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Social Network Theory in Inter-Organizational Alliances:
An Exploratory Examination of Mobile Payments Engagement

BY

Deborah D. Hazzard-Robinson

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree

Of

Executive Doctorate in Business

In the Robinson College of Business

Of

Georgia State University

GEORGIA STATE UNIVERSITY
ROBINSON COLLEGE OF BUSINESS
2012

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2012

ACCEPTANCE

This dissertation was prepared under the direction of the Deborah D. Hazzard-Robinson Dissertation Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Executive Doctorate in Business in the J. Mack Robinson College of Business of Georgia State University.

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ABSTRACT

Social Network Theory in Inter-Organizational Alliances: An Exploratory Examination of Mobile Payments Engagement

BY

Deborah D. Hazzard-Robinson

July 31, 2012

Committee Chair: Dr. Karen D. Loch

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Fueled by ubiquitous access to mobile phones, and a massive population of nearly 3 billion unbanked people around the globe, mobile commerce is evolving as a disruptive technology. Simultaneously, mobile payments are surfacing as a killer application within the mobile commerce context (Hu et al. 2008). Undeniably, the proliferation of wireless mobile technology provides much-needed access to vital information, and financial services for disenfranchised, unbanked populations. In addition, technological innovations offer first-time opportunities for suppliers of goods and services in a market context to gain competitive advantages while enhancing their economic viability.

According to Portio Research, the volume of mobile payments rose significantly from \$68.7 billion U.S. dollars in 2009, with predictions of \$633.4 billion U.S. dollars by the end of 2014 (mobithinking.com 2012). Despite exponential growth in the number of mobile subscribers globally, and widespread adoption of mobile commerce, acceptance rates for mobile payment applications have lagged (Dahlberg et al. 2007, Ondrus et al 2009, Ondrus and Lyytinen 2011). Yet examinations of factors inhibiting the widespread acceptance of mobile payments are relatively sparse.

Using Social Network theory, this research examines factors affecting engagement in mobile payments. The researcher posits that four primary elements influence mobile payment engagement: 1) the relationships between and amongst inter-organizational alliance members; 2) the prevailing regulatory environment; 3) the state of existing banking and technology infrastructures, and 4) an assessment of economic opportunity.

The research outcomes from this exploratory examination led to the development of a comprehensive model for mobile payment engagement, and strongly suggest that ties between and amongst firms in inter-organizational alliances help ensure the success of mobile payment engagement. Support was found for the following suppositions: 1) similarities and relations (continuous ties) help establish a framework and understanding amongst alliance members as to each party's goals and objectives; and 2) interactions and flows (discrete ties) between and amongst inter-organizational alliance members strengthen the overall ties between alliance members while solidifying a viable working relationship amongst the alliance members.

This study employs a qualitative approach to obtain real world insight into the dynamism of the mobile payment arena. A model is then proposed to practically examine mobile payment engagement opportunities. From a theoretical perspective, the research contributes to the extant scholarly knowledgebase pertaining to engagement in mobile payments.

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An Exploratory Examination of Mobile Payment Engagement

I. Introduction

i. Research Domain

Mobile *commerce* is evolving as a disruptive technology; while mobile *payments* are surfacing as a killer application within the mobile commerce context (Hu et al. 2008). Drawing upon insights from Downes and Mui (1998), Alani et al. (2005) and Hu et al. (2008), killer applications are defined as information technologies that radically change the way we live our lives and conduct business. As such, killer applications are both disruptive and transformative in that they result in paradigms being shifted and existing practices being displaced. They literally interrupt prevailing business practices by invoking an element of chaos and uncertainty in inter-organizational relationships amongst and between allies, competitors, regulators and end-users.

