



**Financial Inclusion, Economic Growth and Human Well-Being Nexus: Empirics from Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia**

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**Abstract**

This article has examined the impact of financial inclusion on economic growth and human well-being in the case of Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia over the period of 1990 to 2018. Panel pooled regression has been applied for the examined the relationship among the selected variables of the model. The results show that financial development has a negative and insignificant impact on economic growth, but it has a negative and significant impact on human well-being. Number of bank branches have a positive but insignificant impact on economic growth, but number of bank branches have a positive and significant impact on human well-being. The loans to rural areas have a positive and significant impact on economic growth, whereas it has a positive but insignificant impact on human well-being. Money supply has a positive and significant impact on economic growth and human well-being at the same time. Foreign direct investment has a positive and significant impact on economic growth and human well-being. The results show that income inequality has a negative and significant impact on economic growth and human well-being. Economic development has a positive and significant impact on human well-being, this show that economic development can be enhanced for higher human well-being. The study suggests that for higher economic growth and human well-being, financial inclusion is playing an important role in the case of selected Asian countries.

**Keywords:** Financial Inclusion, Economic Growth and Development, Poverty Reduction

**JEL Codes:** B26, O47, I32

## **I. Introduction**

Financial inclusion means everyone has simply access to helpful, cheap financial product and services delivered in an exceedingly accountable and proper means like savings, payments, credit and insurance. A start towards broader financial inclusion is to possess access to account that permits individuals to deposit cash and to send and receive payments. World Bank Group's Universal financial Access initiative 2020 is making certain that folks worldwide have access to transaction account as it will function as the entree of alternative financial and monetary services (World Bank, 2013). Inclusion 2020 project, the Centre for financial inclusion defines that complete financial inclusion could be a state within which person encompasses a right to access all the standard money, services or facilities provided by the establishment in appropriate manner, with respect at cheap costs as these services are provided by the variability of suppliers in an exceedingly stable, competitive market. Back in 2003 UN Secretary General Kofi Annan offer the conception financial inclusion and emphasized on constructing comprehensive financial sector, which will be liable for providing access to sustainable services that embody savings, credit and insurance to poor and regarded financial inclusion as a precondition to comprehensive growth (United Nations, 2006). Highlighted by the Summit for the Monterrey Consensus of the International conference on financing for Development financial institutions those can create significant contribution in providing financial access to each person. It supported for public and private institution and companies to figure collaboratively to deliver money access to everyone. The Summit additionally stresses on strengthening domestic money phase to incorporate women and underserved markets, like rural areas. During this phase, the UN declared 2005 as the International year of microcredit to construct an inclusive system.

Access has varied dimensions: product got to be delivered once required and facilities or services got to be accessible once desired, the costs of these facilities ought to be reasonable, as well as all the opposite prices, like traveling to a bank branch and it ought to create profit for the service suppliers and may be out there on a continual basis. Access is difficult to measure. Usage of services is usually used as a proxy to measure the access, although it cannot measure the original image or will underestimate the number of households that have access to those services as it fails to calculate or capture people who have access to a money service however presently they're not using those services (Kant et al., 2009). A comprehensive monetary system provides many advantages. As it promotes an effective allocation of productive resources, and an additional economical use of resources can make the reduction of the capital cost possible. A good financial system makes it easier for people to access money services, and this improves the daily management of finances. If the comprehensive financial system comes at a comparatively high value, the system will not cut back the inefficiencies in credit markets from the informal credit sectors. Thus, it's potential that countries will enhance potency and welfare by providing ways for secure and safe saving practices and by promoting economical financial services (Sarma, 2008). Although quick economic development and modernization of world economy, gaps in money access continue, over half world's operating population doesn't have access to quality and cheap financial services that is 2.5 billion adults from that 2.2 billion reside on continent Africa and Asia, Latin America and Middle East countries (McKinsey, 2010). As confirmed by World Bank information the situation has not changed around fifty percent of the world's adult population don't have an account at formal financial organization, significantly in developing countries over seventy one percent of the adult population is excluded (Kant et al., 2012). Latest development theories stress that major part of economic development depends on access to finance as financial system makes the transaction safer, faster and inexpensive. Sustained future economic progress rely on the access to financial product and services that features saving, insurance, credit, investment instrument, it helps individuals to arrange for his or her future (Honohan and Suarez, 2009). Account named Mzansi was launched by South African Banking establishment for people who are financially excluded and don't have access to helpful and cheap financial services and product. So, they can simply access to money services. These financial structures were designed or aimed as channels for the economic prosperity of low financial or income, gain people or teams like rural women ready to establish a little business by purchase a machine, and ready to increase her financial gain and adjusted her life vogue, currently she will be able to access to additional financial services and has the capability to soak up very little economic ups and downs. Access to money services and accrued financial gain advantages or facilitate individuals to form deposits and obtain credit help through micro-credit and micro-saving. These small funding steps help in reduction of kid labor and will increase agricultural productivity (African Development Bank, 2006).

