

Financial Inclusion and cooperative performance nexus: pre-pandemic evidence in the Philippines

Julie Ann M. Lustan

Faculty Bicol University, Legazpi City

<https://orcid.org/0009-0001-3648-8779>

Abstract: The study aims to determine the influence of financial inclusion on cooperative performance. The study utilized panel data from the 15 regions in the country and for the years 2014 to 2019. The study descriptive analysis for the regional and national level of financial inclusion and of cooperative performance. To analyze the influence, the study utilized correlation analysis. The results show that the financial inclusion of the regions is not similar with each other as to the movement of the indicators. This is also like the trend in cooperative performance. For the influence, all the financial inclusion indicators were found to have positive correlation with cooperative performance except for the unbanked LGUs. However, the relationship is not significant at .05 and at .1 confidence level. The study recommends further improving financial inclusion initiatives and improving the management of cooperatives to improve their profitability.

Keywords: banks, cooperatives, management, profitability, return on assets

I. Introduction

Financial inclusion has been one of the identified key factors driving economic growth as suggested by international investigations (Rastogi & Ragabiruntha, 2018 cited UFA, 2015; Sethi & Acharya, 2018). Countries with high levels of financial inclusion enhance their ability to obtain credit, acquire savings for investments and meet health emergencies, therefore reducing poverty. (Balasubramanian et al, 2019; Fomum & Jesse, 2017).

The ability to access and avail financial products and services aids to help reduce poverty. The acquired products and services are invested in human capital and entrepreneurial activities. Financial inclusion is considered as an important aspect in the international initiatives for economic and social growth. Policy makers embarked on the benefits of this strategy which were found out to promote stronger economic growth and lessen inequality and poverty. Previous published studies focused on the effects of financial inclusion direct and mediating role to enhance economic growth. Association of Southeast Asian Nation (ASEAN) is the third largest economy in Asia and seventh in the world. It is composed of ten member countries which are Brunei Darussalam, Cambodia, Indonesia, Laos, Myanmar, Malaysia, Philippines, Singapore, Thailand, and Vietnam. The regional converge for the primary goal of promoting economic, cultural, and social development. Despite the condition variation among the member countries, ASEAN continues to develop policies to promote inclusive growth. ASEAN further come up with initiatives for more inclusive economic convergence in the region in 2007 (UNCDF, 2013). These are mainly focused on the labor market, goods and services market and capital market.

In the Philippines alone, the level of financial inclusion is being encouraged to be increased and congruent to the ASEAN aspirations. The Bangko Sentral ng Pilipinas (BSP) continues to come up with initiatives towards financial inclusion which not only measures having of bank account for savings but also having people and business to have access to loans, investment services, remittance or payment facilities and insurance among others. With the challenge posed to increase the level of financial inclusion, studies were focused primarily on the demand side of the financial inclusion such determinants, characteristics, and barriers of financial inclusion across various setting locale e.g., economies, countries and regions (Shihadeh & Liu, 2019).

To increase access to financial services, generally banks are the ones expected to carry out this responsibility in the financial system. Banks primarily increase the number of branches with the aim of attracting more customers and enhancing gains for financial services. However, banks have limitations in their penetration to certain areas and limit their role in financial inclusion. Hussaini and Chibuzo (2018) cited that one of the reasons for financial exclusion is the distance from the bank branches in most rural areas which makes it more expensive and hard clients to have access to financial services.

In the past years, financial inclusion has gained interest from scholars. Hossain (2016) cited that international research highlighted the relationship between financial inclusion and economic growth or poverty. Studies had also implied that financial inclusion does not only promote economic activity (consumption and investment) stimulation but also social reforms to deprived and vulnerable sectors of society. These include access to education and health services. Countries with a low level of financial inclusion are deemed to be more problematic. Countries with high levels of financial inclusion enhance their ability to obtain credit, acquire savings for investments and meet health emergencies, therefore reducing poverty. (Balasubramanian et al, 2019; Fomum & Jesse, 2017). The demand side financial inclusion effects analysis has covered wider perspectives and are more prominent. However, studies on the supply side effects of financial inclusion evidence are under investigated. The result of the studies on the regional and national level of the effects of initiatives for enhancing financial inclusion this study is unestablished.

With the involvement of cooperatives to deposit mobilization and capital formation provides opportunities for micro entrepreneurs to acquire funding who usually get denied application for loans. Through cooperatives' initiatives in providing accessible financial services to micro and small entrepreneurs the objective of rapid, inclusive, and sustained economic growth especially in the deprived and unserved areas---rural and agriculture areas are created. The steady improvement shown in the financial sector has been attributed also to the active participation of medium and large cooperatives.

