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## Factors Influencing Adoption of Fintech among Savings and Credit Cooperative Societies (Saccos) in Dar Es Salaam, Tanzania

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### Abstract

The adoption of financial technology (Fintech) has grown globally due to the demand for easily accessible, reasonably priced, and convenient financial services, along with the rapid improvements in digital technology. Even though fintech adoption is rising globally, most African financial institutions, particularly in microfinance, have not adopted it. Therefore, this study examined the factors influencing the adoption of Fintech in Savings and Credit Cooperative Societies (SACCOs) in Dar es Salaam, Tanzania. The study employed a cross-sectional design, and the research approach was quantitative. The study employed primary data collected using structured questionnaires distributed to 138 SACCOs officials. The study had seven independent variables: knowledge, cost, accessibility, technology rating, staff readiness, and technology trust. On the other hand, the study had one dependent variable: fintech adoption. The model of analysis employed is multiple regression analysis. The findings revealed that knowledge, cost, accessibility, and technology ratings were positive and statistically significant ( $p < 0.05$ ) influencing fintech adoption. This study recommends that the Tanzania Cooperative Development Commission encourage SACCOs to use fintech more widely by addressing these factors, which would ultimately help Tanzania's financial ecosystem become more technologically advanced and inclusive.

**Keywords:** Fintech Adoption, Financial Inclusion, Technology Acceptance Model, SACCOs, Technology Trust

### 1. Introduction

Worldwide, there is an increase in the adoption of financial technology, also known as Fintech (Kasemharuethaisuk & Samanchuen, 2023). The increase in its adoption has been influenced by its role in the financial sector. Basdekis et al. (2022) argued that fintech adoption has been fuelled by the growing need for more affordable, easily accessible, and convenient financial services. Fintech has changed how customers receive and use financial services from providers (Feyen et al., 2021). International Monetary

Fund (IMF) and World Bank (2018) reported that fintech has transformed financial sectors in many economies by enhancing efficiency and improving customer satisfaction. According to Mahmud et al. (2023), fintech has created new financial inclusion and growth opportunities.

Although fintech adoption is rising globally, most African financial institutions, particularly microfinance, have not adopted it (Aduda & Kingoo, 2021; Johnson, 2023). As a result, many

African institutions are financially excluded, with cash dominating the payment systems (Nsiah & Tweneboah, 2023). Suppose fintech companies see this as the challenge facing African countries; they can invest in digitalising payment systems, which will increase the level of financial inclusion in the continent (Raji, 2022; Johnson, 2023). Statistics indicate that the number of individuals owning and using mobile phones is increasing yearly, and the internet network is expanding in Africa. This suggests that fintech companies can capitalise on this large and growing market, ready to be served (Johnson, 2023).

Like the rest of the world, the Tanzanian financial sector is no exception in adopting fintech (Ndung'u, 2022). The banking subsector, comprising community banks, microfinance banks, commercial banks, and development finance banks, is primarily where this adoption is seen, with the non-banking subsector lagging (Macha & Massawe, 2023). The non-banking sub-sectors comprise institutions and entities not classified as banks providing particular financial services to specific sectors or groups. These include mortgage finance firms, financial leasing organisations, and microfinance service providers. Banks' adoption of fintech is evident in their vast technological investments in Tanzania and other countries (Al-Sowaidi & Faour, 2022). Due to this, they can provide customer service via various channels, including agent banking, Automated Teller Machines (ATMs), mobile banking, online banking, and point of sale (POS) (Financial Sector Deepening Trust (FSDT), 2024).