For the purpose of this study, we define mobile payments as any transaction paid for using a wireless mobile device, encompassing an array of transactions from the purchase of airtime, to point of sale payments, to person-to-person transfers. A major player within the mobile payments space, Paypal, reports exponential growth in mobile money transactions from \$140 million in 2009 to 750 million in 2010 to an astounding \$4 billion in 2011 (CBS 2012). Estimates are that the yearly mobile payments market will total \$633.4 billion U.S. dollars by 2015, an indication of tremendous opportunity for multiple “players” (mobithinking.com 2012). Moreover, Juniper Research estimated an exponential increase in the total value of mobile payments from \$240 billion U.S. dollars in 2011 to \$670 billion by 2015.

In the complex mobile payment framework, strategic alliances are being formed between mobile network operators, financial service companies, retailers and other entities. The aforementioned inter-organizational alliances, also known as mobile payment ecosystems, are spawning to enhance value and expand service in order to meet rising consumer demand for mobile payment services. Undoubtedly, convergence of organizations in these diverse sectors is imperative if organizations are to successfully compete within the new business landscape while achieving desired value propositions.

Despite predictions for exponential growth in the mobile payment arena fundamental challenges continue to impede engagement in mobile payments, and thus mobile payment diffusion overall. Namely, experts point to vital social, market, organizational and industry challenges that are negatively affecting organizational engagement in mobile payments. Specifically, power struggles between banks and mobile network operators with respect to who “owns” the customer, and thus, the end-user relationship; uncertainties regarding alliance member positions, and roles, within the overall alliance structure; and a complex market wherein there is a definite need for actors to generate interest on both the supply and demand sides of the market (Ondrus and Lyytinen 2011).

With that in mind, there is a need for vital knowledge and insightful contributions in many areas within the mobile payment space, including conjectures regarding a superlative composition of organizations comprising the mobile payment inter-organizational alliance, an exemplar business model that meets scalability and market adaptability requirements, and an enabling regulatory framework that is efficacious while ensuring integrity in mobile payment solutions.

A preliminary search of mobile payment literature revealed a large volume of mobile payment studies, with the two most studied factors being mobile payment technologies and consumer perspectives of mobile payment (Dahlberg 2007). A careful examination of recent literature revealed that enabling technologies to facilitate mobile payment services are broadly available and the possibilities offered by the application are promising. Even so, an extensive literature search found fragmented coverage of the technology basis of mobile payments. Moreover, past research has ignored the impact of social and cultural influences on the adoption of mobile payments, as well as undertaking comparisons between traditional and mobile payments. While exploratory and early phase research studies have been conducted, there is a need for more rigorous and comprehensive examination of the aforementioned areas in order to gain deeper insights and enhanced awareness of the subject matter (Dahlberg et al. 2007).

Further, the lack of empirical studies backed by guiding theories is leading to diminished quality of mobile payment research at a time when phenomenal growth in the mobile payment arena appears to be on the horizon. According to Accenture (2011), current shifts in consumer behavior are resulting in the mobilization of businesses throughout the mobile supply chain in

order to escalate the diffusion of mobile payments. Without question, changing consumer preferences, as evidenced by a growing affinity towards mobile payments, are propelling firm-level engagement in mobile payments. That being said, successful mobile payment inter-organizational alliances require strategic relationships between numerous diverse, distinct organizations and enterprises collaborating, within a *network*, in order to meet the mounting mobile payment demands of consumers. The current research is motivated by the aforementioned gaps in literature pertaining to mobile payment engagement.

ii. Research Perspective

Social Network theory informed this examination of mobile payment engagement, with a particular emphasis on inter-organizational alliance configurations and interactions. The evolution of international business strategy has led to multinational corporations placing greater emphasis on the creation of transnational integrated supply chain networks while also laboring to engage in demand-side integrated networks of markets, on global scale and scope (Tallman and Yip 2010). With respect to mobile payment engagement, *different* organizations including financial service providers, mobile network operators, technology companies, government, distributors, healthcare providers, retailers, transit operators, utility companies, employers, and regulators, communicate and collaborate as individual actors within the inter-organizational alliance structure.