Chungyas and Carala (2018) unveiled the financial performance of cooperatives in Ifugao which showed that the results were favorable in terms of liquidity, profitability and operating efficiency. Cooperatives should be alarmed with the status of their leverage since they are exposed to high financial risk. Sarsale (2020) investigated the financial health of selected cooperatives in the country. It revealed that large cooperatives are more at risk as compared to small and medium cooperatives. Through ratio analysis, the study suggested the need for the management of cooperatives to further review their financial health. The study conducted by Cammayo (2020) on the financial performance of cooperatives in Cagayan Valley revealed that there is a high chance of bankruptcy. The results of the financial analysis conducted showed unsatisfactory results. It further showed the existence of differences among the financial performance of the cooperatives in the provinces in Cagayan Valley.

One of the agenda of the Ambisyon 2040 is that Philippines become a middle-class society and that no one is poor. The prosperous society is achieved by prioritizing the sectors that have a direct impact in achieving the AmBisyon. One of the key sectors is the financial services that focuses on individual and business financing and including the provision of insurance (AmBisyon Natin, 2016). With the present study, this would provide additional input on the significance of the presence of cooperatives to channel financial services and in return they would be able to gain insights on its impact on their sustainability.

The result of this study may be relevant to enhance financial inclusion initiatives by national and local government agencies. Specifically, on channeling the roles played by intermediaries and benefactors. The results are relevant to the improvement of cooperative performance as this study would delineate the status and be able to be assessed by certain factors that are related to its performance.

Projects and policies relevant to the promotion of financial inclusion and cooperative performance may use the results of the study. Particularly this study provides enhancement in the specific indicators for financial inclusion and improving financial viability cooperatives. For the academe, additional investigations that would cover both financial inclusion and firm performance would add to the existing literature. Furthermore, this study seeks to determine the influence of financial inclusion on cooperative performance in the Philippines which aims to have greater financial inclusivity and improve cooperative movement.

Materials and Methods

The study utilized quantitative research design. The presentation of the cooperatives was based on their characteristics. The data were assessed for final analysis. Regions which have a complete set of data were included in the analysis.

The study used secondary data from various sources. Most of the data were from the published reports from the Cooperative Development Authority (CDA) and Bangko Sentral ng Pilipinas (BSP). The data were collected and analyzed from 2014 to 2019. All the cooperatives' classifications were included in the analysis. This period covers the implementation of the mandate to cooperatives in contributing to financial inclusion. It covered all the types of cooperatives, the data from each of the regions published by CDA on their website. For financial inclusion the data was sourced from the reports on the website of BSP. The data were gathered first and were subject to cleaning to ensure that only data with complete sets were subject for analysis.

To present the summary of the financial inclusion and financial performance of the cooperatives descriptive statistics will be utilized. The arithmetic mean shall be computed to describe the numerical attributes of the data either financial or non-financial.

For the trend of the dependent and independent variables, the study utilizes graphical presentation for the analysis for the covered period. Graphs will be presented to determine the changes in the variables. The graphical presentation was done to present the per region analysis and then followed by the presentation of the national trend for both financial inclusion and financial performance.

To determine the effect of financial inclusion on financial performance of cooperatives, the study employed correlation analysis. The correlation analysis determines the extent of the level of correlation based on the proposed independent to the dependent variable. This is done using the panel data. The panel data was the per region data of financial inclusion and performance from year 2014 to 2019.

Table 1. Definitions of Variables

Variable	Measurement
Dependent	
Return on Assets	Net Surplus/ Total Assets
Independent	
Bank per 10,000 adults	Number of banks per 10, 000 adults
ATMs per 10,000 adults	Number of ATMs per 100 000 adults
Banked LGUs	Number of LGUs with at least one banking office
Unbanked LGUs	Number of Unbanked LGUs
Banks per 100 sqm	Number of banks per 100 sqm
Deposit Accounts	Number of deposit accounts
Amount of deposits	Total amount of deposits
Account deposits per 10,000 adults	Number of deposit account per 10, 000 adults

II. Results and Discussion

The summary of statistics (Table 1) revealed that the return on assets as the indicator of financial performance of the cooperatives has an average of 4.9%. The results indicate that on the overall country average cooperative performance is low. Furthermore, this indicates that cooperatives should increase efficiency in utilizing assets to generate income.

The financial inclusion indicators, Banks per 10,000 adults has an average of 1.49; ATMs per 10,000 adults has an average of 2.26; Unbanked LGUs has an average of 29.58; the Banks per 100sq km has an average of 55.39311; the deposit accounts has an average of 3.73 million; for deposit amounts there is an average of P7.36 billion; and for deposit per 10,000 adults there is an average of P6,838. The results revealed that the country on average must work on financial inclusion access, especially on the number of banks and ATMs and unbanked LGUs. The usage indicators imply encouraging results particularly on the deposit per 10,000 adults which revealed that 60% of the adults have deposits.

