Technology as a Tool for Effective Financial Management in a Family

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Abstract - Family Financial management refers to the efficient and effective management of money (funds) in such a manner as to accomplish the objectives of the family. The use of electronic banking technologies has been heavily promoted in recent years. From the financial institution's perspective, products and services such as automated teller machines (ATMs), debit cards, and Internet banking make it possible to speed processing and cut costs. Consumer adoption of e-banking technologies has expanded substantially; over so many years, the use of ATM cards has tremendously grown. Hence, these technology tools can be adopted to solve inevitable financial conflicts at home, where financial management is important, and family members work to earn money, but most of the time the earned money is not enough to carter for the family. In an attempt to ensure that the basic need and other necessary needs are met and domestic financial related conflicts are kept at bay, this research work aimed at finding the effects of technology tools in the financial management in a home by determining the rate of adoption of financial technology tools, the effects of technology on family financial management and identifying the challenge(s) of using financial technology tools in transactions. These gave rise to two basic hypotheses to know if there is or no significant relationship between age and ease of use of financial technology tools and if there is or no significant relationship between marital age and the need to use financial technology tools for family financial planning. This research utilized the quantitative approach with the use of statistical inference techniques to generalize findings from a sample to a defined population. Empirical Research Design was used for this work. It was discovered that Age and ease of use has the r coefficient of 0.061 and a significance value of 0.544 (P>0.05). Also, marital age and the need to use technology tools for family financial planning has the r coefficient of 0.040 and a significance value of 0.687 (P>0.05). Hence, it was deduced that the respondents are particular about ease of use, convenience and less time consumption. It means they are willing to go through family financial planning and budgeting as long as these factors are in place. It can also be deduced that though there is issue of security, they still use the tools. Therefore, the positive effects outweigh the negative effect.

Index Terms: ATM, Technology tools, Empirical Research, five-point Likert scale, confidence level, Sample size, finanancial management.

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1 INTRODUCTION

Managing family finances has become more difficult than ever as the economy and family structures have all experienced considerable changes in recent years. As an important factor in the overall functioning of a family, financial status or the level of finance/money acquired by a family can tell the functional level of a family. Since people do not wear their financial statements or bank account on their foreheads, they tend to communicate their financial status by things they purchase [1].

Family Financial management refers to the efficient and effective management of money (funds) in such a manner as to accomplish the objectives of the family. The use of electronic banking technologies has been heavily promoted in recent years. From the financial institution's perspective, products and services such as automated teller machines (ATMs), debit cards, and Internet banking make it possible to speed processing and cut costs. Consumer adoption of e-banking technologies has expanded substantially; over so many years, the use of ATM cards has tremendously grown [2].

1.1 Statement of Problem

Conflict is inevitable in a home where family members work to earn money, but most of the time the earned money is not enough to carter for the family. Hence, financial management is required to ensure that the basic need and other necessary needs are met and conflict is kept at bay.

1.2 Research Aim

The aim of the study is to find the effects of technology tools in the financial management in a home.

1.3 Research Objectives

The goal of this study is:

1. To determine the rate of adoption of financial technology tools
2. To determine the effects of technology on family financial management
3. To identify challenge(s) of using financial technology tools in transactions.

1.4 Research Hypotheses

In addition to the research objectives, the following hypotheses were proposed:

HYPOTHESIS 1

H0: There is no significant relationship between age and ease of use of financial technology tools

Ha: There is a significant relationship between age and ease of use of financial technology tools

HYPOTHESIS 2

H0: There is no significant relationship between marital age and the need to use financial technology tools for family financial planning

Ha: There is a significant relationship between marital age and the need to use financial technology tools for family financial planning.

1.5 Significance of Study

This study will benefit the following major stakeholders of the project:

Financial Institutions

It is also believed that the findings and recommendations from this research will be useful for various financial institutions offering different financial technology tools to work on their shortcomings and make their services better.

Academia

The output of this study would also contribute to literature and knowledge in the subject being studied. It will add to the source of reference for students and researchers interested in this research area.

2 LITERATURE REVIEW

This section reviews literatures relevant to the study of technology as an effective tool for family financial management.

2.1 Financial Management

[3]Financial management refers to the efficient and effective management of money (funds) in such a manner as to accomplish the objectives of the organization/family.

2.2 Technology

Technology is a body of knowledge devoted to creating tools, processing actions and the extracting of materials [4]. Technology is also an application of science used to solve problems.

