



Financial Inclusion and Legal System Quality

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Abstract

This study analysis the correlation between financial inclusion and legal system quality among 27 developed countries from 2004 to 2020 for which data is collected from World Bank Databases. Data is analyzed by doing a full sample survey and sub samples analysis. In full sample analysis our findings reveal a positive correlation between financial inclusion and legal system quality. No of bank branches and ATM's per 100000 is used as proxy for financial inclusion along with some major variables for legal system quality. No of bank branches variable is positively correlated with easy dealing with construction permits and Enforcement of judgment while No of ATM's variable is positively correlated with getting credit, Enforcing contracts, Enforcement of judgment and resolving insolvency in full sample analysis. Same positive correlation is present among most of the variables for the sub samples including G7 Countries, European and Non- European Countries. Thus, it is obvious that both financial inclusion and legal system quality are crucial for each other in order to obtain a higher pace of economic growth.

Keywords: Correlation, Financial inclusion, ATM, bank branches, Legal system quality,

1. Introduction

Improvements in financial and legal systems of a country can enhance its pace of development by providing better business opportunities along with legal protection to businesses. Developed nations are generally categorized as countries that are more industrialized and have higher per capita income levels. An improved legal system and a developed financial system both can help them to achieve targets of economic growth more rapidly. This study aims to find out the correlation between financial inclusion and legal system quality in selected 27 developed countries of the world from 2004 to 2020. These countries are selected due to the availability of data.

Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs. Financial access facilitates day to day living and helps families and businesses

plan for everything from long term goals to unexpected emergencies. (The World Bank) Financial inclusion provides access to financial services such as credit and savings products which people can use to improve their living standard and as of their families. Financial inclusion consists of bringing unbanked population into the formal financial structure in order to ensure that individuals own their personal accounts (Allen et al, 2016). Financial inclusion has positive impacts in order to reduce poverty, financial development, lowering unemployment, gender equality and financial stability (see Li, 2018; Sarma and Pais, 2011; Geng and He, 2021; Manji, 2010; Ghosh and Vinod, 2017; Hanning & Jansen, 2010). Financial Inclusion has been a priority for development policy in many countries of the world as shown by Chibba (2009), Sarma and Pais (2011) and Ozili (2020). Some of the existing research indicated that financial inclusion is positively related to poverty reduction (Chibba, 2009), development and financial access (Alleb et al, 2014) and income equality (Chibba, 2009).

Well-functioning legal and judicial institutions are crucial to economic growth. They define the rules by which markets function and they provide a means to resolve disputes, protect economic and social rights, and hold governments accountable for their actions. Good judicial institutions can contribute to economic growth and development by promoting investment. Legal system quality has become an important topic for researchers as it plays an important role in poverty reduction and development. Legal system quality protects the poor from unfair dealings and exploitation from influential individuals and cooperation's (see Pearson, 1970; Jiong, 2017; Boone, 2019). Khanam (2021) explains that poverty reduction is difficult in the absence of rule of law. Tebaldi and Mohan (2021) presented the positive relationship between rule of law and low poverty.

A well-defined formulation of legal system plays an important role in improving lives and business conditions in a country. Usually a legal system consists of defined rules which are implemented by social or governmental organizations in order to regulate behavior of all those institutions which provide basic financial services to the people. Anderson (2003) showed that legal system provides individuals protect from influential and holds public official accountable.

Financial inclusion and legal system quality both can contribute towards development of economies as both of these ease the pace of development. When legal system quality and the level of financial inclusion both are increased there will be greater access for the underserved individuals of the society to finance and there will be more protection to the underserved members of the society from exploitation and discrimination. Greater sense of protection will improve the productivity of the people which will ultimately increase output. While easy access to finance will provide more resources to the potential members of the society which will also increase output by improving their productivity? Therefore, it is expected that financial inclusion and legal system quality will be positively correlated although nature of each developed economy varies from each other that's why the results may vary from economy to economy as well. Demirguc-Kunt et al (2013) analyzed the relationship between financial inclusion and legal discrimination of women in developing countries and found that in countries where women face legal restrictions in their ability to work, head a household, choose where to live and receive inheritance such women are less likely to own an account, save or borrow compared to men. Thus, it is quite clear that very few studies have investigated correlation between financial inclusion and legal system quality. This study contributes to the literature by filling this gap and also provides some policy implications.

