A Reassessment of the Drivers of Economic Informality in Peru
Opportunities in Mobile Application Technology

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By

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A REASSESSMENT OF THE DRIVERS OF ECONOMIC INFORMALITY IN PERU OPPORTUNITIES IN MOBILE APPLICATION TECHNOLOGY

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ABSTRACT

Economic informality is the biggest obstacle in Peru’s formal business environment, particularly for its largest actors: micro, small, and medium enterprises (MSMEs). As such, current levels of informality threaten the sustainability of Peru’s formal labor force and enterprises. Two case studies of the most important hybrid clusters, The Gamarra Market and Villa el Salvador and Villa Maria del Triunfo, in Lima illustrate the ways in which the increasing trend towards greater informality impedes entrepreneurial competitiveness. Financial Inclusion forms the basis for a gradual, dynamic conversion to full economic citizenship. This thesis finds that there is a unique opportunity to build formal relationships between those in the informal sector and formal financial institutions through mobile technology. Mobile financial ecosystems can allow for sectoral strategies to not only achieve financial inclusion but also promote and incentivize economic formalization in the long-term.
“Your work is to discover your work and then with all your heart to give yourself to it”
-Buddha

The research and writing of this thesis
is dedicated to
My mother, sister, and father whose love and support are always with me.
Barbara Kotschwar, Erick Langer, Paul Weaver, Joseph Lynch, Kristyn Brown, The Heymanns
and all those who have helped along the way.

Many thanks,
Alana Maria Marsili
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“LIMA, Peru — As Chinese-made motorcycle-taxis try to avoid minivans on the chaotic and dusty outskirts of Peru’s capital, Lima, a glossy and incongruent structure rises amid the street stalls and shanties: a new shopping mall.

“Soon, everything will be possible here,” reads a banner.”

-- Schipani, 2013, Financial Times and Washington Post
Chapter I: Introduction

This thesis analyzes the issue of economic informality and offers an alternative approach to formal market conversion in Peru. Historically, the process of converting informal markets to formal markets, otherwise referred to as formalization, is not unknown - take as an example black market trade in Russia after the collapse of the former Soviet Union – and the way in which conversion takes place differs from country to country based on the unique circumstances of each. Formalization within the circumstances unique to the Andean region and within those unique to Peru in particular, has been addressed by theorists, such as Victor Tokman, Norman Loayza, and Hernando de Soto, among others. However, recent developments, which this thesis will explore, require that the question of formalization in Peru be revisited. This thesis provides a renewed look at and alternative assessment of the informal market in Peru and, on this basis of this analysis, offers policy recommendations for the Peruvian case moving forward.

Peru has one of the most informal economies in the world (Chapter II). The term economic informality is used to describe all enterprises and productive activity that occurs outside of the government’s legal and social protection. In the nineties, Peru underwent a series of legal and regulatory reforms to make its formal market more accessible by the populace. A broad base of Peru’s society before the nineties participated in an extralegal system. Extralegal systems refer to all assets, entities, and productivity that occur outside of the formal legal system. Structural reform was led by the Institute of Democracy and Labor (ILD) and was successful in the creation of a formal property rights system. Extralegal land was converted into formal assets that could be used as collateral in Peru’s formal banking system. Reforms during this time were also successful in reducing the costs, requirements, and time associated with
registering a business, which has brought thousands of enterprises into the formal sector over the last two decades.

Despite reform successes, Peru’s economic informality persists on a large scale, suggesting that beyond law and regulation other factors continue to maintain and fuel its informal economy. Through the assessment of three other popular perspectives on informality, I argue that Peru’s informality is the result of a strong network that historically acted as a social safety net and provider of work opportunity for the formally excluded, unemployed, and rural migrants in urban cities, particularly Lima. Trusted and familiar informal network systems can be used to explain the economic informality in Peru that remains impregnable to the legal and regulatory means of formalization.

Over 70 percent of Peru’s formal labor force and formal enterprises have cited competition from the informal sector as the biggest challenge to their businesses. Competition against unregistered and informal firms was the number one obstacle for formal firms operating in Peru’s business environment. Informal sector competition spans a multitude of industries and sectors, which include: textiles and garments; food; chemicals, plastics, and rubber; basic metals, fabricated metals, machinery & equipment; other manufacturing; retail; and other services (World Bank Enterprise Surveys, 2010).

In 2102, Peru was one of the fastest growing economies in Latin America. Peru’s economic growth and market opening have contributed to greater socioeconomic mobility and the entrance of multinational companies to service a new consumer market in Lima and urban areas throughout Peru. Investments in the construction of new housing and retail infrastructure to support an emerging consumer market in Lima has the potential to threaten the sustainability of
two of Lima’s most important hybrid formal and informal markets, The Gamarra Market and Villa el Salvador and its co-cluster, Villa Maria del Triunfo. The Gamarra Market has long been the preferred shopping center for the majority of Lima’s populace and is home to the city's most notable concentration of formal and informal micro, small, and medium enterprises (MSMEs). Peru’s formal labor force is part of the rising consumer class that is expected to move into the newly constructed homes and shop at newly constructed shopping centers. The construction demand has been serviced by the hybrid formal and informal carpentry cluster, Villa el Salvador. The emergence of multinational shopping centers threatens the sustainability of Gamarra’s formal enterprises if they continued to feel pressured by informal firms within the cluster, whom are also at risk with the new market competition. The pressure formal MSMEs are experiencing from informal firms and their potential losses to multinational market competition could have an effect on their future socioeconomic mobility. Formal MSME workers make up a large portion of Lima’s mobile socioeconomic classes, if they are unable to purchase new homes, a housing bubble could translate into losses for the carpentry cluster, Villa el Salvador, as they are the primary service for the construction boom.

Endogenous to economic informality is the challenge posed by a lack of financial inclusion (Chapter III). Peruvian participation in formal banking is among the lowest in Latin America. Tied to the issue of financial inclusion is the issue of informal credit. This thesis argues from the perspective that economic informality has created an endogenous informal credit system. Economic informality encompasses an informal credit system, however, in the current discussion, informal credit will be referred to as a separate entity in order to highlight a primary argument of this thesis: namely, that informal credit acts as the glue in the informal system,
without which the system would collapse, and in so doing it maintains a privileged function/position in the informal economy with regard to all other aspects of that economy. On these grounds, tackling the informal credit system stands out as a unique and efficient way to broadly begin to deconstruct economic informality. Peru’s formal enterprises in Lima depend upon a solution for a reduction in the competition they experience from an exacerbated informal economy.

Mobile phones, as information and communication technology providers, create a broad basis for a platform in which mobile applications can be used to develop initiatives that promote economic formality in various industries and sectors. Mobile technology has recently become the developing world’s most popular tool for formal financial inclusion (Chapter IV). A study by Vodafone found that 50 percent of M-Pesa, a popular mobile finance project in Kenya, had never used a formal bank before the introduction of the product. In 2013, the Peruvian government passed legislation that supported mobile technology as bridge to social and financial inclusion. Peru has yet to test any mobile banking projects with its unbanked population, however, 100 percent of the population has a cell phone and 65 percent of those subscribers are assumed to be banking informally. This thesis recommends that initial policy should support the creation of a mobile financial ecosystem. Once an ecosystem of mobile financial users has been established and formal bank relationships created, policy should begin to explore the ways in which mobile applications can assist in incentivizing formalization. This thesis offers a framework for mobile applications that extend beyond social to economic functions and provides mobile application examples that could be used to assist in incentivizing broader formal
conversion in The Gamarra Market and The Villa el Salvador and Villa Maria del Triunfo clusters.

Peru’s current level of informality could be detrimental to the growth of its formal sector if informal sector levels are not reduced (Chapter V). The reforms led by the ILD and carried out by the Peruvian Government have made the formal sector more welcoming for the majority of the Peruvian population. Lima provides the most immediate opportunity for formalization within large clusters of enterprise that, at present, are competing within their very own structures and restricting growth potential. This thesis offers an alternative approach to addressing economic informality, incorporating formal financial inclusion, to begin to create relationships between a broad base of the informal sector and Peru’s formal financial institutions. These relationships can be used as the foundation for sequentially targeted initiatives by formal stakeholders in areas where formality would have the most lasting benefits for the welfare of the citizens and the health of the economy. This thesis recognizes that within and outside of urban areas, Peru will most likely maintain a hybrid model, as is the case throughout the region. However, this thesis argues from the position that the disadvantages of the current levels of economic informality for the overall populace outweigh any benefits that may be associated with informality. Using mobile platforms as a tool to incentivize key informal sectors to begin processes of formalization will have benefits for a multitude of formal sectors in the Peruvian economy.
Context

Peru has one of the most vibrant upper middle income economies in the world today. As a result of an export-led mining boom, driven by an industrializing Asia and the 2008 global economic crisis (Figure 1), Peru’s was one of the fastest growing economies in Latin America in 2012.

Figure 1. GDP growth (annual %), 2012

Source: World Bank World Development Indicators database.

Mass migrations throughout the last century have driven the majority of the population to major cities, with the most notable growth in the capital city, Lima. Peruvian Economist, Hernando de Soto, found that in 1940 two out of every three people lived in the countryside,
whereas, by 1981 two out of every three people were living cities (de Soto, 1989). In 1940 less than 10 percent of the population was living in Lima; that number has more than tripled to one-third of the population in 2013 (De Soto, 1989). Since the 1980s, changes in Peru’s macroeconomic model and increasing opportunities in the city, continued to drive urban immigration. As a result, since the eighties, urban agglomerations of one million or more have nearly doubled (World Bank Development Indicators, 2013).

Urban growth is being met by well-targeted social and economic programs that support and expand Peru’s middle class. Peru’s current President, Ollanta Humala, committed his administration to reducing the poverty rate and allowing for more socioeconomic mobility and the growth of a middle class. For example, President Humala has set in motion a two-prong plan to reduce Peru’s poverty rate to 15 percent by 2015 by, on the one hand, using socially targeted conditional cash transfer programs (CCTs) and, on the other hand, increasing minimum wages and pensions.

In less than a decade Peru has been successful in halving poverty, with 28 percent of the reduction following the introduction of the CCT, Juntos, in 2005 (Figure 2). Juntos (Together), is a CCT government program that provides cash to the poorest families based on the following criteria: recipients must have children under the age of 14, must enroll their children in school

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1 De Soto uses a number of indicators to explain the mass migration during the 1940-1980s. He attributes some of the main drivers of migration to be: the construction of highways, new modes and forms of communication, the agricultural crisis, a civil war in the countryside, better wage earnings in the city, more employment opportunities, and the amenities and the general comforts that city life offered

2 New forms of communication allowed migrants to see that in Lima and other large cities that infant mortality rates were lower there was greater access to healthcare and better education.

3 In 2010, Peru mined $18 billion worth of minerals, which accounted for 12 percent of the country’s gross domestic product (GDP). Peru used its mining wealth to invest in sustainable development initiatives that aided in the socioeconomic mobility of its urbanizing population.
and have them vaccinated, and pregnant mothers are required to utilize mandatory pre- and post-natal healthcare programs. Juntos, has grown exponentially in 5 years, reaching more than half of Peru’s 25 departments and 20 times the number of recipient households since its introduction.

The table below (Table 1) shows the program’s growth by years in terms of departments, provinces, districts, and number of recipient households reached.

Figure 2. Peru Poverty Headcount Ratio at National Poverty line (% of population)

Source: World Bank World Development Indicators database.
TABLE 1. Growth of Juntos CCT by year and by sub regional entity, 2005-2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Departments</th>
<th>Provinces</th>
<th>Districts</th>
<th>Number of Recipient Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>4</td>
<td>26</td>
<td>70</td>
<td>22,550</td>
</tr>
<tr>
<td>2006</td>
<td>9</td>
<td>67</td>
<td>320</td>
<td>159,224</td>
</tr>
<tr>
<td>2007</td>
<td>14</td>
<td>115</td>
<td>638</td>
<td>353,067</td>
</tr>
<tr>
<td>2008</td>
<td>14</td>
<td>115</td>
<td>638</td>
<td>420,491</td>
</tr>
<tr>
<td>2009</td>
<td>14</td>
<td>115</td>
<td>638</td>
<td>420,574</td>
</tr>
<tr>
<td>2010</td>
<td>14</td>
<td>115</td>
<td>638</td>
<td>468,136</td>
</tr>
</tbody>
</table>

Source: Adapted from Juntos (www.juntos.gob.pe).

President Humala has also committed to improving conditions for the labor sector. In 2013, after Peru increased minimum wages for the 7th time in a decade, Labor Minister, Jose Villena, said, “The only way to defeat poverty is by multiplying dignified work opportunities for all working-age Peruvians” (Peruvian Times, 2012). The average minimum wage has grown 14.5 percent annually in the past 20 years and 6.2 percent annually in the past decade (Figure 3). Lima’s average monthly wages have continued to surpass the country’s averages as a whole, which provides a partial explanation for the consistent pattern of migration to the country’s capital (Figure 4).
Figure 3. Peru Yearly Minimum Wage, 1991-2013

Source: INEI PERU, Instituto Nacional de Estadística e Informática.

Figure 4. Average Monthly Wages in Lima Compared to the National Aggregate, 2004-2012

Source: INEI PERU, Instituto Nacional de Estadística e Informática.
The program Juntos and Peru’s rising incomes are contributing to a continuous stable growth pattern of poverty reduction, socioeconomic mobility, and an emerging middle class. By 2011, the middle class in Peru grew from 15 percent to 20 percent of the population (Pozo-Vergnes, 2013). Access to more disposable income at the base and middle of the pyramid has propelled household consumption. In Lima, by 2012, daily food needs were estimated to be 2,500 tons of cereal, 4,000 tons of vegetables and tubers, 2,125 tons of fruit, and 1,615 tons of milk (Minges 2012; Cáceres-Barrantes, 2012).

Supermarkets and formal retailers are aiming to service this growing consumer demand; however, the majority of Peru’s formal enterprises and formal economically active population face the competition of a large informal sector. Formal micro, small, and medium enterprises (MSMEs) are Peru’s most important labor segment, accounting for 72 percent of Peru’s formal economically active population (Cáceres-Barrantes, 2012). In 2010, 73 percent of formal Small, Medium, and Large (SML) enterprises in Peru’s food sector cited competition against unregistered or informal firms as a major constraint to their enterprise, according to the World Bank Enterprise Surveys. Although the informal grocery retail sector has existed in Lima for centuries, recorded statistics did not begin to emerge until much later. In 1989, Peruvian Economist Hernando de Soto discovered that 60 percent of grocery retail sector was carried out in an informal or extralegal\(^4\) sector.

