

# The Effect of Accounting Information System (AIS) on Business Performance: The Case of Selected Private Commercial Banks in Jigjiga City, Ethiopia

**Dr. Abdi Ahmed Hasan<sup>1</sup> Tesfamikael Teshale<sup>2</sup> Dr.Perways Alam<sup>3</sup>**

*Assistant Professor<sup>1</sup>, Department of Accounting and Finance, Jigjiga University, Jigjiga, Ethiopia*

*Student M.Sc. (Final)<sup>2</sup>, Department of Accounting and Finance, Jigjiga University, Jigjiga, Ethiopia*

*Corresponding Author*

*Dr.Perways Alam\**

*Associate Professor<sup>3</sup>, Department of Accounting and Finance, Jigjiga University, Jigjiga, Ethiopia*

*Email:perwaysalam74@gmail.com*

## Abstract

*The objective of the study was to determine the relationship between effective information systems and business performance as well as the degree to which the effectiveness of the Accounting Information System had a moderating effect on the business performance for the private commercial banks in Ethiopia. The researcher employed descriptive and explanatory study design using both primary and secondary data with a quantitative research approach. The study was based on the opinion of private commercial bank employees and customers in Ethiopia. The sample was constructed at two levels. The first level of sampling was the choice of sample banks from all private banks and the second level of sampling was the choice of respondents. Accordingly, stratified random sampling and systematic sampling techniques were used. A sample size of 384 members of staff and customers was used in the selected four banks in Jigjiga. These Banks are Abyssinia Bank, Hibret Bank, Nib International Bank, and Bunna Bank. The primary data were gathered using a structured questionnaire and interview based on reliable and comprehensive samples of responses from 384 selected bank customers and employees. Quantitative data analysis techniques were employed. The SPSS statistical package version 28 was used to analyse the data gathered using the questionnaire quantitatively. The researcher then utilised Spearman correlation, multiple regression, and moderate regression to support the objective of the study. The results of this study demonstrated that, according to the Service Profit Chain (SPC) model, IS (Information System) success has a positive and considerable impact on business performance, whereas AIS (Accounting Information System) effectiveness has a positive and moderate impact. To improve the level of business performance anticipated from the IS model, the researcher recommends banks should integrate information quality, service quality, and system quality into the design of their IS framework in a holistic manner. They should also consider the effectiveness of AIS as a moderating factor.*

**Key Words:** *Accounting, Information, System, Private, Bank, Service, Chain, Model, Business*

## 1. Introduction

An accounting information system is a collection of resources (people and machinery) created to gather financial data for the benefit of various decision-makers at a given time. (Ali and Oudat, 2021) One of the most efficient system instruments for accomplishing both internal and external organisational dynamics is accounting information system. As a result, the majority of businesses, and the banking industry in particular, are left with no choice but to invest in cutting-edge technology like Accounting Information Systems (AIS) to serve their customers' expectations and thrive in the competitive climate (Hosain, 2019). Regarding the acceptance and application of technological innovations, the Ethiopian banking industry had seen a substantial transition over the last 20 years. As a crucial e-banking instrument that can significantly improve a company's performance, private commercial banks in Ethiopia have boosted their investments in information systems (IS) (Tesfay, 2016). It is thought that efficient information systems enhance organisational outcomes. However, the IS crisis that banks are faced has led to an increase in operational costs, resource waste, inefficient resource use, inaccuracies in financial reports, maintenance issues, technical issues, underutilization, and errors in financial reporting.

Additionally, it enhances customer service quality, encourages liquidity, efficiently distributes resources in a more structured manner, and results in better decision-making (Hakim, 2019).

### 1.1. Statement of the Problem

Accounting information systems are extensively used by banks worldwide as service providers to store, organise, and manage their business-related data and information. By providing correct information to the customer about their financial situation and credit at the lowest possible risk, banks that use accounting information systems effectively may reduce the cost of operating their banking operations (Hakim, 2019). The researcher looked into the relationship between accounting information systems and bank's business performance in the context of Ethiopia's banking industry.

However, some empirical research findings highlighted how relying solely on financial performance metrics may result in a perceptual bias (Ladan Shagari et al., 2017). Additionally, employing only financial information is criticised for being dependent on outdated information and a narrow perspective. To maintain a strong and stable banking system, it is crucial to create and implement performance measurement frameworks that include financial and non-financial characteristics (Khan, 2017). Thus, additional research is needed in the area of accounting information systems and how they affect banks' business performance.