We have applied some proxies in this research to examine the correlation between financial inclusion and legal system quality as supported by (Ozili, 2021). In this study financial access indicators are used as proxies for financial inclusion such as ATM's per100, 000 adults and bank branch per 100,000 adults and using the rule of law index as a proxy for legal system quality alongside other indicators of legal system quality such as Resolving insolvency: Strength of insolvency framework index (0-16), Resolving insolvency: Time (years), Getting credit: Strength of legal rights index (0-10) (DB05-14 methodology) Score, Dealing with construction permits: Procedures (number) Score, Enforcing contracts: Enforcement of judgment (days) and Enforcing contracts: Time (days). For all these variables, data is collected from World Bank (Doing Business Indicator) and World Bank (Global Financial Development Indicators) for selected 27 developed countries as per the availability of data.

This study will make some major contributions to the literature. Firstly this study improves economic development literature by indicating that financial inclusion and legal system quality are contributing tools which will help to increase pace of economic development. A Positive correlation between financial inclusion and legal system quality will definitely help in achieving development outcomes for countries. Secondly, this study will also contribute towards law and development literature. A positive correlation between financial inclusion and legal system quality will show that improvements in legal system can play a major role in order to increase pace of development as it will provide more confidence to the people and will provide them a sense of protection from exploitation which will ultimately increase output. Such policies should be made which improve legal system mechanism as it is important for financially inclusive society.

2. Literature Review

In the theoretical literature, some studies examine the role of law in promoting financial development. La Porta et al (1997) show that in countries where legal systems enforce private property rights, support private contractual arrangements, and protect the legal right of investors, savers are more willing to finance firms and financial markets will flourish. Bottazzi et al (2009) show that investors are willing to support firms' growth only when there is strong legal protection for investors. Lu and Yao (2009) find that enhanced legal system increases the private share of bank credit and bank competition. Claessens and Laeven (2003) argue that, in countries with more secure property rights, firms might allocate resources better and consequentially grow faster as the returns on different types of assets are more protected against competitors' actions. Chinn and Ito (2006) observe that a higher level of financial liberalisation spurs equity market development only if a threshold level of legal development has been attained.

Early law studies show that a legal system can promote social and economic development. Posner (1998) show that modernizing a nation's economic prosperity requires at least a modest legal infrastructure centered on the protection of property and contract rights. Davis and Trebilcock (2008) show that law is an important factor in determining social or economic outcomes particularly in developing societies. Levine (1998) and Zhiwu (2003) and

Dam (2007) show that legal institutions matter for economic growth and development.

In the financial inclusion literature, there is some consensus that financial inclusion leads to better development outcomes. For instance, Ardic et al (2011) find that a larger number of accounts and a larger number of bank branches per adult are associated with a greater percentage of banked households, thereby leading to higher financial inclusion. Raza et al (2019) find a positive relationship between financial inclusion and economic development; specifically, an increase in the number of bank branches (per 100,000 people) have a positive relationship with the human development index while increase in the number of automated teller machines per 1,000 km² (per cent) has a negative relationship with the human development index. Ozili (2018) and Gabor and Brooks (2017) show that digital-based financial inclusion leads to improvements in the welfare of households and banked adults. Financial inclusion also has positive effects for poverty reduction, financial development and financial stability, as shown by Li (2018), Sarma and Pais (2011), Geng and He (2021), and Hannig and Jansen (2010). Despite the evidence presented in these studies, the literature has not examined the relationship between financial inclusion and legal system quality. This paper fills this research gap.