The previous theories of development centered on institution, labor and capital etc. as an important measure for growth and development. Their works hardly enclosed finance as an element for development and growth. Since then there has been sufficient analysis evaluating however financial systems facilitate in the development of the economies. There exists a broad agreement among economists that financial development is a reason for economic process and growth. Empirical studies, time and evidences has emphasized the link between finance and growth. As the work and studies of Levine and Zervos (1998) and King and Levine (1993a), evidences counsel that at race level, the measures of financial development are powerfully regarding economic growth. In step with Sen (1983) economic development typically refers to the sustained, combined actions of policymakers and communities that promote the quality of living and economic health of a particular space. It also can be spoken because the quantitative and qualitative changes within the economy. It includes the development of human capital, essential infrastructure, regional aggressiveness, environmental property, social inclusion, health, safety, literacy, and alternative initiatives. Economic development could be a policy intervention endeavor with aims of economic and social well-being of individuals. The scope of economic development includes the method and policies by that a nation improves the economic, political, and social well-being of its individuals (Sullivan and Sheffrin, 2003). In economic process and developed financial system plays an important role by channeling funds from surplus unit to deficit unit of economy through money intervention. Varied studies have established that financial development tends to extend economic growth and reduce difference and poorness from the economy (Ajakaiye, 2012). An inclusion program relates to a proper bank client relationship that begin with the opening of a bank saving account. Culture of saving must be encouraged in the society and also can increase savings by including the disadvantaged groups and poor individual in the formal financial system. Given their giant numbers, this slight savings represent a means of financial diversification which can boost economic growth and financial stability of a country. However, if the services or establishment tilts heavily towards the rich groups, it probably can cut back the economic process and growth (Ajakaiye, 2012). According to many literatures that a financial system along with banks provide better services as its key component, provides experienced, encourage a high level of specialization, economies of scale, linkages for the various sectors of the economy and a good atmosphere for the implementation of many government ways or policies, like economic condition, the charge per unit stability, balance of payments equilibrium and non-inflationary growth (Sanusi, 2011).

## **II. Literature Review**

Lawrence (2017) investigated the impact of financial inclusion on economic growth and development in Nigeria from 1986 to 2015 by utilizing Ordinary Least Square strategy and the results of the investigation demonstrated that credit to private segment to GDP proportion had negative, liquidity ratio of commercial banks had a beneficial outcome of financial development and advances or loans to rural areas as well as a deposit from rural areas had a positive influence on poverty decrease in Nigeria. It was recommended that the experts in Nigeria ought to not just develop financial inclusion activities through upgraded credit conveyance to the private sectors yet must reinforce the financial structure, keeping in mind the end goal to efficient and effective resource allocation and utilization.

Yu and Iyke (2017) analyzed the nexus among bank-based financial development and economic growth utilizing factors GDP per capita, private credit as level of GDP, bank deposits as percentage of GDP, inflation from the time of 1990 to 2014 and by utilizing ADF, DF-GLS tests and found whether Hong Kong followed a demand-following or a supply-leading hypothesis. By utilizing the Toda-Yamamoto test for causality and two determinants of bank-based money related advancement this paper found and proposed Hong Kong to track the supply-driving hypothesis. This demonstrated that the banking sector was essential in boosting monetary and financial development. Policymakers in Hong Kong could increment financial development by coordinating and guaranteeing skillful execution of bank-based financial organizations.