The researcher is motivated to investigate the relationship between AIS success via the IS model, which results in AIS effectiveness, which further improves company performance via the SPC Model in light of the aforementioned arguments.

## 1.2. Research Objective

1. To determine how the performance of Private Commercial Banks' businesses is impacted by the use of AIS.
2. To describe the moderating effect of AIS effectiveness on the relationship between AIS and the business performance of Private Commercial Banks.

## 1.3 Research Hypothesis

Having the above objectives and the forthcoming empirical literature reviews, the listed below hypothesis designed and tested in this research:

Hypothesis 1: Information quality positively effects business performance

Hypothesis 2: Service quality positively effects business performance

Hypothesis 3: System quality positively influences business performance.

Hypothesis 4: AIS effectiveness moderates the relationship between AIS success and business performance.

## 2. Review of Literature

### 2.1. Information Quality and Business Performance

There are numerous studies on the effect of information systems that use organisational performance metrics as their dependent variable (Bernroider, 2008; Gorla et al., 2010). They all discovered that information quality had a favourable, significant impact on organisational performance using their measures.

According to the review, there is a strong correlation between information quality and performance among users of ERP systems (Kositanurit et al., 2006)

Depending on how net benefits are calculated, the relationship between information quality and benefits has produced contradictory findings at the organisational level. Nevertheless, more investigation is required before concluding this association. From the opposite side, Kabra et al., (2020) examined the effect of AIS on SME (Small and Medium Enterprise) performance and found that success of AIS has positive impact on performance of the organisation.

As a result, it is hypothesized that;

*Hypothesis 1. Information quality positively affects business performance.*

### 2.2. Service Quality and Business Performance

The firm's service quality impact on firm performance can be used to understand the impact of IS service quality. Delivering high-quality services is essential for business success because it promotes customer loyalty, increases profitability, and lowers costs (Kebede, 2021). Therefore, improving service/product quality, supporting market knowledge, and internal organisational efficiency are all positively impacted by IS service quality. Successful service quality also contributes to reduced expenses and increased productivity. Outstanding service quality helps to produce better revenue, which over time leads to increased profitability, according to Kesuma et al. (2013). Nazeer et al. (2014) found that service quality has a significant positive impact on customers' loyalty to the company. All of these

studies found that this relationship's dimensions are positively and significantly relevant to service quality.

Therefore, it is hypothesized in this study that;

*Hypothesis 2: Service quality positively affects business performance*

### **2.3. System Quality and Business Performance**

The system's usability, user satisfaction, and individual performance can all have an impact on how well an organisation performs (Delone & McLean, 2016). A well-designed, developed, and implemented system is a requirement for producing organisational benefit. Cost reduction, increased revenues, and enhanced process effectiveness are all possible benefits (Hakim, 2019). High-quality software directly relates to firm competitive advantages (Slaughter et al., 1998).

Wixom & Todd (2005), Gorla et al. (2010), system quality is positively correlated with organisational benefits.

Thus, it is hypothesized in this study that;

*Hypothesis 3: System quality positively influences business performance.*

### **2.4. Effectiveness of AIS as a moderating Variable**

An AIS contribution's capacity to deliver pertinent and timely information that has a beneficial impact on the decision-making process is a key component of its success. AISs are crucial for improving organisational effectiveness in today's competitive global market. The degree to which accounting systems contribute to the supply of information that is convenient and reliable to support and help decision-makers from both inside and outside the business in attaining its goals can be defined as the effectiveness of AISs using the same notion (Okour, 2016).

Identification of the variables influencing the AIS and its outputs, as well as the choice of whether to modify the current system or implement a new one, are necessary for an organisation to achieve the effectiveness of AIS.

Consequently, it is hypothesized in this study that;

*Hypothesis 4: AIS effectiveness moderates the relationship between AIS success and business performance.*

This research will close the gap that takes into account AIS effectiveness as a moderating factor to explain the relationship between AIS success and business performance from the standpoint of the SPC model, based on the aforementioned literature review and empirical data.

### **2.4. Conceptual Framework**

The conceptual framework explains the relationship between AIS success, which is an independent variable based on the IS model (Delone and McLean, 2016), and business performance, which is a dependent variable based on the SPC model, which was developed by Harvard Research Group and is mostly used in the banking industry (Karimi, et al., 2014).