Savings and Credit Cooperative Societies (SACCOs) are supposed to embrace fintech to a comparable extent as banks, given that they provide nearly identical financial services to their members, including credit and savings services. This would make it easier for them to meet member needs, cut expenses, and compete with banks and other financial institutions (Wanyonyi, 2021). Contrary to this, Msofe (2023) claimed that a study by the Cooperative Development Foundation (CDF) found that less than 5% of SACCOs in Tanzania were serving their members using fintech solutions. The Tanzania Cooperative Development Commission (TCDC, 2023) reported that there are about 2000 SACCOs registered and active in Tanzania's mainland. Thus, according to the Cooperative Development Foundation's study, most of these SACCOs rely on conventional techniques, like in-person cash repayments for loans and bank deposits. This suggests that these SACCOs do not operate efficiently as they rely on manual and paper-based procedures (Macha & Massawe, 2023).

Therefore, since most SACCOs in Tanzania do not use fintech solutions as the CDF report indicated, this study aims to identify factors influencing the adoption of Fintech among SACCOs in Tanzania, using SACCOs in Dar es Salaam as a case study. The literature review revealed that limited studies have been carried out globally to assess the adoption of Fintech in SACCOs. Most of the studies, including Lema (2017), Hutapea and Andista (2021), and Kelly and Palaniappan (2023), which were carried out to assess the adoption of fintech in the financial sector, were

primarily focused on the banking sector, where fintech is already prevalent.

Even though banks and SACCOs operate almost in the same financial environment, their management and how they are regulated differ. For instance, SACCOs are member-owned and serve only members, while banks are owned mainly by shareholders and serve the general public. Furthermore, central banks regulate banks, while a different authority governs SACCOs. In Tanzania, SACCOs are regulated by the TCDC, while the Bank of Tanzania regulates banks. These distinctions between the two can cause the factors influencing the adoption of fintech among these institutions to differ in decision-making, particularly in adopting fintech. Thus, there was a need to carry out an independent study to investigate factors influencing the adoption of Fintech among SACCOs. Therefore, this study was carried out to fill such a gap by conducting a study in Tanzania to develop empirical evidence from different nations.

## 2. Literature Review

The theoretical framework guiding this study is the Technology Acceptance Model (TAM), developed by Davis in 1989. Since its development, it has become the standard theory in studies explaining technology acceptance and use (Sabi, 2014). For example, Firmansyah et al. (2023) reviewed 16 journal publications to investigate the acceptability and adoption of fintech and discovered that the TAM was one of the most used theories. The theory suggests that people will adopt a particular technology after assessing how it will enhance their performance or improve

their productivity in accomplishing tasks. Furthermore, it suggests that the perceived ease of use of the technology will influence its adoptability. Therefore, when people perceive technology to be user-friendly, they are more likely to adopt it. This study applied this theory because TAM can describe the behaviour related to SACCOs' adoption of fintech.

According to Aduda and Kingoo (2021), adopting digital financial services has improved the financial performance of Kenya's SACCOs. They also reported several issues, including fraud threats, high transaction prices, sluggish transaction processing, daily withdrawal restrictions, and systems, as factors hindering the adoption of digital services among Kenyan SACCOs. These results indicate how such barriers might also be relevant in the Tanzanian context, where similar challenges may prevent SACCOs from fully embracing fintech solutions. Addressing these issues could be crucial for increasing fintech adoption and improving the performance of SACCOs in Tanzania.

The study by Muthoni and Moturi (2020) found that adopting mobile Fintech in Kenya's microfinance sector is influenced by several factors, such as the institution's size, perceived technological benefits, and support from top management. Other factors documented in their study include adequate resources, a functional organisational structure, functioning communication channels, reliable internet connectivity, supportive regulatory environments, and government support. These findings are crucial for understanding the dynamics within Tanzanian SACCOs, where resource limitations and varying levels of

support from the management may hinder the adoption of fintech.

