

# Impact of Financial Inclusion and Trade on Economic Growth in Pakistan: A Comprehensive Analysis

Somia Shahbaz

Department of Accounting and Finance

Arid Agriculture University Rawalpindi Pakistan, Pakistan

Sajjal Ikram Malik

Department of Accounting and Finance

Arid Agriculture University Rawalpindi Pakistan, Pakistan

Waleed Abid

Department of Accounting and Finance

Arid Agriculture University Rawalpindi Pakistan, Pakistan

Wahab Ahmed

Department of Accounting and Finance

Arid Agriculture University Rawalpindi Pakistan, Pakistan

Umair Mahmood (Corresponding author)

Department of Economic & Agri-Economics

Arid Agriculture University Rawalpindi Pakistan, Pakistan

Tel: +92-340-154-6062 E-mail: [umairpcrwr@gmail.com](mailto:umairpcrwr@gmail.com)

Received: May 30, 2026

Accepted: June 11, 2026

Published: June 15, 2026

doi:10.5296/iss.v14i1.23827

URL: <https://doi.org/10.5296/iss.v14i1.23827>

---

**Abstract**

The financial inclusion system is always bringing social and economic changes in countries. Economic growth can have many beginning but the current studies focuses on financial inclusion as the main source of economic growth. It is encouraging to observe the further connection between financial inclusion and trade in promoting economic growth. In this research we calculate the effect of financial inclusion by using its proxy Automated Teller machine (ATM) as it represents the system that allows the individual to access finance and engage with the economy. This research also evaluates how Trade interacts with the economic growth.

This research improves earlier studies by focusing specifically on Pakistan and using a longer time period. This study uses data from 2004 to 2024, which provides a more detailed and complete understanding of the relationship between financial inclusion, trade, and economic growth in Pakistan. This study aims to achieve the following objectives. To explore the causal association between FI, trade, and economic growth in Pakistan. To investigate the impact of financial inclusion (ATM) on economic growth. To evaluate the impact of trade on economic growth. Data and Methodology helps explain how this research is conducted. NEWAY-WEST approach and VIF (Variance Inflation Factor) are applied to time series data in order to select appropriate time series econometric techniques for analysis. Results found a strong, significant, and positive association linking financial inclusion and trade with economic growth.

**Keywords:** financial inclusion (ATM), GDP, trade, variance inflation vector, Newey-west approach economic growth.

## 1. Introduction

Financial inclusion (FI) plays a critical part in fostering trade and economic growth. The financial sector allows the free movement of funds and also improves funds allocation. FI enables the availability of credit necessary for starting one's trading business which leads to a decline in poverty; hence, boosting economic growth. Financial inclusion is a procedure through which we make sure that every person in the community can access financial services and banking system. In order to create ripple effect in the society that can significantly increase national prosperity, it is important for every individual to have the access to tools that can help them save, borrow and make transactions easily (Sethi & Sethy, 2018). In this research, we calculate the impact of Financial Inclusion by using its proxy "Automated Teller Machines (ATM)", as it represents the system that allows the individual to access finance and engage with the economy (Sarma, 2008).

When combined in econometric models, ATM-based financial inclusion and trade consistently have a positive and statistically significant influence on economic growth. Additionally, the combined effect of these factors tends to be larger since trade further accelerates growth through increased economic integration, while financial inclusion boosts trade by facilitating payments and credit availability. Therefore, employing ATMs and commerce as independent variables offers solid empirical evidence for their favorable and noteworthy impact to global economic growth.

In this study, in order to prove that the financial and trade factors truly effect the economic growth of Pakistan, we have moved beyond the guesswork by using a structured scientific method. Furthermore, trade influences economic growth by facilitating countries to capitalize on their comparative advantage by producing goods in which they face lower opportunity costs through the diffusion of knowledge and technology (Keho, 2017) as described by endogenous growth theory. Studies like those of (Chinodo, 2020) and (Zahonogo, 2017) have concluded that FI (ATM) and trade benefit economic growth.

