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Investigating the Differences in Opinions on the Impact of a Health-run on Remittances and Financial Inclusion

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Abstract: The study aims to investigate the differences in the opinions of financial sector employees and users of financial services on the impact of a health run on financial remittances and inclusion. Data were collected through a survey questionnaire administered on a sample of 60 respondents made up of financial services employees and users of financial services irrespective of their age and years of business experience. The study used a stratified sampling technique to get the respondents into two distinguishable classes, followed by a purposive sampling to eliminate those without knowledge on the subject matter under examination and finally a random sampling was applied to ensure accuracy and fairness in the opinions of the final respondents. The study objective was attained by empirically testing the hypotheses using Analysis of Variance (ANOVA). Results show that, there is differences between respondent's opinions from the financial sector employees and users of financial services on the impact of a health crisis on the level of remittances and financial inclusion. The findings suggest that not all parties, sectors or economic groups and units are equally impacted during a health crisis. Thus policy makers can focus their attention in designing a direct response recovery strategy to reduce the effect of a health crisis on the most affected economic units and entities.

Keywords: Financial Inclusion, Financial Sector, Financial Services Employees, Health Crisis, Remittances, Users of Financial Services

1. Introduction

Respondents are likely to have and expressed varied opinions on the impact of a health crisis on some particular variables. Respondents (Financial Services Employees and Users of Financial Services - FSUFS) impact expressions or opinions would likely depend on the extend of the effect they experienced. In a study that brings together respondents from the financial sector employees (FS) and users of financial services (UFS) to investigate the existence of differences in their opinions on the impact of a health run on remittances and financial inclusion. For simplicity and considering that financial services employees are there to provide financial services to clients, in this study, it is assumed that financial services providers are the same as financial services employees. Hence the acronym FS although primarily referring to financial services employees should be broaden to include financial services providers (Johnson, 2020; Nso, 2018; Kamdjoug et al., 2021).

Financial sector employees or somewhere herein refer to as financial services (FS) employees are the staff irrespective of their position, age, gender, education and years of banking experience. While, users of financial services (UFS) include; individuals and / or business people with no barrier on position, age, gender, education, years of banking and working experiences. These pools of respondents are viewed reliable as the study is centred on the impact of a current on-going issue, the (global) health crisis. The two pools form the large pool of respondents termed financial services employees and users of financial services (FSUFS). Financial services employees consisted of 30 respondents and users of financial services consisted of 30 respondents. The total number of respondents used for this study is 60.



Financial and banking services go beyond remittances and financial inclusion to include safe keeping of values, processing payments, offering investment advice and loans to and of clients. It is an opened and affirmed fact that not all economic sectors will be able to process banking transactions if they do not have access to banking account and financial institutions. Thus financial inclusion is paramount with or without a health crisis (Mbu and Nso, 2021). On the other hand, while the exist non-banking account means of having remittances being processed, prudential and compliant banking requirement encourages banking institutions and financial houses to process payments with bank accounts accessed to minimise transaction, operations and business risks. Subsequently, during a global crisis, such as the coronavirus pandemic where banks, households, businesses and economic sectors are exposed to all sorts of risks, the level remittance could be affected. Nashipu, et al (2020) agree that financial inclusion is important in reducing inequality of opportunities among households. In another study Demirguc-kunt, et al (2008) affirm the wide acceptance of financial inclusion as a pro-growth tool and its important role in reducing poverty globally. A good and developing financial sector (Johnson, 2020) should have enough financial services for users to afford during a period of a run in health.

Having aforementioned the types of respondents involved, this study main objective is to examine the differences in respondents' opinions on the impact of a health crisis on financial flows (remittances) and inclusion. Uzobo and Boroh, (2021) have pointed that, many studies have focused on the negative impact of the coronavirus while ignoring the fact that the coronavirus was also a blessing in disguise to certain institutions. Based on the results in the differences in respondents' opinions, this study tries to identify or find out which unit(s) was or were blessed by the impact of a health run or crisis such as the coronavirus pandemic. A health crisis would rather create situations that could be viewed as opportunities for which individuals and institutions need to make use of, for them to be blessed. These opportunities can only be created through the effort of response policy instruments put in place to reduce the effect of the health crisis on the most affected economic sectors or entities.

2. Methodology for the Study

This section describes the various processes used in the methodology of the study. These includes; the research design, sampling technique, the framework for the study, the research tools and the data analysis methods used for the study in order to come out with the study results.

2.1 Research Design

The study embraced both qualitative and quantitative research approaches. In the qualitative aspect, questionnaires were used to collect the needed primary data to form the quantitative data to test the hypotheses. Quantitative research technique was used; in analysing the research data collected on the variables under examination and to assess the objective of the study.