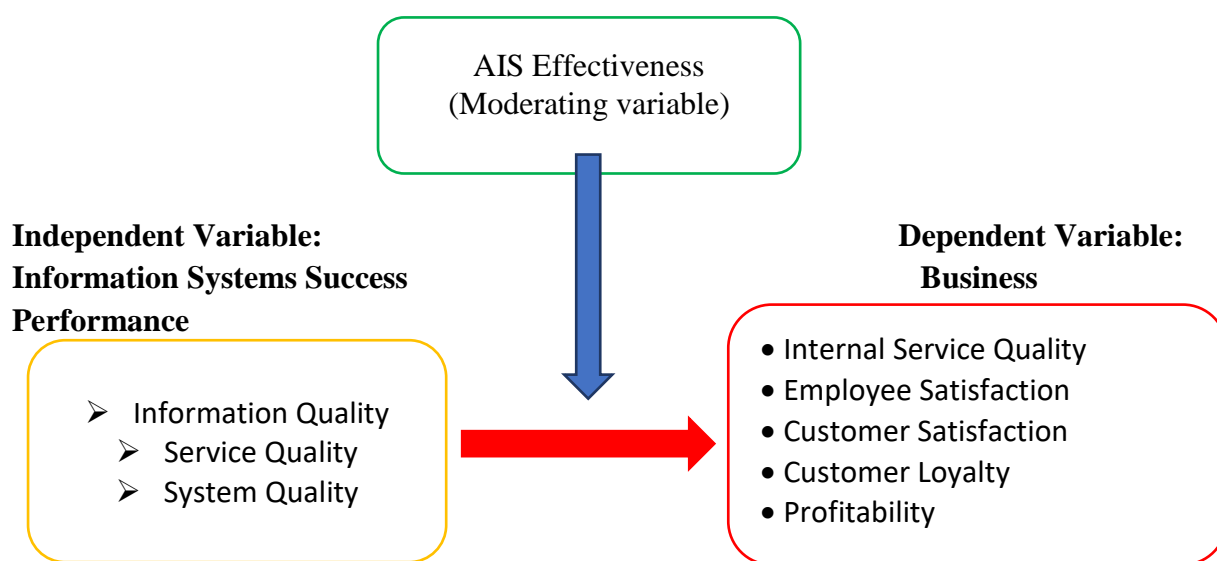


Figure 1: Conceptual Framework (Delone & McLean, 2016; Karimi, et al., 2014)

### 3. Research Methodology

#### 3.1 Description of the Study Area

The study area for this study is Jigjiga city, Somali Regional State, Ethiopia. Jigjiga is the capital city of Somali regional state, Ethiopia.

#### 3.2 Research Design

This research has followed descriptive and explanatory research designs. The descriptive design was used to describe respondents and their perceptions of the variables identified. Additionally, the explanatory design was used to understand the problem more effectively and to link independent variable: Information Systems Success, AIS effectiveness, a moderating variable and Business Performance, a dependent variable.

#### 3.3. Population and Sampling Method

##### 3.3.1 The population of the Study

The target population of the study were the employees and customers of four selected private commercial banks (Bank of Abyssinia, Hibret Bank, Nib International Bank, and Bunna Bank) working in Jigjiga City, Ethiopia. Given these points, as per the data set from selected Banks in June 2022 report, the total target population of the study was 14,827,746.

##### 3.3.2 Sample Size Determination

For this study, since the population is very larger, Krejcie and Morgan's (1970) sampling size estimation were used. Accordingly, a total of 384 individuals are included in the sample as respondents for the questionnaire. Distribution for each stratum is proportional based on the number of employees and customers.

#### 3.4 Data Type and Sources

To conduct this research, information obtained from both primary and secondary data sources was used.

### 3.5 Data Collection Methods

To test the research hypotheses that underpin this study, the researcher used a structured questionnaire. Likert scale is used.

### 3.6 Method of Data Analysis

Descriptive as well as inferential statistics are used for analysing the data. Some of the tools that were used in the research are mean, standard deviation, range, Skewness, and Kurtosis.

Inferential statistics such as correlation and multiple regression analysis are used to test the correlation between the independent variables (information quality, service quality, and system quality) and the dependent variable (business performance) and the moderating variable (AIS effectiveness).