Today, the informal sector continues to be the primary produce provider for migrants and low-income citizens in Lima and throughout principal cities in the provinces. Low-income consumers and migrants are now part of Peru’s rising middle class, yet they have established

\(^4\) Extra-legal refers to those whom operate outside of a legal system.
relationships with informal vendors and enterprises and are reliant on the informal credit that the vendors have long been providing to them. Larger multinational supermarkets recognizing the importance of the informal sector to the majority of consumers in Lima have contributed to informal growth and credit distortions. For example, the Chilean supermarket Tottus, has vertically integrated informal produce markets and created their own credit system in low-income neighborhoods. Research found that the credit system for multinational companies accounts for a large share of their retail profits (Cáceres-Barrantes, 2012).

While increasing channels of retail credit offerings for consumers is beneficial to an emerging middle class economy, in Peru, multinational involvement in the credit system and the informal produce supply chain – which receives multinational support – complicates the actions Peru’s formal MSMEs are able to take in order to compete with the informal sector. The provision of credit would make MSMEs competitive against multinational companies and the informal sector, both of whom provide credit for consumers. However, formal MSMEs are traditionally not large enough or capital intensive enough to provide credit systems to their customers. The food sector is one of many hybrid formal and informal sectors that continue to challenge the sustainability of Peru’s formal micro, small, and medium enterprises.

The strength of the informal sector’s enterprise and credit system gives insight to a sophisticated extralegal web of economic relations that govern the productivity of 60 percent of the country’s GDP. What is most puzzling about the active role that informal and retail credit systems have in low-income and migrant communities is that Peru has one of the best formal financial systems in the world, which includes commercial banking, microfinance, and regulated institutions (EIU, 2011). Despite the strength of formal credit and microfinance, Peru has among
the lowest formal banking participation rates in South America, which can be explained by the fact that credit provision is taking place in the informal sector (World Bank FINDEX, 2011).

Recent opportunities for socioeconomic mobility and the sustainability of Peru’s growing middle market require a reassessment of two fundamental economic challenges Peru is facing: economic informality and formal financial inclusion. Initiatives and reforms to increase economic formality and formal financial inclusion have acted as a chicken and egg problem for economists and policy makers. The two entities are endogenous, yet have often received isolated solutions. Peru began tackling its challenges with economic informality and formal financial inclusion in the eighties through a series of regulatory, financial, and legal reforms incited by the seminal work of Hernando de Soto.

Hernando de Soto established a framework that sparked thirty years of dual sector reforms – one set of reforms in the legislative and regulatory environment and the other set of reforms in the commercial banking system. Throughout the nineties, former Peruvian President

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5 In Peru the term used to describe formal financial inclusion is bancarazation. Bancarazation refers to the use of and access to formal financial services.

6 De Soto’s reform focus on legislative and procedural changes has yielded many positive results for the formal market. His famed works, The Mystery of Capital and The Other Path, brought global attention to Peru’s economic informality in the eighties. He argued that the success of growth and entrepreneurship in the United States was largely built from the integration of extralegal agreements into a unified formal property rights system. De Soto asserted that the formal property rights system could be used by the informal sector and micro entrepreneurs as the basis for formal financial inclusion, which would translate into business investments and credit provision. Economists have argued that collateral used for formal financial inclusion is a mechanism that not only expands market opportunities, but fosters technological progress and innovation for MSMEs (Schumpeter, 1985; King and Levine, 1993). In 1987, the think tank De Soto founded, Institute of Democracy and Liberty (ILD), estimated Peru’s informal property market to be full of “dead capital” valued at $80 billion dollars. Dead capital is all land holdings that lack a legal title. De Soto argued that this capital could be transformed into legal structures and used as a guarantee for formal bank loans. De Soto contended that for as long as extralegal systems locked capital into an informal sector, a developing economy would not be able to grow past subsistence and that, furthermore, the informal sector’s dwellers and workers would remain precluded from the formal banking system and other formal opportunities.
Alberto Fujimori successfully implemented a multitude of regulatory and formal market business reforms. During his presidency, a more inclusive formal property rights system was established, bureaucracy was simplified, and the judicial system was strengthened. In less than 30 years, regulatory and legal reforms have resulted in $6.3 million in legal titles, brought 380,000 enterprises into the legal system, generated 560,000 legal jobs, resulted in a red tape cost savings of $254 million, and an increase in tax revenues by $300 million per year, resulting in $10 billion of net benefits to the poor, according to the ILD (McKechnie, 2006). In 2012, Peru was ranked the second friendliest country in Latin America for Doing Business (World Bank Doing Business Indicators, 2012).

Fujimori has also been credited with the creation of the microfinancial sector. Prior to the eighties, most of the credit provision in Peru was through informal channels, with the exception of a few poorly designed state-led and underfunded non-governmental organization (NGO) lending projects. The need for a formal credit system that would service the new legal property market was an integral part of reform planning for the government in the eighties and the nineties. Peru began commercial bank reform through a series of bilateral partnerships between commercial banks and NGOs. In 1998, Fujimori created the first commercial bank dedicated to microfinance, MiBanco. In 2010, Peru’s microfinance climate ranked the best in the world for the third time consecutively by the Economic Intelligence Unit. By 2011, Peru had the greatest number of commercial bank branches and geographic branch coverage in Latin America (World Bank FINDEX, 2011; Mas, 2008). In 2013, the country had over 72 regulated microfinancial
and commercial bank institutions and 2,400 bank agents (the fourth largest bank agent network in the world) (MarketMix, 2013).  

Peru’s remarkable thirty-year tale of regulatory, legal, and financial reforms still bears a large underbelly of economic informal sector that is not engaging in formal finance. In 2013, Peru was the third most informal country in Latin America and the sixth most informal country in the world. Informal economic productivity accounts for over 60 percent of Peru’s GDP (BBVA, 2013). In 2013, only 28 percent of adults received formal bank loans as a percent of GDP and only 22 percent of microfinance’s target market had an outstanding loan at least one of the regulated institutions (MarketMix, 2013; AQ, 2013).

This thesis will revisit root causes of economic informality and formal financial inclusion in order to ascertain why, despite the positive results from well-targeted reforms, the informal sector remains large and formal financial institutions exclusive. On the basis of this analysis the second part of this thesis will offer policy recommendations. The thesis argues in favor of the position that economic formalization is a sequential and gradual process. As such, the process is a continuum and not all industries and sectors will follow the same path or process, nor will they achieve the same outcomes. This thesis finds that economic citizenship is necessarily preceded by a phase of formal financial inclusion. Economic citizenship is used to refer to the perspective of the individual or enterprise engaged in formal processes provided by the state, which can include legal employment and the registration of their business. Economic formality is used to

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7 As a result of commercial and microfinancial reforms, Lima’s migrant district, Los Olivos, underwent formal conversion. In the nineties, the Los Olivos district was overrun with economic informality and informal credit providers. By 2010, the district had 18 formal financial institutions along three city blocks that specialized in services for low-income earners and the entrepreneurial segment of the population. The conversion has resulted in overall positive growth for the district (Webb, 2010).
refer to the perspective of the state, whereby productivity is within the legal and social protection of the government. Between a formal relationship with a bank and the degrees of economic formality the steps and processes will differ from country to country. As Chen (2012) observes, formalization should be seen as an on-going process with incremental steps and alternative dimensions that lead toward varying degrees and types of formality. Peru’s broader institutional environment has shown all of the necessary improvements in its policy environment, trade terms, and legal frameworks for an accessible and friendly formal market. The persistence of a large informal sector that threatens the competitiveness of the formal sector suggests the need for alternative approaches to the dimension in which formalization is addressed. This thesis argues from the position that the informal credit system is a pillar that supports Peru’s economic informality. Efforts in formal financial inclusion stand out as a unique and efficient way to begin to deconstruct one of the tenets of economic informality. Formal financial inclusion can be viewed as a primary step in a sequential process, whereby economic citizenship could be an end result for various individuals in the informal sector. Providing incentivizes to increase formalization for various sectors of informal industries is pertinent to the sustainability and competitiveness of 72 percent of Peru’s formal labor force and over 80 percent of its micro, small, and medium enterprises who’s biggest challenge is unregistered or informal firms (World Bank Enterprise Surveys, 2013; Cáceres-Barrantes, 2012).

Buttressed by the first section (chapters II-III) of this thesis the second part of this thesis (chapters IV-V) offers just such an alternative solution to a primary and necessary step in deconstructing economic informalitity through formal financial inclusion, using mobile technology. The Peruvian government recently passed legislation that encourages mobile
banking platforms to promote social and financial inclusion. The conclusion of this thesis provides a framework for which Peruvian banks and the government can use to direct policy initiatives. It has been estimated that 65 percent of the Peruvian population is banking informally and the country’s mobile penetration has reached 100 percent. Mobile phones demonstrate a clear path for bringing formal financial services to a greater share of the Peruvian population through mobile technology (BMI, 2013). Formal financial inclusion forms the basis for a continuum to economic formality, which will be necessary to protect the growth and sustainability of three-quarters of Peru’s formal labor force and registered enterprises.

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8 Mobile penetration refers to the number of active mobile users.
Chapter II: Economic Informality

Informality is a pervasive and persistent economic feature of most developing economies; this chapter will begin with an overview of the concept of economic informality. The chapter will use a theoretical and empirical analysis to best illustrate the multidimensionality of the informal economy. The chapter will shed light on the heterogeneity within the informal economy, which should be kept in mind for various types of ways policy can address informality within an industry or sector. For example, Economic Informality: The concept demonstrates the various typologies of informality, Economic Informality and Peru: Empirical data and theoretical analysis, then further disaggregates these typologies into type of informal employment, industry, and gender that also can be applied to the assessment of the informal economy. De Soto and the Legalist Perspective 30 years of reform, accounts for the structural reform Peru has underwent to reduce barriers to entry in the formal market as well as the progress the country has made in becoming a hospitable formal business environment for enterprises. Gamarra’s formal enterprise growth after 1993 can be attributed to these reforms and will be discussed at length in the next chapter. The Multidimensionality of Economic Informality in Peru: Root causes uses four perspectives to show the roots of the informal sector and perspectives that better illustrate the persistence of the informal economy despite positive wider institutional reforms. These perspectives will provide a framework of analysis for the two cluster case studies discussed in Chapter III, The Gamarra Market and Villa el Salvador – Villa Maria del Triunfo.
Economic Informality: The concept

Informality is an umbrella term that has been used to describe the heterogeneity of economic activities partially or fully outside of the ken of government regulation, taxation, and observation (World Bank, 2013). Informality’s size, value, and global importance have revived an interest by scholars, policy makers, and governments in formalizing the sector. The World Bank (2013) finds that there are various reasons why governments would be concerned about a large informal sector, with evidence showing that informality can have significant and potentially negative consequences for a society and its institutional parts. A large informal sector can undermine social cohesion, disrupt law and order, result in incomplete coverage of formal social programs, contribute to losses in formal economic competitiveness and growth, and result in fiscal losses for a government as a result of undeclared economic activity. The World Bank postulates that for most governments, these concerns outweigh any advantages that the informal sector offers as a source of job creation and as a safety net for the poor. Guillermo Perry and William Maloney’s (2007) report, Exit and Exclusion, support the position of the World Bank and find that informality hinders a country’s true economic growth potential and fails to keep up with rising standards of social well-being. Their report finds that informality is corrosive to the integrity of society and has a negative impact on productivity and welfare. Chen (2012) argues that there are multi-dimensional benefits of formality, which extend beyond registering and paying taxes for formal workers and enterprises. Formal workers and formal firms enjoy legal and social protections, such as, tax holidays and incentive packages as well as rights to organize and have a representative voice in rule-making and policy processes.
The complexity of defining the informal sector has presented obstacles in its analysis and study (Perry and Maloney, 2007). In August 2012, Martha Alter Chen of the Women in Informal Employment Globalizing and Organization (WIEGO) released a comprehensive report on the informal economy, which brings up to date the definitions, theories, and policies being used worldwide to understand the sector. There are three official statistical definitions of informality that have often been used interchangeably and inconsistently. In 1993, The International Conference of Labor Statisticians (ICLS) defined the informal sector as the production and employment that takes place in unincorporated small or unregistered enterprises. In 2003, the conference expanded the definition to informal employment as employment without legal and social protection—both inside and outside the informal sector. The most recent definition of the informal economy references all units, activities, workers, and the output from them, together forming a broad base of the workforce and economy, both nationally and globally. Below, Table 4, shows the typologies of employment that can be found within the informal sector or can constitute as informal employment within the formal economy.
<table>
<thead>
<tr>
<th>Licit Typologies of Informality</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary and Secondary Activities</strong></td>
<td>Farmers and market gardeners, building/construction contractors, miners, artisans, shoemakers, tailors, and beer-alcohol brewers</td>
</tr>
<tr>
<td><strong>Tertiary Enterprises with Relatively Large Capital Inputs</strong></td>
<td>Housing, transport, utilities, and commodity speculation</td>
</tr>
<tr>
<td><strong>Small-Scale Distribution</strong></td>
<td>Market operatives, petty traders and street hawkers, caterers in food, bar attendants, carriers, commission agents and dealers</td>
</tr>
<tr>
<td><strong>Other Services</strong></td>
<td>Musicians, launderers, shoe shiners, barbers, trash collectors, photographers, vehicle repair and other maintenance workers, brokers and middlemen, those who practice ritual services, magic, and medicine.</td>
</tr>
</tbody>
</table>

Economic Informality and Peru: Empirical data and theoretical analysis

Peru is the sixth most informal country in the world and the third in Latin America (Figure 5).

