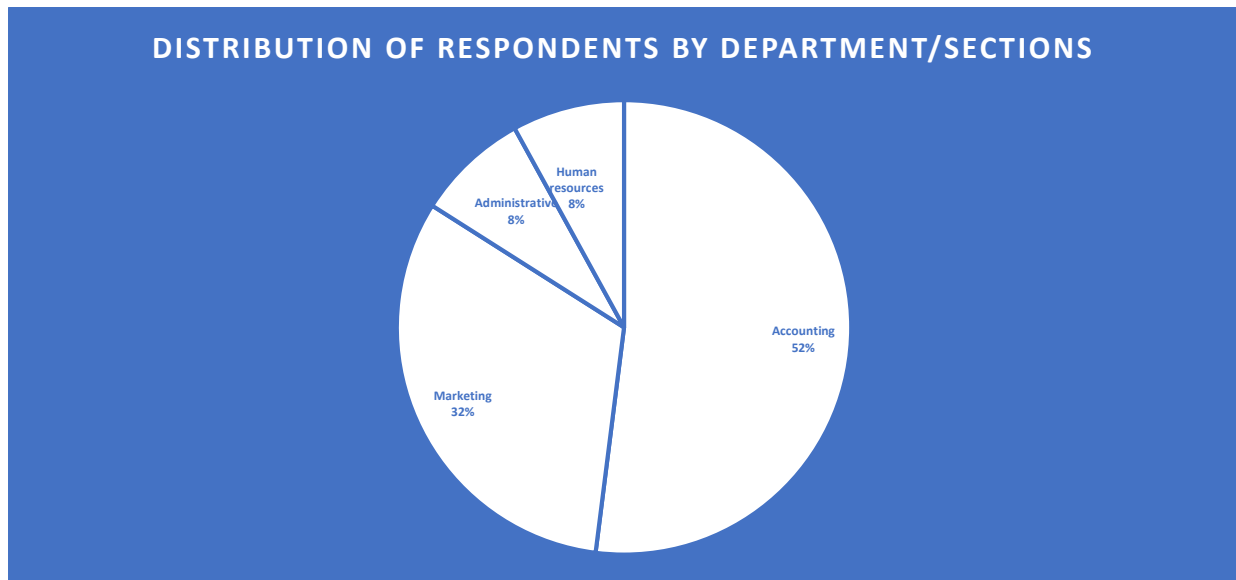


Table 7. Distribution of Respondents by Department/Sections

From the above table result, it is revealed that 52.0% of the total numbers of respondent making 26 respondents were in accounting section, 32.0% of the total respondents making 16 were in marketing department, 8.0% of the respondent making 4 respondents were in administrative department and 8.0% of the respondent making 4 respondents were in Human resources. Inference drawn from the above result shows that larger percentages of respondent in terms of department/sections were in accounting department