2.3 Financial Technology Tools

1. Online/ Internet Banking: Online banking, also known as internet banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website.

2. **Automated Teller Machines:** An automated teller machine (ATM) is an electronic telecommunications device that enables customers of financial institutions to perform financial transactions, such as cash withdrawals, deposits, transfer funds, or obtaining account information, at any time and without the need for direct interaction with bank staff.

3. POS – Point of Sale: The point of sale (POS) or point of purchase (POP) is the time and place where a retail transaction is completed.

2.4 Review of Related works

1. **Use of Information Technology for Financial Management in Czech Enterprises**: In this study, [5], the author of this work, examines the impact of the adoption of software tools for Financial Management support on the Financial Management function. In addition to that, it was intended to study the level of contribution these technologies can bring to a company. The use of soft ICT to some extent contributes to better economic performance in a medium-sized company, but was counter-productive to small companies. Hence, the study does not fit for family finance management.

2. **Household Financial Systems:** This literature discussed some preliminary results of an ethnographic study focused on the ways money and financial issues are collaboratively handled within families. Four financial systems were developed, and these systems not only organize everyday family finances, but represent and shape family relationships. The issue with this literature was that the systems developed did not take into consideration families from low income demography [6].

3. **Family financial management: a real-world perspective:** This literature examines some techniques used by families in the day-to-day management of their finances. A grounded theory model was proposed, and the model suggests that families have a process for managing their money and that it focuses on the ideas of safety, control comfort, and routine, with an overall goal of the family's financial viability. The model failed to incorporate any of the financial trending technology tools [7].

4. **Invisible money: Family finances in the electronic economy:** This study by, [8], showed that there are clear patterns of exclusion from the electronic economy, which reflect education, employment status, income, gender and age. But some families are more or less completely excluded from the electronic economy, especially the low income or without a job.

5. **Principles of Financial Management in a Christian Home:** This literature proposed six principles that could enhance more effective financial management in Christian homes. The work did not sample family opinion on electronic economy as to regards to family budgeting.

   This research work introduces some technology tools that address some of the grey areas from the reviewed literatures; and also provide statistical inferences of

how effective these tools are to the management of family finance [1].

3 RESEARCH METHODOLOGY

Research methodology according to [9] is a system of models, procedures and techniques which are used to find the results of a research problem. [10], simply puts it that a research methodology is the way a research is going to be carried out.

3.1 Research Approach and Design

In this study, quantitative approach was be used. Quantitative research approach according to [11], is the collection of data appropriate for statistical analysis and which are grounded in positivist paradigm. [12], adds that quantitative research approach makes use of statistical inference techniques to generalize findings from a sample to a defined population. Empirical Research Design was used for this work.

3.2 Population and Sample

The population for this research was married people with the sample size of 120. The sample size was calculated using the online sample size calculator with the confidence level of 95% and the confidence interval of 5.

TABLE 1

SAMPLE SIZE

No of Questionnaires administered	No of valid response returned	% of valid response	No of invalid response returned	% of invalid response	Total
120.	102	85.8%	1	5%	102 (100%)

Source: Field Survey, 2018

Valid 102 responses were used and that formed the 100% of the research work.

3.3 Sampling Technique

This study used the purposive sampling technique. It can be called judgmental, selective or subjective sampling and [13] put it this way, that a researcher decides what exactly needs to be known and sets out to find people who can willingly provide the information by virtue of knowledge or experience.

3.4 Data Collection Tool

This study employed questionnaire as the data collection tool. Questionnaire was considered for this study because it is easy, requires little time and at the same time cost efficient. A five-point Likert scale was ranging from 1-5 was used. The five-point Likert scale was used so as to provide simplicity for the respondents' answers and as well, make the evaluation of the data easy.

3.5 Data Collection Procedure, Processing and Analysis

The questionnaire was designed and distributed electronically using 'Google form'. The extract from the Google form was saved in excel worksheet and imported to the IBM SPSS Statistics software for analysis. The data gotten was analyzed using IBM SPSS Statistics version 21 and frequency tables were generated from it.

3.6 Statistical Method

Pearson's correlation coefficient was used to find out the relationship between some of the variables. With this, the r coefficient and the p-value which shows the significance level were generated and this helped to present the degree of their relationships and the kind of effect they have on each other.