Figure 5: Global Informality and a focus on Peru, 2013

Informal economic productivity is estimated to account for over 60 percent of Peru’s GDP, which is valued at an estimate of over $118 billion dollars per year (BBVA, 2013; Tokman, 2008; Perry, 2007). The Peruvian government is believed to lose about $5.2 billion dollars per year as a result of tax evasion, a common symptom of informal productivity (Pozo-Vergnes, 2013). Chen (2012) argues that the informal sector is more complex than the sum of its parts would suggest. The latest informal data on Peru estimates that 70 percent of the labor force

Source: BBVA, 2013.
is employed informally. Informality as an umbrella term to describe employment status is often aggregated. Informality can be segmented by sector of the economy, place of work, status of employment and within those segments by social group and gender. To begin to disaggregate Peru’s total of informal employment the World Bank Enterprise Surveys (2013) find that roughly 49 percent of total informal employment is within the informal sector and 22 percent of informal employment is within the formal economy. Below, Table 5 shows a disaggregated view of informality as it relates to employment by sector and gender.

<table>
<thead>
<tr>
<th>Informal Employment in Peru by Sector and Gender</th>
<th>Persons in Informal Employment</th>
<th>Persons Employed in Informal Sector</th>
<th>Informal Employees working for formal firms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-Agriculture Employment (2009)</strong></td>
<td>69.9%</td>
<td>49%</td>
<td>21.7%</td>
</tr>
<tr>
<td><strong>Female (2009)</strong></td>
<td>75.7%</td>
<td>54.3%</td>
<td>22.2%</td>
</tr>
<tr>
<td><strong>Male (2009)</strong></td>
<td>65.1%</td>
<td>44.4%</td>
<td>21.3%</td>
</tr>
</tbody>
</table>

**Informal Sector Aggregates**

- Agriculture (2001) 44%
- Commerce (2001) 36%
- Services (2001) 11%
- Industry (2001) 8%

These statistics can then be further disaggregated into the licit typologies mentioned in Table 4. The status of employment among the various typologies can range from temporary, day laborer, contractual worker, verbal agreement, to business owner, depending on the sector and place of work. Within these segments the majority of social groups that participate in the informal economy are estimated to be from the middle to lower socioeconomic classes. It is clear that the informal sector is heterogeneous and multidimensional, although, the one thing all informal workers have in common is that they lack legal and social protection (Chen, 2012).

The informal sector has produced a myriad of scholarship, which ranges in themes from: size and composition; drivers or roots causes; consequences in terms of welfare or productivity; and the linkages that exist between formality and informality and growth, poverty, and inequality. Chen (2012) finds that analysis and research on the distant phenomena of the informal sector has resulted in the emergence of four predominant schools of thought: the dualist, the structuralist, the voluntarist, and the legalist. Each of these schools of thought has explanatory power when assessing drivers of economic informality in Peru.

The dualist perspective examines the logic of survival and sees the informal sector as a result of the labor surplus for jobs and individuals producing, selling, and seeking solutions as a means of survival (Chen, 2012). Throughout Peru’s recent history from the sixties to the nineties, violent insurgencies, such as, The Sendero Luminoso (Shining Path), in rural areas followed by the Túpac Amaru Revolutionary Movement (MRTA) in Lima and the Amazon, forced a mass migration of rural peasantry to urban settlements where they joined the informal sector upon arrival. Established migrant networks in cities provided an employment safety net for the informal sector. Rural Peruvian migrants gravitated to small informal sector industries
that were beginning to emerge, such as the textile industry, which required rudimentary labor skill and equipment. Other factors such as drought, flood, overpopulation, and decline of agriculture, were other primary drivers of the urban informal sector, as established networks became a means of survival.

The structuralist argument takes the logic of survival and looks at new activities generated by the logic of decentralization, in the context of rapid economic opening (Chen, 2012). In the sixties and the seventies, U.S. capitalists and the Alliance for Progress influenced Peru’s economic and political structure and put pressure on modernization. The new economic model created unbalanced growth throughout the country. As a result of uneven growth patterns, unemployment surged and more and more of the populace were absorbed by the informal sector (Marcelli and Madjd-Sadjadi, 2010). The Peruvian nineties were also marked by a change in Peru’s economic model, through initiatives such as market liberalization, the Washington Consensus, and privatization of enterprise. Consequently, economic opening and privatization resulted in the layoffs of a number of public sector workers. Former public employees turned to the informal sector for opportunity (Pozo-Vergnes, 2013).

The voluntarist argument focuses on informal entrepreneurs who chose to avoid regulations and taxation but, unlike the legalist school, argue that informal operators chose to be informal after a cost-benefit analysis (Chen, 2012). The voluntarists of Peru are those who have become entrenched in informal social networks and are unable to see the benefit of leaving. This argument can be applied to a number of individuals and entrepreneurs in Peru and is an on-going challenge within the informal market sector.
The legalist argument looks at the costs and time associated with a broad range of indicators: excess regulation, poorly designed institutions, bureaucratic procedures, and the judicial system as explanatory factors for a country’s economic informality (Tokman, 2007; Chen, 2012). Porter (2000) cites the following structures as important when honing into the root causes of informality: a country’s bureaucracy and corporate governance, regulations, red tape, legal enforcement, intellectual property, the tax administration, rule of law, and labor market policies. Legalists say that an overburdening formal legal system can lead the self-employed to operate informally with their own informal extra-legal norms. Hernando de Soto used the legalist perspective as a point of departure in the eighties for the implementation of a broad program of reform in Peru during the nineties.
De Soto and the Legalist Perspective: 30 years of reform

Hernando de Soto’s legalist perspective has been used to improve procedural and legislative obstacles that challenged the informal market in the eighties and has provided the groundwork for the on-going reforms in the legal and business regulatory sector today. He argued that formalization was not only important for taxes, but also for innovation, growth, and labor welfare standards. Formalization contributes to the welfare of individual citizens through legal and social protections, such as, tax holidays, fair wages, safe working conditions, pension programs as well as rights to organize and have a representative voice in rule-making and policy processes.

In the early eighties, de Soto hired two law graduates to count the number of laws and regulations Peru had passed since World War II. They were astounded to find that the Peruvian governments had enacted an estimated 28,000 economic laws and regulations a year (Clift, 2003). De Soto then hired a few more university students and tasked them with assessing bureaucratic procedures and hurdles small and medium enterprises faced when completing the necessary procedures for obtaining a business license. To do this, they set up a small garment factory with two sewing machines in a shantytown. It took the students 289 days and an incurred cost of 32 times the average monthly minimum wage before they received the license (de Soto, 1989). De Soto was personally able to see how expensive and time-consuming bureaucratic procedures in the formal market were and discerned that they were a major barrier to formal market entry and the reason so many people avoided the formal market.

De Soto spent the early eighties working out of the think tank he founded determined to get to the root legal and bureaucratic causes of informality that he felt were dividing Peru. He
found 90 percent of all small industrial enterprises, 56 percent of all businesses, 86 percent of urban transport, 60 percent of Peru’s fishing fleet, and 60 percent of grocery retail was carried out in the extralegal sector because the law and bureaucratic regulations made it impossible for these workers to operate with the formal structures in place (Clift, 2003). De Soto began engaging in citizen participation interviews and advocacy campaigns, arguing that, “it was not so much that the poor were breaking the law as that the law was breaking them.” His active citizen engagement yielded more informed information and produced greater results. He discovered that small-scale entrepreneurs faced more than simply administrative barriers in the formal market, they were victims of legal discrimination and most of them lacked proprietary rights. De Soto’s book *The Other Path* used weak institutions as a point of departure for understanding the primary barrier to entrepreneurial growth. He argued that capacity building in institutions should be aimed at the enforcement of contract law, strengthened financial markets, and a judicial system that would integrate and enforce property rights. De Soto contended that simplified bureaucratic procedures and the extension of legal property rights for conversion to assets would encourage informal enterprises to register and convert their assets into real capital unleashing their true productive potential. In 1989, he estimated informal land and untitled housing in Peru to be valued at $80 billion. De Soto argued that without land titles there would be no way to build a system of securitization that gave the informal sector access to credit, water, telephones, and/or electricity.

De Soto’s findings received the support of President Alan García and his successor, Alberto Fujimori. The ILD created a plan for Peru’s poor that would reform the formal property system and incorporate businesses into the formal market more efficiently. In 1989, the Peruvian
Congress approved Peru’s Administrative Simplification Law. The law resulted in the simplification, reduction, and elimination of lengthy governmental bureaucratic procedures. Prior to the law, Lima residents dealt with as many as 14 government agencies to obtain a title. After the law was enacted they only needed to go to one. The cost of registering a business was dropped to $174. In 1988, *The Popular Mortgage Law* was also enacted under the auspice of the ILD’s research and advocacy. The law was designed to provide access to formal credit for informal landowners. Prior to the law, informal landowners had access to an estimated 0.4 percent of the credit available from banks. The law enabled Peruvians to obtain titles to their homes, whereby they were able to use their homes as collateral for a bank loan at market interest rates. From 1990 to 1995, 300,000 titles were registered in urban Lima and the land value doubled by 1998, as a result of the ILD’s domestic efforts (Clift, 2003). More than half a million legal jobs were created and the government received an additional $300 million in tax revenue (McKechnie, 2006).

In 2010, Peru was considered the third most improved economy in the Ease of Doing Business report, which ranks countries based on the number and impact of reforms implemented. Peru implemented reforms that positively affected the ease of registering property, starting a business, taxes, and trading across borders. In 2012, Peru’s formal property registration procedures were the shortest in the Latin America (Figure 6). In 2012, Peru was rated the second friendliest country in the region for doing business, after Chile (Figure 7). Peru has the shortest number of start-up procedures to register a business and has utilized the internet to create a one-stop shop (Figure 8). The cost of business start-up procedures as a percentage of GNI per capita in 2012 was below the regional average and well below Bolivia’s average, where costs soared to
over 70 percent of GNI per capita. In 2010, only 18 percent of SML enterprises cited tax preparation and administration as a major constraint, which fell below regional and world averages of 35 percent, according to the World Bank’s Enterprise Survey. Peru had the third shortest time in Latin America required for tax preparation in 2012, behind Chile by a mere two hours. Labor tax and contributions as a percentage of commercial profit in 2012 were also low in comparison to the region as a whole (Figure 9).

Figure 6: Time Required to Register Property (days) 2012

Source: World Bank World Development Indicators database.
Figure 7: Ease of Doing Business Index (1=most business-friendly regulations)

Source: World Bank World Development Indicators database.

Figure 8: Start-up Procedures to Register a Business (Number) 2012

Source: World Bank World Development Indicators database.
Only 15 percent of SMLs identified customs and trade regulations as a major constraint in 2012, which was below the regional and world averages of 20 percent and 18 percent, respectively. The Superintendency of Tax Administration (Superintendencia Nacional de Administración Tributaria or SUNAT) has continued to engage in campaigns to reform tax structures making the processes easier and more welcoming. Consistent outreach and market education efforts among the taxpayers to inform them of their rights, obligations, and the benefits of taxation has been successful in facilitating compliance (IADB, 2005). If Perry and Maloney (2007) are correct in postulating that unbundling multidimensional social taxes through transparent linkages, access, and quality to those programs, than Peru has went beyond legal and regulatory reform to also the development of an institution that readily engages the taxpayer
within the last thirty years. A large portion of Peru’s economic achievements over the past thirty years can be connected back to de Soto and the influence of his legalist perspective on national policy.
The Multidimensionality of Economic Informality in Peru: Root Causes

Although the legislative or procedural reforms derived from de Soto’s work have made Peru’s formal sector more inclusive and its business regulatory environment more hospitable for formalization, such reforms are limited in their ability to address Peru’s existing economic problems, because multidimensionality of informality exceeds the scope of law and procedure (Tokman, 2007). The heterogeneity of relationships both within and surrounding the regulatory system indicates the need for a diachronic analysis to ascertain its persistence. Tokman offers conceptual tools that are helpful in organizing a diachronic analysis, which include structural features related to the existence of surplus labor, production and work organization, market structures, and traditional networks.

The struggle between the state and the informal sector in Peru dates back to 1557 when the state took its first action against street vending. The state repeated the same action against street vending 20 times to no avail before the revolution in 1821 (De Soto, 1989). Lima’s formal society in the first century of the Republic thought the informal sector to be non-threatening to formal trade and generally regarded it as part of the city’s culture, which created a basis for the informal networks that persist throughout the city today (Marcelli and Madjd-Sadjadi, 2010; de Soto 1989). Formal society intentionally created obstacles for the poor and the commoner in Peru. Former Central Bank President, Richard Webb (2010) explains, "The archaic legal system imposed cumbersome, exaggerated formal requirements on every aspect of life. The requirements survived because they could be evaded by the elite. The population, who could not afford compliance and were unaware of the formal rules, ended up as "informals." The effect was to marginalize and stifle any activity not directly connected to the elites." To this end, Perry and
Maloney (2007) postulate that when the populace perceives the state and institutions to be run for a few, it reinforces their noncompliance with taxes and regulations and creates a culture of informality. If a segment of the population believe others are not complying, they are less likely to respond to enforcement measures. This mentality and culture weaves itself throughout Peru’s informal sector struggle with the state.

Throughout the early 20th century various policies fluctuated between regulation and accommodation of the informal sector. During this time period, external factors such as political and economic structures as well as a civil war further exacerbated formal sector growth. In 1959, the government recognized the informal sector as powerful source of tax revenue. The government realized they needed the informal sector more than the informal sector needed the government. The government increased informal political power and granted them access to key public spaces in an attempt to benefit from a growing ad thriving sector (Marcelli and Madjd-Sadjadi, 2010; de Soto 1989). Shortly thereafter, in the sixties and seventies, Peru’s economic and political structures underwent various pressures for reform. Among the changes, modernization and the Alliance for Progress resulted in uneven growth patterns leading many into the informal sector (Marcelli and Madjd-Sadjadi, 2010). The government unsure of what to do with the sector and comfortable with the employment safety net it was providing. The government proceeded to engage in flip-flop treatment of the sector, for example issuing citations and creating new policy initiatives to reduce the sector, only to back down and forgive citations and reverse the initiatives. The inconsistencies in policy direction by the government strengthened the informal economy’s development and persistence.
In the seventies and eighties, the informal sector continued to surge as a result of a civil war taking place in the rural provinces. The civil war resulted in mass migration to urban centers, where migrants flocked to traditional informal sector networks for work. Many migrants joined the economic communities of extended family members. The familial networks created productive communities that were stronger than what the formal system was providing for migrants. The government found itself consistently granting concessions to meet informal sector demands. The government even permitted organized unions of informal workers, such as The Federation of Street Vendors in the Central Market and Adjacent Streets (FEVACEL), and allowed the sector extralegal rights. From 1975 to 1980 during the rule of the Revolutionary Government of the Armed Forces (RGAF), the informal sector was actively engaging with political representation. Spaces that vendors occupied were labeled ‘free zones’ and there was the creation of a multi-sectoral commission that became a space for vendors and municipal authorities to discuss informal ownership and business activity.