Ryu (2018) conducted a study and found that legal risk negatively influenced the intention of Fintech users to continue using the service. The study also revealed that convenience was the most influential factor with a positive and significant influence on the intention of fintech users to continue using the service. This observation resonates with the current study, where the convenience of fintech solutions for SACCOs in Dar es Salaam may influence their adoption. The study carried out by Khatun and Tamanna (2020) found that behavioural intention, effort expectation, social influence, a conducive environment, perceived reliability, and added value positively and statistically influenced the adoption of fintech in financial institutions. The study further reported that individuals within the same sector, such as colleagues, managers, or staff members, positively and statistically influence fintech adoption. These findings show that staff readiness and support from the top management (in the case of SACCOs leaders) are essential for adopting fintech solutions in SACCOs.

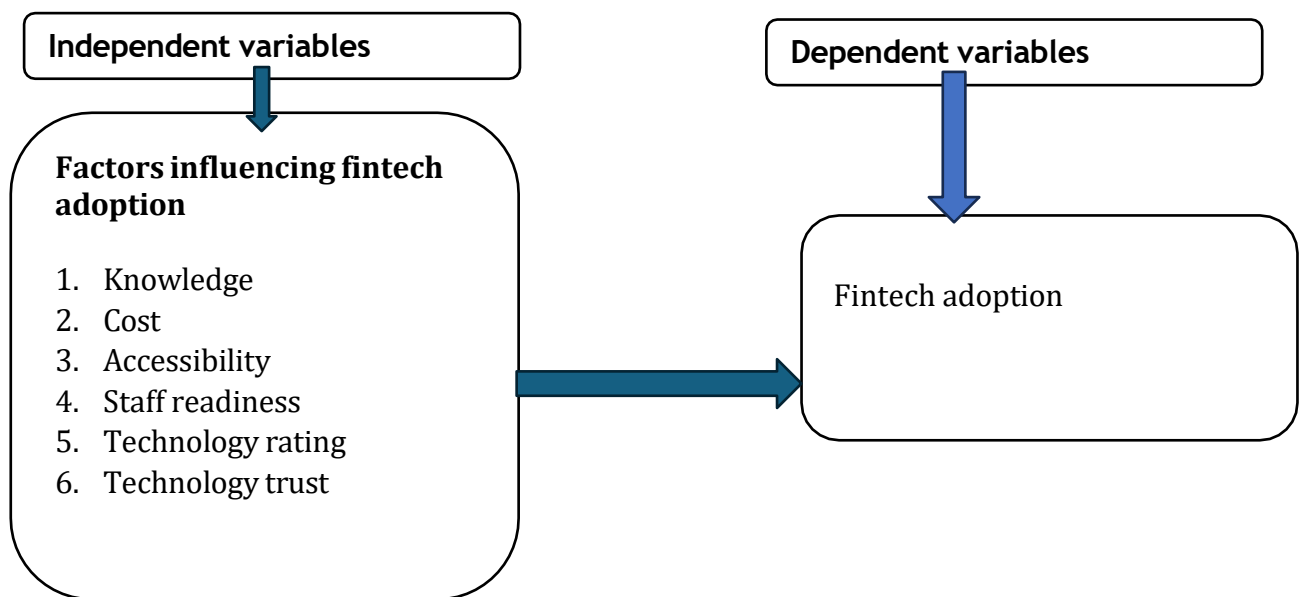
The research conducted by Kasemharuethaisuk & Samanchuen (2023) revealed that several factors, such as usefulness, ease of use, trust, perceived risk, and social influence, were positive and statistically significant in influencing the intention of investors in Thailand to use digital investing services. These factors might also be significant for the adoption of fintech in Tanzanian SACCOs, particularly trust and perceived risk, which may affect the willingness of SACCOs to adopt new technologies. The study by Yan et al. (2021) found that the

adoption of mobile financial services during the COVID-19 pandemic was positively and statistically significantly influenced by social influence, perceived trust, and perceived value. This insight is particularly relevant in the Tanzanian context, where social influence and trust in technology might play crucial roles in adopting fintech solutions.

The study by Mat Napis and Daud (2023) found that the adoption of e-wallets among young Malaysian adults was positively and statistically influenced by perceived usefulness, social agent recommendations, and privacy and security. The findings of this study inform the current research about the importance of perceived usefulness and trust in technology for its adoption. Thus, the current study has incorporated these variables.

