

Financial Inclusion through Digital Financial Services, 2010

Where should financial services in the Philippines expand to next?

Introduction

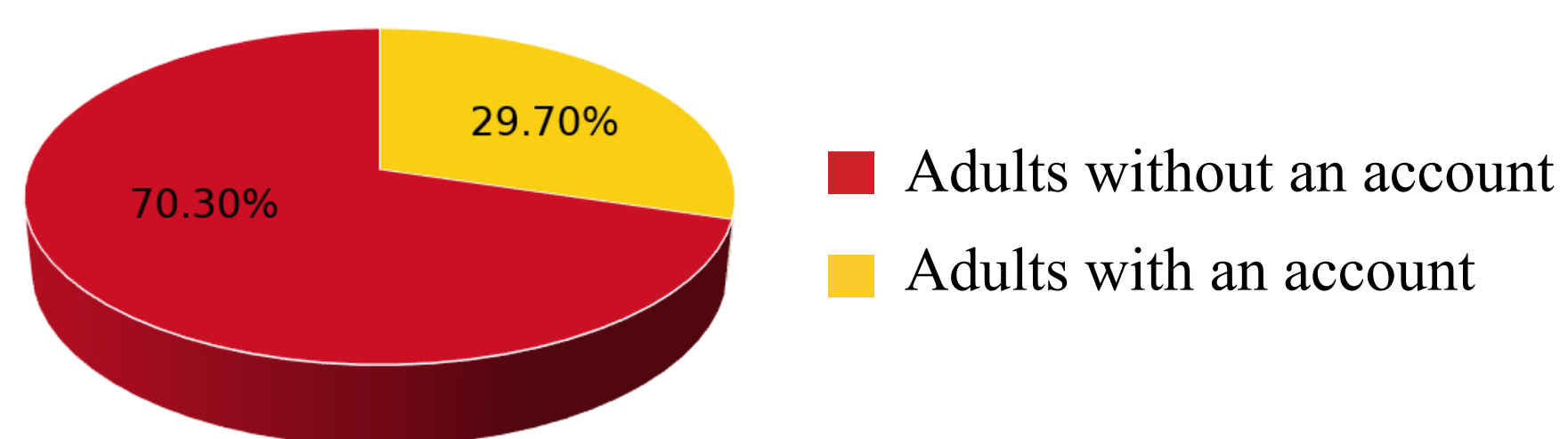
Lack of access to financial services is a major obstacle to individuals and businesses in developing countries such as Philippines. Along with being one of the poorest countries in Southeast Asia, Philippines has some of the lowest levels of access to financial services in the world with only 29.7% of the adult (above 25 years) population having access to financial products in 2011. As a result, most Filipinos are forced to turn to unregulated and unsustainable channels such as moneylenders, community-based assistance groups and unregulated pawnshops.



In contrast to the number of unbanked, the Philippines has a high mobile usage rate. According to the International Data Corporation, it is the fastest growing smartphone market in Southeast Asia. This unleashes tremendous opportunities for financial service providers to reach the unbanked and increase access to those who only have access to one or no formal financial institution in the past. If the regulated financial institutions in Philippines were to invest in digital financial services and expand their customer base, they would first need to know exactly where their competition are located and where the demand. This step is critical for the Philippine government that has identified financial inclusion as an important strategy for inclusive growth, especially to reach the poor unbanked population.

The primary goal of this project is to identify areas where formal financial institutions can expand their services targeting areas that currently have low or no access but have poor (unbanked) population and high mobile coverage.

Financial Inclusion of Adult Population (above 25yrs)