### 3.7 Model Representation

This study used the model design for the basic regression model adopted from Delone & McLean, (2016). It is depicted as:

$$y_n = \alpha + \beta x_n + \varepsilon_n \dots\dots\dots (Equation 1)$$

Where y = Dependent variable

$\alpha$  = Intercept term

x=Independent variables

$\beta$  =Regression coefficient

$\varepsilon$  = Error term

The functional representation of the study models and their respective equivalent regression structures are depicted as follows:

- Hypothesis 1. Information quality positively affects business performance.
- Hypothesis 2: Service quality positively affects business performance
- Hypothesis 3: System quality positively influences business performance.
- Hypothesis 4: AIS effectiveness moderates the relationship between AIS success and business performance.

Model I: Business Performance = f (Information Quality, Service Quality, System Quality)

$$BP = \alpha + \beta IQ_n + \beta SERVQ_n + \beta SYSQ_n + \varepsilon_n \dots\dots\dots (Equation 2)$$

Where BP = Business Performance

IQ= Information Quality

SERVQ=Service Quality

SYSQ=System Quality

$\varepsilon$  = Error term

Model II: Business Performance =f (IS Success, AIS effectiveness, Interaction between IS success and AIS effectiveness) ..... (Equation 3)

## 4. Data Analysis and Discussion

The researcher distributed a total of 384 questionnaires to four randomly sampled commercial bank customers and employees. Out of the total 384 questionnaires, 347 valid and useable questionnaires were obtained to enable a meaningful analysis of the data with 90.36 % response rate. The results of the Likert scale responses to questions that depict AIS

effectiveness, information quality, service quality, system quality, and aspects of business performance (customer satisfaction, customer loyalty, employee job satisfaction, internal service quality, and profitability), as presented in the structured questionnaire, are used to present, and analyse the descriptive statistics section.

#### 4.1. Univariate Analysis

To summarise the variables employed in the research, descriptive statistics are explained in this Section in the form of mean, standard deviation, skewness, and Kurtosis.

**Table 1: Scale Descriptive for the Variables used in the Research**

	Descriptive Statistics				
	N Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Std. Error	Kurtosis Std. Error
Information Quality	347	4.1741	.95115	.131	.261
AIS Effectiveness	347	3.9003	.81046	.245	.371
Service Quality	347	3.7570	.83976	.239	.281
System Quality	347	3.8098	.80211	.191	.261
Employee satisfaction	55	3.9864	.85460	.252	.634
Internal Service Quality	292	4.1543	.78079	.143	.381
Customer Satisfaction	292	4.4418	.82326	.322	.462
Customer Loyalty	292	4.3545	.80852	.147	.584
Profitability	292	4.1267	.92183	.153	.374

Source: Survey Data and Author's Computation

Each variable's mean, standard deviation, and range are displayed in table 1: Effectiveness of AIS. Information quality, service quality, and system quality are the three elements of IS success. Business performance includes employee satisfaction, internal service quality, customer loyalty, customer satisfaction, and profitability. All the dimensions and sub dimensions' skewness and kurtosis values indicate that the data is normally distributed because the skewness and Kurtosis is between  $\pm 2$  (Cooper & Schindler, 2011).

#### 4.2 Correlation Analysis

##### 4.2.1. Spearman rho Correlation: Information Quality and business performance

The P-value for the correlation analysis, which is displayed in Table 2, is 0.000, which is less than 0.05. As a result, the null hypothesis will be rejected, indicating that there is a substantial relationship between information quality and company success ( $r = .781$ ,  $p = 0.01$ ). Information is a finite resource for the majority of organisations, including those in the banking industry, and a crucial asset for daily operations as well as for designing business processes.

**Table 2: Information Quality Positively Influences Business Performance**  
**Correlations**

			Information Quality	Business Performance
Spearman's rho	Information Quality	Correlation Coefficient	1.000	.781**
		Sig. (2-tailed)	.	.000
		N	347	347
	Business Performance	Correlation Coefficient	.781**	1.000
		Sig. (2-tailed)	.000	.
		N	347	347

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

Source: Survey Data and Author's Computation

#### 4.2.2. Spearman rho Correlation: Service Quality and Business Performance

The Spearman correlation using the two-tailed test is summarised in table 3; the outcome indicated that the P-value is 0.000, which is less than 0.05. As a result, the null hypothesis will be rejected, indicating that there is a substantial relationship between service quality and business performance ( $r=.866$ ,  $p=0.01$ ). It has been demonstrated in numerous marketing-focused research domains that improved service quality leads to superior sales and higher profitability. Thus, the effectiveness of the firm is positively impacted by service quality. (Rust et al., 1995).