Raichoudhury (2016) estimated the connection between financial inclusion and human development or advancement crosswise over nations and utilize multidimensional way to build an index of financial inclusion which was similar to the index of Sarma (2012). Analyst picks 160 nations for their research and the factors utilized as a part of this investigation were numbered of bank Deposit accounts, number of ATM, credit to the private sector, GDP. The outcome demonstrated that there was a positive connection among human advancement and monetary incorporation. Along these lines, the nations should take budgetary consideration as the greater goal for the improvement of the economy and the general public.

Zeki et al., (2016) analyzed the period changing causality research for Turkey, this investigation concentrated on two inquiries. Finding a causal relationship between economic growth and financial related advancement in Turkey? Time-varying causality and different techniques had been utilized for finding the reality of the hypothesis. The picked period for the information was 1960 to 2013 and the factors were LNCGDP was the logarithm of real gross domestic product, LNPSC was the logarithm of private sector credit to the GDP, DLNCGDP was the natural logarithm of real gross domestic product, DLNPSC was the natural logarithm of private sector credit to the GDP. The finding demonstrated that among economic advancement and financial development there was a unidirectional causal relationship which changes relying upon a time and this causality rose during the season of political emergency and financial turmoil. The straightforward answer was that over the chose day and age, there was no steady causal relationship found among finance related advancement and economic development in Turkey. As suggested, to policy makers, financial advancement was fundamental for improvement in Turkey yet it was not the enough condition for a steady development likewise in financial structure, there were number of measurements that ought to be considered and additionally factor time.

Ozpolat and Ozsoy (2016) aimed to investigate the connection between financial development and human advancement and determine the course of the connection. In this study, the connection between finance related advancement and human improvement had been broken down in OECD nations from 2001 to 2015 by utilizing panel causality test. At the point when household credit to the private sector proportion of GDP had utilized as money related improvement, human development index had utilized as human advancement indicator. In view of their results and the other literature confirmations they confirmed that developed framework influence human development and improvement positively and significantly.

Arbak et al., (2013) examined the relationship between financial sector development, bank efficiency and economic growth in northern and southern Mediterranean countries in the vicinity of 1985 and 2009. They utilized a few factors to quantify the improvement of the finance related segment with a specific end goal to represent both quantitative and subjective impacts. Their results uncovered that credit to the private sector and bank deposits were adversely or negatively identified with the growth. This was, however ascribed to credit designation and financial regulation and administration in the locale. The outcome additionally uncovered that securities exchange size and liquidity assume an essential part in growth, when the qualities of financial bodies were considered. Ibrahim (2013) utilized time arrangement information covering time of 1980 to 2011 to break down the effect of economic advancement on financial development. The factors decided for the study were expanding broad money supply, credit to the private sector, and log foreign direct investment, log rural financial development. To establish the long-run connection between factors, Johansen and Juselius model of co-reconciliation were utilized. Dynamic Ordinary Least Square strategy was utilized to uncover the relationship between country financial development and economic growth. The co-integration test result revealed the presence of long run connection and DOLS indicated a positive connection between economic growth and financial development. Outcomes of the study affirmed that rural finance as an instrument of development in the economy. It was proposed that by expanding credit in country regions could help the avoided gatherings and representatives and subsequently enable them to contribute to the improvement and growth of the economy. The investigation therefore suggested that obstacles in the designation of gainful credit in the country open ought to be diminished to profit the general public on the loose.

Malkawi et al., (2012) investigated to assess the relationship between economic improvement and financial development in United Arab Emirates. From 1974 to 2008 this study utilized time series data, and employed the ARDL autoregressive distributed lag approach to co-integration. The investigation was completed utilizing two pointers to quantify the level of financial development. The first indicator was the financial depth or size of the financial intermediaries' sector as measured by the monetization ratio. The second indicator was the ratio of the credit provided to the private sector by commercial banks as a percentage of the GDP. The results of the research demonstrated that there was a negative and factually huge relationship between economic growth indicators and financial development in UAE. Results additionally indicated bi-directional causality among the two factors. Likewise, the control factors, in particular, government consumption, exchange receptiveness and expansion were found to have a noteworthy negative effect on

financial development. Overall, the proof backings neither the request following nor the supply-driving speculations for UAE.