Our research questions of the study are to evaluate that what is the relationship between Financial Inclusion, Trade and Economic Growth of Pakistan? How much does the physical infrastructure of financial inclusion like ATM Effects the GDP of Pakistan? Trade as control variable, what kind of impact does it have on the economic growth of Pakistan? Is modernization of banking system the real reason behind the change in trade and growth of the country?

To the best of our knowledge, no prior study has comprehensively examined the relationship between financial inclusion, trade, and economic growth in Pakistan using Automated Teller Machines (ATMs) as a proxy for financial inclusion and applying a simple regression approach in EViews over the extended period of 2004–2024. This study contributes to the existing literature by focusing specifically on Pakistan and utilizing a longer and more recent dataset, thereby addressing the limitations of earlier studies that relied on shorter time spans and limited data. The research constructs a Financial Inclusion Index (FII) based on the dimensions of availability, access, and usage of financial services (Sarma 2008), while excluding service quality due to data constraints. Annual data sourced from the World Bank

ensures consistency and reliability of the analysis. By covering the period from 2004 onward when relevant data becomes available this study provides a more comprehensive understanding of how financial inclusion, trade, and economic growth are interrelated in Pakistan, offering valuable insights for policymakers and researchers.

In Section 1: Introduction, the topic is introduced, its importance is explained, and the research goals are laid out. Part 2: Literature Review looks at previous studies to show what other researchers have learned about the topic. Section 3: Methods & Data explains how the research was done and what variables were used in the analysis. Section 4: Results & Discussion shows the results. Section 5: Conclusion and References.

### *1.1 ATMs Are Better Proxy for Financial Inclusion*

For ensuring the data integrity and to avoid model misspecification in econometric research, it is important to select the most appropriate proxy for the financial inclusion. ATM is given preference over other factors like Commercial Bank Branches and Domestic credit to GDP.

**Captures Modernization:** ATM directly measures the technological advancement, digital adaptation and the expansion of 24/7 physical access points in Pakistan's banking sector.

**Reflects Grassroots Usage:** ATM expansion tracks the everyday transactional behaviour of the general public, capturing the active shift from an informal cash economy to formal banking system.

**Flaw Of Bank Branches:** Due to the modern consolidation and the rise of mobile banking, physical branch counts are highly distorted, making them a misleading measure of actual access. **Flaw of Domestic Credit to GDP:** This metric measures financial deepening, not inclusion. It is heavily skewed by massive corporate loans to a small industrial elite, masking whether the general public actually has bank access.

### *1.2 Objectives of Papers*

This study aims to achieve the following objectives

- To explore the causal association between FI, trade, and economic growth in Pakistan.
- To investigate the impact of financial inclusion (ATM) on economic growth.
- To evaluate the impact of trade on economic growth.

### *1.3 Research Hypothesis*

**Research Hypothesis** The study tests the following three hypotheses.

H1: Financial Inclusion (ATM) causes trade

H2: Trade leads to economic growth

H3: Financial inclusion (ATM) and trade influences economic growth

## **2. Review of Literature**

Financial inclusion is about making financial services available to everyone people who do not have a lot of money or access to these services. This helps the economy because people and businesses can use their resources efficiently save money invest and start businesses. Financial inclusion also helps a country's development. In countries like Pakistan, digital financial services such as banking and online banking have made it easier for people to access services.

### **Financial Inclusion and Its Measurement**

In the past people thought that having many ATMs was a way to measure if financial services were available to everyone. ATMs made banking services easy to use, which helped reduce costs and made it easier for people to participate in the economy. However now people realize that financial inclusion is more than having ATMs. It also includes things like wallets and online banking. In Pakistan the banking system has changed a lot since the 2000s. Digital financial services have helped more people participate in the economy. Financial inclusion is important for Pakistan's growth.