On the cusp of Peru’s return to democratic rule, the Municipal Authority of Lima decided that informal markets had become too large for the state’s welfare and cracked down on the sector through the implementation of Operación Sombrilla in 1978. Operación Sombrilla directed public officials and police to remove vendors from their posts, guard various spaces, and prohibit street vending. The vendors persisted, pressuring public officials to back off and allow them to return. The vendors had won the battle again and the government was at a loss. The see-saw between the government and the informal sector made the informal workers perceive that established institutions were inconsistent (Marcelli and Madjd-Sadjadi, 2010).
In this chapter we saw how the concept of economic informality is heterogeneous, which illustrates the diversity of approaches policy can undertake to promote formalization in informal industries that have industrial, sectoral, gender, and employment differences. This chapter demonstrated how prior to the eighties, the government did very little to make the formal sector accessible to the majority of the population. Legislative and procedural reforms have improved formality, yet there are many other factors that influence Peru’s economic informality (Tokman, 2007; Chen, 2012). Through the identification of four theoretical perspectives, this chapter more clearly illuminated how the reform processes and formalization efforts led by de Soto relate to one aspect of a multidimensional phenomenon. The diachronic analysis demonstrates how other influences have worked together to establish a sophisticated extralegal and informal network that threatens MSME competitiveness. The following chapter will use two case studies, The Gamarra Market and Villa el Salvador- Villa Maria del Triunfo, to more clearly paint a portrait of a hybrid system weighted by economic informality.
Chapter III: Micro, Small, and Medium Enterprise, Clusters, and Opportunity

The last chapter provided an overview for the conceptualization of heterogeneous actors in the informal economy and explained the sector’s persistence in urban areas, namely, Lima. This chapter will show the importance of formal micro, small, and medium enterprises (MSMEs) to the Peruvian economy and how the informal economy hampers growth and innovation for clusters using, The Gamarra Market and the Villa el Salvador Market and its co-cluster Villa Maria del Triunfo, as examples. Informal and Formal Sector Competition: Micro, Small and Medium Enterprises uses a sectoral analysis to represent the competition and pressures felt by various formal industries in the face of informality. In this section, this thesis will also outline the overall advantages and disadvantages found to be associated with formalization, showing how the advantages outweigh the disadvantages in the Peruvian case. The case studies will use Michael Porter’s cluster argument as a methodological framework for assessment, which more clearly demonstrates how greater formalization will benefit the clusters. The two cases were also selected for their periodization. The Gamarra Market dates back to the nineteenth century, yet grew in a noticeable and documented way in the sixties. Villa el Salvador began a government project in the eighties and lost direction in the nineties during economic opening. Villa Maria del Triunfo, Villa el Salvador’s co-cluster, is the result of more recent migration that has been established through existing migrant networks. As shown in the previous chapter, rural to urban migration networks are one of the primary reasons for the informal economy’s persistence in Peru. These two cases demonstrate a more tangible example of the dynamic ways in which the informal and formal sector interacts in Lima, building from the diachronic context provided in Chapter II. The analysis of the clusters as case studies serves to illustrate the ways in which the
informal sector impedes Peru’s formal MSME competitiveness. The thesis is grounded in the perspective that informal finance is endogenous to economic informality; therefore, it should be assumed that the informal credit system exists within and among the networks of the informal enterprises discussed in the two cases. Informal credit will be discussed at length in Chapter IV.
Informal and Formal Sector Competition: Micro, small, and medium enterprise

A paramount reason to promote full economic citizenship through formal financial inclusion is to protect Peru’s formal micro, small, and medium enterprises (MSMEs). MSMEs are the growth engine of the Peruvian economy. In 2007, an estimated 6 million formal micro-enterprises provided work for over 10 million Peruvians or 72 percent of the formal economically active population (Cáceres-Barrantes, 2012). By 2011, microenterprises accounted for 75 percent of the formal labor force. What is striking about these figures is that they exclude the informal sector. It is estimated that for every 1.1 million MSMEs only 110,000 have gone formal, and many have not finished the process of formalization (Cáceres-Barrantes, 2012).

Chapter II demonstrated that the formal market is open and receptive for formalization. The persistence of the informal economy was shown to be a symptom of multivariate causes using a four perspective lens, which can be attributed to the development of a strong migrant network in Lima. A study by USAID, *Removing Barriers to Formalization: The Case for Reform and Emerging Best Practice*, found advantages of formality to be: Sustainable higher quality, better wage employment; a reinforcement of the social contract between citizens and their state; strengthened reliability of agreements between firms through improved investor confidence; improved access to: business services, formal markets, and productive resources such as land and capital; less cash in the society through formal financial market intermediation; and increased welfare and market opportunities for marginalized groups. The study finds disadvantages to be: Expensive and time consuming regulatory and legal barriers, however as demonstrated by the previous chapter this no longer applies to the Peruvian case; hiring and
firing works; cost to create collateral and the procedures associated with legality; a poor tax administration, this finding also does not apply to Peru as SUNAT has continually been improving and supporting the formal sector; costs and procedures required to register a business, again this disadvantage does not apply in the Peruvian case. Disadvantages that require further research and will depend upon municipality and department are: corruption; lack of key business services; and criminality (USAID, 2005). Bertell Ollman identifies the following factors to be representative of the advantages and disadvantages of formality for an economy as a whole (Figure 10):
Figure 10: Informality: Advantages and Disadvantages

Advantages to Informality

• Competition between different firms leads to increased efficiency.
• Most people work harder fearing job loss.
• Firms are able to cut bottom line costs, as such produce more and sell cheaper.
• Innovation, as firms look for new products to sell and cheaper ways to do their work, (this can also be a result of formality).
• Foreign investment is attracted through new opportunities increased profits.
• Paying lower wages to informal workers.
• No legal and or public restrictions on the way in which business is conducted.

Disadvantages to Informality

• MSMEs lose competitiveness to multinational competition.
• Can result in distorted investment priorities because there is no legal recourse for laborers.
• Exploitation of workers; hard work and low pay.
• Overproduction of goods, since workers as a class are never paid enough to buy back.
• Unused industrial capacity.
• Growing unemployment.
• Growing social and economic inequality.
• Disproportional political influence by wealthy.
• Increase in corruption in all sectors of society.
• Increase in all kinds of economic crimes.
• Reduced social benefits and welfare.
• Worsening ecological degradation.


The analysis suggests that the advantages of formalization for various informal sectors will outweigh the disadvantages. Informality also produces numerous dangers to public health, especially in the informal agriculture and produce markets. As discussed in the Context, a large informal grocery retail sector will meet strong multinational competition as products such as
lettuce and uncooked food lacks formal market health and sanitation standards (Figure 11: Public Health). As Lima’s consumer preferences become more sophisticated, hybrid agricultural clusters with large informal sectors will lose competitiveness as the public becomes more concerned with health and sanitation standards.

Figure 11: Public Health

- Informal Produce Markets: excessive trash and traffic, lack of sanitation standards, contamination, crime, and prostitution

Source: Based on in-country research.

In 2010, formal Peruvian small, medium, and large enterprises (SMLs) were competing against unregistered and informal firms and almost 30 percent of SMLs identified practices of the competitors in the informal sector as their biggest constraint, surpassing all other possible indicators, according to World Bank Enterprise Surveys (WBES, 2010). The biggest formal and informal sector competition was for medium enterprises, with over 80 percent of medium
enterprises identifying informal competition a barrier. Over 70 percent of SMLs in Lima and over 90 percent of SMLs in Arequipa struggled to compete with the informal sector. Within the various sectors the numbers were high as well, with over 70 percent competition between the formal and informal sector in the food and retail industries, just shy of 80 percent competition in the textile and garment industry, and over 85 percent competition in manufacturing (WBES, 2010). As shown in Figure 12: Informal Economy Competition for Formal Firms by Sector, formal firm competition against the informal sector spans a number of industries. A process of formal financial inclusion would help to integrate these enterprises into a formal system, eventually making them tax-paying and registered entities with the Peruvian government. These processes will lessen the pressure currently felt by the majority of Peru’s most important enterprise sector, MSMEs.
Peru’s microeconomic activity and network relationships, formal and informal, have generated a multitude of entrepreneurial and notable clusters over time. Porter (2000) defines clusters as geographic concentrations of interconnected companies, suppliers, service providers, interrelated industries and associations in a particular field that compete and cooperate. Peru’s...
mixed formal and informal economy creates an alternative dimension in its clusters. Porter (2000) argues that clusters have the ability to take on more textured roles in complex, knowledge-driven, dynamic economies, as is exhibited in Peru’s clusters. The formal and informal economy of Peru has generated various types of entrepreneurial clusters, apart from textile in Gamarra and carpentry in Villa el Salvador, including: agricultural and grocery retail clusters in Lima and Arequipa; Montesco cheese in Cajamarca; grape and wine in Ica; metal mechanics in Atem; and software in Wilson, Lima (Gerz and Boucher 2006). Porter’s theory of clusters illustrates the many facets and linkages that occur among actors, in the case of Peru, a separation of employment and firm status as formal and informal helps to describe the parallel, yet complementary systems in place. In Peruvian clusters there are three principal forms of employment and enterprise status. There are (1) formal enterprises and formal employees (2) informal enterprises and informal employees and (3) informal employees working for the formal economy.

Firms and individuals within clusters are found to share common constraints, problems, and opportunities; however, the informal dimension in Peruvian clusters creates added challenges and constraints for the formal sector. Informality becomes a deficiency to formal stakeholders in a cluster attempting to modernize and grow because they are unable to cooperate efficiently as a body of enterprises. Informality can limit trust, international investment, and acceptance by higher-end consumers, namely an emerging middle class whose preferences are expected to become more sophisticated. The mechanisms in which informal and formal enterprises organize within a cluster and cultural normal are fundamental to the performance, development, and functioning of clusters, according to Michael Porter. When organizational
processes in clusters take place in dual systems they are competitive rather than complementary and restrict the final phase of international, competitive growth. As will be shown in the case studies, Peru has managed to integrate vertically. Vertical integration is common when there is large informal concentration and formal firms have access to cheaper input supplies, which is beneficial for their bottom line. However, this type of integration will restrict Peru to passive collective efficiency gains. The passive collective efficiency, found in the vertical integration, phase is defined as the transformation, transacting, and strategic decision-making in technological and pecuniary decisions. Passive collective efficiency gains for formal and informal firms include: lower costs on the value chain, information spillovers, and higher domestic sales volumes. The ideal form of collective efficiency for a cluster is active collective efficiency, which will not take place unless a cluster is formalized. Active collective efficiency gains are the most beneficial for all sectors, which include formal enterprise, labor, and the government. An active collective efficiency gain in a cluster is the transformation, transacting, and strategic decision-making in learning and innovation. This type of gain moves beyond vertical integration to horizontal cooperation. This stage allows for cooperative firms and labor to produce for the domestic and international market in terms of quality, quantity, and in new and creative ways (Visser, 1999). This type of efficiency gain requires trust, cooperation, and associations that are legally and socially protected in the formal sector of the economy.

The next two sections explore two entrepreneurial clusters of mixed formality and informality, The Gamarra Market and The Industrial Park. Both of these clusters are situated in popular urban zones of Lima, La Victoria and Villa el Salvador - Villa Maria del Triunfo. Lima’s urban zones differ by average socioeconomic level, economic activity, business and
regulatory environment, length of settlement, infrastructure, and credit availability (Dunn, 1999). It has been argued by Dunn (1999) and other theorists that urban zone locations can influence market opportunities. Popular zones are characterized by Dunn (1999) as settlements formed by migrants, with well-established infrastructure, and located on the inner periphery of Lima. The commercial activity in The Gamarra Market and The Industrial Park, have flagged them as important clusters for Lima’s economy. The Gamarra Market is Lima’s textile capital that has the potential to become competitive against the United States’ garment cluster in Los Angeles, if greater formalization is achieved. The Industrial Park is an urbanizing carpentry cluster that also can become more competitive as they continue to service the construction boom, and could promote an abundance of opportunity for informal sector conversion in their co-cluster, Villa Maria del Triunfo. Villa Maria del Triunfo has over one thousand informal enterprises adjacent to the growing carpentry cluster (OBG, 2012).
CASE ONE: GAMARRA MARKET

The Gamarra Market: Informal roots describe the industrial beginnings of The Gamarra Market as a successful informal market that grew into a hybrid space over time. The next section, Reforms: Positive results for formality, sheds light on the positive results that regulatory and legal reforms have had on formal conversion from the early nineties to the present. Despite the reforms, Workforce: Informal and formal actors in the Gamarra Market will show the current structure of formal and informal actors in the market. The following section will engage a discussion of the importance The Gamarra Market has for the socioeconomic classes of Peru. The last section, Vertical vs. Horizontal Linkages, will illustrate the ways in which informality has reaped positive vertical benefits, but with the direction of the economy its restrictions on horizontal agglomeration threaten the cluster’s competitiveness potential.

Figure 13: The Gamarra Market, Lima 2013
The Gamarra Market: Informal roots

The Gamarra Market, located in Lima’s La Victoria district, is an industrial hub known for its textile industry. Gamarra’s productive activities date back to the nineteenth century have gone beyond the textile market to include automotive repair, metalworking, woodworking, and the production of various other final products (Visser, 1999). The textile industry started to grow in the 1960s through a small group of informal vendors and primary and intermediary producers. As mentioned briefly in the overview of Peru’s informality, in the early 1960’s, the United States pressured the country to pursue a more capitalist mode of development. President John F. Kennedy launched the United States led Alliance for Progress as a social and economic development for Latin American countries. The Alliance for Progress tackled issues of communism and imposed a more modern model of regional economic development. Although Peru experienced growth under the model, the development projects did not evenly benefit its citizens. Growth was regionally concentrated on the coast, and the rural regions of the countryside and the jungle became evermore separated from the country’s progress. Pressures from the changing economic model on the coast within capital cities and an increasing migration of those excluded from economic progress resulted in high concentrations of formal unemployment, which exacerbated the informal sector. The provincial regions in the countryside and jungle were also subject to the civil war in the seventies and eighties, which furthered propelled urban migration. Migrants and the unemployed flocked to the textile industry because it required rudimentary labor skills, equipment, production methods, and product information to

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9 At the end of the nineteenth century, Arab and Italian immigrants were the first to set up textile shops in the Gamarra market. Informal workers flocked to the market and created the sixties boom period (Olivera, 2013).
compete. Visser (1999) found that the informal textile industry’s low barriers to entry provided a haven for migrants. As urban zones grew and transformed, The Gamarra Market managed to establish a formal textile industry while absorbing a large portion of the informal migrant sector. Over time The Gamarra Market grew into a garment district with the most notable concentration of MSMEs in Lima.