3. Research Design

3.1. Data

The data for 27 developed countries subject to its availability is collected from World Bank Databases (Doing Business Indicator & Global Financial Development Indicators). The sample period is from 2004 to 2020 at a yearly frequency. Subsamples are also made from this data set in order to check the correlation between financial inclusion and legal system quality for sub samples consisting G7 countries, European and Non-European countries.

3.2. Variable Description

The two major financial inclusion variables used in this study are considered to be financial access indicators namely the ATM's per100000 adults variable and the bank branch per 100000 adults variable. These two variables have been widely applied as measures of financial access and measures of financial inclusion by several studies

in the literature such as Neaime and Gaysset (2018), Emara and El Said (2021) and Ozili (2021). The legal system quality indicators are Resolving insolvency: Strength of insolvency framework index (0-16), Resolving insolvency: Time (years), Getting credit: Strength of legal rights index (0-10) (DB05-14 methodology) Score, Dealing with construction permits: Procedures (number) Score, Enforcing contracts: Enforcement of judgment (days) and Enforcing contracts: Time (days). Data for the financial inclusion and legal system quality variables is collected from the World Bank databases (World Bank, Doing Business indicator & Global financial Development Indicators). A detailed description of the variables is shown in the following table.

Table 3.1: Detailed variables descriptions

Table 3.1: Variables descriptions			
	Indicator Name	Description	Source
RIS	Resolving insolvency : Strength of insolvency framework index (0-16)	The strength of insolvency framework index measures the legal framework applicable to judicial liquidation and reorganization proceedings and the extent to which best insolvency practices have been Implemented in each economy covered by the Doing Business. This index ranges has four components, the commencement of proceedings index, management of debtor’s assets index, reorganization proceedings index And creditor participation index.	World Bank, Doing Business indicator
RI	Resolving insolvency : Time (years)	The time to resolve insolvency captures the time for creditors to recover their credit and is recorded in calendar years. Potential delay tactics by the parties, such as the filing of dilatory appeals or requests for Extension, are taken into consideration.	World Bank, Doing Business indicator
GC	Getting credit: Strength of legal rights	It shows the specific score to get credit from a specific source. The index uses the values (0-10) where 0 is the lowest value and 10 is the highest value showing more opportunities to get credit.	World Bank, Doing Business indicator

	index (0-10) (DB05-14 methodology) - Score		
CM	Dealing with construction permits: Procedures (number) – Score	It indicates the procedures in number terms to deal with construction permits. The index uses the values (0-10) where 0 is the lowest value and 10 is the highest value.	World Bank, Doing Business indicator
EJ	Enforcing contracts: Enforcement of judgment (days)	It explains the time for enforcement of a judgment which is measured in days, as how many days will be required to enforce a judgment.	World Bank, Doing Business indicator
ECT	Enforcing contracts: Time (days)	It explains the time for resolving a commercial dispute through a local first-instance court.	World Bank, Doing Business Index
LEGAL	Rule of Law	Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. Estimate gives the country's score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5.	World Governance Index (WGI)
BR	Bank branches	The number of commercial bank branches per 100,000 adults	World Bank, Global

	Per 100,000 Adults		Financial Developmen t Indicators
ATM	ATMs per 100,000 adults	The number of automated teller machines per 100,000 adults. It provides banked adults with access to finance in a public space	World Bank, Global financial Developmen t Indicators

3.3. Methodology

In order to check correlation between financial inclusion and legal system quality the Pearson correlation test statistic is applied which is widely used to check the strength of linear correlation between two sets of data in the economics and development literature (for example King and Levine, (1993), Benesty et all (2009), Gujarati et all (2012), Wang et all (2018), Paraschiv (2017) and Xu et all (2020)). The Pearson correlation test statistic measures the strength of the correlation between two variables or datasets (Gujarati et all 2012). In the correlation analysis the correlation coefficients and the associated p-values are reported at 1%, 5% and 10% levels of significance.