While reviewing the literature, the researcher discovered no study investigating the factors influencing the adoption of Fintech in SACCOs. Therefore, it was evident that there are limited studies in this area, so there was a need to carry out a study to address the gap. Thus, this study was carried out to fill such a gap.

Figure 1 presents the conceptual framework that guided this study. The study has six independent variables: knowledge, cost, accessibility, technology rating, staff readiness, and technology trust. Generally, these factors measure the extent to which SACCOs members perceive financial technology as user-friendly and simple to use. They also assess the perceived benefits of adopting financial technology in SACCOs operations. On the other hand, it indicates that the study has one dependent variable: fintech adoption.



**Figure 1: Conceptual Framework**

Based on the conceptual framework, the study had six hypotheses to address. The first hypothesis (H1) was that SACCOs leaders' knowledge about fintech solutions significantly positively influences fintech adoption among SACCOs. The study hypothesised this because knowledge equips SACCOs leaders with the information necessary to leverage fintech solutions effectively (Aduda & Kingoo, 2021). The second hypothesis (H2) was that perceived cost saving significantly positively influences fintech solutions among SACCOs. This was hypothesised since fintech solutions are perceived as cost-effective, and SACCOs are likely to adopt them (Muthoni & Moturi, 2020). The third hypothesis (H3) was that accessibility to fintech solutions significantly positively influences fintech adoption among SACCOs. This aspect involves how easily SACCOs can access and use fintech solutions. Thus, improved accessibility can lead to higher adoption (Ryu, 2018). The fourth hypothesis (H4) was that staff readiness significantly positively

influences fintech adoption among SACCOs. This hypothesis is based on the logic that the more SACCOs staff are proficient with fintech solutions, the more likely the SACCOs are to adopt fintech (Aduda & Kingoo, 2021). The fifth hypothesis (H5) was that technology ratings significantly positively influenced fintech adoption among SACCOs. This hypothesis is based on the logic that SACCOs with better technological infrastructures are likelier to adopt fintech solutions (Kasemharuethaisuk & Samanchuen, 2023). The seventh (H6) hypothesis was that trust in technology significantly positively influences fintech adoption among SACCOs. If SACCO leaders trust the technology, they will likely adopt fintech solutions (Kasemharuethaisuk & Samanchuen, 2023; Yan et al., 2021).

### 3. Materials and Methods

The study was conducted in the Dar es Salaam region, focusing on SACCOs operating within the area. Dar es Salaam was selected for the study because most



of Tanzania's SACCOs are in this city. According to TCDC (2023), there are 2,034 registered SACCOS in Tanzania. The report further indicates that the majority, about 517, which is 25%, are located in Dar es Salaam.

This study employed a cross-sectional design since data were collected at a single time. This design was chosen because it is more economical and time-efficient. The research approach employed in this study is quantitative design. This approach was used because the study investigated the relationship between variables, and this relationship was tested using regression analysis, a parametric statistic that employs quantitative data.

Although there were 517 registered SACCOs in Dar es Salaam when this research was conducted, only 211 were licensed (TCDC, 2023). The study considered the population of this study to be the licensed SACCOs instead of registered SACCOs because these SACCOs are active and have met the criteria to be licensed by the regulator (TCDC). The sample size was determined using Slovin's formula as follows:

$$n = \frac{N}{1+(Ne^2)}$$

Where:

n denotes the sample size.

N is the total population (211 SACCOs).

e is the error tolerance, fixed at 5%. The study aims for a confidence level of 95%, resulting in a margin of error of 0.05.

Thus, the sample size is determined as follows by entering the values into the formula:

$$n = \frac{211}{1+(211*0.05^2)}$$

$$n = \frac{194}{1+0.49} = 138.134$$

$$n = 138$$

sample size (n) = 138 SACCOs.