2.2 Sampling Technique

The sampling method used for the study to collect data included; stratified, purposive and random sampling (Mbu and Nso, 2021).

Stratified sampling technique was used to firstly, classify respondents into two major classes. These included: the banks employees and users of financial services or business people (made of both females and males irrespective of age and years of business experience).

Secondly purposive sampling was conveniently applied on each stratum to ensure that the final respondents have a basic understanding on the variables under assessment. The variables included: run on health (health crisis), financial remittances, financial inclusion, and financial services employees and users of financial services (FSUFS). This ensures objectivity in the opinions of the final respondent.

Then, finally, a random sampling technique was applied to select the final respondents arbitrarily to respond to questionnaires. This further helps to minimise and avoid bias in the opinions of the respondents.



Administering these sampling techniques was not easy to go by since the attention of all the strata of respondents were in high demand and those potential respondents whose attention could not be assured were left out of the final sample that provided their opinions to the questions. However, the techniques are worthwhile of consideration as they ensured that only those knowledgeable, convenient and most willing respondents submitted their responses for examination on the study. This means that the final data obtained from the respondents could be viewed as reliable and worthy of trust to meet the objective of the study.

Based on; Field, (2013); Hosmer, Lemeshow, and Sturdivant (2013) and Leblanc and Fitzgerald (2000), the sample size of 60 respondents suffice for the study and it satisfies the recommended basic requirement for such a study. Field, (2013) states that larger samples are needed for linear regression because maximum coefficients with a minimum of 50 cases per predictor is recommended. While, Hosmer, Lemeshow, and Sturdivant (2013) suggest a minimum sample of 10 observations per independent variable in the model, but caution that 20 observations per variable should be sought if possible. And Leblanc and Fitzgerald (2000) suggest a minimum of 30 observations per independent variable.

2.3 Research Framework Used for the Study

The study identified key variables for examining the differences in opinions of respondents on the impact of health crisis on remittances and financial inclusion. The study classified respondents into two major strata of respondents namely (financial services employees – FS and users of financial services – UFS). With this, it is imperative to test if there are differences in the respondents' opinions.

Thus the econometric model expression is defined as;

$$DFR = MSBFS / MSEFS \quad (1)$$

If there is no differences in the respondents classes, the expectation is that DFR = (equals) to one (1) and thus MSBFS / MSEFS should be equals to 1. This implies DFR is equal to 1. In case where DFR is not equal to 1, it implies, there is differences in opinions of the respondent's classes.

A typical Analysis of Variance (ANOVA) technique equation is expressed as;

$$F = MSB / MSE$$

Where,

F is the F (Fisher) statistics to indicate differences in mean, MSB is the Mean Squares Between the groups of respondents and MSE is the Mean Squares Within the groups of respondents.

Forward looking, equation (1) fits directly into the typical ANOVA technique equation.

With DFR as the statistics to indicate differences in the respondents' groups, MSBFS is the Mean Squares Between the financial services (Employees and Users) respondent groups and MSEFS is the Mean Squares Within financial services (Employees and Users) respondent groups.

2.4 Research Technique Tool Used for the Study

One-way Analysis of Variance (ANOVA) technique was used to evaluate the differences in the means between and within the respondents' groups (financial services employees and users) with respect of the identifying variables in the study.

2.5 Data Analysis

The research data was coded and data entry recorded in IBM SPSS 24 for data analysis Burns & Burns (2008). The analysed outputs were obtained and presented for interpretation.

George and Mallery (2003) classify Cronbach's alpha reliability coefficient as; > .9 excellent, > .8 good, > .7 acceptable, > .6 questionable, > .5 poor and < .5 unacceptable. In general, Cronbach's alpha reliability coefficient



normally ranges between 0 and 1 the closer the coefficient is to 1.0 the greater the internal consistency of the items (variables) in the scale.

Skewness and Kurtosis were used to test the distribution normality. Byrne (2013) recommends that a data is normally distributed if skewness for the various items ranges between -2 to 2 while kurtosis score ranges between -7 and 7. On the same subject Bentler (1990) suggests more stringent criterion of 1.96 for both skewness and kurtosis.

ANOVA is being used to test for differences in means between groups and within groups. The data generate an F-test statistic which corresponds to a p-value. The p-value is compared to significance level of 0.05. If the p-value obtained is less than 0.05, the null hypothesis is rejected, meaning there is a difference in means between groups and within groups of the respondents.

This study considers the following hypotheses;

H1: There is no differences between respondent's opinions from the financial sector employees and users of financial services on the impact of a health crisis on the level of remittances and financial inclusion.