### **Financial Inclusion and Trade**

Many studies have found that financial inclusion affects trade. When people and businesses have access to services it costs less to do business. They have money to invest and grow. In developing countries like Pakistan studies have shown that financial inclusion leads to trade both within the country and with countries. Financial inclusion helps trade. Trade helps businesses grow. Businesses need inclusion.

### **Trade and Economic Growth**

Trade is important for growth. It allows countries to specialize in what they're good at which leads to productivity, better technology and more competition. However trade only leads to growth if the country has a financial system. Trade is good for growth. Economic growth is good for countries like Pakistan.

### **Interaction between Financial Inclusion, Trade and Growth**

Recently people have been studying how financial inclusion and trade work to affect economic growth. A good financial system reduces costs improves the flow of money and makes it easier to trade which leads to growth. Studies in South Asia and Africa have found that financial inclusion helps growth by increasing trade. In Pakistan making financial services more available through ATMs, digital wallets and online banking could help trade and lead to growth. Financial inclusion and trade are important for Pakistan growth.

### **Gaps in the Literature**

Even though there is a lot of research on this topic there are still some gaps. Most studies only look at inclusion or trade not both. There is not research on how financial inclusion and trade work together to affect economic growth in developing countries like Pakistan. Also the rapid growth of financial services has changed things and older studies do not capture this.

This study will try to fill these gaps by looking at how financial inclusion, trade and economic growth work in Pakistan. Financial inclusion and trade are crucial, for Pakistan’s growth.

**3. Data and Methodology**

The purpose of this section is to explain how this research is conducted. It describes the methods, procedures and data used to find the impact of Financial Inclusion especially through infrastructure like Automated Teller Machines on the Economic Growth of Pakistan.

*3.1 Conceptual Framework*

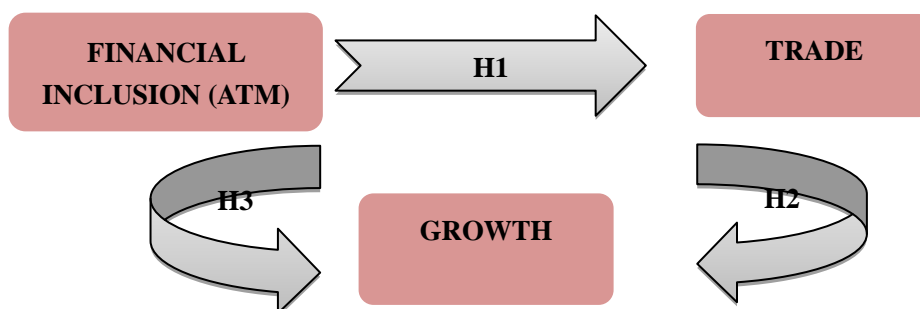


Figure 1.

Source: author’s illustration.

*3.2 Theoretical Framework*

In this research in order to measure the relationship between the variables, we used Quantitative Research Method as we focused more on the “quantities” (numbers).

Table 1. Theoretical Foundations of the Growth Model

Economic Growth (GDP)	Neo Classical Theory Solow R.M. (1956)
Financial Inclusion (ATM)	Finance Led Theory Lucas R.E. (1988)
Trade	Endogenous Growth Theory McKinnon R.I (1973)

Neo-Classical Theory suggest that economic expansion is due to technological progress and capital accumulation. This aligns with my research as financial inclusion and trade makes the flow of capital and adoption of technology easier, ultimately boosting GDP growth (Solow R.M. 1956). Finance-Led Theory states that financial system acts as the primary catalyst for expanding economic by mobilizing savings and allocating resources. This theory goes well with goal of my research which says that financial inclusion has positive impact on the growth of an economy (Lucas, 1988). Endogenous Growth Theory suggests that economic

expansion is driven by trade by facilitating the technological innovation across the border. This aligns with my study as trade allows the integration of global technological advancements into domestic production.