Park and Mercado (2015) analyzed the connection between financial inclusion, poverty, and income inequality at the national level that enabled policymakers to outline and execute programs that expand access to financial administrations, prompting lessening of poverty rate and income equality. This paper expanded the current writing on monetary consideration by concentrating on developing Asian economies. They build their own financial inclusion indicator to evaluate different macroeconomic and nation particular elements influencing the level of financial inclusion for 37 chosen developing Asian economies. Factors were automated teller machines (ATM) per 100,000 adults, commercial bank branches per 100,000 adults, borrowers from commercial banks per 1,000 adults, deposits with commercial banks per 1,000 adults, and domestic credit to GDP proportion, they ran three regression models. They additionally test the effect of financial inclusion, alongside other control factors, on poverty and income disparity. Results demonstrated that per capita income, lead of the law, and demographic characteristics essentially influence money related incorporation in developing Asia. Moreover, they located that financial inclusion essentially lessens neediness and poorness and results also confirmed that it brings down income inequality.

Gupta et al., (2014) discovered the connection between financial inclusion and human improvement for which they picked the 28 states and the 6 locales of India. By using multidimensional approach Index for financial inclusion was built in which three dimensions of data was used: penetration, availability and usage of banking services which include bank deposits, no ATM, no of bank branches, outstanding credit and deposit. The outcomes demonstrated that very highly inclusive states of India were Punjab, Kerala and Goa, accumulate the information from 21 Indian states to establish the relationship between financial inclusion and human advancement. The outcomes demonstrated that there was a positive relationship between financial inclusion and human development index. It was distinguished that despite the fact that few measures had been executed to increment money related incorporation, a substantial number of the grown-up populace of India hasn't had any entrance to formal financial framework and were monetarily avoided or excluded. In this way, to accomplish the central objectives of comprehensive development, human and financial advancement the campaign of financial inclusion should be a policy priority in India.

Kodan and Chhikara (2013) analyzed theoretical and quantitative analysis of financial inclusion and economic growth and real components of the paper were determinants and the effect financial inclusion for example; means, measurements, kinds of financial inclusion, degrees of financial exclusion, financial products and services, and the institutional structure, nature and causes for the involuntary financial inclusion/exclusion, dimensions of access and problems, costs and consequences of financial exclusion. Multidimensional index, multiple linear regression model and log linear regression equation and the variables were Number of deposit accounts per 1,000 population, Number of credit accounts per 1,000 population, Population per bank office, Number of ATM per million populations, depth ratio, availability ratio and usage ratio. The results suggested that all the ratios of financial inclusion (depth, availability and usage ratios) were inversely connected to the poverty. Further, the results also showed that the depth and availability ratios are significant, and usage ratio insignificant, to describe the poverty between Indian states. The elasticity of depth ratio with respect to poverty was high (-0.881) as matched to further ratios of financial inclusion.

Kumar (2013) analyzed the status of financial inclusion in India and furthermore ponder its determinants. Factors were a number of bank branches, number of credit accounts, credit amount outstanding, number of deposit account, per-capita NSDP at constant prices, population, and number of employees. Methodologies used to study the determinants of financial inclusion were Panel Fixed effects, dynamic panel methods and GMM estimation. Kendall's index of rank concordance was carried out to test for convergence of states in attaining financial inclusion. Yearly information from 1995 to 2008 of 29 noteworthy states and associated domains was taken to do this research and their outcomes demonstrated that there was a distinct advantageous effect of money related incorporation to the branch network. The outcomes additionally demonstrated the region's socioeconomic and ecological setup was essential in forming, managing an account propensity for individuals. A test used for convergence found that with no backing for closing gap, regions tend to uphold their particular level of banking activity.

Wang'oo (2008) investigated to find the relationship between financial inclusion and economic development which secured the optional information of 7 years from 2005 to 2007. Determinants of the investigation were no. of bank branches, no. of ATM, amount of bank deposits, and amount of bank credit and HDI. The exploration configuration decided to research was a meta-analysis and the methodologies used to analyze the data were descriptive statistical approach, regression and correlation analysis. The outcomes demonstrated that there was a positive connection and expanded financial inclusion result in more economic growth. The Pearson correlation matrix accentuated that there was a positive considerable relationship among the dependent variable, human development Index and the autonomous variable number of bank branches and a number of bank accounts. The government of Kenya ought to perceive the noteworthiness of financial inclusion and make strategies that were more comprehensive for more prominent economic growth. Additionally, look was required for financial inclusion, its pointers and determinants and in addition its effect on improving.