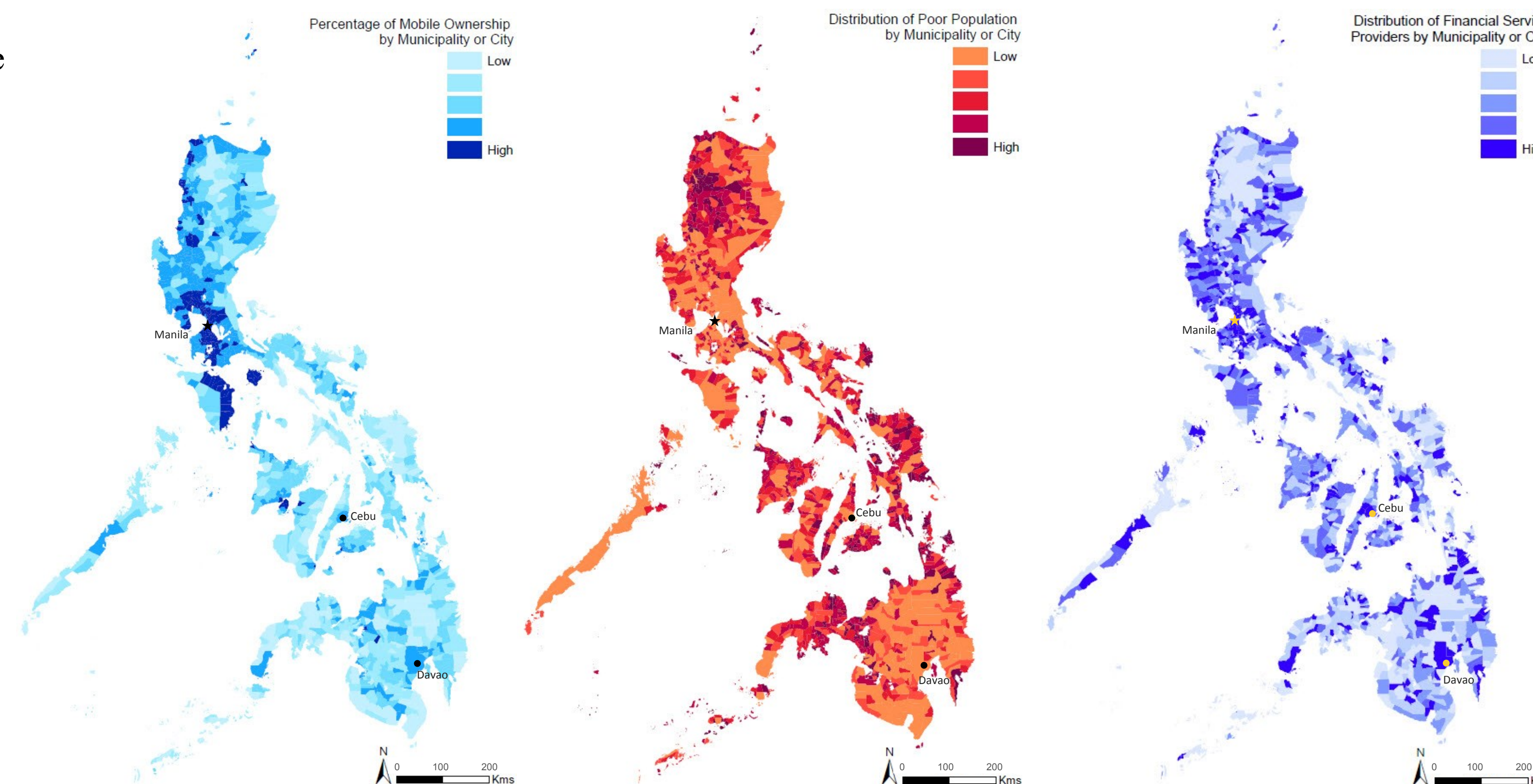
Key Spatial Questions

1. What areas of Philippines have high mobile ownership?
2. What populated areas have low or high access to financial services?
3. What are the least served areas that mobile financial services could specifically target to increase financial inclusion in Philippines?
4. What is the spatial distribution of the poor in Philippines and what is the coverage like in those areas by formal financial institutions?

Methodology

In order to identify areas where formal financial institutions can expand their services leveraging mobile usage among poor (unbanked) population, I conducted four stages of analysis. First, I created a mobile ownership index based on 2010 Philippines census data. By using number of mobile owned by households and the total number of households in each municipality/city, I

ranked all municipalities/cities and created the coverage of mobile ownership in the country. Secondly, I created a poverty index including key variables that indicate a household's income and expenditure such as total income, ownership of other household devices such as radio, TV, computer, motorcycle, etc. and ownership of land. Based on the ranking in this index, I created the poor population density in the country. Thirdly, I combined information on all financial service providers in the country and their access points including pawnshops, post office, commercial banks, and ATMs. I used this data and the total population in each municipality/city to rank all the municipalities/cities and create the distribution of financial service providers in the country. Finally, I combined the rank of each municipality/city from all three indices namely, the percentage of mobile ownership, density of poor population and percentage of financial service providers, to identify the municipalities/cities with highest density of poor population, medium to high mobile ownership and low access to financial areas.