H2: There is no differences on the respondents' opinions as concerns the run of health variable.

H3: There is no differences on the respondents' opinions as concerns the remittance variable.

H4: There is no differences on the respondents' opinions as concerns financial inclusion variable.

3. Results

The study results consist of the descriptive and empirical aspects based on the analysed data of the study.

3.1 Descriptive Results

This section describes the respondents background, the health crisis prevalence rate, data reliability, nature of the distribution normality and homogeneity of variances of the variables used in the study.

3.1.1 Respondents Background

The survey sample consisted of 60 respondents. The profile of the respondents included people with knowledge on; what a health crisis could be and banking services. As such the respondents background included a pool from financial services employees (banks employees), and financial services users which included; business men and women and family members as shown in table 1. These respondents pool help to minimise bias in the opinions of the respondents and to ensure reliability in the opinions expressed.

Table 1. Respondents Background

| Respondent Background | Frequency | Percent | Valid Percent | Cumulative Percent |
|--|-----------|---------|---------------|--------------------|
| Financial Sector employee (FS) | 30 | 50.0 | 50.0 | 50.0 |
| Valid User of Financial Services (UFS) | 30 | 50.0 | 50.0 | 100.0 |
| Total | 60 | 100.0 | 100.0 | |

3.1.2 Prevalence of a Health Crisis

Table 2. Prevalence of a Health Crisis

| Prevalence of a health Crisis | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------------------------------|-----------|---------|---------------|--------------------|
| Valid Yes | 43 | 71.7 | 71.7 | 71.7 |
| Valid No | 17 | 28.3 | 28.3 | 100.0 |
| Total | 60 | 100.0 | 100.0 | |



Out of 60 respondents that submitted their responses to the question; '**Does the outbreak of the coronavirus (COVID-19) diseased caused a (run on) health crisis?**' 71.7% of them are on the opinion that the outbreak of the coronavirus (COVID -19) diseased has caused a run on health to be termed a health crisis as shown in table 2.

3.1.3 Reliability Test

The measuring reliability test in table 3 shows the data collected for the variable Run on Health is statistical reliable. This is important in that it reaffirms that the 71.7% of the respondents that indicated that the current run on health is sufficient to be termed a health crisis is excellently statistical reliable to prompt continuation of the study. Though the negative Cronbach`s Alpha for the other variables do violates reliability model assumption. It is still good to proceed with the study to test research study hypotheses. The negative value is as a result of the presence of a negative average covariance among items (variables).

Table 3. Cronbach's Alpha Test for measuring Reliability

| Variables | Cronbach's Alpha |
|--------------------|------------------|
| RunonHealth | .967 |
| Remittances | -2.474 |
| FinancialInclusion | -2.896 |

3.1.4 Test for Distribution Normality

Based on the normality test in table 4, the results show that all the variables in the modelled equation are normally distributed.

Table 4. Test for Distribution Normality

| Variables | Skewness | | Kurtosis | |
|--------------------|-----------|------------|-----------|------------|
| | Statistic | Std. Error | Statistic | Std. Error |
| RunonHealth | .986 | .309 | -1.063 | .608 |
| Remittances | -1.005 | .309 | .287 | .608 |
| FinancialInclusion | -.744 | .309 | -.465 | .608 |
| FSUFS | .000 | .309 | -2.070 | .608 |
| Valid N (listwise) | | | | |

Table 5. Test of Homogeneity of Variances

| Variables | Levene Statistic | df1 | df2 | Sig. |
|--------------------|------------------|-----|-----|------|
| RunonHealth | 2.882 | 1 | 58 | .095 |
| Remittances | .905 | 1 | 58 | .345 |
| FinancialInclusion | .914 | 1 | 58 | .343 |



3.1.4 Test of Homogeneity of Variances

Using the Levene statistics to test the homogeneity of the variables under assessment as shown in table 5; it is observed that all the F-test generated p-values which are greater than the significance level of 0.05. This thus indicates a non-violation of the assumption to test the null hypotheses that the variance is not equal across groups. Thus there is homogeneity within all the assessment variables.

3.2 Empirical Results

This section presents the results of the hypotheses for the evaluation of the study.