Kunt and Singer (2017) developed confirmation that proper financial administrations had generous advantages for buyers, particularly ladies and poor grown-ups. The study gave an outline of financial inclusion around the globe and surveys the current experimental confirmation on how the utilization of money related items, for example, installments administrations, investment accounts, advances, and protection can add to comprehensive development and financial improvement. This paper talked about a portion of the difficulties in accomplishing more noteworthy monetary consideration and headings for future research. A field analyzes demonstrated that market merchant (for the most part ladies) could spare fundamentally more when furnished with a bank account and accordingly observed increments in private use by 38 percent and business venture by 60 percent contrasted with a control gathering.

Hadsan (2017) analyzed the effect of financial sector development on agricultural growth in Pakistan. A Cobb-Douglas creation work was utilized with two intermediaries for money related area improvement, i.e. broad money M3 as proportion of GDP and agricultural advance dispensing. This research used yearly information for the period 1981-2015. A VAR model was connected to investigate the connection between the performance of the agricultural sector and improvement in financial services in the nation. The results of the Johansen Co integration test and VECM demonstrate uncovers a noteworthy positive connection between agrarian development and capital arrangement, cultivate credit dispensing and liquid liability in the finance related diversion. The association with provincial work constrains was blended which might be credited to the overwork of work in the agrarian area. This research was remarkable as it utilizes cultivate acknowledge payment as a critical measurement of monetary administrations. This research prescribed that for enhancing farming profitability, finance related administrations must be made more productive.

Lopez (2017) inspected that financial inclusion was said to cultivate advancement and development. Be that as it may, advance in financial inclusion had been moderate in provincial regions where destitution was generally articulated. This was frequently ascribed to higher exchange costs, higher dangers and a more negative contracting condition which makes it more troublesome for finance related foundations to accomplish and keep up maintainability in rural contrasted with urban territories. In view of information covering 772 microfinance organizations (MFIs) over the period 2008–2013, they test whether rural finance related consideration, quite loaning to rural borrowers, was hampered by more grounded maintainability challenges than incorporation in urban markets. Their outcomes recommend that a higher offer of provincial borrowers had no immediate impact on MFI maintainability. Nonetheless, they found that MFIs with a higher offer of rural borrowers were less ready to exploit economies of scale and profitability impacts. Along these lines, their outcomes offered help for the view that maintainability challenges gain it harder to accomplish ground in money related consideration in the country than in urban zones. Ene and Inemesit (2015) checked the effect of micro financing in elevating incorporation from 1990 to 2014. Factors utilized as a part of the study were Deposit Amount, Savings, Loans and Advances and Microfinance Interest Rate administrations of Banks. For this purpose ordinary least square method and unit root test was conducted and their discoveries demonstrated that littlest deposit amount had a constructive and noteworthy association with saving account opened by rural residents, though, Microfinance financing cost had pessimistic impact on advances and advances got by country people and furthermore demonstrated that Micro-Finance Banks essentially contribute in the development of Small and Medium Enterprises. Proposals were made to Government should open the branches close to rural areas. Along these lines, the fiscally barred people could undoubtedly get to the money related items or administrations.

Jawaswal and Bhadin (2015) stressed the financial inclusion plan as an arrangement for accomplishing Inclusive advancement or development through the Cooperative Banking structure in India and furthermore attempted to seal the present hole by evaluating the level of financial inclusion and featured the dynamic commitment of associations as instrument of financial inclusion in India. Auxiliary sources were utilized to assemble the information for the research and utilized moving average trend line. The Real GDP rate indicated expanded pattern from 1995-96 to 2013-14 recommending that financial development was comprehensive, family units who were utilizing banking services also increased as the share of banks was highest. Banks additionally issued 43.66 million Kissan credit cards that aided in comprehensive development, which demonstrated that banks were assuming the essential part by including barred individuals or gatherings and accomplishing comprehensive development which lead towards financial and social improvement of Indian economy yet at the same time a lengthy, difficult experience to accomplish the coveted outcomes.