At the same time, these organizations act collectively, as an entity, to create enabling environments for the diffusion of mobile payment solutions amidst growing consumer demand. Working together, these networks of stakeholder organizations are able to gain competitive advantage, achieve profitability and maintain efficiency despite complex, revolutionizing market contexts. Donaldson and Preston (1995) and Post et al. (2002) confirm the critical nature of stakeholder cooperation for long-term operational survival of firms. Further, the prevalence of networks has resulted in them becoming the intellectual centerpiece of the new era (Kahler 2009).

According to estimates, nearly 48% of the population in Sub-Saharan Africa has mobile phone access while almost 55% of the overall population in Southeast Asia now has access to a mobile phone. The Middle East exhibits average market penetration rates of 80% across the region, and

Latin America's numbers are even stronger given penetration rates averaging 86% across the region (Verclas 2010). As of December 2010, 96% of the United States population or nearly 303 million consumers subscribe to mobile phones (CTIA 2011).

As the world's largest continent and home to nearly 800 million people, Africa has nearly 340 million mobile cellular subscriptions according to estimates by the International Telecommunications Union (CTIA 2011). Statistics confirm exponential growth in Africa's mobile telecommunications market as evidenced by its ranking as the fastest growing mobile phone market in the world from 2003 through 2008 (CTIA 2011). On average, more than one-third of the African population has a mobile plan, with some areas reaching almost two-thirds market penetration (Ferenstein 2010). Competition is becoming intense in many African countries given the entry of new mobile operators, resulting in unsustainable price wars and decreasing average revenue per unit (ARPU). To counteract these trends, mobile operators are making strategic moves including introducing fiber optic networks as well as entering new service sectors via joint licensing agreements (Budde 2011).

Irrefutably, the Indian telecommunication industry is *currently* one of the fastest growing in the world, having become the second largest telecom market in the world in 2010. In fact, India added 113.26 million new customers in 2008, the largest number of new mobile subscribers on an annual basis globally. India's cellular base witnessed close to 50% growth in 2008, with an average 9.5 million customers added every month (Report 2010). Adoption of mobile phones, as evidenced by the aforementioned penetration rates, confirms the ubiquitous nature of wireless mobile penetration.

With a population of just under 312 million people, the United States boasted nearly 100% mobile phone penetration as of December 2010. Moreover, mobile banking adoption rates are strong, having doubled between 2010 and 2011 according to estimates (CTIA 2011). Even so, mobile payment engagement has lagged despite ubiquitous adoption of mobile commerce. According to Sims (2012), mobile payments will not achieve any noteworthy market penetration or status until banks, telecoms and retailers unite around a particular business model; thereby leading to interoperability and widespread proliferation of mobile payments.

Industry analysts also posit that stakeholder coordination and cooperation will promote mobile payment engagement. Without question, the success of mobile payment inter-organizational alliances depends heavily on the proficiency with which actors within the inter-organizational alliance share and exchange resources for the benefit of the unabridged network. Therefore, the research question for the current study is as follows:

How do mobile payment inter-organizational alliance configurations and interactions influence engagement in mobile payments?

iii. Research Approach

This research consists of an exploratory study wherein Social Network theory constructs frame the examination of mobile payment inter-organizational alliances. In particular, the research explores the influence of mobile payment inter-organizational alliance configurations and interactions on engagement in mobile payments. Key theoretical constructs considered in this examination include regulatory enablement, assessment of economic opportunity, continuous ties, discrete ties, maturity of banking infrastructure, maturity of telecommunications infrastructure and mobile payment engagement within mobile payment inter-organizational alliances. A framework for the research project is outlined in **Table 1**.