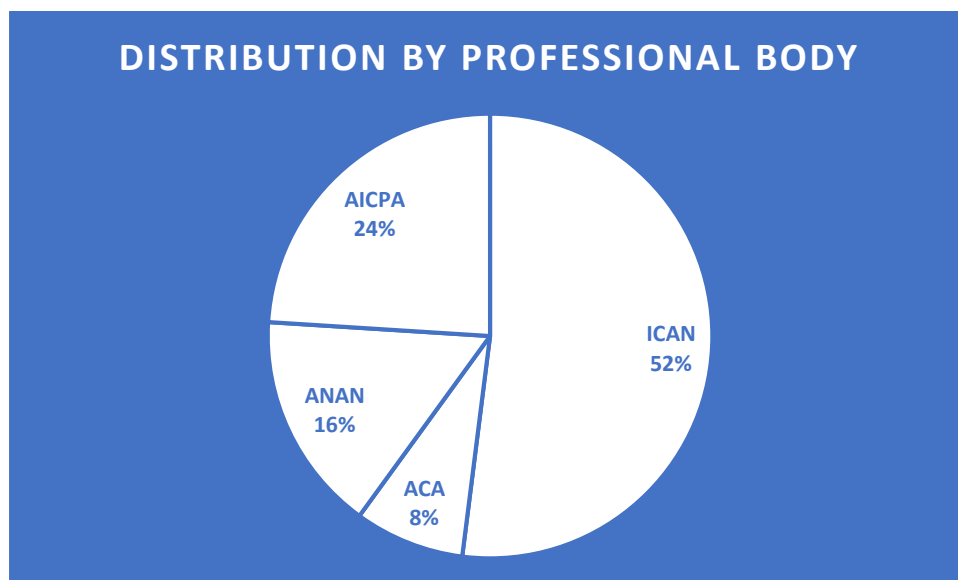


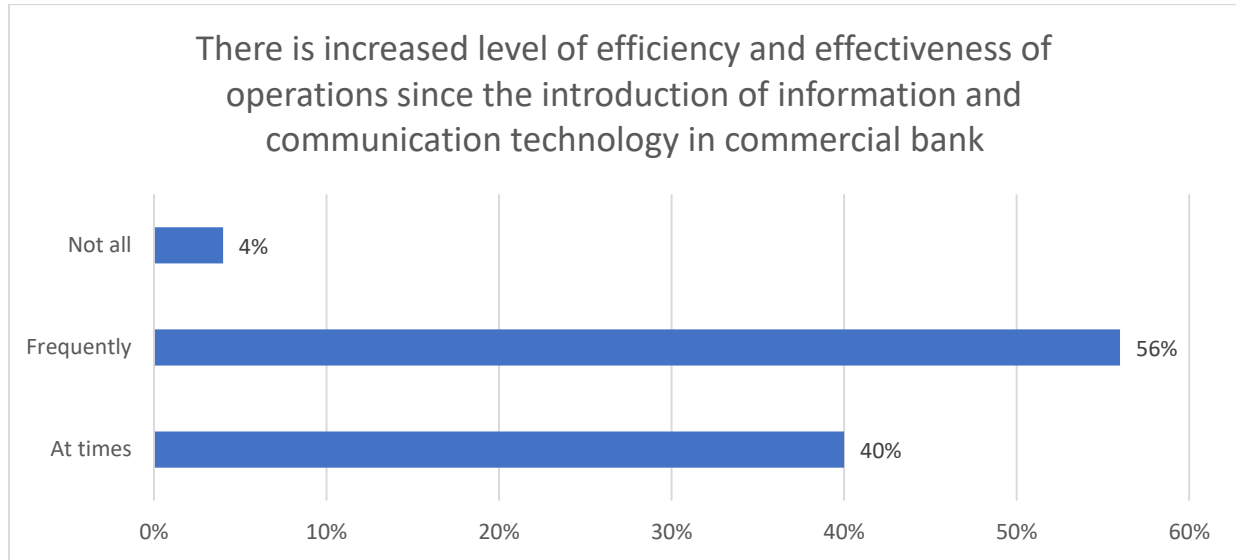
Table 8. Distribution of Professional Body

From the above table 52% of the respondent making 26 indicate ICAN, 8% of the respondent making 4 indicate mining, 8.0% of the respondent making 4 indicate ACA , 16.0% of the respondent making 8 which indicate ANAN and 24% of the respondent making 12 which indicate AICPA. Inference drawn from the above result shows that the larger percentages of the respondents were ICAN professional body



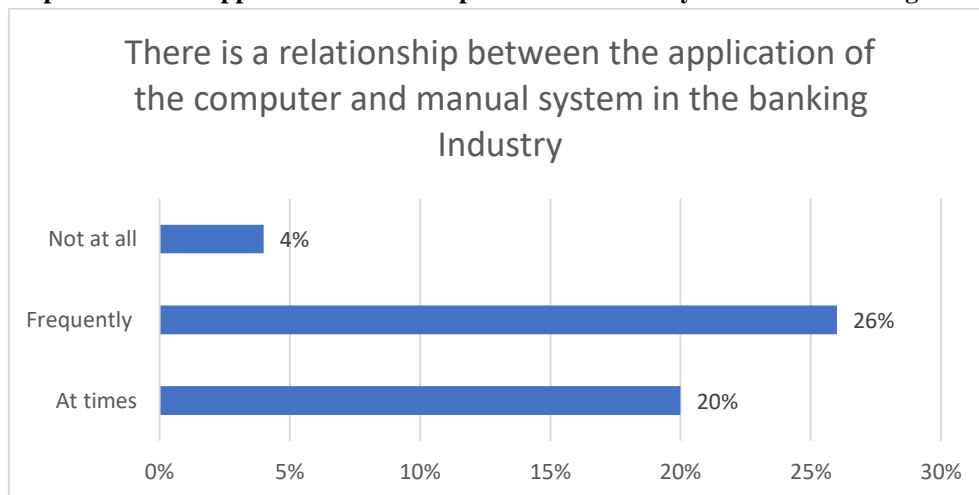
Results on Inferential analysis in line with the study hypothesis (From table 9 to 17)