For this research, we have obtained data from the official websites of national and international bodies. The data ranges from 2004 to 2024. This is the period when the Pakistan's banking system significantly modernized itself. Major source of data collection for the dependent and independent variables is World Bank, FAO stat, Pakistan Bureau of Statistics.

### 3.3 Variable Description and Model Specification

Table 2. Description of Operational Variables

VARIABLE	OPERATIONAL DESCRIPTION
Economic Growth	This is our main target and focus. We want to check what makes the economy of a country to grow.
Financial Inclusion (ATM)	Financial Inclusion means that banking system is accessible to every single person. Since it is difficult to measure inclusion on its own, we are going to use its proxy (a stand in) ATM.
Trade	Taking only ATM might give too much credit to it for the growth of an economy. To prevent this, trade is taken as a control variable because in real world economies also grow by selling goods to other countries (trade).

### EQUATION:

To analyze the data of Pakistan's economy, we will use the mathematical model.

$$Y = \beta_0 + \beta_1 ATM + \beta_2 Trade \quad (1)$$

$Y = Y$  represents the dependent variable which is GDP (economic growth).

$X_1 =$  It represents our first independent variable that is ATM (financial inclusion).

$X_2 =$  Represents our control variable Trade.

$\beta_0 =$  This is the point where trade and ATM are zero.

$\beta_1$  &  $\beta_2 =$  these are the numbers that shows the strength of the impact. For example  $\beta_1$  it tells us for every new ATM added, how much the economy grows.

### 3.4 Econometric Technique

This research uses the Ordinary Least Square (OLS) method to estimate the relationship between financial inclusion, trade and economic growth. OLS is a type of linear least square

method used to estimate the relationship between dependent variable and independent variables. The Newey West technique is a simple way to fix errors in statistical results when your data has patterns over Time, like in stock prices or economic data. Normally, standard methods assume errors are Random and unrelated, but in real life, today's error can be linked to yesterdays. The Newey West method adjusts the calculation of standard errors so they stay reliable even when there is Autocorrelation (errors connected over time) or hetroscedasticity (errors changing in size). In easy terms, it's like correcting your calculations so your conclusions don't become misleading just because your data has time-based patterns.

#### 4. Results and Discussion

The growth model (2004–2024) is estimated using time series techniques, namely OLS regression and the Newey-West method but before regression we check the stationarity of variables using ADF test.

##### 4.1 Stationarity of Variables

Table 3. Test for stationarity of variables

Variable	Test Specification	Integration Order	ADF t-statistics	P value	Status
<b>Growth</b>	None (No Trend/ Intercept)	I (2)	-7.857413	0.0000	Stationary
<b>Trade</b>	Trend and Intercept	I (0)	-5.166244	0.0030	Stationary
<b>ATM</b>	Trend and Intercept	I (1)	-4.737595	0.0074	Stationary

Trade Openness is found to be stationary at raw level I(0), with an ADF t-statistics of -5.166244 under a trend and intercept specification. This means that variable is perfectly stable from the start. Even though trade fluctuates in Pakistan due to the global challenges, it always comes back to the average baseline quite quickly. Financial Inclusion is non-stationary at level but becomes highly stationary after taking the first difference I(1), with an ADF t-statistics of -4.737595 under trend and intercept specification. This variable states that even though physical financial infrastructure shows a strong historical trend, its annual growth rate is stationary. Economic Growth achieves stationary at second difference I(2), with an ADF t-statistics of -7.857413 under a baseline specification without a trend or intercept.