Figure 14: The Gamarra Market, Lima 2013
**Reforms: Positive results for formality**

The Gamarra Market has become an engine for Lima’s textile industry and a major player in the Peruvian economy as a whole (OBG, 2012). Formal enterprises in Gamarra have more than doubled since Fujimori began implementing de Soto’s suggested reforms in the early 1990s. Annual revenue from formal firms has also increased over the last two decades by 25 percent. Below, Table 7 shows the positive impact legal and business regulatory reforms have had on Gamarra since 1993. The table shows percentage of growth, size, current formal employment levels per sector, and percentage of females employed per sector. An estimated 81 percent of employees are between the age of 18 to 40 years old; 60 percent between ages 18 to 29; and 21 percent between the ages of 30 to 39.
TABLE 7: Gamarra Formal Sector, 1993 and 2012

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</tr>
</thead>
<tbody>
<tr>
<td>Small Clothing Firms</td>
<td>1,950</td>
<td>15,000</td>
<td>146.00%</td>
<td>8,900</td>
<td>31,706 (62%)</td>
<td>25,365 (81%)</td>
</tr>
<tr>
<td>Medium Size Firms</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traders of Cloth Fabrics and Accessories</td>
<td>4,100</td>
<td></td>
<td></td>
<td>1,233.00%</td>
<td>3,700</td>
<td>988 (29.5%)</td>
</tr>
<tr>
<td>Restaurants</td>
<td>300</td>
<td>4,000</td>
<td>1,233.00%</td>
<td>3,700</td>
<td>3,348 (6.5%)</td>
<td>6,292 (45%)</td>
</tr>
<tr>
<td>Equipment and Components</td>
<td>150</td>
<td>5,000</td>
<td>3,233.00%</td>
<td>4850</td>
<td>13,982 (27%)</td>
<td></td>
</tr>
<tr>
<td>Total Formal Enterprises</td>
<td>6,800</td>
<td>24,000</td>
<td>3,429.00%</td>
<td>17200</td>
<td>51,512</td>
<td>30,907 (60%)</td>
</tr>
</tbody>
</table>

Annual Turn Over

| 800 million dollars | $1 billion dollars | 25% | $200 million dollars |

Source: Adapted from: SUNAT; Ramos, 2012; INEI, 2012; OBG, 2012.
Workforce: Informal and formal actors in The Gamarra Market

The Gamarra Market covers 54 blocks and has approximately 130-200 galleries (OBG, 2012; Ramos, 2012). The Gamarra Market has been estimated to provide work for over 75,000 people when taking into account the informal sector. Peruvian Sociologist, Martin Tanaka (1999) classifies the actors involved in the commerce, trade, and the financial system of Gamarra into the following five groups: economically powerful, medium and small garment manufacturers, medium and small traders, and informal traders and input dealers.

The formal economic powerhouse of Gamarra resides in the Johannesburg complex and is made up of the 13 largest companies. The group has been referred to as the Johannesburg but the association operates under a variety of names, which include: Coordination Council of Business Executives, Gamarra Entrepreneurs, Coordinating Committee of Gamarra Entrepreneurs, and the Main Business Association (Peru This Week, 2012; Oxford Business Group, 2012; BizUSAPeru, 2013; La Andina, 2013). I will refer to the group as the Johannesburg group for consistency. The Johannesburg group includes professions that range from entrepreneurs, warehouse owners, input providers, and fabric dealers. This group consists of property owners, gallery developers, and commercial warehouses. The Johannesburg group is the main source of economic capital for the Gamarra Market. These actors consist of the large industrial garment manufacturers, major wholesalers of inputs (fabrics and trimmings), and machinery for the cloth providers. The one thing that the Johannesburg members have in common is that they are formal stakeholders. The Johannesburg group is connected nationally and internationally (Tanaka, 1999). The Johannesburg group has continued to seek new ways to formalize and improve quality, convenience, and the experience in Gamarra for the consumer.
The group has engaged municipal authorities as well as formal vendors in an attempt to push for greater formalization to transform Gamarra into a modern retail cluster, which would not only be competitive domestically, but has the potential to become internationally against the U.S. retail cluster of Los Angeles. At present, formal Gamarra exports 40 percent of products internationally and a remaining 60 percent is produced for the domestic market, either for final consumption or resale (OBG, 2012). The Johannesburg group is motivated not only by increasing exports but also by the possibility of converting The Gamarra Market into a modern retail investment hub. The group recognizes the importance real estate capital, technology, and production could have in the delivery of formal gains to the municipality and federal government, firms, and active labor force.

The majority of The Gamarra Market complex consists of a mix of formal and informal medium and small garment manufacturers, traders, and input providers. They are traditionally run as family business and have built their establishments based on networks and migration. The majority of them own and/or are tenants of small retail outlets. Formality is dependent upon size, preference, location, and historical ties with either the formal or informal sector. The informal manufacturers and traders in this group create the most competition for formal enterprises. This is the target group for formalization because an enterprise’s actions will have an effect on the status of informal employees of small businesses. Employees are traditionally women who sell clothing in the commercial shops and their status as formal or informal depends on the owner. Within this complex there are also a myriad of associations, unions, and organizations for enterprises and workers in the formal and informal sector. The multitude of groupings in competitive sectors has made the organization of an initiative to unify these actors a
challenge. The Johannesburg group, perceived as elitist, is often a turn off to the informal sector. Despite their power, The Johannesburg group has been unsuccessful in creating an umbrella campaign among the groups for formalization.

Figure 15: The Gamarra Market, Lima 2013
What Does Gamarra Mean to Peru’s Socioeconomic Population

The Gamarra Market receives 100,000 visitors daily (OGB, 2012; Tanaka, 1999). Almost half of Gamarra’s visitors are socioeconomic level C or the middle class, followed by SEL D at 35%, SEL B at 12%, and SEL E at 5%. Socioeconomic level is commonly used to describe the delineation of consumption patterns, lifestyle, and wealth among a population (Dunn, 1999).

Figure 16. Peru’s Socio Economic Levels and Dimensions

Description of Figure 16: Peru’s Socio Economic Levels and Dimensions:

<table>
<thead>
<tr>
<th>SEL</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/B</td>
<td>Peru’s wealthiest SEL comprises 9.1 percent of the population and is classified as A and B consumers. They have access to all types of banking and financial services. They are characterized as multimillionaires who inherited wealth, or come from the elite class in Latin America. They are generally of European descent and have maintained control of major institutions and political power from independence to economic integration in the early 1920s. They live in luxury housing in exclusive neighborhoods. Financial services were long thought to be for SELs A and B or the elite and privileged classes. Exclusivity, in relation to institutions, resulted in the growth and competitiveness of the informal financial and commercial sector. Perceptions of these institutions continue to be a barrier. For example, in 2012, 75 percent of commercial bank clients were from the upper income groups (A and B), and consider themselves to be sophisticated and wealthy (Chu, 2013; Arellano, 2013).</td>
</tr>
<tr>
<td>C</td>
<td>The majority of Peruvians are spread across income groups C-D. C+ Consumers earn higher salaries at their job and tend to be high-level executives or professionals at large firms. SEL C+ can afford A and B habits for mass consumption but are affected if they quit or leave their job. They are members of first-class clubs and organizations. Their children attend private schools and they own or rent homes and live comfortably. C Consumers earn middle class wages and are generally professionals, executives, or employees of middle-sized businesses. They have the ability to easily meet primary needs and generally enjoy a well-being of life. They live in detached houses or modern buildings in middle-housing areas. Their social position depends on economic situation. They are able to enjoy some convenience, but often at the cost of economic sacrifice. C- Customers have the ability to meet primary needs and are typically employees of small businesses or informal companies. They are considered to be lower to middle income, have large families, and live in apartment buildings or small detached houses in heavily populated areas. This level has a mix of formal and informal employment and enterprise.</td>
</tr>
<tr>
<td>D</td>
<td>Socio Economic Level D is barely able to meet their primary needs and have almost no convenience goods. They are low-level workers at small companies and generally live in informal housing with large family sizes in heavily populated areas. This level has a mix of formal and informal employment and enterprise, but is traditionally informal.</td>
</tr>
<tr>
<td>E</td>
<td>Socio Economic Level E can barely meet their primary needs and are unable to afford any product or service. They don’t have any steady work and generally live with large families in makeshift housing (of straw matting, cardboard, corrugated iron and boards) in marginal zones. This level has a mix of formal and informal employment and enterprise, but is traditionally informal (Chu 2013; Marsili 2013).</td>
</tr>
</tbody>
</table>
These statistics demonstrate how important Gamarra is to Peru’s middle class, which is only continuing to expand as Peruvian wealth increases. At present Gamarra is the most popular destination to purchase clothing for the majority of the population in Lima. Over 41 percent of Lima’s consumers prefer Gamarra for their clothing needs, whereas, formal shopping centers, such as Mega Plaza, Jockey Plaza, Plaza San Miguel, and Plaza Norte, are currently less popular. With a pending investment of $1.3 billion dollars, Peru is expected to double its current count of 45 shopping malls in the next two years, according to Gonzalo Ansola, President of Peru’s National Shopping Center Association. The pressure to remain competitive against the emergence of new shopping centers has left the Johannesburg group desperate to discover new ways to formalize and improve product quality, safety, experience, and convenience for the consumer. The group has engaged municipal authorities as well as formal vendors in an attempt to push for greater formalization. In many cases the group has been successful, namely in security improvements and the introduction of finer restaurants and cuisine; however, to maintain their position as a preferred retail destination with more sophisticated consumer’s preferences and investments pouring into the retail sector, they will need to do more in the way of formalization.
**Vertical vs. Horizontal Linkages**

Gamarra’s intensive growth over the last 20 years has resulted in complex organization by the informal sector which directly competes and/or contributes to the cluster’s formal structures. Informal and formal networks are found to work in tandem, vertically and competitively, horizontally. Ideally there should be cooperation in a cluster, vertically and horizontally.

Gamarra’s vertical linkages have been successful. Gamarra has been found to cooperate in terms of as technical and commercial dialogue between users and producers of input and intermediary products. Chen (2012) argues that primary goods and raw materials are often traded to formal firms by informal intermediaries, through a sub-sector network of commercial relations or a value chain of subcontracted relations. These subcontracted relationships between the informal and formal sector has resulted in a number of passive collective efficiency gains. The most notable gains for Gamarra have included: cost reductions on the value chain; information spillovers; higher average monthly pay per worker; a rise in real estate prices\(^{10}\); and higher sales volume.

As result of fragmentation between the formal and informal sector, evidence in the early nineties found horizontal organization and cooperation was rare in Gamarra. The informal network pays minimal taxes, lacks overhead, and traditionally brings in delinquency and overcrowding. Informal enterprises’ close exposure to formal facilities has also resulted in intellectual property issues and counterfeit clothing sales. Once a luxury brand arrives in Gamarra it is reproduced and sold at half the price (Ramos, 2012). There are even informal

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\(^{10}\) In 1994 a square meter of the ground floor of a new shopping center sold for $5,000, unlike any other real estate prices in Lima at the time.
designers who specialize in the imitation of popular designs. The competitive relationship between the informal and formal sectors creates distrust amongst producers in the two sectors and the result is a lack of agglomeration. Studies show that cooperation often takes place in networks of entrepreneurs pursuing the same concrete business goals of enhancing productive volumes and turnover and improving quality and product design (Visser, 1990; Cáceres-Barrantes, 2012). Formalization of Gamarra’s informal sector would encourage this type of collaboration, promoting modernization and innovation, the result of active collective efficiency.

As demonstrated in this case study, The Gamarra Market is bustling with employment and formal market opportunity, yet is also held back by historical informal networks that formed the basis of the market’s creation in the nineteenth century. Reforms inspired by Hernando de Soto and the work of the Johannesburg group have resulted in vast improvements in the market’s formality and growth. However, the informal sector threatens the sustainability and future of the market. The importance of Gamarra for the majority of Lima’s socioeconomic population, and shifts in consumer preferences, will require strategies that promote horizontal cooperation through targeted market initiatives in formal financial inclusion, followed by formalization.
Case Two: Villa el Salvador and Villa Maria del Triunfo

This case study highlights the growing importance of Villa el Salvador as a primary provider for a construction boom in Peru that has been the result of industrial growth and a growing middle class’ demand for new housing. The construction boom will only be sustained if middle class growth, income, and opportunity are sustained. Various theorists and professionals speculate a housing bubble is approaching Peru, if it cannot maintain middle class growth and newfound socioeconomic mobility. This thesis argues from the position that if the fundamental challenges of formal financial inclusion and economic formality are addressed, the country has a better chance at sustaining long-term growth. Formal financial inclusion and economic formality in Villa el Salvador’s co-cluster, Villa Maria del Triunfo, has the potential to not only encourage growth but also combat the poverty in the district. Initiatives by MiBanco began in 2008, which have yielded positive results in the community; however, there is still work to be done in and around the cluster and co-cluster.

The Villa el Salvador cluster or “The Industrial Park” began in the 1980s as an ambitious industrial park project. By the 1990s in the face of the Washington Consensus, market liberalization, and deregulation the project lacked clear direction and government support (Cáceres-Barrantes, 2012). Despite the loss of government direction, “The Industrial Park” continued to grow through the arrival of entrepreneurial migrants, who formed the foundation of an organic carpentry cluster. Over 75 percent of the cluster’s enterprises belonged to the commercial sector, spanning carpentry, metallurgy, and manufacturing. In 2010, there were almost two thousand formal businesses, 43 percent dedicated to the manufacture and sale of furniture and 57 percent to marketing furniture (Vilchez, 2008; Cáceres-Barrantes, 2012). The
Industrial Park encompasses many supply chain actors such as, input producers, product developers, and marketers.