Table 9. To determine the relationship between information communication technology and bank services



From the above table result above, 40% of the total respondent making 20 respondent responded that there is increased level of efficiency and effectiveness of operations since the introduction of information and communication technology in commercial bank at times, 56% of the total respondent making 28 responded that they frequently observe that there is increased level of efficiency and effectiveness of operations since the introduction of information and communication technology in commercial bank and 4% of the total respondent making 2 respondent responded that there is no increase level of efficiency and effectiveness of operations since the introduction of information and communication technology in commercial bank

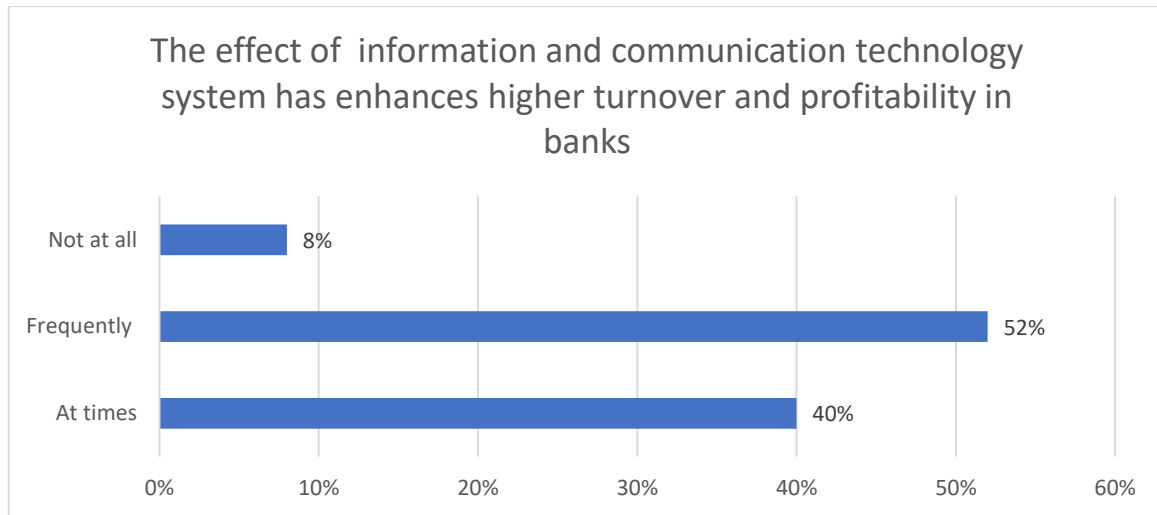
Table 10. Relationship between the application of the computer and manual system in the banking Industry?



From the above table result, 40% of the total respondent making 20 respondent responded that there is a relationship between the application of the computer and manual system in the banking Industry at times, 52% of the total respondent making 26 respondent responded that there is a relationship between the application of the computer and manual system in the banking Industry frequently and 4% of the total respondent making 2 respondent responded that there is no a relationship between the application of the computer and manual system in the banking industry.