Michael and Sharon (2014) utilized information from 1992 to 2007, to think about the connection between the financial system, financial inclusion and economic development. To find the relationship among factors correlation and regression analyses was utilized. The observational outcomes demonstrated that there was a positive connection among advance to fiscally rejected or distraught and financial improvement. And, furthermore, there was a positive effect of money related consideration on financial development and advancement. It was suggested that more money related organization ought to be built up and more branches of business banks and microfinance banks ought to be opened in country regions to reach unbanked and barred gatherings of society. The advancement and development of a country were extensively dependent on the amplification of keeping money and monetary administrations and to come to the once fiscally prohibited gatherings in the economy, as they had unused profitable abilities that could be of awesome advantage to the economy on the loose.

Mbutor and Uba (2013) explored the effect of financial inclusion on monetary policy in the vicinity of 1980 and 2012. Factors utilized as a part of this study were no. of bank branches, no. of ATM, outstanding loan of commercial banks, deposits and loans of rural bank branches. Techniques utilized as a part of this investigation were co-integration, rank test, econometric model and the consequences of the research demonstrated that the coefficient of aggregate credits and advances as a proportion of the GDP was factually noteworthy at 99percent certainty level. The coefficient of the total deposit and credits by country business bank offices demonstrated that ascent in a prologue to business managing an accounting exercise in the rural areas would attach inflation to drop. However, the greatness of the coefficient was minor and insignificant. Nonetheless, the negative indication of the coefficient of provincial branch advances and advances demonstrates that further increments in the introduction to business banks in the rural areas will be the hint of something to look forward to for money related strategy in Nigeria going ahead. The quantity of bank offices as a measure of money related incorporation shows that the higher the quantity of bank offices the more swelling increments. In any case, the span of increment in expansion was relatively unnoticeable. However, the reality remains that the positive relations may point to the way that without a doubt the quantity of branches does not really infer expanding money related incorporation. The total introduction to provincial branches by clients likewise holds a decent guarantee for fiscal arrangement as its coefficient additionally was adversely identified with expansion. The quantity of bank offices as a measure of monetary incorporation did not turn out with the correct sign. This was, however perused to be symptomatic of a superfluous bunch of branches specifically areas where they serve not very many clients.

Kargbo and Adamu (2010) analyzed the relationship between financial development and economic growth secured the time of 38 years from 1970 to 2008 and factors real GDP, measures of financial depth, ratio of investment to GDP, credit to rural areas and private sector financial liberalization effect, by using ARDL and co-integration methods. The method of principal components was employed to construct a financial sector development index (FSDI) used for proxy development in the sector. The results of the research demonstrated that among monetary improvement, real GDP, investment and real deposit rate there was a special co-integration. The outcomes proposed that on economic growth, financial development, applied a positive and statistically significant effect and investment was a significant station through which financial development fed economic growth. The results recommended that to attain stable growth both short and long run policies should be adopted to make sure the development of the financial sector. Thus, the policy recommendations

for greater economic that policy makers should assist the formation of financial institutions to surge credit distribution to the private sector and in rural areas which had difficult and limited access to financial products and services. Further research on this subject should study the probability of discovering causality among financial development index and economic growth.

Chakraborty and Uddin (2009) utilized the co-integration and Granger causality tests to research long-run relationship and the heading of causality between financial development, international trade and real income growth in Bangladesh from 1975 to 2005. This estimation strategy additionally breezed through a battery of diagnostic tests showing dependability of the long run and short run gauges. The results of this research don't uncover any long-run connection between monetary development and budgetary improvement as scaled by cash supply and residential credits, and amongst trades and financial development. Then again, Granger causality test recommends that the export drove development theory can be construed for the Bangladesh economy in the short run. Be that as it may, both export and import development cause changes in the cash supply in the short run. The nexus was unidirectional. Long run GDP development affects salary development in the short run. At long last, this investigation had demonstrated that import development causes an adjustment in the local credit in the short run. The discovery of this paper had vital ramifications for macroeconomic approaches of the country.