**Table 3: Service Quality Positively Influences Business Performance**  
**Correlations**

			Service Quality	Business Performance
Spearman's rho	Service Quality	Correlation Coefficient	1.000	.866**
		Sig. (2-tailed)	.	.000
		N	347	347
	Business Performance	Correlation Coefficient	.866**	1.000
		Sig. (2-tailed)	.000	.
		N	347	347

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

Source: Survey Data and Author's Computation

#### 4.2.3. Spearman rho Correlation: System Quality and Business Performance

The P-value for the correlation analysis, which is displayed in table 4, is 0.000, or less than 0.05. As a result, the null hypothesis will be rejected, indicating that there is a significant correlation between system quality and business performance ( $r=.834$ ,  $p=0.01$ ). Through mediating elements like reputation and satisfaction, which are also vulnerable to many other forces, quality affects corporate performance. Because it depends on a number of variables, such as the quality of the information, customer satisfaction, and customer loyalty, the direct impact of system quality is limited (Hardie, 1998).



**Table 4: System Quality Positively Influences Business Performance**

Correlations			System Quality	Business Performance
Spearman's rho	System Quality	Correlation Coefficient	1.000	.834**
		Sig. (2-tailed)	.	.000
		N	347	347
	Business Performance	Correlation Coefficient	.834**	1.000
		Sig. (2-tailed)	.000	.
		N	347	347

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

Source: Survey Data and Author's Computation

#### 4.2.4. Spearman rho Correlation: IS Success and Business Performance

According to the results, the P-value for the correlation analysis, which is shown in table 5, is 0.000, or less than 0.05. Information systems success has a substantial relationship with business performance and has a positive association with correlation coefficient ( $r=.650$ ,  $p=0.01$ ), thus the null hypothesis will be rejected. An information system that is integrated into business processes of an enterprise is one of the key factors that boosts business performance, provided that it is implemented in accordance with the organization's strategic goals; however, the advantages of a particular information system may vary from company to company depending on the economic sector in which the enterprise operates and the business processes for which the IS was purchased (Jarrah & Almatarneh, 2022).

**Table 5: Information System Success Positively Influences Business Performance**

Correlations			IS Success	Business Performance
Spearman's rho	IS Success	Correlation Coefficient	1.000	.650**
		Sig. (2-tailed)	.	.000
		N	347	347
	Business Performance	Correlation Coefficient	.650**	1.000
		Sig. (2-tailed)	.000	.
		N	347	347

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

Source: Survey Data and Author's Computation

#### 4.2.5. Spearman rho Correlation: AIS Effectiveness and Business Performance

The correlation analysis's findings are displayed in table 5; the P-value is 0.000 which is less than 0.05. As a result, the null hypothesis will be rejected and it will be concluded that there is a substantial correlation between AIS effectiveness and business performance ( $r=.893$ ,  $p=0.01$ ). One could contend that AIS design and its effectiveness can have a positive impact on organisational performance. If AIS design and financial performance can be connected, and financial performance can be connected to organisational performance (Soudani, 2012).

**Table 5: AIS Effectiveness Positively Influences Business Performance**

Correlations			AIS Effectiveness	Business Performance
Spearman's rho	AIS Effectiveness	Correlation Coefficient	1.000	.893**
		Sig. (2-tailed)	.	.000
		N	347	347
	Business Performance	Correlation Coefficient	.893**	1.000
		Sig. (2-tailed)	.000	.
		N	347	347

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

Source: Survey Data and Author's Computation

### 4.3. Multiple Regression Analysis

The reliability and validity of data were checked properly. Moreover before conducting the multiple regression model the major assumptions such as linearity, normality, multicollinearity and homoscedasticity tests were conducted and all of them were within the recommended limit.

#### 4.3.1. Multiple Regression Analysis: IS Success and Business Performance

**The Model I:** Business Performance = f (Information Quality, Service Quality, System Quality)

$$BP = \alpha + \beta IQ_n + \beta SERVQ_n + \beta SYSQ_n + \varepsilon_n$$

Where BP = Business Performance

IQ= Information Quality

SERVQ=Service Quality

SYSQ=System Quality

$\varepsilon$  = Error term

Multiple regression analysis used to determine the connection between business performances and IS success. The three elements that make up the IS success variable are system quality, service quality, and information quality. The impact of three independent explanatory factors on a dependent response variable is examined using multiple regressions.