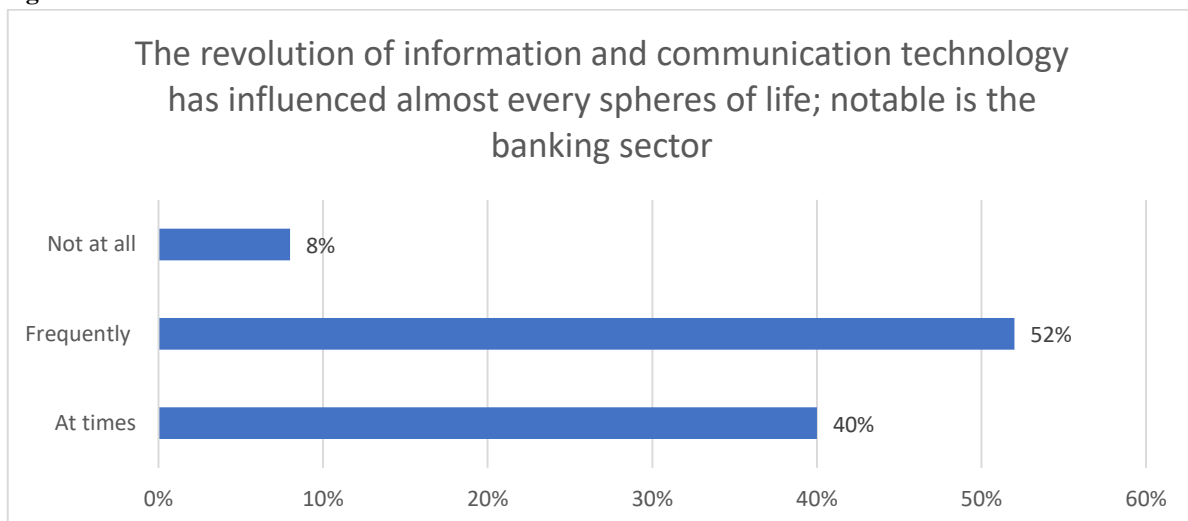


Table 11. The effect of information and communication technology system enhances higher turnover and profitability in banks?



From the above table result, 40% of the total respondent making 20 respondent responded that the effect of information and communication technology system has enhances higher turnover and profitability in banks at times, 52% of the total respondent making 26 respondent responded that the effect of information and communication technology system has enhances higher turnover and profitability in banks is frequent, 8% of the total respondent making 4 responded that they the effect of information and communication technology system has not enhances higher turnover and profitability in banks.

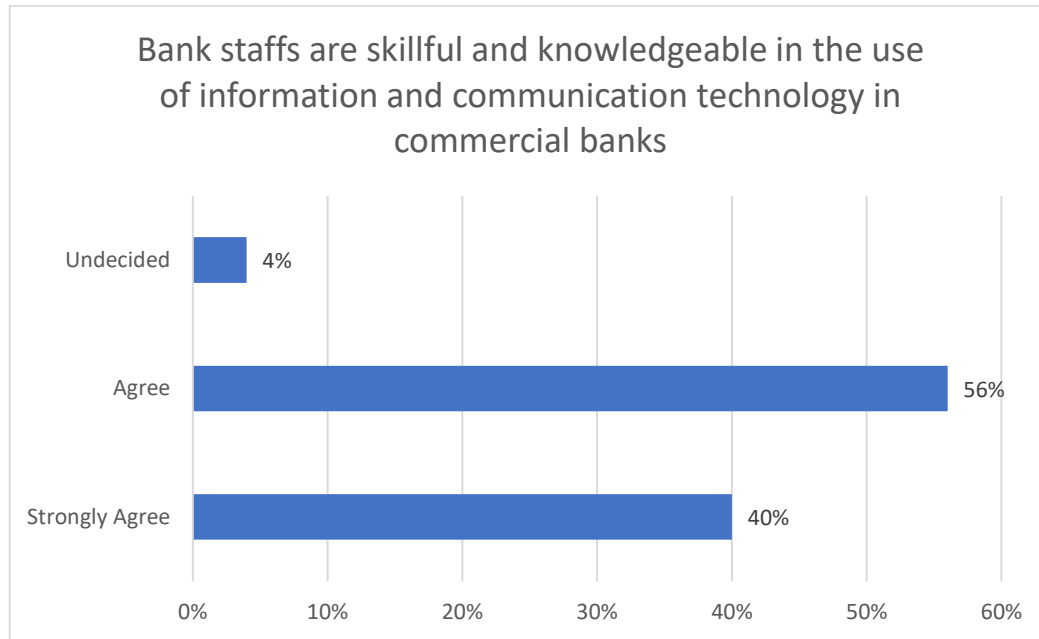
Table 12. The revolution of information and communication technology influenced almost every spheres of life; notable is the banking sector?



From the above table result, 40% of the total respondent making 20 respondent responded that the revolution of information and communication technology has influenced almost every spheres of life; notable is the banking sector at times, 52% of the total respondent making 26 respondent responded that the revolution of information and communication technology has influenced almost every spheres of life; notable is the banking sector and 4% of the total respondent making 2 respondent responded that the revolution of information and communication technology has not influenced almost every spheres of life; notable is the banking sector.