Based on the above calculation, the study targeted 138 SACCO officials, selecting one official from each SACCO. The officials considered for the study were either the SACCO's chairperson, secretary, or manager. The study targeted these officials because they better understand the SACCOs' operations, including initiatives related to adopting Fintech. The study collected data from only one official per SACCO to prevent duplicating information from the same SACCO. Therefore, the data was collected from 138 SACCO officials, one official from each SACCO.

The study employed simple random sampling to obtain 138 out of 211 SACCOs to be included in the study. The online random number generator from the website <https://www.random.org/> was used to generate random numbers for the SACCOs to be included in the study.

As indicated in the study's conceptual framework, this study had six independent variables: knowledge, cost, accessibility, technology rating, staff readiness, and technology trust. On the other hand, the study had one dependent variable: fintech adoption. These variables and their measurement were adopted from prior studies carried out globally in the area of fintech adoption. Due to the limited studies on fintech adoption in SACCOs, this study incorporated variables from existing research such as Mahmud et al. (2023), Lema (2017), Hutapea and Andista (2021), Pasape and Godson (2022),

Nangin et al. (2020), Perwitasari (2022), and Kelly and Palaniappan (2023), conducted in other institutions such as

banks and government institutions. The table below summarises the variables used and how they were measured.

**Table 1: Variables used and what they measure**

S/No	Name of the variable	How they were measured	What they measured
<b>Dependent variable</b>			
1.	Fintech adoption	Likert scale	Measured the adoption of fintech solutions
<b>Independent variable</b>			
1.	Knowledge	Likert scale	It assessed the general knowledge of SACCOs leaders about the various fintech products and services offered by fintech companies, including online payments, digital loans, and mobile banking.
2.	Cost	Likert scale	It measured the perception of cost savings from fintech technologies when included in SACCOs operations.
3.	Accessibility	Likert scale	It measured how SACCOs members and leaders can use fintech solutions to perform their business.
4.	Staff readiness	Likert scale	It measured the staff's proficiency with fintech solutions and the SACCOs' technological readiness level.
5.	Technology rating	Likert scale	It is measured using the SACCOs' current technological infrastructure, which consists of network capabilities, hardware, and software that may support fintech goods and solutions.
6.	Technology trust	Likert scale	It assessed how much trust and dependence SACCOs leaders have on technology.

Multiple regression analysis was employed as the model of analysis. The multiple regression used is presented here under: -

$$FA = \beta_0 + \beta_1K + \beta_2C + \beta_3A + \beta_4TR + \beta_5SR + \beta_6TT + e$$

Where by

$FA$  = fintech adoption

$\beta_0$  = Constant factor

$\beta_1K$  = Knowledge

$\beta_2C$  = Cost

$\beta_3A$  = Accessibility

$\beta_{4TR}$  = technology rating  
 $\beta_{5SR}$  = Staff readiness  
 $\beta_{7TT}$  = Technology trust  
 $e$  = Random variable

Apart from using multiple regression analysis as the primary model, the study also employed descriptive and correlation analysis. Further, the study used the Statistical Package for the Social Sciences (SPSS) version 23 as a tool of analysis.

Reliability and validity were checked using Cronbach’s Alpha. This test aimed to assess internal consistency to ensure the constructs measured what they intended to measure. Table 2 presents the results of this test.

**Table 2: Cronbach Alpha Test**

Variables	Cronbach Alpha
Fintech adoption	0.718
Knowledge	0.728
Cost	0.767
Accessibility	0.749
Technology rating	0.724
Staff readiness	0.734
Technology trust	0.789

Results indicate strong internal consistency among the variables under study since the Cronbach Alpha coefficients for all variables are above

0.7, which is the threshold suggested by Johnson and Christensen (2017).