### III. The model

Following the methodologies of Ali, (2011), Ali (2015), Ali (2018), Ali and Bibi (2017), Ali and Ahmad (2014), Ali and Audi (2016), Ali and Audi (2018), Ali and Rehman (2015), Ali and Zulfiqar (2018), Haider and Ali (2015), Ali et al., (2016), Ashraf and Ali (2018), Audi and Ali (2018), Ali and Senturk (2019) and Kassem et al., (2019). The functional forms of the models become as:

#### III.I. Financial Inclusion and Economic Growth

$$ECO_{it} = \beta_0 + \beta_1 FIN_{it} + \beta_2 BB_{it} + \beta_3 LR_{it} + \beta_4 M2_{it} + \beta_5 FDI_{it} + \beta_6 GINI_{it} + U_{it} \quad (1)$$

Here

ECO= Economic growth refers to sustained rise in the value of economic activities within a country over a period of time. The Gross Domestic Product (GDP) often comes in handy in measuring the aggregate worth of an economy

FIN= financial development has been measured by the Ratio of Credit to Private Sector to GDP

BB= No. of banks Branches

LR= Loan to Rural Areas as a percentage to total Loan

M2= Broad money as a percentage to GDP

FDI= Foreign Direct Investment as percentage to GDP

GINI= Gini-coefficient as a measure of income inequality

$\beta_0$ = Constant

$U_{it}$ = white noise Error Term

t= time period (1990-2018)

i= number of cross section (Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia)

#### III.II. Financial Inclusion and Economic well-being

$$HWB = \beta_0 + \beta_1 FIN_{it} + \beta_2 BB_{it} + \beta_3 LR_{it} + \beta_4 M2_{it} + \beta_5 FDI_{it} + \beta_6 GINI_{it} + \beta_7 ED_{it} + \mu_t \quad (2)$$

Here

HWB= human well-being has been measured by Human development Index

FIN= financial development has been measured by the Ratio of Credit to Private Sector to GDP

BB= No. of banks Branches

LR= Loan to Rural Areas as a percentage to total Loan

M2= Broad money as a percentage to GDP

FDI= Foreign Direct Investment as percentage to GDP

GINI= Gini-coefficient as a measure of income inequality

ED= Economic Development (growth rate of per capita income)

$\beta_0$ = Constant

$U_{it}$ = white noise Error Term

t= time period (1990-2018)

i= number of cross section (Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia)

The data of selected variables and countries have been taken from World Development Indicators and databases maintained by the World Bank.

#### IV. Results and Discussion

This part of the article is based on results and discussion, this study has examined the impact of financial inclusion on economic growth and human well-being in the case of selected Asian countries. For the empirical analysis pooled regression analysis has been applied. The estimated results of the model 1 has been given in table 1, here we have economic growth as dependent variable, whereas financial development, number of bank branches, loans to rural areas, money supply, foreign direct investment and income inequality have been taken as independent variables.

The results show that financial development has a negative and significant impact on economic growth in the case of Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia. This reveals that 1 percent increase in financial developing in these selected developing countries (-.0980626) percent decrease has been occurred in economic growth. This shows that the level of financial development is not up to the mark which creates a negative influence of economic growth. The results show that the number of bank branches have a positive but insignificant impact on economic growth, the main reasons for this insignificant relationship is that the masses of these countries hold their saving in the form of cash and gold and don't prefer to use banks. So, banks are contributing insignificantly to the economic growth of Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia. The estimated outcomes of the study show that loans to rural areas have a positive and significant impact on economic growth of these selected countries. Around 60 percent population of these countries resides in rural areas and directly or indirectly attached to agriculture, so improvement in rural credit increase the professional and social capacity of the rural population which have a multiplier impact on economic growth. The results show that 1 percent increase in rural loans (0.0809068) percent rise has been occurred in the economic growth of Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia. Money supply has a positive and significant impact on economic growth, the estimated results show that 1 percent increase in money supply (0.0582394) percent increase is occurring in the economic growth of Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia. This show that availability of credit is, how much important for any nation. Foreign direct investment has a positive and significant impact on economic growth of selected nations. The results show that 1 percent increase in foreign direct investment (1.076589) percent increase has been occurred in the economic growth of Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia. Foreign direct investment is attached with new technologies and efficient methods of production. So, rising foreign direct investment has multiplier impact on economic growth of the selected Asian countries. Income inequality has negative, but insignificant impact on economic growth of Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia. The overall results of the model 1 show that selected indicators are playing important role in deciding the level of economic growth in Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia.