**Table 6: Multiple Regression Analysis: IS success and Business Performance**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.892 <sup>a</sup>	.796	.794	.44229	1.717

a. Predictors: (Constant): System Quality: Information Quality: Service Quality

b. Dependent Variable: Business Performance

Source: Survey Data and Author's Computation

Results, which are displayed in table 6, were established in accordance with the conclusions from the data. The independence of errors is one of the assumptions that should be considered in multiple regression. The Durbin Watson Test evaluates autocorrelation, also known as serial correlation, in regression analysis residuals. The resemblance of a time series over subsequent time intervals is known as autocorrelation. There is no link between the residual variable and the independent variable if Durbin Watson's value is between 1.5 and 2.5. As a result, the assumption is met because the outcome is 1.717 as indicated in the above table. According to the results of the multiple regression analysis,  $R = 0.892$  and  $R^2 = 0.796$ , which show that the combined effect of the three independent variables accounts for 79% of the variability of the dependent variable, and the remaining 21% is explained by other variables that are not included in this model.

**Table 7: IS Success and Business Performance: ANOVA Table**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	261.747	3	87.249	446.018	.000 <sup>b</sup>
	Residual	67.097	343	.196		
	Total	328.844	346			

a. Dependent Variable: Business Performance

b. Predictors: (Constant): System Quality: Information Quality: Service Quality

Source: Survey Data and Author's Computation

Table 7 showed that the summary of the ANOVA table exhibits that the P-value is 0.000, which is less than 5%. This indicates that the model is a better predictor of the outcome than the mean and that the combined effect of the three independent variables (Information quality, Service quality, and System quality) have an impact on the dependent variable (Business Performance).

The outcome demonstrates that an organization's business performance improves with IS success. The level of benefit depends on the economic sector in which the enterprise operates and the business processes for which the IS was purchased (Lipaj & Davidaviiien, 2013). If information system is in place based on the strategic objective of the organisation and integrated into business processes of an enterprise, it is one of the major drivers which increases business performance.

Concerning multicollinearity, there is no problem with multicollinearity because the tolerance level for each variable is more than 0.001 and the VIF value is close to one (range from 1.246 to 1.639). The tolerance threshold must be less than 0.001 and the VIF must be significantly higher than 10 for multicollinearity to exist. It was possible to build a significant model ( $p < 0.000$ ) with an R-square of 0.796 and no multicollinearity problems ( $VIF < 2$ ).

**Table 8: The Coefficients of the three Independent Variables**

Coefficients <sup>a</sup>										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	3.719	.024		156.615	.000	3.672	3.765		
	Information Quality	.294	.036	.301	8.244	.000	.224	.364	.745	1.246
	Service Quality	.423	.044	.434	9.559	.000	.336	.511	.788	1.471
	System Quality	.240	.039	.247	6.222	.000	.164	.316	.879	1.639
a. Dependent Variable: Business Performance										

Source: Survey Data and Author's Computation

#### 4.3.2. Moderating Regression Analysis

**Model II:** Business Performance =f (IS Success, AIS effectiveness, Interaction between IS success and AIS effectiveness).

In correlation, a moderator is a third variable that influences the correlation between the first two variables in correlation. If x is a predictor and y is an outcome in a causal relationship, then z is the moderator variable that influences the causal relationship between x and y. Accordingly, to demonstrate the moderating effect of AIS effectiveness on the link between IS success and business performance, the researcher included a new variable named IS Success\*AIS Effectiveness to the model.

**Table 9: The Moderating Effect Of AIS Effectiveness: ANOVA Table**

Coefficients <sup>a</sup>										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	3.554	.191		18.643	.000	3.179	3.928		
	AIS Effectiveness	.837	.032	.846	26.219	.000	.775	.900	.704	1.421
	IS Success	.046	.046	.033	1.015	.000	.043	.136	.76	1.347
	Interaction: IS Success and AIS Effectiveness	.143	.186	.043	4.025	.001	.24	.189	.941	1.542
a. Dependent Variable: Business Performance										

Source: Survey Data and Author's Computation

The outcome as showed in Table 9 disclosed that the beta value is 0.143; thus, AIS effectiveness moderates significantly in the same direction, between IS success and business performance.