#### 4. Results and Discussions

##### 4.1. Rate of Response

One hundred thirty-eight questionnaires (one per SACCO) were distributed to targeted respondents. However, only 112, equivalent to 80.8%, were duly filled out and returned. Given that the response rate was higher than the 65% criterion for sample sizes that Creswell (2014) proposed, the researcher was confident that the study’s conclusions could be generalised to the entire population. Table 3 presents the results in detail.

**Table 3: Response rate**

	Frequency	% Response rate
Nonresponse	26	19.2%
Actual respondents	112	80.8%
Targeted Respondents	138	100%

##### 4.2. Demographic Data of Respondents

The study analysed the demographic characteristics of respondents to gain insight into the profiles of the respondents included in the study. The key demographic characteristics analysed include gender, age and education. The results of this analysis are presented in Table 4



**Table 4: Demographic Data**

		Frequency	Per cent
<b>Gender</b>	Male	83	74.3
	Female	29	25.7
	<b>Total</b>	<b>112</b>	<b>100.0</b>
<b>Age</b>	21-35	24	21.0
	36-50	69	61.9
	50 +	19	17.1
	<b>Total</b>	<b>112</b>	<b>100.0</b>
<b>Education</b>	Certificate	14	12.4
	Diploma	22	20.0
	First degree	44	39.0
	Master's degree or above	32	28.6
	<b>Total</b>	<b>112</b>	<b>100.0</b>

The gender distribution of the 112 respondents showed that 74.3% were men and 25.7% were women. These results show that male respondents dominated the study and may imply that most SACCOs leaders in Dar es Salaam are male. Results regarding the age of respondents indicate that the 36-50 age group dominated the study since 61.9% of respondents fall within this age group. These results may imply that SACCOs leaders are middle-aged, which could result in differing views on fintech adoption compared to the younger ones who are tech-savvy and open to embracing digital solutions, representing 21% of respondents. Respondents from the age group 50+ comprised 17.1% of total respondents considered experienced within SACCOs, but their readiness to embrace technology may vary.

Lastly, the education results indicate that 12.4% of the respondents had finished their certificate programmes, and about 20.0% had completed their diplomas. The results suggest that most

respondents, about 67.6 %, held a first-degree or higher level of education. These may indicate that SACCOs officials' higher education qualifications reflect a more comprehensive range of knowledge, which could impact fintech adoption.

Since the study employed regression analysis to investigate the factors influencing the adoption of Fintech among SACCOs in Dar es Salaam, it was essential to ensure that the model assumptions were met. Therefore, critical assumptions such as normality, multicollinearity, and autocorrelation were tested before regression analysis. When these assumptions are met, it is only when the study's findings can be generalised to the entire population.

The assumption of normality, which requires the normal distribution of the sampling distribution and errors in the model, was tested using the Kolmogorov-Smirnov test (Field, 2013). For this assumption to be met, the significance level of the variable must be  $\geq 0.05$ . Table 5 presents the results concerning the Kolmogorov-Smirnov test

**Table 5: Kolmogorov – Smirnov test results**

	Kolmogorov-Smirnov		
	Statistic	Df	Sig.
Fintech Adoption	0.233	112	0.000
Knowledge	0.247	112	0.000
Cost	0.233	112	0.000
Accessibility	0.254	112	0.000
Technology rating	0.223	112	0.000
Staff readiness	0.246	112	0.000
Technology trust	0.243	112	0.000

The findings show that the assumption of normality was violated for every variable. Pallant (2010) proposed that data can be transformed using available transformation methods when they do

not meet this assumption. Therefore, the original data were transformed using the log transformation option. The results of the Kolmogorov-Smirnov test on transformed data are shown in Table 6.

**Table 6: Kolmogorov – Smirnov test results on Transformed Data**

	Kolmogorov-Smirnov		
	Statistic	Df	Sig.
Fintech Adoption	0.278	112	0.216
Knowledge	0.236	112	0.087
Cost	0.247	112	0.268
Accessibility	0.185	112	0.094
Technology rating	0.050	112	0.286
Staff readiness	0.153	112	0.254
Technology trust	0.187	112	0.286

The results indicate that the data transformation resulted in a normal distribution of all variables, as evidenced by significance levels greater than 0.05 for each variable. As a result, all variables were retained for further analysis, and the transformed data were used for all subsequent tests and analyses.