##### 4.2 Descriptive Statistics

Table 4. Summary of Descriptive Statistics

	MEAN	STD.DEV	MEDIAN	MAX	MIN
GROWTH	17.25340	0.223352	17.23998	17.59086	16.88704
AUTO_TELL_MACH	7.23998	3.639775	7.930000	11.49000	1.020000
TRADE	22.66857	4.878194	22.09000	32.32000	13.38000

**EXPLANATION:** The mean of the variable growth is 17.25, and the median is very close to it (17.24). This means that the data is pretty balanced and not very skewed. The standard deviation is only 0.22, which is very low. This means that growth values stay very close to the average and don't change much over time. The maximum (17.59) and minimum (16.88) are also very close to each other, which shows that this variable is very stable and doesn't change much.

The mean for ATM is 7.24, and the median is 7.93, which is a little higher. This means that the data is a little skewed. The standard deviation is 3.64, which is a lot bigger than growth. This means that ATM values are very different from the average, which means that they change a lot. The big difference between the minimum (1.02) and maximum (11.49) values shows that this variable is very unstable and changes a lot over time.

The mean of the trade variable is 22.67 and the median is 22.09, which are both close together. This means that the data is fairly balanced. The standard deviation is 4.88, which is the highest of the three variables. This means that trade has the most variability, which means that its values are more spread out from the mean. The difference between the lowest (13.38) and highest (32.32) values is also quite large, which shows that trade is less stable than growth and even ATM because it changes a lot.

#### *4.3 Estimation Results and Variance Inflation Factor*

Table 5. Econometric Results via Newey-West Standard Estimator

Variable	Coefficient	Std. Error	t-Statistic	Prob	VIF
C	16.66947	0.069616	239.4506	0	NA
AUTOMATED_TELLER_MACHINE	0.047802	0.005367	8.906839	0	2.13
TRADE	0.010948	0.004004	2.733974	0.01	2.13

R-squared=0.935374

F-statistics=130.2638

Durbin-Watson

Adjusted R-squared=0.928194

Prob (F-statistic) =0.000000

stat= 0.659822

**EMPIRICAL RESULTS:** This result tells us there is significant impact of ATM on economic growth, although its p-value and t-value both are significant and also its coefficient value is positive, since it shows financial inclusion indicator (ATM) has a positive effect on economic growth. When there is increase in one unit in X (ATM) then there is 0.047802 unit increase in Y (GDP).

Also when we see other variable Trade which is a control variable also have a significant impact on dependent variable Y (Economic Growth) as there is significant values of p and t. And also its coefficient value is Positive its means, this variable has positive effect on GDP. So when there is one unit increase in this variable (trade) or X then there is 0.010948 unit increase in economic growth.

As we know when F-stat value is larger than the p-value then the model is useful, in this case

F-stat value is larger than p-value ( $130.2638 > 0.000000$ ), Hence from this we see our model is good and useful.

Since, this result we obtain after apply NEWAY-WEST approach, that's why we have no heteroscedasticity and autocorrelation problem effect on these results. As we know this technique apply to make the results more reliable. Lags have been taken when deploying the Newey West standard approach to account for the stationarity of variables. Heteroscedasticity, autocorrelation, and cross-sectional dependence in the growth model are removed by the application of the Newey West standard approach. The conclusion of the growth model is based on the results of the Newey West standard approach.

Trade was found to enhance economic growth as endorsed by endogenous growth theory (McKinnon R.I 1973) it is not always happen that trade has positive impact on economic growth, as we know, Trade not only increases demand for a country's exports but also causes its exports to face international competition; which requires the adoption of new technology.

Newey West standard approach is employed on growth model (2004-2024) which removed heteroscedasticity, autocorrelation, and cross-sectional dependence from this model. Results portray that the effect of FI (ATM) on economic growth is significant and trade has a significant and beneficial effect on economic growth.

As, we know VIF stands for Variance Inflation Factor. This is to check whether the model is acceptable in terms of collinearity. VIF is approximately 2.13 for both ATM and Trade means the variable have very low influence on one another (no multi exists). When VIF is greater than 10 then its means variables are too correlated, affecting regression results.