**Table 1: Model 1.**

Dependent Variable: ECO				
Sample: 1990 2018				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.499944	2.177418	-1.15	0.253
FIN	-0.0980626	.0251397	-3.90	0.000
BB	0.0218633	.0673943	0.32	0.746
LR	0.0809068	.0301585	2.68	0.008
M2	0.0582394	.0208528	2.79	0.006
FDI	1.076589	.2404342	4.48	0.000
GINI	-0.1564672	.0725157	2.16	0.133
R-squared				0.4136
Adjusted R-squared				0.3824
Prob(F-statistic)				0.0000

In the second model, human well-being has been used as dependent variable, whereas financial development, number of bank branches, loans to rural areas, money supply, foreign direct investment, income inequality and economic development have been taken as independent variables. The estimated outcomes of the model 2 have been given in the table 2. Financial development has a negative insignificant impact on human well-being in the case of selected Asian countries. Number of bank branches have a positive and significant impact on human well-being, the results show that 1 percent increase in the number of bank branches (0.0137785) percent increase has been occurred in human well-being of the selected Asian countries. Loans for the rural areas have a positive but insignificant impact on human well-being of Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia. Money supply has a positive and significant impact on human well-being, the results show that 1 percent increase in money supply (0.0010679) percent increase has been occurring in human well-being in the selected Asian countries over the selected time period. Foreign direct investment has a positive and significant impact on human well-being of the selected countries. The results show that 1 percent increase in foreign direct investment (0.0146941) percent increase has been occurred in human well-being in Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia. Foreign direct investment is attached with higher levels of employment, and this higher level of employment enhances the overall well-being of the masses. Income inequality has a negative and significant impact on human well-being of the selected Asian countries. The results show that 1 percent increase in income inequality (-0.0058322) percent increase has been occurred in economic well-being of Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia. Economic development has a positive and significant impact on human well-being. The estimated results of the study show that 1 percent increase in economic development (0.0090908) percent increase has been occurred in human well-being. The overall estimated results of the model 2 show that selected independent variables are playing important role in deciding human well-being in Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia.

**Table 2: Model 2.**

Dependent Variable: HWB				
Sample: 1990 2018				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	.2754143	.0518319	5.31	0.000
FIN	-0.0010405	.0006338	-1.64	0.103
BB	0.0137785	.0015957	8.63	0.000
LR	0.0002626	.0007361	0.36	0.722
M2	0.0010679	.0005103	2.09	0.039
FDI	0.0146941	.0061745	2.38	0.019
GINI	-0.0058322	.0017512	3.33	0.001
ED	0.0090908	.0022264	-4.08	0.000
R-squared				0.7626
Adjusted R-squared				0.7478
Prob(F-statistic)				0.0000

## V. Conclusions

This article has examined the impact of financial inclusion on economic growth and human well-being in the case of Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia over the period of 1990 to 2018. Panel pooled regression has been applied for the examined the relationship among the selected variables of the model. The results show that financial development has a negative and insignificant impact on economic growth, but it has a negative and significant impact on human well-being in the case of Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia. This show that for the higher level of economic growth and human well-being, these countries should minimize the negative role of financial development. As in case of developed countries higher financial development is attached with higher economic growth and human well-being. Number of bank branches have a positive but insignificant impact on economic growth, but number of bank branches have a positive and significant impact on human well-being. This shows that for higher economic growth and human well-being should be increase at significant level. The study finds that loans to rural areas have a positive and significant impact on economic growth, whereas it has a positive, but

insignificant impact on human well-being in Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia. These findings suggest that for higher economic growth and human well-being loans for rural population should be increased as more than 60 percent population of selected countries is residing in rural areas. Money supply has a positive and significant impact on economic growth and human well-being at the same time. Foreign direct investment has a positive and significant impact on economic growth and human well-being. This suggests that for higher human well-being and economic growth the governments of Pakistan, India, China, Sri-Lanka, Bangladesh and Malaysia should create suitable environment for foreign direct investment. The results show that income inequality has a negative and significant impact on economic growth and human well-being. So, for higher human well-being and economic growth income distribution can be managed, as higher poor population means lower overall human well-being of the country. Economic development has a positive and significant impact on human well-being, this show that economic development can be enhanced for higher human well-being. The study suggests that for higher economic growth and human well-being, financial inclusion is playing an important role in the case of selected Asian countries.

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