#### 4.4. Hypothesis Summary

Based on the findings presented above, the researcher summarised the study hypotheses in table 10 below. Using the p-value, the researcher tested hypothesis.

**Table 10: Hypothesis Summary**

S/No	Hypotheses	Sig	Decision
<b>Hypothesis 1</b>	Information quality positively effects business performance	0.000	Accepted
<b>Hypothesis 2</b>	Service quality positively effects business performance	0.000	Accepted
<b>Hypothesis 3</b>	System quality positively influences business performance	0.000	Accepted
<b>Hypothesis 4</b>	AIS effectiveness moderates the relationship between AIS success and business performance.	0.000	Accepted

Source: Survey Data and Author's Computation

## 5. Conclusion and Recommendations.

### 5.1. Conclusion

According to the research findings, information quality, service quality, and system quality are positively correlated with both individual and collective banks performance. The outcome of the multiple regression analysis also demonstrated the combined impact of the three independent variables on banks performance, with the combined impact of the three success factors for information systems accounting for 79.6% of the dependent variable. This finding is consistent with prior studies linking IS success to both organisational and commercial performance (Hurt, 2016).

In addition, the study found that the association between IS success and selected banks business performance was moderated by AIS efficacy. The outcome demonstrated that implementing AIS effectively in conjunction with IS success impacts business performance differently and favourably. As a result, incorporating AIS effectiveness together with IS success metrics improves business performance compared to not including it (Okour, 2016).

### 5.2. Recommendations

Based on the above conclusion the researcher recommends the following recommendations that will help the banking industry of Ethiopia in utilizing AIS for enhancing business performance.

- The bank management should design the IS framework holistically, considering the system's dynamism. They should mind map and locate haphazard loop diagrams backed by simulation models as a result, to comprehend the extent of each IS success factor's influence.

- The bank management should introduce AIS as a benchmark for the banking industry and evaluate using the same metrics that the world's top banks use. Additionally, implement a robust adaption process to include tools that boost the abilities and motivation of their employees.
- The bank management should acknowledge the requirement for comparative research by introducing the SPC framework to the banking industry to satisfy the requirement for investigating the advantages and disadvantages of utilising the frameworks.

### 5.3 Need for Further Research

This study highlighted the relationship between successful information systems and business performance. It also determined the moderating impact of AIS effectiveness on the relationship between IS success and business performance of private banks. There is scope to make a comparative study regarding the use AIS in private sector banks and public sector banks.

### References

- [1] Al-Hattami, H. M., & Kabra, J. D. (2019). *The Role of Accounting Information System (AIS) in Rationalizing Human Resource related Decisions: A Case Study of selected Commercial Banks in Yemen*. *International Journal of Management Studies*, 4(2), 84-91.
- [2] Ali, B. J., & Oudat, M. S. (2021). *Accounting Information System and Financial Sustainability of Commercial and Islamic Banks: A Review of the Literature*. *Journal of Management Information & Decision Sciences*, 24(5)
- [3] Bernroider, E. W. (2008). *IT Governance for Enterprise Resource Planning supported by the DeLone–McLean model of information systems success*. Amsterdam: North-Holland.
- [4] Cooper, D. and Schindler, P. (2011) *Business Research Methods*. 11th Edition, McGraw Hill, Boston.
- [5] DeLone, W. H., & McLean, E. R. (1992). *Information Systems Success: The Quest for the Dependent Variable*. *Information Systems Research*, 3(1), 60–95. <https://doi.org/10.1287/isre.3.1.60>
- [6] Fekade, S. (2017). *The impact of Accounting System on Organizational Performance: A Case Study on Pharmaceutical Fund and Supply Agency*. Addis Ababa University. Unpublished Thesis.
- [7] Gorla, N., Somers, T. M., & Wong, B. (2010). *Organizational Impact of System Quality, Information Quality, and Service Quality*. *The Journal of Strategic Information Systems*, 19(3), 207–228. <https://doi.org/10.1016/j.jsis.2010.05.001>
- [8] Hakim, A. (2019). *Accounting Information Systems and Bank Services: A Study on their Relationships*. *Asian Accounting and Auditing Advancement*, 10, (1)
- [9] Hardie, N. (1998). *The Effects of Quality on Business Performance*. *Quality Management Journal*, 5(3), 65–83. <https://doi.org/10.1080/10686967.1997.11918816>
- [10] Hosain, S. (2019). *The Impact of Accounting Information System on Organizational Performance: Evidence from Bangladeshi Small & Medium Enterprises*. *Journal of Asian Business Strategy*, 9, (2), 133-147.