Table 1. Dissertation Framework

<i>Research Component</i>	<i>Engagement in mobile payments</i> <i>Authors:</i> <i>Deborah D. Hazzard-Robinson, Doctoral Candidate and Dr. Karen Loch</i>
<i>Area of Concern</i>	<i>Engagement in mobile payments in emerging markets and developed countries</i>
<i>Real World Problem Setting</i>	<i>Organizations engaged in mobile payment activities in emerging markets and developed countries</i>
<i>Framing of Argument</i> <i>i.e. Theory</i>	<i>Social Network theory</i>
<i>Method</i>	<u><i>Qualitative: Semi-structured interviews</i></u>

<i>Contribution</i>	<p><u>Contributions to Theory:</u> <i>Contribute to the extant scholarly knowledgebase pertaining to mobile payment engagement</i></p> <p><u>Contribution to Practice:</u> <i>Provides practitioners with a plausible framework within which to examine mobile payment engagement opportunities in both emerging markets and developed countries.</i></p>
<i>Research Question</i>	<i>How do mobile payment inter-organizational alliance configurations and interactions influence engagement in mobile payments?</i>

iv. Summary of Dissertation

The dissertation is divided into several sections to enhance readability. The sections are as follows:

- **Section I-** consists of an overview of the research domain, research perspective, the research approach as well as the research question being investigated, in an effort to establish the framework for the study.
- **Section II-** provides a broad overview of relevant literature with a particular interest in the implications of mobile payments engagement. The topics covered in the section include: 1) Social Network theory, as well as its relevant constructs; 2) social networks within inter-organizational alliances; 3) global market perspectives; 4) the research context in emerging markets, with an emphasis on sub-Saharan Africa; 5) the research context in developed countries, with a particular focus on the United States of America and 6) mobile payments and 7) mobile payment inter-organizational alliances.
- **Section III-** explicates the research methodology and design chosen for the purpose of this research.
- **Section IV-** contains data analysis and findings.
- **Section V-** entails implications and conclusions with respect to this research.
- **Section VI-** describes the expected contribution and publication strategy.
- **Section VII.** cites literature and related references used to inform the research project.

II. Literature Review

i. Social Network Theory

Social Network theory (SNT), often referred to as network theory or network analysis, is concerned with the examination of social relationships amongst actors in a network. A central tenet of Social Network theory is that individual actors are not as important as the relationships and links with other actors in the network (Tichy et al. 1979, Powell et al. 1996, Borgatti and Li 2009, Jorgensen and Ulhoi 2010). By definition, the individual actors within a network are referred to as nodes; whereas, the relationships between actors are known as ties.

From a theoretical perspective, the level of analysis employed in SNT research can be an individual, an organization or entire network. An extensive review of literature reveals the use of Social Network theory to examine interactions between organizations for nearly three decades (see, for example, Tichy et al. 1979). Seminal works within the Social Network theory literature stream also include Granovetter's (1983) examination of weak ties within the context of the adoption of innovations, Powell et al.'s (1996) inter-organizational level analysis of networks within the biotechnology arena as well as Valente's (1995) work pertaining to the diffusion of innovations from a network perspective.

Incentives for firms to become involved in networks and actively engaged in network activities are innumerable as the perceived value of networks extends beyond the individual firm level during social exchange (Peppard and Rylander 2006). Borgatti and Li's (2009) analysis of a supply chain context, using Social Network theory, established a suitable framework as well as relevant constructs upon which to frame an exploratory examination of inter-firm relationships. As such, SNT is an ideal lens through which to frame the current exploratory examination of inter-organizational alliances within the mobile payment market context.

Adapted from Borgatti and Li (2009), *Figure 1* provides a typology of ties among entities studied in social network literature. The current research is an exploratory examination of organizations as nodes, or actors, within the mobile payment context. From a social network analysis perspective, the basic units of analysis are pairs of nodes. These pairs of nodes, known as dyads, form the underlying framework upon which a social network is constructed. According to Borgatti and Li (2009), these dyads connect with each other to form paths of varying lengths

that may result in a network characterized by all actors being connected, albeit indirectly. Within the network, these paths provide a means through which actors can influence each other regardless of whether they are known to each other. Moreover, position in the network itself can have consequences for the node or actor, theoretically (Borgatti and Li 2009)