Peru’s per-capita increases and economic mobility are allowing for a greater share of consumers to afford homes as well as an increase in the demand for bigger and better homes in Lima’s growing districts. In 2013, real estate prices in Lima increased an estimated 37.4 percent further fueling the construction boom. (Vigo, 2013). The Central Reserve Bank reported that growth was being propelled by an increase in demand across all socioeconomic sectors; however, the greatest sales were for socioeconomic level B, which represented just over 50 percent of total sales (Vigo, 2013). The president of Peru’s National Shopping Center Association, Gonzalo Ansola, said, “The growth is coming from new consumers. People are moving from sectors C to B and B to A” (Tegel, 2012). The Industrial Park has serviced the rising construction demand and become an economic powerhouse. The cluster is an industrial and commercial hub with the majority of sales and production for the domestic market as a result of the construction boom. Fifty percent of production is sold directly to the domestic market and a remaining 20 percent of production is for wholesale and/or medium or large enterprise resale (Vilchez, 2008). Despite its growth and positive future prospects, Villa el Salvador, similar to Gamarra, suffers from a lack of agglomeration and horizontal linkages. The cluster operates on passive collective efficiency gains, and struggles with cooperation as a result of informality and lack of trust between formal and informal actors.

Villa Maria del Triunfo is a co-cluster of “The Industrial Park.” Villa Maria del Triunfo’s agriculture, restaurants, and accommodation facilities are linked to enterprises in Villa el Salvador. The co-cluster is largely informal, but has a popular commercial Zona de Pachacute
that has over 1,500 formal enterprises and over 1,000 informal enterprises. Villa Maria del Triunfo is on the middle to lower end of the socio-economic spectrum, experiencing the reality of poverty, while trying to grow to meet an emerging middle class consumer. The city is smoggy, crowded with migrants, and made up of make-shift, corrugated metal and wood work stalls. Statistics related to poverty demonstrate challenges for the district: malnourishment is as high as 15 percent; 34 percent of the population does not have access to running water; and 34 percent of the community does not have access to electricity (INEI, 2005). Despite its shoddy appearance and challenges with poverty, the 1996 economic census found that one-fourth of small and medium Peruvian enterprises were located in Villa Maria del Triunfo and that number has continued to grow. Over 50 percent of the formal and informal enterprises are micro or small, averaging 1-4 employees. The remaining 50 percent are considered to be subsistence or self-employed. Informal enterprises in this district are organized by migrants on the basis of familial networks stemming from their home communities (Vilchez, 2008; INEI, 1996). Villa Maria del Triunfo is an example of an informal sector that’s growth has been supported by traditional network structures.

MiBanco began its work with the co-cluster Villa Maria del Triunfo in 2008. Since its opening, the MiBanco market has attracted roughly 400 enterprises, many of which have since formalized. The MiBanco cooperative is raising the standard for MSMEs in the area. The MiBanco market is a clean and organized space introducing a shopping alternative to the district. Residents and squatters now have the option to purchase produce and products in a cleaner environment. The market is even equipped with a full service food court. The bank has plans to build out a fourth floor offering services in technology to not only build capacity, but
meet an unprecedented and rapidly growing consumer demand for both technological products and services. The cooperative is equipped with access to financial officers and loan providers increasing financial responsibility for businesses and leading many to formalize as a result of their capital increases (Santisteban, 2013). There are still over 1,000 enterprises that operate informally and need a targeted solution. The close links between informality and formality in the cluster and co-cluster allows for informal sector exposure to the operation and organization mechanisms the formal sector employs. Greater formal conversion will allow for immediate benefits through a boost in the modernization potential of the cluster, municipal revenue for projects to reduce poverty, and increases in employment opportunities.

This chapter showed the importance of greater formalization initiatives in The Gamarra Market and the Villa el Salvador Market and its co-cluster Villa Maria del Triunfo. Informal and Formal Sector Competition: Micro, Small and Medium Enterprises used a sectoral analysis to represent the competition and pressures among formal and informal firms. The chapter then highlighted the advantages and disadvantages associated with formalization for a firm and an economy, positing that the advantages outweigh the disadvantages in Lima. The case studies used Michael Porter’s cluster argument as a methodological framework to show how active collective efficiency gains and increased formal employment opportunities will promote competitiveness and sustain socioeconomic growth. Chapter IV will discuss formal financial inclusion and the sophisticated role informal credit has in the informal economy.
Chapter IV: Formal Financial Inclusion

This chapter will begin with a brief discussion of the importance of formal financial inclusion as it relates to the majority of Peru’s socioeconomic population in, *The Benefits of Financial Inclusion for Peru’s Socioeconomic Levels. Assessing Peru’s Levels of Financial Inclusion*, provide an empirical assessment of Peru’s level of formal financial inclusion based on indicators and metrics provided by the World Bank’s 2012 Financial Inclusion Summit. Based upon a quantitative and qualitative analysis, *The Informal Credit System in Peru*, will conclude the chapter with an alternative explanation of low formal financial inclusion that can be explained by an informal credit system, which this thesis argues is underpinning economic informality.
The Benefits of Financial Inclusion for Peru’s Socioeconomic Levels

In 2005, named the year of international credit, U.N. Secretary-General Kofi Annan argued that well-functioning financial systems were important for an economy. He, asserted that, “...[they] economically and socially empower individuals, especially the poor, allowing them to better integrate into the economies of their countries, actively contribute to their development, and protect themselves against economic shocks” (United Nations, 2005). Čihák, Demirgüç-Kunt, Feyen, and Levine (2010) demonstrate the positive relationship that exists between formal financial inclusion and socio-economic development as both pro-growth and pro-poverty reducing. Beyond being pro-growth and pro-poverty reducing formal financial inclusion has a many other benefits for citizens, formal institutions, and the economy as a whole. For citizens, financial inclusion can smooth consumption overtime; provide security for old age; allow for access to fair interest rates; offer a variety of financial products; provide credible regulators; and citizens are able to enjoy the benefits and tax advantages offered to those whom are part of a formal financial system. Regulation of institutions contributes to transparency and consumer protection. Finally, the economy as a whole can benefit from financial inclusion through a competitive market that accelerates economic growth allowing for efficient investments in entrepreneurial activities, which can spur innovation and yield high economic returns (Schumpeter, 1985). The benefits provided by formal financial intermediation can well translate into gains for the entrepreneurial clusters discussed in Chapter III.

Despite the myriad of benefits for individuals, institutions, and an economy, a study conducted by McKinsey in 2009 found that 2.5 billion, or just over half of the world’s adults do not use formal or semi-formal financial institutions to save or borrow. The majority of the
“unbanked,” 2.2 billion people, live in developing parts of the world, which include Africa, Asia, Latin America, and the Middle East (Chaia, 2009). The unbanked refers to anyone that is not financially included in the formal system, yet may be banking informally. The term “financial inclusiveness” is meant to account for a varying degree of banking services and various types of financial institutions. 11 To overcome the obstacles of financial inclusion, the regulated commercial finance industry developed microfinance to address the issue of informal credit markets. Microfinance is an important commercial banking player in Peru because it services the majority of its population. Microfinance targets socioeconomic levels C-D. As shown in Chapter III, What Gamarra Means to Peru’s Socioeconomic Population, more than half of Peru’s population lives within the socioeconomic levels that microfinance targets.

11 The United Nations considers the following institutions to represent financial services: commercial banks; state development and agriculture banks; postal savings banks; non-postal savings banks; microfinance institution banks; licensed non-bank financial intermediaries; financial cooperatives and credit unions; rural banks and community banks; non-governmental organizations; insurance companies; transfer payment companies; non-bank private retailers; and informal mutual assistance groups.
Assessing Peru’s Levels of Financial Inclusion

Peru’s SEL C makes up its rapidly growing middle class and a class of consumers that has the ability to participate in formal financial services, yet at present, empirical evidence estimates that almost 80 percent are not (MarketMix, 2013). The World Bank’s G20 Financial Inclusion summit (2012) concluded that for formal financial inclusion, a country must have: access to financial services, usage of these financial services, and quality financial services. Table 2 displays the five financial indicators the World Bank uses to empirically assess a country’s level of formal financial inclusion.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Indicator Measurement</th>
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<tbody>
<tr>
<td>Formally banked adults: the percentage of adults with an account at a formal financial institution</td>
<td>Adult population</td>
</tr>
<tr>
<td>Adults with credit at formal institutions: percentage with at least one outstanding loan from a financial institution</td>
<td>Adult population</td>
</tr>
<tr>
<td>Formally banked enterprises or the percentage of small and medium enterprises with an account</td>
<td>Enterprises</td>
</tr>
<tr>
<td>Enterprises with an outstanding loan from a regulated financial institution: Number or percentage of SMEs with an outstanding loan and</td>
<td>Enterprises</td>
</tr>
<tr>
<td>Points of Service: Number of branches per 100,000 adults.</td>
<td>Geographic accessibility</td>
</tr>
</tbody>
</table>

Source: World Bank Financial Inclusion Database Report
This section will begin with an empirical assessment using the indicators in Table 2 to evaluate the levels of access to and usage of formal financial services in Peru. Next, this section will discuss the quality of Peruvian formal financial services through an explanation of the current state of Peru’s microfinancial and commercial banking industry, and conclude with a qualitative analysis of the informal credit sector.

To assess the percentage of adults with an account at a formal financial institution I used the most recent depositor and borrower data from the World Bank’s Development Indicators Database and the MarketMix. The World Bank’s data reported that in 2010 Peru averaged 424 depositors per 1,000 adults and 123 borrowers per 1,000 adults. When these numbers are compared regionally, they are extremely low, only surpassing Paraguay’s averages (Figure 17).

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12 The MarketMix is a business tool that aggregates microfinance data and Social Performance measurements for the microfinance institutions that help alleviate global poverty.
The MarketMix data estimates that in 2013 there were 4.1 million borrowers and 4.4 million depositors in the microfinancial sector. If a 2013 population estimate of 30 million people is used as the basis for calculating the 60 percent of the population living as microfinance’s target market SEL C-D, estimates of 4.1 million borrowers and 4.4 million depositors indicate that microfinance is currently only serving 22 percent of that total market share. In 2013, *America’s Quarterly* magazine estimated that only 28 percent of the Peruvian adult population received loans from formal banks as a percent of GDP, which indicates that a small portion of the adult population is actually using the formal credit system for borrowing (AQ, 2013). Peru’s SEL C makes up its rapidly growing middle class and a class of consumers
that has the money to participate in formal services, yet at present, empirical evidence demonstrates that 80 percent are not. As shown in Figure 18, well over 60 percent of SEL C and D do not have deposit accounts and over 80 percent of that population segment is not using a credit card.

Figure 18. Socio Economic Credit and Deposit Culture.

Source: Arellano Marketing, 2013.

In the 2010, less than 5 percent of SML enterprises cited access to finance as their biggest obstacle and less than 15 percent cited access to finance as a major constraint, according to the World Bank Enterprise Surveys (World Bank Enterprise Surveys, 2010). The Enterprise Surveys found that over 80 percent of all SML enterprises have some type of checking or savings account. However, when assessing formal enterprise usage of the formal credit system, it is apparent that formal finance struggles with inclusion of small enterprises. The data found that
over 85 percent of large and medium enterprises had outstanding loans at formal financial institutions, whereas, only 52 percent of small enterprises did. Moreover, these statistics neglect micro enterprises, which accounted for 92 percent of MSMEs formally registered in Peru in 2001 (Alvarado, 2001). In 1999, only 7 percent of micro enterprises were estimated to be using the formal credit system, and current empirical evidence suggests that there has not been much of a change in the last decade (World Bank FINDEX 2011; Alvarado et al, 2001).

In 2009 and 2011, the World Bank conducted a financial survey of Peru’s credit culture and found that proximity to banks was the most commonly cited reason for not having an account among lower income groups, after reasons associated with cost and time. Respondents who had enough money to open a bank account believed that the travel required for making deposits and withdrawals to be impractical (World Bank FINDEX, 2011). Despite these respondent findings, empirically, the data shows that Peru has the greatest number of commercial bank branches per 100,000 adults in Latin America (Figure 19), the greatest geographic branch coverage in Latin America, and the fourth largest bank agent network in the world (Mas, 2008, World Bank, 2012). In less than 10 years Peru tripled the number of bank branches and cajeros corresponsales in rural districts (Inga-Falcon, 2013; Mas, 2008).
In 2010, Peru received its third-time ranking by the Economist Intelligence Unit as the world’s best climate for microfinance, which is the formal financial market choice for the majority of Peru’s population as well as its MSMEs. Peru’s microfinancial sector has received much acclaim by news outlets such as the Financial Times, *America’s Quarterly*, La Andina, and various others based upon it is year over year incumbent position as the number one microfinance climate in the world (EIU, 2010). In 2013, MarketMix listed data for over 70 regulated financial entities that operate throughout Peru’s 25 diverse administrative departments.
TABLE 3: Regulated Financial Institutions in Peru

<table>
<thead>
<tr>
<th>Institution</th>
<th>Target SEL</th>
<th>Description</th>
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<tbody>
<tr>
<td>Commercial and microfinance banks (CMACs)</td>
<td>SEL A-C; middle class</td>
<td>Commercial banks have long served elite and socio-economic levels A-B. Microfinance and commercial banks have recently begun to target the new middle class and a middle market informal sector.</td>
</tr>
<tr>
<td>Municipal savings and credit banks (CMACs)</td>
<td>Middle class; SEL C-D.</td>
<td>CMACs are commercial banking’s largest competitor, especially in the provinces. CMACs are regulated institutions, owned but not majority controlled by the municipal government. CMACs specialize in MSMEs loans. CMACs got their beginnings as local pawnshops and underwent a process of conversion in 1982. Throughout the provinces there are still many pawnshops that did not convert and continue to be a popular channel of informal financing. In 2002, CMACs were granted the privilege of operating throughout the country and offering almost full financial services, with the exception of checking accounts. MSMEs prefer CMACs and make up 51 percent of their client base. CMACs cater to the middle class of Peru and those who consider themselves to be progressive and adaptive (Arellano, 2013). There are 26 CMAS in Peru.</td>
</tr>
<tr>
<td>Rural savings and credit banks (CRACs)</td>
<td>Small-scale agricultural producers; SEL D-E.</td>
<td>Rural savings and credit banks (CRACs), were created in 1992 to focus on agriculture. Only recently did CRACs begin to extend their services to micro and small enterprises. Rural banks are regulated and are authorized to receive deposits and offer a full-range of loan services. Similar to CMACs they are not allowed to provide checking accounts.</td>
</tr>
<tr>
<td>Entities for development of small and micro enterprises (EDPYMEs)</td>
<td>Informal and formal small-scale entrepreneurs.</td>
<td>Entities for development of small and micro enterprises (EDPYMEs), are non-bank regulated institution specialized in lending to micro and small businesses. Edpyme's do not receive deposits. Almost all Edpyme's were formerly NGOs that converted into regulated institutions in the nineties (Webb, 2010).</td>
</tr>
<tr>
<td>Government Banks</td>
<td>Total Population</td>
<td>Banco Central de Reserva del Peru (the Central Bank), Banco de la Nación, COFIDE.</td>
</tr>
</tbody>
</table>
The institutions listed in Table 3 are all formal institutions and are regulated by the Superintendency of Banking and Insurance (SBS), which has been a championed as an example of financial regulatory success in regards to the financial consumer protection industry (EIU, 2010). Surveys, industry ratings, and empirical data demonstrate Peru not only has quality financial services but also the most widespread access to these services, yet participation and usage remains among the lowest in Latin America. The empirical evidence requires a qualitative analysis as a means to understand the phenomenon of formal financial inclusion in Peru. The next section will examine informal credit system which began servicing the residual micro-credit demand well before the 1980s and continues to be the formal financial sector’s biggest obstacle (Čihák, Demirgüç-Kunt, Feyen, and Levine 2010).