Table 1
Financial Inclusion Indicators and Cooperative Performance in the Philippines, 2014-2019

Variable		Mean	Std. Dev.	Min	Max
Return on Assets	Overall	.0490666	.0460445	-.0465116	.433371
	Between		.0224659	.0181092	.1187255
	Within		.040543	-.0196589	.3637121
Banksper10000adults	Overall	1.489789	.8307246	.591	4.02
	Between		.8496092	.6985	3.913333
	Within		.0939151	1.284789	1.804789
ATMsper10000adults	Overall	2.259333	1.833099	.75	8.83
	Between		1.871232	.9616667	8.361667
	Within		.2354961	1.377667	2.727667
UnbankedLGUs	Overall	29.57778	22.50692	0	104
	Between		20.58334	0	85.83333
	Within		10.32904	-26.25556	58.24444
Banksper100sqkm	Overall	55.39311	185.5428	1.81	793.2
	Between		190.6716	2.225	744.47
	Within		10.62747	-10.06689	104.1231
DepositAccounts	Overall	3727222	5746569	720000	2.95e+07
	Between		5824656	836666.7	2.35e+07
	Within		1001216	243888.9	9723889
DepositAmounts	Overall	7.36e+11	1.83e+12	4.46e+10	8.90e+12
	Between		1.85e+12	7.83e+10	7.37e+12
	Within		3.27e+11	-7.20e+11	2.26e+12
Depositfor10000adults	Overall	6838	5622.815	2291	30749
	Between		5716.616	2792	25733.17
	Within		878.8037	4108.833	11853.83

Shown in Table 2 is the correlation results of The correlation between the financial inclusion indicators revealed that Banks per 10,000 adults is positively associated with cooperative performance. The ATMs per 10,000 adults have a positive relationship to cooperative performance. These two are the primary access indicators of financial inclusion. This implies that when access to financial services increases cooperative performance also increases. Meanwhile, the Unbanked LGUs indicators show a negative correlation to the cooperative performance. This result is expected since this variable has an inverse relationship to the dependent variable. The result implies that when the number of unbanked local government units decreases, the cooperative performance will increase. The last access financial inclusion indicator has a positive relationship, the Banks per 100 sq km. This means that when the number of banks increases per 100sq km, the cooperative performance also increases.

For the usage of indicators, all have positive correlation to the cooperative performance. This implies that when the number of deposit accounts increases, the number of deposits increases and the number of deposits per 10,000 adults increases, cooperative performance also increases.

However, the correlation of the financial inclusion indicators to cooperative performance is not significant at .05 or even at .1 confidence level. This further implies that cooperative performance is not significantly influenced by financial inclusion indicators. The operational generation of profitability of cooperatives will not be influenced by the extent of an increase or decrease in the level of financial inclusion in the country.

Table 2
Correlation Matrix of Financial Inclusion Indicators and Financial Performance, 2014-2019

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) ROA	1.0000							
(2) Bp10	0.0911	1.0000						
	0.3929							
(3) ATMsp10	0.0544	0.9521*	1.0000					
	0.6108	0.0000						
(4) UnbLGU	-0.1356	-0.4431*	-0.4206*	1.0000				
	0.2026	0.0000	0.0000					
(5) Bnk100sqkm	0.0420	0.7969*	0.9056*	-0.3580*	1.0000			
	0.6943	0.0000	0.0000	0.0005				
(6) DepAccount	0.0508	0.9191*	0.9705*	-0.3906*	0.9372*	1.0000		
	0.6346	0.0000	0.0000	0.0001	0.0000			
(7) DepAmount	0.0435	0.8307*	0.9316*	-0.3646*	0.9869*	0.9645*	1.0000	
	0.6838	0.0000	0.0000	0.0004	0.0000	0.0000		
(8) Depp10kadults	0.0557	0.9513*	0.9843*	-0.4052*	0.9152*	0.9788*	0.9411*	1.0000
	0.6018	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	

III. Conclusions and Recommendations

The results show that the average profitability using ROA as indicator reveals that the country’s average of 5%. This implies a low level of efficiency in cooperatives. As to financial inclusion indicators, it shows that there is a need for additional initiatives to improve financial inclusion access. In terms of usage indicators, the result implies a good representation.

For the relationship of financial inclusion indicators to cooperative performance, the results show that all the indicators have a positive relationship to cooperative performance except for unbanked LGUs indicator. The correlation shows further that the expected relationship was evident in the variables of the study, however, the influence is not significant. The result implies that financial inclusion does not significantly have relationship with cooperative performance.

The study recommends that the results of the study be utilized by the cooperatives as to the extent of their involvement in the promotion of financial inclusion. As for further research undertaking, the study should also provide an avenue for deepening the analysis of the relationship between financial inclusion and cooperative performance.

The study's findings can be used to improve policies and develop and implement activities in line with promoting financial inclusion and enhancing cooperative performance. Emphasis should be placed on the conduct of initiatives that would be able to benefit agencies that provide relevant inputs in increasing access and availability to financial services to enhance financial inclusion and provide inputs to regulatory agencies that governs cooperative development in the country.

The stakeholders may gain valuable inputs that will also emphasize the importance of creating an enabling environment for programs to conduct financial inclusion initiatives and managing for improving financial performance in cooperatives. This enabling environment will provide additional opportunities to improve the delivery and content of programs that would aid in policy formulations for cooperative efficiency and financial inclusion.

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