4. Results Full Sample Analysis

4.1. Full Sample Analysis

4.1.1. Mean Values of whole sample

Table 4.1.1 indicates mean values of all variables for whole sample survey and among these variables legal variable (Rule of law)) have the lowest mean value while ect variable (Enforcing contracts: time) have the largest mean value.

Table 4.1.1: Mean Values of whole sample.

	Mean	Std. Err.	[95% Conf. Interval]	
ngc	6.111111	.2545021	5.603648	6.618574
ncm	11.95833	.4644808	11.03219	12.88448
natm	207.7917	14.26359	179.3509	236.2325
nbb	221.8056	14.21664	193.4584	250.1527
ect	601.9028	31.75269	538.5897	665.2158
ej	126.4861	8.011826	110.511	142.4612
ris	11.96528	.1629054	11.64045	12.2901
ri	1.681944	.1059521	1.470682	1.893207
ri	1.681944	.1059521	1.470682	1.893207
legal	1.379358	.0652924	1.249169	1.509548

4.1.2. Full Sample Correlation Analysis

Full sample survey is presented in table 4.1.2 in detail. In table 4.1.2 it is indicated that nbb variable is positively correlated with ect and ej variables and both of these variables are statistically significant showing that there is more number of bank branches in countries where there is more easy dealing with construction permits and Enforcement of judgment. While nbb variable is negatively correlated with ncm, ngc, ris, ri and legal variables and among these variables ngc is the only statistically significant variable which implies that more number of bank branches are associated with less opportunities of getting credit. On the other hand, natm variable is positively correlated with ngc, ect, ej and ri variables and all of these variables are statistically significant. While natm variable is negatively correlated with ncm, ris and legal variables and all of these variables are statistically significant. It implies that there are more atm's available in countries which have lower levels of dealing with construction permits, strength of resolving insolvency and rule of law.

Table 4.1.2: Full Sample Analysis (Pearson Correlation Results)

	nbb	natm	ncm	ngc	ect	ej	ris
nbb	1.0000						
natm	0.1437 0.0039	1.0000					
ncm	-0.0001 0.9982	-0.1637 0.0020	1.0000				
ngc	-0.1338 0.0320	0.1238 0.0483	0.2970 0.0000	1.0000			
ect	0.3163 0.0000	0.2739 0.0000	-0.4376 0.0000	-0.3372 0.0000	1.0000		
ej	0.1994 0.0053	0.3300 0.0000	-0.5798 0.0000	-0.2345 0.0443	0.7615 0.0000	1.0000	
ris	-0.0149 0.7610	-0.2131 0.0000	-0.0087 0.8635	0.2685 0.0000	0.0063 0.8953	0.1127 0.0881	1.0000
ri	-0.0042 0.9329	0.1588 0.0015	-0.4784 0.0000	-0.0587 0.3467	0.2795 0.0000	0.3962 0.0000	-0.0726 0.1289
legal	-0.0300 0.5399	-0.1909 0.0001	0.5823 0.0000	0.4272 0.0000	-0.5289 0.0000	-0.6648 0.0000	0.1773 0.0001

	ri	legal
ri	1.0000	
legal	-0.5638 0.0000	1.0000

4.2. Regional Results (Sub Samples Results)

4.2.1 G7 Countries

Table 4.2.1 indicates mean values of all variables for G7 countries and among these variables ri (Resolving insolvency: time) have the lowest mean value while ect (Enforcing contracts: time) variable have the largest mean value for G7 countries.

Table 4.2.1: Mean Values of G7 Countries sample.