The study employed Pearson correlation coefficients to test for the

multicollinearity assumption. According to Pallant (2010), multicollinearity exists when the correlation coefficients between two variables are either  $\geq +0.9$  or  $\leq -0.9$ . If two variables exhibit multicollinearity, they assess the same effect; thus, the study should retain only one variable and eliminate the other (Field, 2013). Table 7 presents the results with respect to correlation coefficients.

**Table 7: Correlation Matrix**

	FA	K	C	A	TR	SR	TT
FA	1.000						
K	.566	1.000					
C	.439	.531	1.000				
A	.310	.486	.418	1.000			
TR	.520	.713	.519	.636	1.000		
SR	.464	.480	.421	.581	.608	1.000	
TT	.307	.481	.509	.691	.625	.397	1.000

The results indicate that there was no issue regarding multicollinearity among variables. The highest correlation coefficient observed was 0.713 between knowledge and technological readiness. Despite this, both variables were retained for further analysis as their correlation coefficient fell below the threshold of 0.9, as Field (2013) suggested.

Before examining the relationship between variables using multiple regression analysis, a model summary test was conducted to assess how effectively the model explains the relationship between the independent and dependent variables. Also, this test shows the Durbin-Watson statistics, which evaluate the assumption of autocorrelation among variables. Table 8 presents the results of this test.

**Table 8: Model summary test**

Model	R	R Square	Adjusted R Square	Standard error of estimate	Change statistics	Durbin-Watson
1	.724	.709	.698	62.625	.591 70.623 .000	1.784

**Predictors:** knowledge, cost, accessibility, technology rating, staff readiness, and technology trust

**Dependent variable:** fintech adoption

Results show that the coefficient of determination ( $R^2$ ) value is 0.709. These results indicate that about 70.9% of the variability in fintech adoption is caused by the variables included in this study. This means that 29.1% of the variability in fintech adoption is caused by other factors not included in this study. Furthermore, the Durbin-Watson was 1.784, indicating no autocorrelation

problem in the regression model's output. This conclusion is drawn from Field (2010), who argued that a Durbin-Watson statistic value between 1.50 and 2.50 indicates the absence of first-order autocorrelation.

Finally, the multiple regression analysis was run to test the relationship between variables under scrutiny. Table 9 presents the results in detail.

**Table 9: Multiple Regression Analysis**

Model	Unstandardised coefficients		Standardised coefficients	T	Sig.
	$\beta$	Std. error	Beta		
(constant)	-14.845	5.675		-1.316	.000
Knowledge	.147	.039	.592	3.769	.004
Cost	3.141	.236	.581	13.314	.002
Accessibility	.017	.095	.531	0.179	.037
Technology Rating	2.236	.076	.548	29.421	.011
Staff Readiness	2.785	.219	.513	12.719	.439
Technology Trust	1.128	.058	.513	19.448	.043

Results indicate that knowledge is positive and statistically significant ( $p < 0.05$ ) influencing fintech adoption, with a coefficient of 0.147; thus, H1 was accepted. This implies that SACCO leaders with a better understanding of fintech are likelier to adopt fintech products. These findings highlight the importance of improving fintech knowledge among SACCO leaders. Therefore, fintech companies operating in the country should invest more in educating SACCO leaders about fintech products. This is because enhanced knowledge of Fintech among SACCO leaders can lead to greater Fintech adoption. Further, policymakers in the microfinance sector, such as TPDC, should allocate more resources to education initiatives since this could lead to greater adoption of Fintech among SACCOs. These results align with the results of Khatun and Tamanna (2020). For the variable cost, results indicate that this variable is positive and statistically significant ( $p < 0.05$ ), influencing fintech adoption, with a coefficient of 3.141; thus, H2 was accepted. These findings suggest that their perceived cost-effectiveness influences the decisions to adopt fintech solutions. This indicates