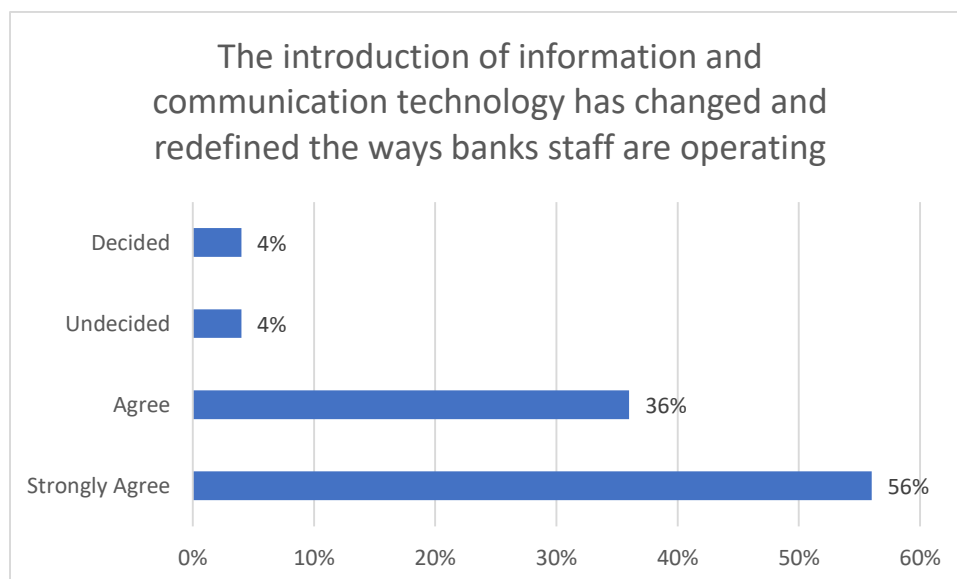


Table 13. To determine whether information communication technology has been of any effect on bank service delivery Evidence: bank staffs skillful and knowledgeable in the use of information and communication technology in commercial banks?



From the above table result, 40% of the total respondent making 20 respondents strongly agreed that bank staffs are skillful and knowledgeable in the use of information and communication technology in commercial banks, 56% of the total respondent making 28 agreed that bank staffs are skillful and knowledgeable in the use of information and communication technology in commercial banks and 4% of the total respondent couldn't decide whether bank staffs are skillful and knowledgeable in the use of information and communication technology in commercial banks.

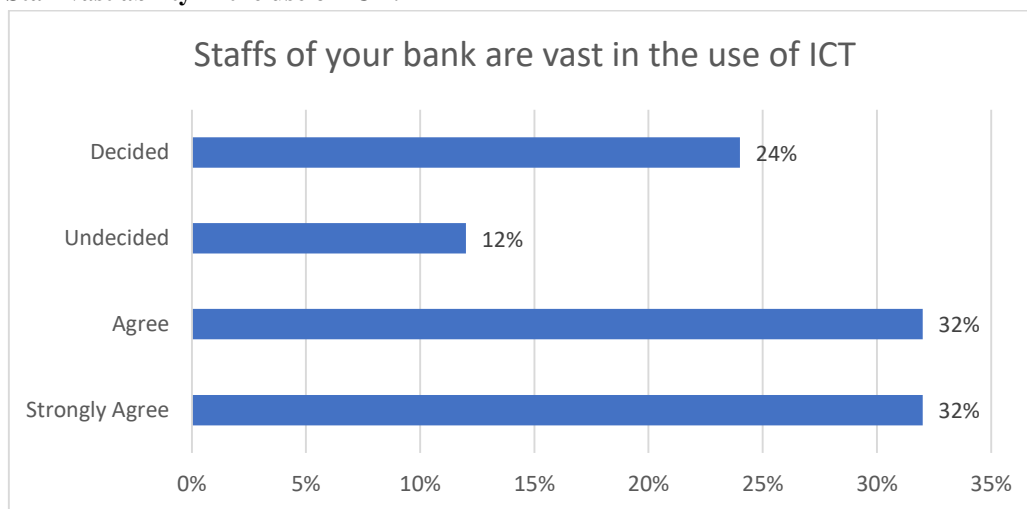
Table 14. The introduction of information and communication technology changed and redefinition of the ways banks staffs are operating?