3.2.1 Differences in Opinions Between Financial Services Employees and Users of Financial Services

The modelled parametric equation $DFR = MSBFS / MSEFS$ (with $DFR = 1$ in case of a null hypothesis) is assessed using ANOVA. Based on table 6, Mean Square Between Groups (MSBFS) is 17.192 and Mean Square Within Groups (MSEFS) is 0.139. Thus; $DFR = 17.192 / 0.139 = 123.892$. The DFR statistical score corresponds to the F (Fisher) statistical score in the ANOVA result table 6. Comparing, the actual DFR score within the hypothesized score in the modelled equation, it is evident that actual $DFR = 123.892$ (is largely greater than) > 1 (the stated or required DFR to accept the null hypothesis). Thus; the null hypothesis which states that, 'H1: There is no differences between respondent's opinions from the financial sector employees and users of financial services on the impact of a health crisis on the level of remittances and financial inclusion.' is rejected. This is further confirmed by the significance level of 0.000 which is far less than the p-value of 0.05.

Table 6. Showing the Differences in Respondents Opinions

A run on health affects the level of remittances; Please rate your level of agreement

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|----|-------------|---------|------|
| Between Groups | 68.768 | 4 | 17.192 | 123.892 | .000 |
| Within Groups | 7.632 | 55 | .139 | | |
| Total | 76.400 | 59 | | | |

3.2.2 Differences in Run on Health, Remittances, Financial Inclusion by FSUFS (Respondents type)

Observing table 7, for the Run on health the F-test statistics is .723 and significance level of .399 which is greater than .05. Thus the hypothesis H2: which states that, there is no differences on the respondents' opinions as concerns the run of health variable is accepted.

Table 7. ANOVA table showing the Results on the Differences in Run on Health, Remittances, Financial Inclusion by opinion of FSUFS (Respondents type)

| Variables | Sum of Squares | df | Mean Square | F | Sig. | |
|--------------------|----------------|--------|-------------|-------|-------|------|
| RunonHealth | Between Groups | .150 | 1 | .150 | .723 | .399 |
| | Within Groups | 12.033 | 58 | .207 | | |
| | Total | 12.183 | 59 | | | |
| Remittances | Between Groups | .600 | 1 | .600 | .459 | .501 |
| | Within Groups | 75.800 | 58 | 1.307 | | |
| | Total | 76.400 | 59 | | | |
| FinancialInclusion | Between Groups | 3.267 | 1 | 3.267 | 2.186 | .145 |
| | Within Groups | 86.667 | 58 | 1.494 | | |
| | Total | 89.933 | 59 | | | |



On Remittances; The F-test statistics is .459 and the p-value of .501 which is greater than the significance value of .05. Thus the hypothesis H3: which states that, there is no differences on the respondents' opinions as concerns the remittance variable is accepted.

And finally on Financial Inclusion variable; The F-test statistics is 2.186 and the p-value of .145 which is greater than the significance value of .05. Hence the hypothesis H4: which states that, there is no differences on the respondents' opinions as concerns financial inclusion variable is accepted.

4. Discussion of Results

The 50%:50% respondents pool ensures that there is fairness in the respondents' opinions. This helps to ascertain whatever results obtain to be just and fair based on the analyzed data. The 71.7% respondents that indicated that the run on health is severed to be termed a global crisis are statistically reliable. This means that the differences in the respondents' pool as concerns the impact on remittances and financial inclusion could be reliably be assessed without doubts based on the analysed data.

The existence of differences in respondents' opinions between financial services employees and users of financial services on the impact of a health run on remittances and financial inclusion only go a long way to indicate that both pool of respondents felt the impact but one group of respondents felt the impact more than the other. Further study or analysis could be conducted using real or actual facts (data), empirical and secondary data from banks and other financial services providers (Nso, 2018) to empirically determine which group or strata of respondents felt the impact the most. The determination of the most affected units is essential since each country confronts itself with different situations in the health issue and it is imperative to direct appropriate response programs and financing: to the most affected sectors, to alleviate the impact felt and to ensure safety and quality management of the affected units (Antohi & Cojocar, 2015; El-Tohamy and Al Raoush, 2015; Rocha-Ibarra & Cisneros-Reyes, 2018; Taouab & Ameer, 2018).

Finally, the nonexistence of differences in the independent variables; run on health, remittances and financial inclusion as in relation to the respondents' strata, only affirm the knowledgeability of the respondents on the subject matter under evaluation.

5. Conclusion

There is a sure suggestion that both financial services employees and users of financial services felt the impact of the health crisis. This suggests that if households and firms fail to make remittances and / or open new accounts (financial inclusion) for transaction purposes, banks would feel the impact and vice versa. Thus, directing response programs to include individuals and households would reduce the impact of a health crisis on daring units that require improvement. The exact category of the respondents impacted the most could be assessed by collecting banks' customers' transaction volumes and data before and after the health crisis. Further a separate analysis of financial services employees and that of users of financial services could be conducted to determine which groups benefited and / or impacted the most from the on-going health crisis. Finally, in the best interest of all is to agree on measures that would end the health crisis.

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