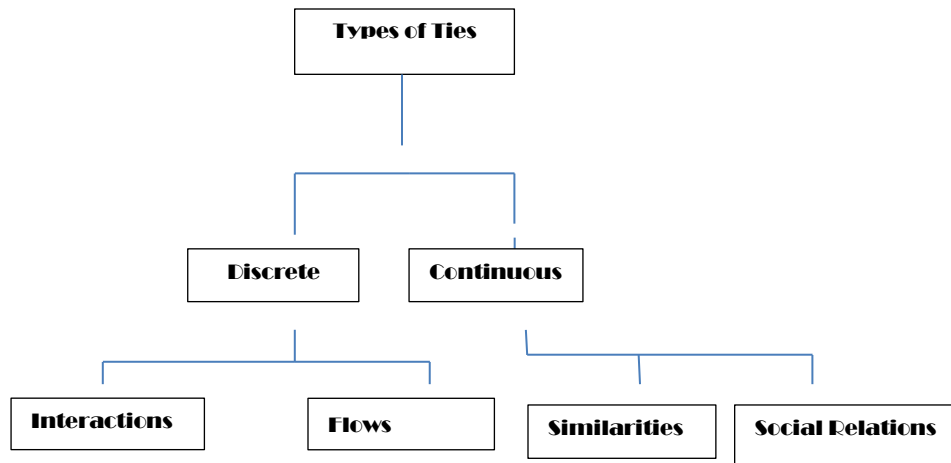
Relations among actors, or organizations, can be varied and include competition, distribution agreements, joint ventures and so forth. The aforementioned relations among organizations are referred to as ties in social network literature and are characterized by numerous dimensions including duration and frequency. Borgatti and Li's (2009) typology characterizes ties as either discrete or continuous wherein discrete ties are based on distinct, quantifiable events. Conversely, continuous ties are defined by the ongoing and recurring nature of relations.

Discrete ties are further segmented into two categories referred to as *interactions* and *flows*, respectively. Interactions tend to be associated with the presence of a primary relationship (Borgatti and Li 2009) and, as a result, the number of interactions between organizations is often used to gauge the strength of the ties or links between actors. Interactions include events between organizations such as selling products to, providing services to, making competitive moves in response to and so forth.

Flows refer to content that passes, or potentially passes, between organizations including inventory, money, ideas and the like. Examples of flows include technology transfers and cash infusions such as stock offerings. While flows tend to occur without metrics in place to substantiate the occurrences, they tend to be the most important kinds of ties between actors.

Continuous ties are likewise divided into two distinct categories termed similarities and social relations. Similarities are related to such links between organizations as co-location of offices, joint membership in trade associations, serving on same boards of directors, or having shared attributes. Social relations, on the other hand, refer to such ties between organizations as joint ventures, distribution agreements or ownership of shares. In addition, social relations can refer to an organization's regard for another organization as a competitor.

Figure 1. Typology of Ties
(Borgatti and Li, 2009)



In the current research study, mobile payment actors consist of numerous organizations such as mobile network operators (MNOs), banks, government, and technology providers. Further, given the stated unit of examination, distributors, retailers and transit can be actors within the mobile payment arena as well. It is important to note that an actor’s relationships and interactions with other actors in the inter-organizational alliance are not homogeneous.

Unprecedented convergence among multiple industries and sectors is currently underway within the mobile payment framework given the complex nature of mobile payment solution delivery. Even so, the pace of mobile payment engagement has been comparatively slow as compared to the overall proliferation of wireless technology, and mobile commerce innovations, across the globe. Therefore, an exploratory examination of nodes yielded useful and insightful information regarding key considerations and factors influencing organizations’ engagement in mobile payments. Moreover, thoughtful inquiry into interactions and relationships between nodes within inter-organizational alliances deepened the researcher’s understanding of critical success factors and impediments related to mobile payment alliances. Finally, the current research shed light on crucial considerations of regulatory enablement, assessment of economic opportunity and maturity of banking and telecommunication infrastructures within mobile payment inter-organizational alliances.

ii. Social Networks and Inter-organizational Alliances

To frame the examination in the proposed research, an examination of a particular kind of social network, referred to as an inter-organizational alliance was performed. A fundamental notion of

the network perspective is that any system is viewed as a set of interrelated actors and nodes. Kahler (2009) describes networks as pervasive and comprised of sets of interconnected actors including people, groups, organizations or even states.