that SACCOs prioritise solutions that offer significant cost efficiencies. These findings could be useful for fintech companies operating in the microfinance sector as they should emphasise the cost-saving benefits of their products since this can increase the adoption of fintech solutions to SACCOs seeking to optimise their operations. These results align with those of Aduda and Kingoo (2021). Regarding the variable accessibility, results indicate a positive and statistically significant ( $p < 0.05$ ) relationship between this variable and fintech adoption, with a coefficient of 0.017; thus, H3 was accepted. The results indicate that improving accessibility to fintech can lead to an improvement in its adoption among SACCOs. Therefore, fintech companies can reach more SACCOs by making their products and services more readily available and user-friendly. These results are in line with Ryu's (2018) findings. Regarding the variable technology rating, results indicate that this variable is positive and statistically significant in influencing fintech adoption, with a coefficient of 2.236 ( $p = 0.011$ ); thus, H4 was accepted. These results suggest that SACCOs with more substantial

technological infrastructure are more likely to adopt fintech solutions. This indicates that SACCOs should invest more in acquiring modern hardware, software, and reliable internet connections. Such investments will facilitate the adoption of fintech solutions. Fintech companies in microfinance should consider supporting SACCOs in upgrading their technological infrastructure. This can simplify the integration of fintech solutions into SACCO operations, ultimately leading to a higher adoption rate. These results are in line with the results of Lema (2017).

Furthermore, the results regarding staff readiness indicated that this variable was positive but statistically insignificant in influencing fintech adoption; thus, the H5 was rejected. Finally, the variable technology trust positively influenced fintech adoption, with a coefficient of 1.128; thus, H6 was accepted. This indicates that SACCO leaders who trust technology are likelier to adopt fintech solutions. Therefore, fintech companies operating in the microfinance sector should focus on building trust and confidence in their solutions among SACCO leaders. This may involve demonstrating their technologies' reliability, security, and effectiveness through testimonials, case studies, and transparent communication about features and benefits. These results align with the results of Mahmud et al. (2023) and Yan et al. (2021).

## 5. Conclusion

This study investigated the factors influencing the adoption of financial technology (Fintech) among SACCOs in Dar es Salaam, Tanzania. The findings indicated that factors including knowledge, perceived cost-effectiveness,

accessibility, technological infrastructure, and trust in technology are among the factors influencing the adoption of Fintech within SACCOs. These findings imply that SACCOs leaders with better understanding and trust in fintech are more likely to adopt fintech in their SACCOs. This suggests the importance of educational initiatives and trust-building efforts by fintech companies and regulatory bodies. The perceived cost-effectiveness of fintech solutions was also a significant factor in their adoption. This indicates that there is a need for fintech companies to emphasise the cost-saving benefits of their products. Also, the positive and statistically significant relationship between accessibility and fintech adoption indicates a need to make fintech solutions readily available and user-friendly. Furthermore, SACCOs need to invest in modern technology since SACCOs with modern and better technological infrastructure are more likely to adopt fintech.

Policymakers and fintech companies should collaborate to develop tailored strategies and initiatives to increase fintech adoption in the sector. Adopting fintech to its fullest potential will enable SACCOs to play an essential role in expanding access to financial services and promoting economic empowerment among underserved communities in Tanzania.

Based on the results of this study, there are several potential areas for further studies. The first one is that since the model of this study explained 70.9% of the variability in fintech adoption, future studies could explore the remaining 29.1% by investigating additional factors such as organisational culture and

customer preferences. Also, since this study was cross-sectional, further studies can be longitudinal to provide insights into how fintech adoption evolves. Furthermore, further studies could expand their sample to include other regions or compare results between urban and rural SACCOs to reveal regional differences in adoption and influencing factors.

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