Peru’s micro credit system was primarily informal until the late 1980s. Prior to the 1980s, micro and agricultural lending was solely provided through state and NGO-led initiatives. Commercial banks, adopting orthodox financial philosophy, avoided microfinance because of the perceived risks associated with the market. Guirkinger (2008) contends that the microfinancial sector demand was too large for state and service-led projects and rather than servicing the demand in an efficient and profitable way, government subsidies created an unequal and underserviced market, full of distortions and inefficiencies. It was not until the first public-private partnership\(^\text{13}\) between NGO, Accion Comunitaria del Peru (ACP) and the commercial bank, Banco Wiese that microfinance had made real inroads to the credit market. The success of

\(^\text{13}\) ACP was a not-for-profit, communitarian bank in Lima that had established a relationship and specialization in migrant district lending. The then popular commercial bank, Banco Wiese, partnered with ACP by underwriting the loans that the NGO distributed to southern migrant districts throughout Lima. ACP is now a majority shareholder in Peru’s first for-profit commercial bank dedicated to microfinance, MiBanco.
the project kicked off an era of partnerships that would emerge between NGOs and commercial banks in migrant and traditionally underserved provincial districts. In 1998, Peru’s President Alberto Fujimori, created a bank modeled after Bolivia’s BancoSol\(^{14}\) that would be an Peruvian institution of national pride in finance and would be accessible by the majority of the population. Fujimori established Peru’s first fully-regulated, commercial bank dedicated to microfinance that year, MiBanco. MiBanco in English means “My Bank.” Fujimori named it My Bank to represent that it was the bank of the people. The creation of MiBanco ushered in a decade long market-led microfinance revolution in Peru (Guirkinger, 2008; Trivelli, 2003). Regulatory bodies were established, evaluation tools developed, and private capital graced the industry. In 2000, traditional banks entered the field vis-à-vis “downscaling” partnerships, and created new branches and arms dedicated to microfinance. The flow of capital and new bank entry created a competitive market, forcing microfinancial institutions to diversify their products, improve efficiency, lower interest rates, and enhance formal financial service offerings (Webb, 2010; Chu, Michael: 2013). Although formal sector competition increased, the greatest competition for formal financial institutions was against the informal credit ecosystem that had acted as a parallel industry and primary banking provider for the population. This thesis argues that informal credit has underpinned and held together Peru’s economic informality for the past few centuries, although the role of informal credit was not recorded until the last half of this century. This next section will discuss the ways in which the informal credit system has offered itself to the Peruvian population.

\(^{14}\) Bolivia took the official microfinancial leap of faith in 1992, creating the world’s first for-profit bank dedicated to microfinance, Banco Solidario (BancoSol). In its first year of operation the bank was profitable, had a return on equity of 28.9 percent, and quickly became a leader in the commercial banking industry.
The Informal Credit System in Peru

There is a diversity of options in the informal credit sector. A study conducted in 2000 examining banking preferences among Peruvian wholesale traders, micro-enterprises, and rural households found that the majority of respondents preferred the informal credit market (Alvarado et al, 2001). Over the last thirteen years, informal credit provision has remained a primary credit provider in Peru’s financial sector. Over 65 percent of the Peruvian population is estimated to bank within informal structures (BMI, 2013). This section will discuss the informal credit options available to a Peruvian, concluding with the intermediary. An intermediary’s credit provision is most closely related to the middle class, supply chain, and informal enterprise. They are most likely the informal credit providers who underpin the informal economy in urban and rural zones.

In Peru, the most traditional type of informal credit occurs among family, friends, and neighbors (Avellano, 2013). Loans from friends and family are considered to be beneficial and risk reducing in groups when a family is exposed to income related shocks. Pearlman (2010) finds in Peru that family and friends are the principal source of funding for enterprise endeavors or family emergencies. The author cites flexibility of loan terms as the determinant; large shocks such as robbery, bribes, extrusion, and natural disasters make it not only difficult, but risky for a borrower to meet strict repayment schedules. In Peru, extensive knowledge within social networks allows for tailored repayment plans and encourages peer monitoring and reciprocal lending (Besley, 1995). While family and friends are the preferred informal credit lender for Peruvians, there are many other informal credit sources, which create an informal credit ecosystem that shadows the formal financial system.
Pawnshops are the most common source of credit in rural zones or where traditional banking has not yet been established. Pawnshops operate in terms of future contracts, allocating credit against the future delivery of products. The pawnshop lender then resells the product or goods to wholesalers and intermediaries. The pawnshop’s liquidity comes from purchases by the wholesalers. They are able to use the capital as a basis for creating the informal credit market that exists between the shop and the farmer. Credit becomes interrelated at the pawnshop between productive activities and commercial vendors.

Savings and Credit Associations (ROSCA) operate throughout the developing world and are composed of groupings of people who know each other well and have strong ties. Although ROSCAs typically have different names in different countries they operate in the same manner. In Peru the provincial communities call ROSCAs, “Unidades.” The group within the Unidad shares risk and provides basic informal functions of lending and savings. Unidades are characterized by memberships of six to forty individuals and a leader who handles the collection and distribution of funds. Each member puts in a sum of money at a fixed term and it rotates throughout the membership until each member has received credit, whereby a new term begins (Adams and Canavesi de Sahonero, 1989). Unidades serve both economic and social functions in their communities, allowing for ancillary benefits of community trust building and socializing. Unidad or ROSCA is often preferred in rural communities because their relationships can allow for more tailored loan terms within a group that also serves as a social community.

Speculators or professional lenders operate in groups and tend to be a last resort lender due to their exorbitant interest rates. They know very little about the borrower but remain a competitive part of the informal sector because they often do not require collateral or
documentation. In 2009, one in five adults in Peru, cited lack of proper documentation as a perceived barrier to formal financial services, regardless of income level (World Bank FINDEX, 2009). Hoff and Stiglitz (1990) find that the speculator or professional lender’s information allows for less intensive requisites, documentation, and screening and monitoring processes. The lenders are able to acquire privileged information regarding rural credit market cycles and conditions, which allows them to require less collateral than a formal institution and at a lower cost to the informal lender. Independent workers also turn to informal lenders because of the upswings and unpredictability of their daily cash flows. Informal lenders can create personalized contracts for independent workers and farmers, which require minimal documentation and provide realistic time tables at a lower cost to the lender. These contracts, initially, may appear less risky for the borrower; however, they often come at the cost of higher interest rates and a lack of consumer protection and regulation (Boucher, 2005 and Guikinger, 2008).

Traders or informal market intermediaries are arguably the most powerful entities in informal credit provision. Traders have the largest sums of capital and they work informally among the pawnshop, farmers, and local merchants. The capital they manage is equivalent to the capital that would incentivize a person to bank formally if they did not have the option of the intermediary. Intermediaries allocate loans in the form of commercial and/or credit contracts. They incorporate aspects of the commercial exchange and arrange contractual terms favorable to the borrower, which they are able to do for the aforementioned reasons. Estimates suggest top Peruvian intermediaries earn $2,000.00 dollars net per day. Assuming the intermediary works five days a week annually, that is equivalent to $40,000 a month and $480,000 a year (Cáceres-Barrantes, 2012). Intermediaries have minimal overhead costs, and in many cases only pay a
monthly fee for their market stall. Their status as extralegal precludes them from sales and local tax. Ambitious intermediaries are even part of informal renting schemes, and buy and rent out stalls as an additional income generating activity. Cáceres-Barrantes (2012) conducted an interview with a top potato intermediary who sells about 200 sacks per day (20,000 kilos) at an estimated value of $5,748.00 dollars. The intermediary attests that her profits only amount to 30 percent of the total because she engages in landowner financing. Landowner financing is when a landowner trades land and inputs on credit in exchange for a part of the production, which they then use to leverage mixed contractual arrangements in the small scale production market (Alvarado et al, 2001). Cáceres-Barrantes (2012) argues that the role of the intermediary as a money lender underpins the entire informal credit system. Intermediaries are able to exert power in the informal sector because of their supply chain control which is heavily contingent on their role as “bankers.” Intermediaries own and control various aspects of the supply chain, which can vary depending on the industry. In agriculture they control land cultivation, agricultural production, transportation, trade routes, market stalls, and vendor access. The ability of intermediaries to finance the supply chain and create contractual terms for the workers provides the point of departure for understanding the sophistication of the informal credit market and its role within Peruvian social networks and supply chains.

Formal financial inclusion is a fundamental aspect to economic growth and equality. As shown by the empirical data, Peru’s formal microfinancial industry is underused by the majority of the socioeconomic population it targets, yet evidence finds that the industry is accessible, competitive, and one of distinction. The informal credit sector has an array of options that exist as subset to established relationships and historical roots, which was discussed in Chapter II:
Economic Informality: The Multidimensionality of Economic Informality in Peru: Root Causes.

Informal credit’s commercial ties to economic informality as shown by the intermediary inhibit comprehensive formal financial inclusion in Peru. The next chapter addresses the tool of mobile technology and how it can be used for financial inclusion as well as the creation of a mobile ecosystem to assist future projects in formalization.
Chapter V: Mobile Based Solutions for Formal Financial Inclusion

A modern and popular tool for sustainable development and financial inclusion is the mobile phone. In 2008, there were 4.8 billion mobile subscribers worldwide and in 2012 the global penetration rate was estimated to be at almost 90 percent (Rangan and Lee 2012; Inga Falcon, 2012). By 2012, 148 mobile financial pilots have been rolled out throughout the world, and 90 percent of those pilots were in developing countries (Inga-Falcon, 2012). Mobile phones are being viewed as tools for economic empowerment with mobile-money as a bridge for mobile-led development across the world (Rangan and Lee 2012). Peru has yet to roll out any mobile technology pilot projects that target formal financial inclusion, although, the Peruvian Superintendency passed legislation in 2013 that encourages mobile banking platforms to promote social and financial inclusion (BMI, 2013).

This chapter will provide a brief overview of mobile penetration in Peru, the benefit of mobile money and technology, and policy recommendations for stakeholders in formal financial inclusion and economic formality. There are a multitude of challenges associated with the introduction of mobile technology but its benefits and possibilities make it a relevant channel to explore and a unique opportunity for formal stakeholders. While it is beyond the scope of this thesis to explore all components associated with mobile technology, this thesis will deal two primary elements that set the stage for a solution the formal economy can undertake to promote formal financial inclusion as a primary and sequential step to greater levels of eventual economic formality. The first element is the creation of a mobile financial ecosystem. The second is the utility of the mobile application and how it can be developed to include social and economic functions to achieve the long-term goals of formalization of enterprise.
Mobile Penetration and Benefits for Formal Financial Inclusion and Enterprise

This section will begin with an assessment of mobile penetration and subscriptions in Peru followed by an explanation of mobile technology’s benefits to formal financial inclusion and enterprise. Every department in Peru has substantial cell phone penetration, with usage in the jungle estimated to surpass 70 percent (Figure 18). In more than 120 districts in Peru, where there are no formal financial services, there is mobile technology (Inga-Falcon, 2012). Mobile subscriptions have grown exponentially since the 1990s and are expected to continue to rise (Figure 19). Phones with increasing capabilities (smartphones) are beginning to overtake simplistic phones (feature phones) as price point’s drop and socioeconomic mobility allows for greater consumer access and desire for more sophisticated phones. The Chief Executive Officer of the Frontier Strategy Group, Richard Leggett reasoned that, “Real increases in personal income and access to credit will support growth across all retail categories, but consumer electronics will outperform, as consumer taste becomes more sophisticated” (HBR blog, 2013). A rising number of phones in developing countries have the ability to access internet in hotspots as well as through pre- or post-paid plans.
Figure 20: Mobile Phone Penetration per Department (2013)

Source: World Bank Development Indicators database
Mobile phones have eliminated or reduced barriers for formal financial inclusion in developing countries. Traditional barriers for formal financial inclusion have been the distance of bank branches, high transaction costs and fees, minimum balance requirements, identification requirements, and supplying the bank with a physical address (Rangan and Lee, 2012). The utility of the mobile phone is that transactions can be done from the comfort of any location where there is service. Costs have been reduced as banks are requiring less customer service agents and transactions are more efficient. Banks using mobile products are able to provide access to financial products to the poor at costs 35 - 85 percent lower than former bank transactions and no longer require a minimum balance (Rangan and Lee, 2012). Identification requirements are still an area that needs work but through the collection of data overtime,
requirements in the mobile market will become less stringent. Lastly, a physical address can be overcome with tracking and GPS installation on many phones where there are not street addresses or formal identifiers. For the customer, mobile banking has improved community safety and time and cost savings. The “unbanked” is recognizing the benefits and it has resulted in formal conversion. Fifty percent of M-Pesa clients had never used a formal banking service before the introduction of the mobile banking product, according to a Vodafone study. The penetration and reach of mobile devices across Peru and the increasing capabilities of their platforms make them a competitive tool for formal financial inclusion.