3.7 Reliability and Viability Test

A pre-test is necessary to assess the reliability and validity of a questionnaire. In the pre-test procedure, a random sample of 5 married individuals was used to clarify the questions and statements in the questionnaire. The respondents were asked to make comments on any ambiguous or unclear questions. No modification was made at the end of the test as the questions were clear and well understood.

3.8 Ethical Considerations

The researchers considered some ethical consideration in the data collection process for the study thus:

1. The respondents were allowed to participate willingly in the research without them being forced or talked into it.
2. The confidentiality of the respondents was kept.

All the references were fully acknowledged to avoid plagiarism.

4 DATA PRESENTATION, ANALYSIS AND DISCUSSION

This aim of this section is to present the data, analyze them and then finally discuss the outcome.

4.1 Demographic Data of Respondents

TABLE 2

GENDER OF RESPONDENTS

Gender				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	59	57.8	57.8	57.8
	Female	42	41.2	41.2	99.0
	3	1	1.0	1.0	100.0
	Total	102	100.0	100.0	

Source: Field survey, 2018

The respondents were made up of fifty-nine (59) male representing 57.8% and forty-two (42) female representing 41.2%.

TABLE 3

AGE GROUP OF RESPONDENTS

Age group

	Frequency	Percent	Valid Percent	Cumulative Percent
21-30Years	25	24.5	24.5	24.5
31-40Years	45	44.1	44.1	68.6
41-50Years	22	21.6	21.6	90.2
51 and above	10	9.8	9.8	100.0
Total	102	100.0	100.0	

Source: Field survey, 2018

The highest age group among the respondents was 31-40 years representing 44.1% of the total number of respondents while the least age group was 51 and above representing 9.8% of the total number of respondents.

TABLE 4

HIGHEST EDUCATIONAL QUALIFICATION OF RESPONDENTS

Educational level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	2	2.0	2.0	2.0
	Bachelor's Degree	40	39.2	39.2	41.2
	Master's Degree	50	49.0	49.0	90.2
	PhD and above	10	9.8	9.8	100.0
	Total	102	100.0	100.0	

Source: Field Survey, 2018

Respondents with Master's degree had the highest number of 50 representing 49.0% of the total number of respondents. Respondents with Diploma had the least number of 2 representing 2.0%.

TABLE 5

JOB POSITION OF RESPONDENTS

Source: Field survey, 2018

Respondents in the middle management had the highest number of 36 representing 35.3% of the total number.

TABLE 6

HOW LONG RESPONDENTS HAVE BEEN MARRIED

Marital age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 5 years	41	40.2	40.2	40.2
	5-10Years	30	29.4	29.4	69.6
	11-15Years	16	15.7	15.7	85.3
	16-20Years	7	6.9	6.9	92.2
	21-25Years	3	2.9	2.9	95.1
	26-30Years	3	2.9	2.9	98.0
	31-35Years	1	1.0	1.0	99.0
	36-40Years	1	1.0	1.0	100.0
	Total	102	100.0	100.0	

Source: Field survey, 2018

Respondents who have married for less than 5 years had the highest number of 41 representing 40.2% of the total number.

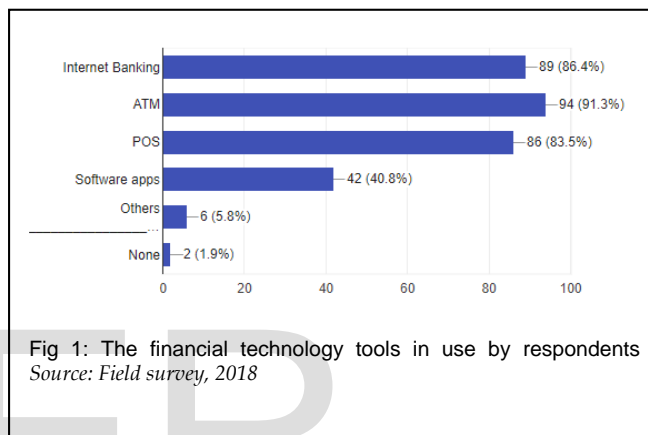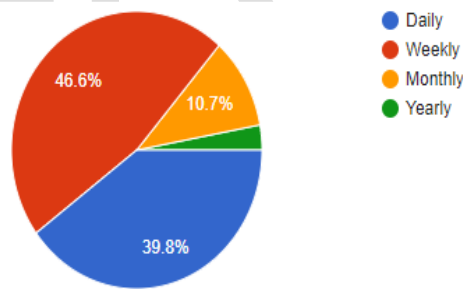## 4.2 Result of Research Objective 1: Rate of Adoption of Financial Technology Tools