Results

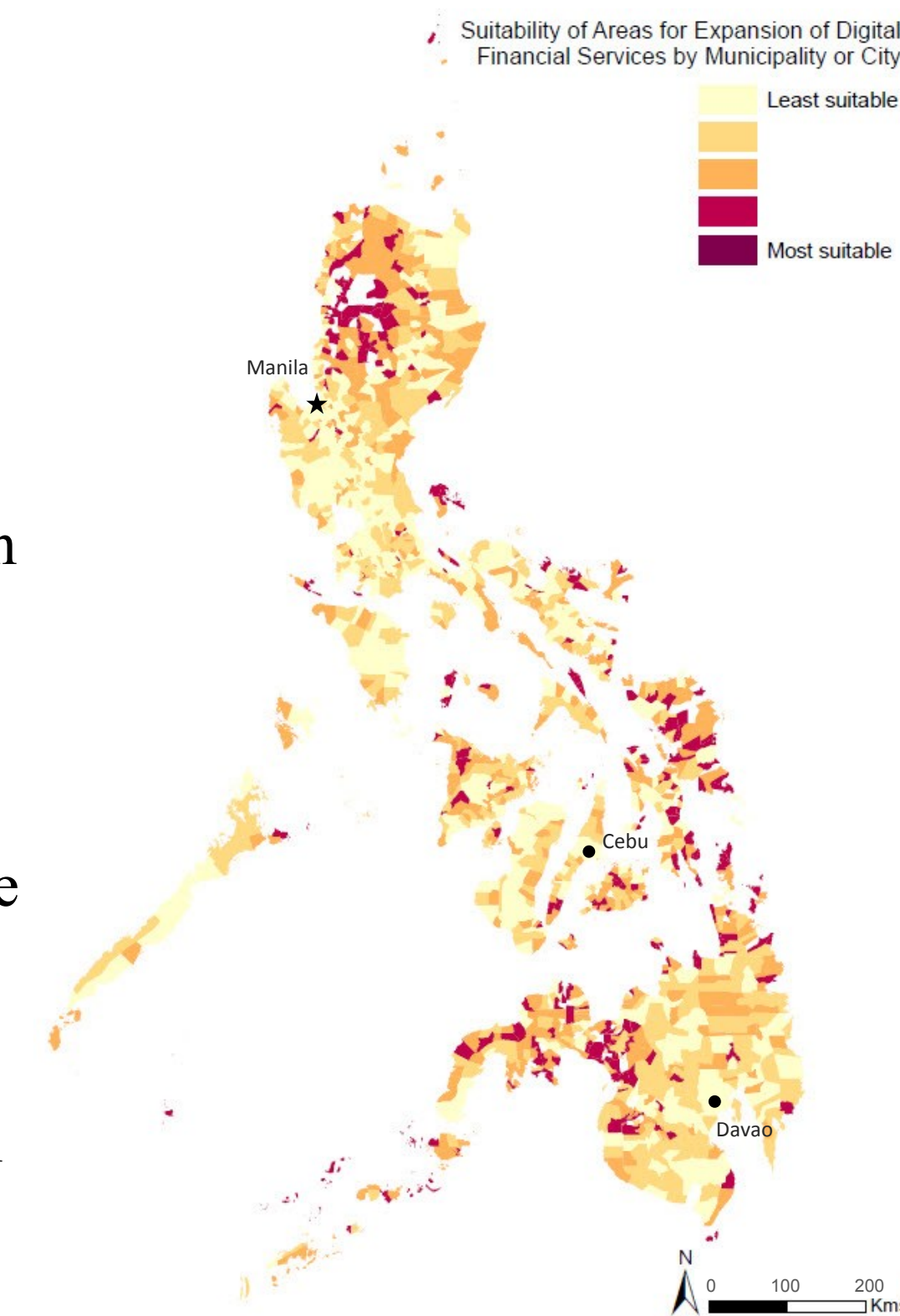
One of the key findings of this analysis is that formal financial institutions tend to concentrate in highly populous and urbanized areas. Cities had significantly higher access to financial service providers than municipalities. Additionally, although this analysis is not sufficient to establish a causal relationship, it does demonstrate a clear pattern of low distribution of financial service providers in areas with high poor population density. Similarly, it also found a pattern of low mobile ownership in areas with high poor population density.

Based on the combination of the three indices used in this analysis, I was able to identify 135 municipalities with high density of poor population, medium to high mobile coverage and low access to financial services. The top ten of those municipalities with highest density of poor population are presented in the table.

Recommendations

The findings of this analysis demonstrate how poor population tend to be excluded from formal services—in this case, mobile phones as well as financial services. However, low access to financial services in areas with high poor population density indicates tremendous opportunities for financial service providers to expand their customer base in these areas by reaching the poor population who have not (yet) been targeted by their competitors. If financial service providers are able to develop digital financial products usage

leveraging mobile phone and specifically target areas with high poor population density, this may be an effective strategy to increase financial inclusion of the country.



Municipality	Province	Total Households	Total Population
Maimbung	Sulu	5,013	28,445
Panglima Estino	Sulu	4,050	27,711
Mamasapano	Muguiddanao	3,568	22,354
Lugus	Sulu	3,652	19,839
Tigbao	Zamboanga del Sur	3,935	19,276
Pantar	Lanao del Norte	3,114	18,440
Esperanza	Sultan Kudrat	3,913	17,357
Zumarraga	Samar	3,107	16,936
Lumbatan	Lanao del Sur	2,617	16,719
Kabuntalan	Muguiddanao	2,560	16,794

Limitations

A major limitation that I experienced in this project was gathering data on the geographic location of all the financial service providers in the country, especially remittance agents, mobile banking agents and credit cooperatives. As a result, the distribution presented here may be an underestimation of access to financial services actually available in 2010.

Projection: WGS UTM Zone 51N, Transverse Mercator (Linear Unit: Meter)
Data Sources: Philippines Statistics Authority; Humanitarian Data Exchange (HDX); OCHA Philippines; The World Bank Group; Database of Global Administrative Areas (GADM); Microfinance Information Exchange
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