	Mean	Std. Err.	[95% Conf. Interval]	
legal	1.415413	.1363213	1.123033	1.707793
ri	1.313333	.1249254	1.045395	1.581272
ris	12.23333	.4222013	11.3278	13.13887
ej	126.8667	21.20509	81.38627	172.3471
ect	600.6	81.10398	426.6493	774.5507
nbb	49.73333	9.059311	30.30304	69.16362
natm	49.13333	7.893859	32.20269	66.06398
ngc	4.666667	.4101877	3.786901	5.546432

4.2.2. G7 Countries Correlation Analysis

Sample analysis of G7 countries is presented in table 4.2.2. In this table nbb variable is positively correlated with ect, ej and ri variables and all of these variables are statistically significant which implies that there are more number of bank branches in countries where there is more enforcement of contracts, judgment and resolving insolvency timely. While nbb variable is negatively correlated with ncm, ngc, ris and legal and all of these variables are statistically significant which implies that larger number of bank branches is associated with difficult procedure of getting construction permits, credits, weak strength of resolving insolvency and rule of law. On the other hand natm variable is positively correlated with ect, ej and ri variables and among these variables ect and ej are statistically significant showing that greater availability of atm's is associated with better enforcement of judgment and Procedures of dealing with construction permits. While natm variable is negatively correlated with ncm,ngc, ris and legal variables and among these variables only legal variable is statistically significant which indicates that more availability of atm's is linked with less rule of law.

Table 4.2.2: G7 Countries Analysis (Pearson Correlation Results)

	nbb	natm	ncm	ngc	ect	ej	ris
nbb	1.0000						
natm	0.1107 0.2990	1.0000					
ncm	-0.2226 0.0501	-0.1882 0.1034	1.0000				
ngc	-0.4107 0.0028	-0.0422 0.7710	0.4938 0.0003	1.0000			
ect	0.5665 0.0000	0.4846 0.0000	-0.3580 0.0005	-0.3049 0.0264	1.0000		
ej	0.5134 0.0003	0.7236 0.0000	-0.5265 0.0000	-0.2511 0.3310	0.9568 0.0000	1.0000	
ris	-0.2515 0.0100	-0.1266 0.2142	-0.0979 0.3558	0.4311 0.0013	-0.0889 0.3813	0.0090 0.9461	1.0000
ri	0.6575 0.0000	0.0492 0.6607	0.1444 0.1721	-0.2425 0.0801	0.4258 0.0000	0.5094 0.0000	-0.1805 0.0738
legal	-0.7343 0.0000	-0.2899 0.0038	0.3345 0.0012	0.3801 0.0050	-0.8377 0.0000	-0.8398 0.0000	-0.0012 0.9898

	ri	legal
ri	1.0000	
legal	-0.6582 0.0000	1.0000

4.2.2. European Countries

4.2.2.1. Mean Values of European Countries

Table 4.2.2.1 indicates mean values of all variables for European countries and among these variables legal (Rule of law) have the lowest mean value while ect (Enforcing contracts: time) variable have the largest mean value for European countries.

Table 4.2.2.1: Mean Values of European Countries.

	Mean	Std. Err.	[95% Conf. Interval]
ngc	6.145161	.274846	5.595573 6.69475
ncm	10.87097	.4765711	9.918005 11.82393
natm	169.4355	12.85372	143.7329 195.1381
nbb	186.0968	12.19322	161.7149 210.4786
ect	633.3065	34.7725	563.7745 702.8384
ej	129.9516	9.023221	111.8086 147.9947
ris	12.08871	.1775785	11.73362 12.4438
ri	1.783871	.1168684	1.549978 2.017764
legal	1.353267	.0728279	1.207638 1.498895