Fig 1: The financial technology tools in use by respondents
Source: Field survey, 2018

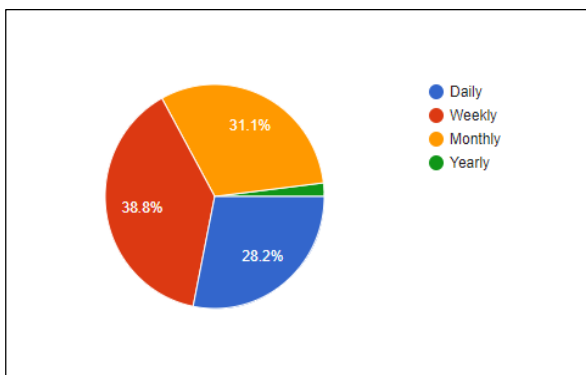### 4.2.1 How often the tools are used by respondents

Fig 2: Interne

Fig 3: Automatic Teller Machine (ATM)
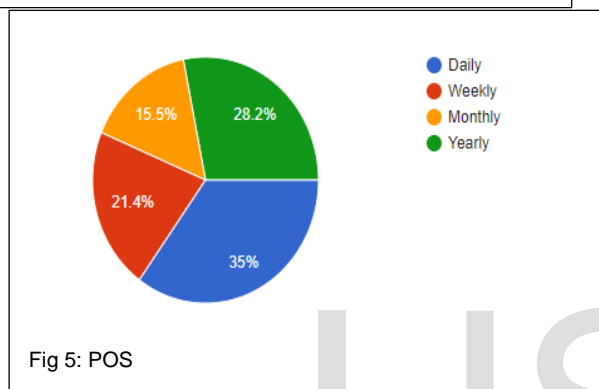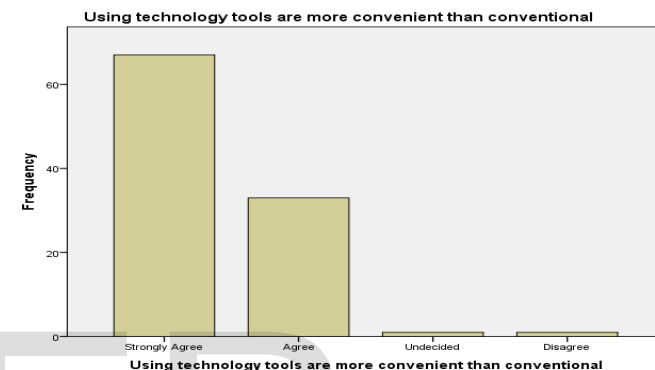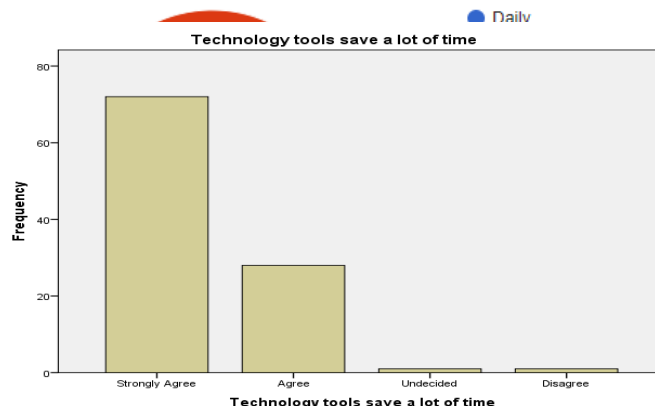

Fig 4: Software Applications

Fig 5: POS

From the above statistics, it shows that there is a high rate of adoption of the various financial technology tools by the respondents and they are also used often.

4.3 Result of Research Objectives 2 and 3: The Effects of Using Technology Tools for Financial Management In A Family

From the results gotten from the study, we found out both the positive and negative effects of using technology tools in financial management.