- [11] *Hurt R. (2016) Accounting Information Systems: Basic Concepts and Current Issues (4th edition). McGraw-Hill Education, New York.*
- [12] *Jarah, B. A. F., & Almatarnah, Z. (2022). The Effect of the Elements of Accounting Information System (AIS) on Organizational Culture (OC)-A Field Study. Academy of Strategic Management Journal, 20(5) 1-10.*
- [13] *Kabra, J. D., Al Hattami, H. M., & Hashed, A. A. (2020). Effect of AIS Success on Performance Measures of SMEs: Evidence from Yemen. International Journal of Business Information Systems, 1(1), 1. <https://doi.org/10.1504/ijbis.2020.10025605>*
- [14] *Kositnurit, B., Ngwenyama, O., & Osei-Bryson, K. M. (2006). An Exploration of Factors that Impact Individual Performance in an ERP Environment: An Analysis using Multiple Analytical Techniques. European Journal of Information Systems, 15(6), 556–568. <https://doi.org/10.1057/palgrave.ejis.3000654>*
- [15] *Karimi, F., Sajedinejad, A., & Hassannayebi, E. (2014). An Empirical Evaluation of the Service Profit Chain Model in Banking Industry of Iran. Asian Journal of Research in Banking and Finance.*
- [16] *Kebede, A. (2021). Accounting Information Systems and Business Performance: The Case of Commercial Bank of Ethiopia. Addis Ababa University. Unpublished Thesis*
- [17] *Kesum I.A.W, Hadiwidjojo D., Wiagustini N.L.P & Rohman F.(2013) Service Quality Influence on Patient Loyalty: Customer Relationship Management as Mediation Variable (Study on Private Hospital Industry in Denpasar) International Journal of Business and Commerce,2(12),01-14*
- [18] *Khan, A. (2017). Impact of Accounting Information System on the Organizational Performance: A Case Study of Procter and Gamble. Star Research Journal, 5(12), 26-30.*
- [19] *Nazeer S., Zahid M. & Azeem M. (2014) Internal Service Quality and Job Performance: Does Job Satisfaction Mediate? Journal of Human Resources Management and Labor Studies, 2(1), 41-65.*
- [20] *Okour, D. S. M. (2016). The Impact of The Effectiveness of Accounting Information Systems on Operational Performance in Public Listed Industrial Companies in Jordan. Journal of Social Sciences (COES&RJ-JSS), 5(3), 263–276. <https://doi.org/10.25255/jss.2016.5.3.263.276>.*
- [21] *Rust, R. T., Zahorik, A. J., & Keiningham, T. L. (1995). Return on Quality (ROQ): Making Service Quality Financially Accountable. Journal of Marketing, 59(2), 58–70. <https://doi.org/10.1177/002224299505900205>*
- [22] *Ladan Shagari, S., Abdullah, A., & Mat Saat, R. (2017). Accounting Information Systems Effectiveness: Evidence from the Nigerian Banking Sector. Interdisciplinary Journal of Information, Knowledge, and Management, 12, 309–335. <https://doi.org/10.28945/3891>*
- [23] *Slaughter, S. A., Harter, D. E., & Krishnan, M. S. (1998). Evaluating the Cost of Software Quality. Communications of the ACM, 41(8), 67-73. <https://doi.org/10.1145/280324.280335>.*
- [24] *Soudani, S. N. (2012). The Usefulness of an Accounting Information System for Effective Organizational Performance. International Journal of Economics and Finance, 4(5). <https://doi.org/10.5539/ijef.v4n5p136>*
- [25] *Tesfay, A. W. (2016). A Comprehensive measure of Business Performance: A study of the Commercial Banking Industry of Ethiopia. UNISA.*

- [26] Wixom, B. H., & Todd, P. A. (2005, March). *A Theoretical Integration of User Satisfaction and Technology Acceptance*. *Information Systems Research*, 16(1), 85–102. <https://doi.org/10.1287/isre.1050.0042>