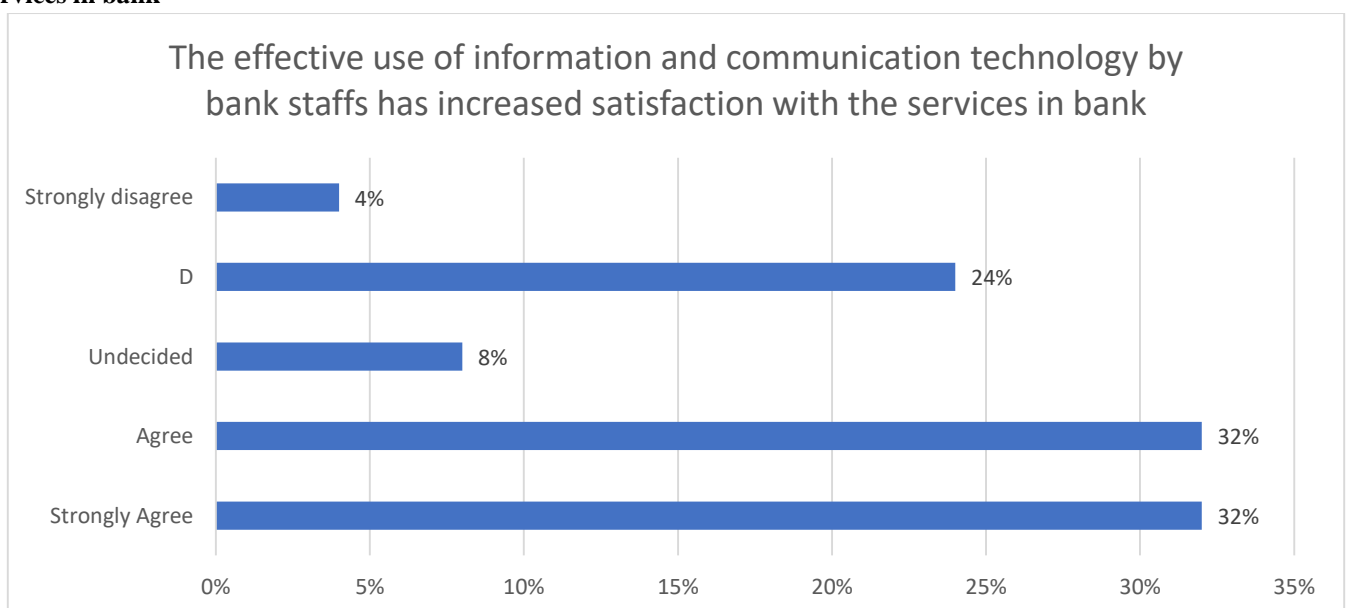
From the above table result, 56% of the total respondent making 28 respondent strongly agreed that the introduction of information and communication technology has changed and redefined the ways banks staff are operating, 36% of the total respondent making 18 respondents agreed that the introduction of information and communication technology has changed and redefined the ways banks staff are operating, 4% of the total respondent couldn't decide whether the introduction of information and communication technology has changed and redefined the ways banks staff are operating and 4% of the total respondent disagreed.

Table 15. Bank Staff vast ability in the use of ICT?



From the above table result, 32% of the total respondent making 16 strongly agreed that staffs of their bank are vast in the use of ICT, 32% of the total respondent making 16 agreed that staffs of their bank are vast in the use of ICT, 12% of the total respondent making 6 couldn't decide whether staffs of their bank are vast in the use of ICT and 24% of the total respondent making 12 disagreed that staffs of their bank are vast in the use of ICT.

Table 16. The effective use of information and communication technology by bank staffs increased satisfaction with the services in bank