4.2.2.2. European Countries Analysis (Pearson Correlation Results)

Sample analysis of European countries is presented in table 4.2.2.2. In this table nbb variable is positively correlated with ncm,ect and ej variables and among these variables ect and ej are statistically significant which implies that there are more number of bank branches in countries where there is more Enforcement of contracts and judgments. While nbb variable is negatively correlated with ngc, ris and legal among these variables only ngc variable is statistically significant which implies that larger number of bank branches is associated with difficult procedure of getting credit. On the other hand natm variable is positively correlated with ngc,ect, ej and ri variables and all of these variables are statistically significant except ri variable showing that greater availability of atm's is associated with easily getting credit, enforcing contracts and enforcement of judgment. While natm variable is negatively correlated with ncm, ris and legal variables and among these variables ris and legal variables are statistically significant which indicates that more availability of atm's is linked with weak Strength of Resolving insolvency and less rule of law.

Table 4.2.2.2: European Countries Analysis (Pearson Correlation Results)

	nbb	natm	ncm	ngc	ect	ej	ris
nbb	1.0000						
natm	0.1978 0.0003	1.0000					
ncm	0.0147 0.7993	-0.0800 0.1611	1.0000				
ngc	-0.1421 0.0328	0.1395 0.0369	0.2951 0.0000	1.0000			
ect	0.3089 0.0000	0.2388 0.0000	-0.4156 0.0000	-0.3385 0.0000	1.0000		
ej	0.2448 0.0019	0.3102 0.0000	-0.6004 0.0000	-0.2912 0.0206	0.7629 0.0000	1.0000	
ris	-0.0498 0.3582	-0.2256 0.0000	0.0434 0.4309	0.3068 0.0000	0.0294 0.5715	0.1356 0.0628	1.0000
ri	-0.0119 0.8264	0.0506 0.3487	-0.4753 0.0000	-0.0151 0.8207	0.2524 0.0000	0.3609 0.0000	-0.0800 0.1223
legal	-0.0603 0.2663	-0.1465 0.0064	0.6134 0.0000	0.4223 0.0000	-0.5773 0.0000	-0.6825 0.0000	0.2083 0.0000

	ri	legal
ri	1.0000	
legal	-0.5479 0.0000	1.0000

4.2.3. Non-European Countries

4.2.3.1. Mean Values of Non-European Countries

Table 4.2.3.1 indicates mean values of all variables for Non-European countries and among these variables ri (Resolving insolvency:time)) have the lowest mean value while ect (Enforcing contracts: time) variable have the largest mean value for Non-European countries.

Table 4.2.3.1: Mean Values of Non-European Countries.

	Mean	Std. Err.	[95% Conf. Interval]	
bb	24.73019	1.261413	22.1463	27.31408
atm	201.8949	10.70362	179.9695	223.8203
ri	1	.0635563	.8698107	1.130189
ris	11.48276	.1961494	11.08096	11.88455
cm	75.86207	.7289309	74.36892	77.35522
ej	101.3793	7.356578	86.31004	116.4486
ect	454.1379	37.93587	376.4298	531.846

4.2.3.2. Non-European countries (Pearson Correlation Analysis)

Sample analysis of Non-European countries is presented in table 4.2.3.2. In this table bb variable is positively correlated with legal, ris, ect and gc and all of these variables are statistically significant except ect variable which implies that there are more number of bank branches in countries where there is rule of law, strong resolving insolvency and more opportunities of getting credit. While bb variable is negatively correlated with ri, cm and ej variables and all of these variables are statistically significant which implies that larger number of bank branches is associated with less resolving insolvency difficult construction permits procedures and enforcement of judgments. On the other hand atm variable is positively correlated with ri, cm and ej variables and all of these variables are statistically significant showing that greater availability of atm's is associated with resolving insolvency, dealing with construction permits procedures and enforcement of judgment. While atm variable is negatively correlated with legal, ris, ect and gc variables and among these variables legal, cm and gc variables are statistically significant which indicates that more availability of atm's is linked with less rule of law, difficult dealing with construction permits procedures and getting credit.