Capitalizing on commercial incentives can make mobile technology a more competitive tool against informal finance in Peru. A McKinsey study of 600 Chinese workers who traveled for their jobs (sales people, taxi drivers, and the like) found that mobile phones provided a times savings of nearly 6 percent, a productivity gain worth $33 billion in 2005 (Rangan and Lee, 2012). The ability of the intermediary to finance the supply chain, create contractual terms for the workers, and establish social relationships creates the basis of what motivates these individuals to bank informally. In Villa el Salvador mobile phones have been used as the first point of contact with a client and through referrals when engaging new clients. Cáceres-Barrantes’ research revealed that the microentrepreneurs of Villa el Salvador are willing to use and adopt mobile technology if they perceive it adds value to their business. Leveraging technology to unify and brand commercial and industrial centers can provide new linkages, awareness, cost reductions, greater competition, and sources of capital flows for the centers, and most importantly formal financial inclusion and long-term economic formality.
The market formalization that took place under the purview of MiBanco shows that there is a will to formalize if given adequate space, information, and tools. While there are 1,000 informal enterprises, the 400 enterprises brought into formal banking and economic formalization by MiBanco is evidence of a changing tide (Santestibean, 2013). The introduction of technology to the market should draw in a more youthful crowd and has the potential to shift the mentality of the rising generation in the urban, migrant district. The more exposure that the youth and informal community receive to cleanlier and more efficient business practices will encourage adoption, demand, and proliferation of formal services. Technology has the power to break down the barriers that have traditionally held back formal sector growth and conversion. The key to introducing mobile technology in Villa el Salvador and Villa Maria del Triunfo or within any cluster that is experiencing informality is awareness, branding, and the incorporation of aspects of the informal credit system. The inclusion of supply chain financing, greater access to markets, contractual terms for the workers and the establishment of social relationships through technology will add utility to mobile products for the individuals and/or enterprise.
A Mobile Financial Ecosystem

Although mobile devices present a great opportunity for formal financial inclusion and economic formalization, when dealing with the “unbanked” or informal sector population there will still be challenges for formal banks to overcome. This section will address the necessity of identifying strategies that will encourage the most adoption and proliferation of a mobile product to create an operable ecosystem. For the mobile financial system to achieve full integration in an economy, the majority of citizens must utilize the product and services offered. There are various ways that formal stakeholders, such as the government, banks, and enterprise, can assist in the process of formal financial inclusion. Mobile based financial inclusion exists through various channels, Table 8, lists the types of mobile channels available to governments, banks, and enterprise.
### TABLE 8. Mobile Financial Inclusion Channels

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Product Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P2P: Person to Person</strong></td>
<td>This is the most common of the platforms and facilities transfers at the national level and remittances at the international level, services and benefits are paid for based upon transaction.</td>
<td>Providers of transfers at the national level include: M-Pesa in Kenya and True Money in Thailand. Mobile Savings Accounts: M-Kesho (Kenya operated Safaricom); Savings for Health: M-Pesa; Credit: M-Pesa and M-Paisa in Afghanistan; and External Transfers: Smart Money and G-Cash in Philippines.</td>
</tr>
<tr>
<td><strong>P2B: Person to Business</strong></td>
<td>This facilitates payment of goods and services a person receives from a business or enterprise.</td>
<td>Payment for Goods and Services: M-Pesa in Kenya, Smart Phone in the Philippines, and Eko in India.</td>
</tr>
<tr>
<td><strong>B2P: Business to Person</strong></td>
<td>Can be used to pay salaries or services rendered from a person for the business.</td>
<td>True Money in Thailand and Smart Money in the Philippines.</td>
</tr>
<tr>
<td><strong>B2B: Business to Business</strong></td>
<td>Can be used among businesses to pay one another for services and goods. Corporations are currently trying to explore this with MSMEs.</td>
<td></td>
</tr>
<tr>
<td><strong>G2P: Government to person</strong></td>
<td>This can be used to pay salaries and can also be used for conditional cash transfer programs.</td>
<td>CCT: G-Cash in the Philippines.</td>
</tr>
<tr>
<td><strong>G2B: Government to Business</strong></td>
<td>Can be used by the government to pay private entities for services.</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Adapted from Patricia-Inga Falcon (2013)*
When choosing a strategy for mobile formal financial inclusion it important to assess which option presents a comprehensive opportunity for proliferation. While P2P has worked in the case of M-PESA it has not worked in other countries and has done very little for economic formalization and social inclusion. P2P assumes both individuals have a bank account or are mobile money service users, which is not the case in Peru that is looking to roll out pilot projects within the next few years.

Initial options that provide the greatest potential for early market consumer adoption are B2P and G2P. To increase formal financial inclusion and formal account usage, large formal businesses with employees on payroll and government cash transfer programs, such as Juntos, can issue direct payments to accounts connected to mobile products. B2P requires formal employment but becomes a channel for diffusion through pleased customers. A customer, who recognizes the benefits of mobile banking, such as safety, convenience, and cost savings, will share with friends and family in the informal sector, encouraging further enrollment.

G2P is most effective in reaching informal workers who are part of government programs and will become initial adopters and proponents of the service. The ancillary benefit of this is a reduction of cash in communities and a wider engagement in P2P, P2B, and B2B by the first adopters. Governments can also link the mobile product to the service offerings of Juntos, such as applications that monitor vaccination and enrollment as well as pre and post-natal healthcare. Multi-faceted uses of a mobile product will create a broader ecosystem of usability and perceived functionality. The current stall in development is a classic problem of trickle-down economics; in effect, the mobile financial revolution needs to occur from the bottom up. Once cash transactions shift to mobile money transactions and there is a perceived value among all actors in
the ecosystem, fluidity of capital flows from the base of the pyramid will facilitate transactions throughout middle and top and in various facets of a person’s life, which can be made to include healthcare and education.
Mobile Applications: Social and economic function

There has yet to be a mobile money model and correlative product that is replicable across borders and targets their financial inclusion platform as part of long-term economic formalization (GSMA, 2012). The opportunity to create and develop a product of this nature will be in mobile applications. This section will conclude with an overview of the utility of the mobile application and the ways in which consumers are currently using applications. Peru’s rising middle class of consumers provides a unique opportunity for Peruvian stakeholders. The development of applications that complement mobile money and mobile banking solutions can incentivize varying degrees of economic formalization.

Studies show that consumers don’t perceive applications as intrusive; rather they value them for their functionality (Gupta, 2013). The mobile application has a perceived utility in the domain of productivity, shopping, socializing, and information. Studies in how to deliver mobile money products and applications to consumers by the International Finance Corporation, the Institute of Peruvian, and various other interested scholars and organizations are revealing results that mirror Harvard Business School’s finding for corporate marketing strategy to consumers. While the motivations may vary among banks, governments, and corporations in Peru they are all trying to reach the rising middle class consumer. Capitalizing on what the informal sector needs the application to do to maximize its functionality should drive the design of the application. Successful applications add value to consumers’ lives and enhance long-term engagement with their provider. Gupta found applications that: add convenience, offer unique value, provide social value, offer incentives and entertain, are quickly adopted by consumers.
Sunil Gupta, the Head of Marketing at Harvard Business School, argues that smartphone users spend, on average, 82 percent of their mobile minutes with applications and just 18 percent with web browsers. Consumers are estimated to download about 40 applications to their phones (out of more than a million available) and regularly use about 15 (Gupta, 2013). Gupta classifies smartphone applications into five categories:

1. Games and entertainment.
2. Social networks.
3. Utilities, including maps, clocks, calendars, cameras, and e-mail.
4. Discovery, including apps for location, movies, and planning.
5. Brands, such as Nike and Red Bull.

According to Harvard Business Review’s recent study on application use, they find that consumers have seven primary motivations for smartphone usage. Almost half of interactions involved e-mail, SMS messages, and voice calls; however the other half of consumer usage leaves a myriad of opportunities to create innovative solutions to formal financial inclusion and economic formality. The study found that consumers used applications to accomplish goals such as managing finance, health, and productivity, shopping, socializing, and for news and information as shown in Figure 22 below.
Applying the aforementioned Gupta framework, convenience, unique social value, incentives, and entertainment, to create an application that competes against informal sector competition opens the doors for distinct possibilities. For example, a mobile money product partnered with an application can offer convenience through multiple bill payments, such as payments for electricity, telephone, etc. The International Finance Corporation’s mobile toolkit, stresses the importance of multiple retail incentives when developing a mobile money product.
for a consumer to perceive a value. These incentives can be as simple as consolidating bills. Applications can create unique value through relationships with local retailers allowing for direct payment of purchases and related shopping functions. An application can utilize social media to offer network functionalities, as a first step toward formalization of enterprise by creating games that promote financial literacy and basic accounting skills. Formal service offerings need to be perceived as more valuable and convenient than informal services. A bank can provide the inroads to formality by becoming the backbone of an operable ecosystem of commercially related entities that offer informal sector workers a range of activities and incentives to join the formal sector.
Policy Recommendation for Gamarra

The Gamarra cluster harbors a huge potential for Lima, but is blocked by challenges of interoperability between the informal and formal actors of its ecosystem. A financial based mobile solution to the Gamarra challenge would require an umbrella branding campaign that gave pride to formality and the association of it with Gamarra. Porter (2000) argues that nonpartisan, private sector led initiatives can identify obstacles and constraints and provide solutions for a cluster. A cluster requires personal relationships to facilitate linkages, foster open communication, and build trust. Successful cluster initiatives should facilitate, instigate, and increase communications. In the case of Gamarra where there is distrust and fragmented relationships, a neutral mobile based solution has tremendous opportunity to increase formal financial inclusion and provide a nonpartisan platform to increase communication and formalize the cluster. The current formal organizations are viewed as exclusionary and separate from the informal system. History and deep seeded roots in state and elite exclusion have become the foundation for the challenges the Johannesburg group will continue to meet if they expect to lead the cluster’s transformation to formality. A neutral solution, such as the one that can be offered in mobile based information technology, has the power to provide incentives, create new partnerships, and identify key social influencers and stakeholders for both the formal and informal sector.
Policy Recommendation for The Villas

The microentrepreneurs of Villa el Salvador have recognized the importance of mobile technology in their businesses. Mobile phones have been used at the first point of contact with a client and through referrals when engaging new clients. Leveraging technology to unify and brand commercial and industrial centers can provide new linkages, awareness, cost reductions, greater competition, and sources of capital flows for the centers, and most importantly formal financial inclusion and formality. As proven by MiBanco’s formal market, there is the will to formalize if given adequate space, information, and tools. While there are 1,000 informal enterprises, the 400 enterprises brought into formal banking and formalization by MiBanco is evidence that there are productive capital and great possibilities of opportunity, even amidst challenges of poverty (Santestibean, 2013). The introduction of technology to the market will expose new spaces and opportunities for the cluster. The key to this application is awareness, branding, and utility, which can be applied to any application model within any cluster or informal grouping.
Conclusion

As Lima’s growth continues, the government and banks will need to devise more creative and innovative solutions to the endogenous challenge of formal financial inclusion and economic formality. As demonstrated in Chapter I, Peru’s growth is ushering in a new middle class, more socioeconomic mobility, and with it a consumer market, which businesses formal and informal alike are eager to tap. In a recent Harvard Business Review article the Frontier Strategy Group estimated that private consumption in Peru will grow 54 percent between 2010 and 2015 (HBR blog, 2013). However, the potential for market growth will be frustrated, as shown in Chapter II, by high levels of economic informality, which affect a broad range of sectors insofar as it is competition to Peru’s formal sector. The cluster cases of the Gamarra Market and the Villas, as discussed in Chapter III, illustrate the ways in which distrust and the lack of agglomeration harm the true innovation potential of the clusters. Furthermore, with multinational competition entering to service a consumer market demand, there will be the need for these clusters to raise standards, quality, and innovation to remain competitive. In addressing these current challenges the intermediaries, discussed in Chapter IV, who does most of the urban and rural financing via credit, should be addressed as a core component to meet these current market challenges. Mobile technology, demonstrated in Chapter V, provides a unique opportunity for converting the informal credit sector.

The obstacles Peru faces in the reduction of economic informality will require long-term and strategic planning. The primary step of a mobile formal financial ecosystem begins to repair a social contract between the informal sector and formal institutions. Taking this relationship as a basis for continuum formalization planning should be implemented on a case by case basis. It
should be noted that not all industries and sectors can or will benefit from formality. The aim should be a reduction in the competition economic informality is causing for Peru’s formal enterprises. Peru’s formal enterprises are the most important part of its economy and therefore policy should aim to protect these enterprises and their workers. The sustainability of Lima’s formal sector is put into question by the multinationals, which continue to raise standards. Lima’s formal and informal hybrid model is subject to disadvantages and requires a more productive balance in its model. Peru’s improved institutions require reparation of the social contract, especially in urban areas, one that will continue to contribute to its growth and prosperity; informality in rural regions will require additional measures and strategy. A thriving middle class will continue to put pressure on weak structures either causing them to collapse or to reform and converge into hybrid spaces driven by a virtually interconnected world. Technology and inexpensive mobile financial access present a unique opportunity for Peru to tackle an informal sector that exists as a result of culture and tradition, enabling a formal market to transform and absorb it. Amidst the stalls and shanties, Villa el Salvador is growing to meet the construction demand for a new shopping mall and meanwhile the formal enterprises in the Gamarra Market wonder how they will be able to sustain their mixed economy that is weighed down by informality, in the face of contemporary socioeconomic development and pressure by multinationals. Peru waits with the hope that: “Soon, everything will be possible” (Schipani, 2013).
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Subsequent Notes:

Wilfred Santestibean, in-person interview with Cooperative President of Villa Maria Del Triunfo MiBanco market, July 14, 2013.