**Thorough analysis in the light of current situation in Pakistan** the connection between the ATM and Economic Growth is highly significant and positive and matches with the Pakistan's ongoing push toward a digital and cash lit economy. Despite the rapid growth of the mobile wallets and digital apps physical access networks like ATM are still vital for the general public. ATM serves as the primary gateway for the formal banking sector to the informal money, as in today's Pakistan majority of the population operates informally on cash. ATM speeds up everyday business transactions, lower cost for small shopkeepers and builds trust in the banking system by giving people 24/7 access to their money. This infrastructure supports Benazir Income Support Program (BISP) and other massive social support programs successful, by allowing the low income families to withdraw subsidies easily and boosting local spending and driving overall GDP growth.

Similarly, country's urgent need to balance its international trade is highlighted by the positive effect of trade openness on Pakistan's economic growth. Historically Pakistan has struggled with the economic instability, low foreign reserves and large reliance on expensive imports. As this model suggest opening up for trade forces local Pakistani industries to step up and compete globally. Because of this intense international competition, local businesses are forced to enhance their efficiency and to adopt new technologies. This in result creates a strong cycle with the financial inclusion: local businesses can only import modern machinery and expand their trade channels when a modernized banking system is available to provide

them with the smooth transaction channels, trade credits and daily liquidity they need to operate.

## 5. Discussion

The findings provide validation for the hypothesis H2 and H3 confirming that the economic growth in Pakistan is derived by the factors like financial inclusion and trade openness. Endogenous Growth Theory (McKinnon, 1973) aligns perfectly with the positive relationship.

However, Macroeconomic expansion is not guaranteed by the trade openness as indicated in the historical context, As global market integration increases the domestic exports demand, it also exposes the local firms to the fierce foreign competition. In order to survive this competition, local firms needs to quickly adopt and adapt to the modern production technologies and increase organizational efficiency.

This requirement results in the widespread use of financial inclusion. An accessible financial infrastructure peroxide by the ATM, ensures that the local enterprises can fund modernization and absorb global knowledge transfers by securing the credit lines and necessary transaction channels. By removing the autocorrelation and hetroscedasticity, using the Newey-West Model, the results provide a reliable baseline for policy planning, showing that development of financial infrastructure is required to maximize the benefits of international trade.

## 6. Conclusion & Policy Recommendations

In conclusion, this study highlights that both trade and ATM have a significant positive impact on economic growth. The relationship between trade and economic growth is robust, indicating that expanding trade activities contributes to overall economic development. Similarly, ATM usage also plays a key role in stimulating economic growth. These findings suggest that promoting trade and increasing access to ATMs could be effective strategies for boosting economic performance.

This study finds that trade and ATM use both have a big positive effect on economic growth. Because of this, developing countries should work on making ATMs more accessible and making their financial systems stronger so that people can do business more easily. Governments should also make policies that help exports and international trade to encourage trade. More trade options and better access to money will help the economy grow.

The expansion and effective utilization of Automated Teller Machines (ATMs) can play a significant role in promoting economic growth by enhancing financial inclusion. Policies should focus on increasing ATM coverage, particularly in Pakistan, to improve access to formal financial services. Additionally, integrating ATMs with digital banking systems and promoting financial literacy can help individuals transition from cash-based to formal financial transactions. Strengthening security and infrastructure is also essential to build user trust. Governments can support this process through linking ATMs with social welfare disbursements such as pensions and subsidies. Overall, these measures can increase savings, facilitate efficient financial transactions, and promote investment, thereby contributing to

sustainable economic growth.

## **7. Future Research**

This study has some limitations, though, because it only looked at trade as a whole and not by sector, like industry or services. Future research may investigate these domains to enhance the understanding of how various forms of trade influence economic growth.

## **Acknowledgments**

We express gratitude to our teacher Muhammad Umair, who provided valuable technical critique and data coordination throughout the compilation of this Time Series Research Project.