Table 4.2.3.2: Non-European Countries Analysis (Pearson Correlation Results)

	bb	atm	legal	ri	ris	cm	ej
bb	1.0000						
atm	-0.9278 0.0000	1.0000					
legal	0.4418 0.0001	-0.3874 0.0010	1.0000				
ri	-0.7193 0.0000	0.7028 0.0000	-0.8092 0.0000	1.0000			
ris	0.4204 0.0001	-0.1904 0.1172	-0.2999 0.0053	0.0969 0.4425	1.0000		
cm	-0.4866 0.0002	0.4001 0.0053	-0.3040 0.0193	0.4561 0.0003	-0.7149 0.0000	1.0000	
ej	-0.7218 0.0000	0.7534 0.0000	-0.1169 0.4665	0.2550 0.1076	-0.0552 0.7317	-0.0690 0.6682	1.0000
ect	0.0932 0.4905	-0.0889 0.5268	0.6632 0.0000	-0.6174 0.0000	-0.2407 0.0534	-0.3506 0.0065	0.5672 0.0001
gc	0.8920 0.0000	-0.8223 0.0000	0.7133 0.0000	-0.4780 0.0057	-0.4651 0.0073	-0.2109 0.2721	-0.6816 0.0209

	ect	gc
ect	1.0000	
gc	0.2741 0.1290	1.0000

5. Conclusion

In this study we have analyzed the correlation between financial inclusion and legal system quality by using Pearson correlation test for a selected sample of 27 developed countries. The data for 27 developed countries subject to its availability is collected from World Bank Databases (Doing Business Indicator & Global Financial Development Indicators). The sample period is from 2004 to 2020 at a yearly frequency. Subsamples are also made from this data set in order to check the correlation between financial inclusion and legal system quality for sub samples consisting G7 countries, European and Non-European countries.

The two major financial inclusion variables used in this study are considered to be financial access indicators namely the ATM's per100,000 adults variable and the bank branch per 100,000 adults variable. These two variables have been widely applied as measures of financial access and measures of financial inclusion by several studies in the

literature such as Neaime and Gaysset (2018), Emara and El Said (2021) and Ozili (2021). The legal system quality indicators are Resolving insolvency: Strength of insolvency framework index (0-16), Resolving insolvency: Time (years), Getting credit: Strength of legal rights index (0-10) (DB05-14 methodology) Score, Dealing with construction permits: Procedures (number) Score, Enforcing contracts: Enforcement of judgment (days) and Enforcing contracts: Time (days). Data for the financial inclusion and legal system quality variables is collected from the World Bank databases (World Bank, Doing Business indicator & Global financial Development Indicators).

Full sample survey it is indicated that nbb variable is positively correlated with ect and ej variables and both of these variables are statistically significant showing that there is more number of bank branches in countries where there is more easy dealing with construction permits and Enforcement of judgment. On the other hand, natm variable is positively correlated with ngc, ect, ej and ri variables and all of these variables are statistically significant. For G7 countries no of bank branches is positively correlated with enforcement of contracts, judgment and resolving insolvency timely. While no of ATM's variable is positively correlated with better enforcement of judgment and Procedures of dealing with construction permits. Similarly positive correlation is observed among European and Non-European countries sub samples analysis.

The implication of the observed positive correlation between financial inclusion and legal system quality is that financial inclusion objectives and legal system quality are complements in improving development outcomes. The complementary benefits can help to ensure that formal finance is not only accessible to all members of society, but also ensure that users of formal finance have the legal protection they need to protect them from being exploited by providers of formal financial services. Law makers should find innovative ways to strengthen existing legal institutions to preserve the people in society while financial authorities should ensure that formal financial services are accessible to all members of society and ensure that providers of

financial services comply with existing laws that protect customers in the formal financial sector.

Thus, both financial inclusion and legal system quality play a crucial part in an economy. Improvements in one sector can cause improvements in the other one. So, authorities should consider this important point that financial inclusion and legal system quality both are supporting for each other.

6. References

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