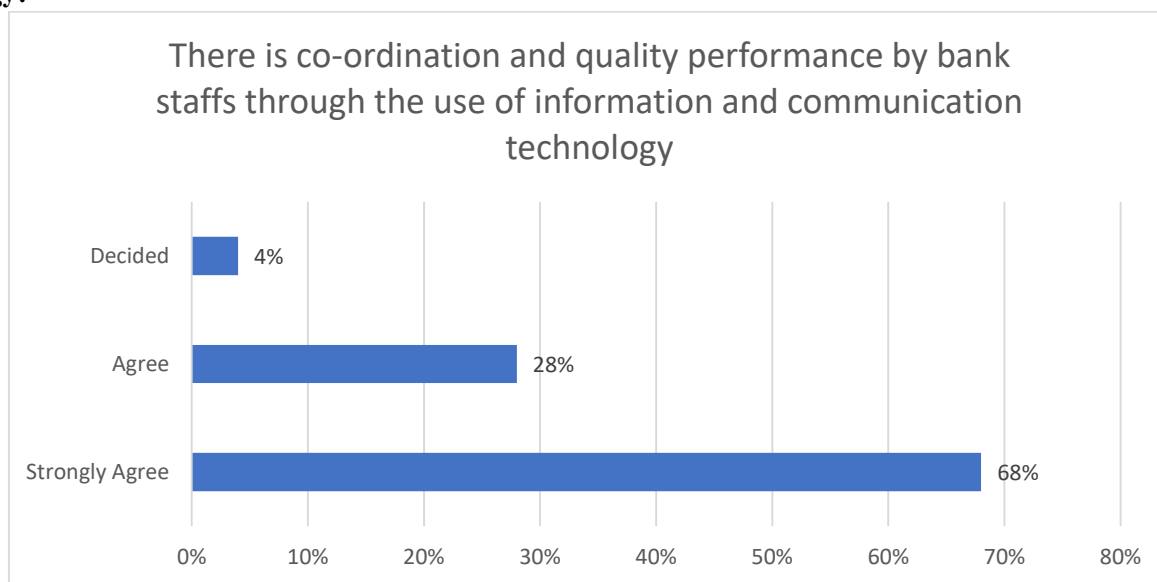


Source: Field Survey 2019



From the above table result 32% of the total respondent making 16 respondent strongly agree that the effective use of internet banking by bank staffs has increased satisfaction with the services in bank, 32% of the total respondent making 16 respondent agree that the effective use of information and communication technology by bank staffs has increased satisfaction with the services in bank, 8% of the total respondent making 4 respondent couldn't decide whether the effective use of information and communication technology by bank staffs has increased satisfaction with the services in bank, 24% of the total respondent making 12 respondent disagreed that the effective use of information and communication technology by bank staffs has increased satisfaction with the services in bank and 4% of the total respondent making 2 respondent strongly disagreed that the effective use of information and communication technology by bank staffs has increased satisfaction with the services in bank.

Table 17 Co-ordination and quality performance by bank staffs through the use of information and communication technology?



From the above table result 68% of the total respondent making 34 respondents strongly agreed that there is co-ordination and quality performance by bank staffs through the use of information and communication technology, 28% of the total respondent making 14 respondents agreed that there is co-ordination and quality performance by bank staffs through the use of information and communication technology and 4% of the total respondent making 2 respondents disagreed that there is co-ordination and quality performance by bank staffs through the use of information and communication technology.

It has been revealed in the study, table 9 to table 13 that since the introduction of information communication technology, bank services has experienced increase in level of efficiency and effectiveness, higher turnover and profitability and also improvement in all spheres its operations. This is because larger percentage of the respondents agreed that there's relationship between information communication technology and bank services. The study revealed information communication technology has improved the efficiency and effectiveness of bank service delivery. This is seen in tables 14, 16 and .17 since larger percentage of the respondents strongly agreed that bank service delivery has improved since the introduction of information communication technology to the banking system.

The study revealed that information communication has contributed to customer satisfaction and bank performance but the major challenges faced by Nigerian commercial banks in the use of information communication technology are sporadic and inefficient electricity supply, low internet penetration, telecommunications problems.

Conclusive Remark

The study established that, technological acquisition of information and communication technology has brought about improvement and growth of the banking business thereby improving service delivery to the customers and reducing time schedule by clients.



Technology acquisition has also brought about increased competition amongst banks in Nigeria as per who provides the best services. Information and communication technology has made banking services easier and faster for both customers and staff. As a result of these, there is a strong relationship between information and communication technology and the banking system in Nigeria.

Limitation

The study of this nature is normally faced with lack of accessibility to data because most of the data are classified and considered to be confidential in nature. However, this limitation was overcome by relying on officials in the bank that were capable of furnishing the required information by virtue of their ranks and files. The data obtained is expected to serve the purpose of the analysis. Equally, lack of cooperation from the bank management and staff on issues relating to ICT investment and other ICT related issues. Often, banks are reluctant to divulge data bothering on these issues for competitive reasons. Data obtained from published reports and banks' officials are expected to serve as the basis for this analysis.

AUTHORS CONTRIBUTION

EOA performed the experiment and wrote the manuscript with contributions from both authors while OMO planned, supervised and coordinated all data collation.

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