## **Funding**

This research did not receive any kind of financial support or grants from the university or any other public or private sector.

## **Competing Interest**

We declare that the findings and analysis reported in this paper are not influenced by any competing financial interest, institutional affiliations and personal relationships.

## **References**

- Fenira, M. (2015). Trade Openness and Growth in Developing Countries: An Analysis of the relationship after comparing trade indicators. *Asian Economic and Financial Review*, 5(3), 468-482.
- Gennaioli, N., Porta, R. L., Silanes, F. L., & Shellfire, A. (2013). Human Capital and Regional Development. *Quarterly Journal of Economics*, 105-164.
- GPFI. (2011). *Global Partnership for Financial Inclusion (GPFI) Report to Leaders*.
- Gries, T., & Redlin, M. (2020). Trade and Economic Development: Global Causality and development- and openness-related heterogeneity. *International Economics and Economic Policy*, 17, 923-944.
- Guei, K. M., & Roux, P. I. (2019). Trade Openness and Economic Growth: Evidence from the Economic Community of Western African States. *Journal of Economic and Financial Services*. 1-9.
- Hajilee, M., & Niroomand, F. (2019). On the Link between Financial Inclusion and Trade Openness: An Asymmetric Analysis. *Economic Analysis and Policy*, 62, 373-381.
- Idris, M. (2019). Macroeconomic Analysis of Interest Rate and Economic Growth in Nigeria: A Time Series Approach. *International Journal of Finance and Banking Research*, 5(4), 91-104. doi:10.11648/j.ijfbr.20190504.14
- Irwin, D. (2019). Does trade reform promote economic growth? A review of recent evidence. *NBER Working Paper Series NBER Working Paper No. 25927*.

- Kasidi, F., & Mwanemela, K. (2013). Impact of inflation on economic growth: A Case study of Tanzania. *Asian Journal of Empirical Research*, 3(4), 363-380.
- Keho, Y. (2017). The impact of Trade Openness on Economic Growth: The Case of Cote d'Ivoire. *Cogent Economics and Finance*, 1-14.
- Mulok, D., Asid, R., Kogid, M., & Lily, J. (2011). Economic Growth and Population Growth: Empirical Testing Using Malaysian data. *Interdisciplinary Journal of Research in Business*, 1(5), 17-24.
- Nkwede, F. (2015). Financial Inclusion and Economic Growth in Africa: Insight from Nigeria. *Australian Journal of Business Science Design & Literature*, 7(35), 71-80.
- Sarma. (2008). Index of Financial Inclusion. *Working Paper No.215 Indian Council for Research on International Economic Relations (ICRIER)*.
- Sarma. (2012). Index of Financial Inclusion-A measure of Financial Sector Inclusiveness. *Money, Finance, Trade and Development*.
- Sethi, D., & Sethy, S. K. (2018). Financial inclusion matters for Economic Growth in India: Some evidence from Cointegration analysis. *International Journal of Social Economics*, 46(1), 132-151.
- Sharma, D. (2016). Nexus between financial inclusion and economic growth: Evidence from the Indian economy. *Journal of Financial Economic Policy*, 8(1), 13-36.
- Tahir, M., & Azid, T. (2015). The relationship between international trade openness and economic growth in the developing economies some new dimensions. *Journal of Chinese Economic and Foreign Trade Studies*, 8(2), 123-139.
- Tahir, M., & Khan, I. (2014). Trade openness and economic growth in the Asian region. *Journal of Chinese Foreign Trade Studies*, 7(32), 136-152.
- Tartiyus, E. H., Dauda, M. I., & Peter, A. (2015). Impact of Population Growth on Economic Growth in Nigeria. *IOSR Journal of Humanities and Social Sciences*, 20(4), 115-123.
- UNCTAD. (2020). *International trade in developing economies*. Retrieved from <https://sdgpulse.unctad.org/trade-developing-economies/>

### **Copyright Disclaimer**

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).