Some of the benefits of using technology tools in managing finance in the home are:

- Ease of use
- Convenience
- Saves time

  With these factors in place, families will tend to be more involved in financial planning using the technology tools in a home as the conventional ways of doing them are more stressful, tedious and consumes more time.
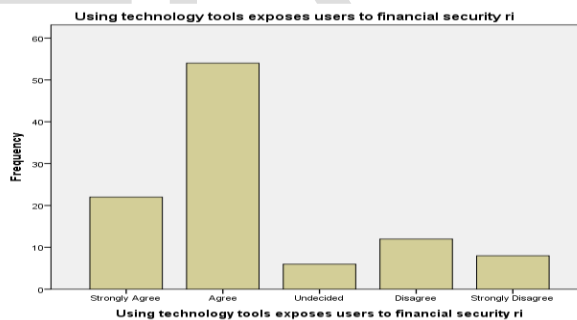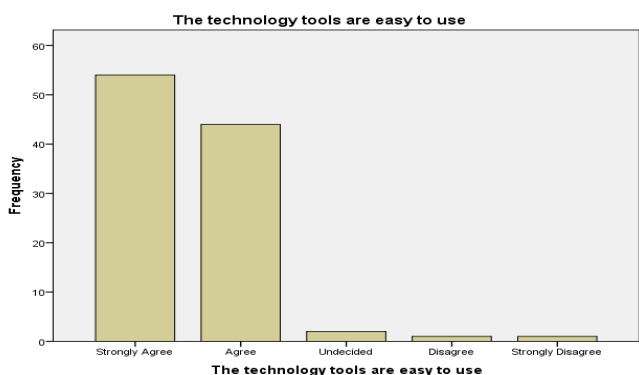
These can be seen from the diagrams below.

One major challenge was that of security. Most of the respondents were in support of the fact that using technology tools in managing their finances exposes them to security risks. This can be seen from the diagram below:

4.4 Hypothesis Testing

HYPOTHESIS 1

H0: There is no significant relationship between age and ease of use of financial technology tools

H1: There is a significant relationship between age and ease of use of financial technology tools

TABLE 6

RELATIONSHIP BETWEEN AGE AND EASE OF TECHNOLOGY USE

Correlations

		Age group	The technology tools are easy to use
Age group	Pearson Correlation	1	.061
	Sig. (2-tailed)		.544
	N	102	102
The technology tools are easy to use	Pearson Correlation	.061	1
	Sig. (2-tailed)	.544	
	N	102	102

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

The above table shows that Age and ease of use has the r coefficient of 0.061 and a significance value of 0.544 (P>0.05). This indicates that there is no significant relationship between age and ease of use. We therefore, fail to accept the alternate hypothesis and fail to reject the null hypothesis.

#*Null hypothesis supported*

HYPOTHESIS 2

H0: There is no significant relationship between marital age and the need to use financial technology tools for family financial planning.

H1: There is a significant relationship between marital age and the need to use financial technology tools for family financial planning.

Table 7

Relationship between Marital age and Use of Technology tools

Correlations

		Marital age	Technology tools should be used for family financial planning
Marital age	Pearson Correlation	1	.040
	Sig. (2-tailed)		.687
	N	102	102
Technology tools should be used for family financial planning	Pearson Correlation	.040	1
	Sig. (2-tailed)	.687	
	N	102	102

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

The above table shows that marital age and the need to use technology tools for family financial planning has the r coefficient of 0.040 and a significance value of 0.687 (P>0.05). This indicates that there is no significant relationship between marital age and the need to use technology tools for family financial planning. We therefore, fail to accept the alternate hypothesis and fail to reject the null hypothesis.

#*Null hypothesis supported*

5 FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Implications of Findings

From the findings, it was deduced that the respondents are particular about ease of use, convenience and less time consumption. It means they are willing to go through family financial planning and budgeting as long as these factors are in place. It can also be deduced that though there is issue of security, they still use the tools. Therefore, the positive effects outweigh the negative effect.

5.2 Conclusion

The purpose of this study was to find out the rate of adoption of financial technology tools and their effects in financial management in a home. We found out that there is a high rate of adoption of the financial technology tools among the respondents and that they use the tools often. The study also revealed that using the technology tools has both positive and negative effects. Some of the positive effects are ease of use, convenience and saving of time while security was a major challenge.

From the hypotheses, age does not have a direct relationship with ease of use; and how long the respondents have been married does not also determine the need to use the technology tools in family financial planning.

5.3 Recommendations

Based on the findings of this study, we make the following recommendations:

1. Financial institutions offering these financial technology tools should put better security checks in place and also regularly educate the users.
2. Users should also adhere to the instructions from their various financial institutions to avoid security breach.

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