It is important to note that in network analysis, network actors influence and interact with each other and, as such, are not independent of each other. Direct transmission or flows of information, ideas and resources between network actors are the most commonly invoked mechanism to facilitate these interactions between firms (Borgatti and Li 2009). The aim of the current research was to understand convergence of multiple industries into strategic inter-organizational alliances to facilitate mobile payment engagement.

Further, following Inkpen (2001), we view alliances as cooperative groupings of organizations who engage in mutual sharing of resources and, oftentimes, governance structures. Collectively, these networks of stakeholder organizations are able to gain competitive advantage, achieve profitability and maintain efficiency despite complex, revolutionizing market contexts. Donaldson and Preston (1995) and Post et al. (2002) also confirm the critical nature of stakeholder cooperation for long-term operational survival of firms.

The Social Network theory constructs employed by Borgatti and Li (2009) in their study of the supply chain context, and selected to frame the current examination, include discrete and continuous ties within mobile payment inter-organizational alliances. Following Borgatti and Li (2009), discrete ties are defined as interactions (i.e. sell products to, makes competitive moves in response to, etc.) and flows (technology transfers, cash infusions, stock offerings etc.) between firms. Furthermore, continuous ties are defined as similarities (i.e. joint membership in trade associations, co-located offices etc.) and relations (i.e. joint ventures, alliances, distribution agreements, own shares in etc.) between firms. Both discrete and continuous ties are measured by existence of said ties as stated by the interview subject/respondent, as such they are self-reported.

Insights from literature reveal two fundamental truths pertaining to data collection, from the social network analysis perspective. First, while *flows*, a component of discrete ties, are likely the most important kind of tie in this research of this nature, researchers encounter difficulties

collecting quantifiable data pertaining to inter-organizational flows. Borgatti and Li (2009) reference this phenomenon in prior research. Further, multiplexity within inter-organizational alliances which, by definition, discloses the presence of many kinds of ties among actors simultaneously adds to the density of networks, and thus compounds the scope network analysis. The researcher sought to capture data relative to all the types of ties between actors in dyadic relationships and within the complete network.

iii. Global Market Perspectives

According to Prahalad et al. (2002) the global economic pyramid is divided into four distinct tiers based on income. Tier 1 consumers, who reside at the very top of the economic pyramid are comprised of 75 to 100 million affluent consumers from around the world, while Tiers 2 and 3 in the middle of the pyramid are comprised of poor consumers in developed nations, as well as the rising middle classes in developing countries. Tiers 2 and 3 have typically been the targets of emerging-market strategies for multinational corporations (MNCs). Tier 4, the base or bottom of the economic pyramid, is comprised of more than 4 billion people who earn an average of \$2.00 per day or less on an annual basis, and represent nearly 83% of the world's population.

Collier (2007) estimates the population at the base-of-the-pyramid to be more than five billion people, with approximately 80% of those citizens residing in developing countries. Further, Collier (2007) remarks that destitute and disparate conditions in these developing countries are creating a significant development challenge in light of the fact that economic growth is declining sharply as mortality rates increase markedly at the bottom of the economic pyramid.

Given their meager financial resources, bottom-of-the-pyramid consumers must engage in prudent management of their money. Hence, mobile phones can serve as money management tools for unbanked and under-banked populations given the provision of first-time financial inclusion for consumers in emerging markets, and in developed countries. Mobile phones allow unprecedented access to the formal financial sector through wireless mobile commerce applications, including mobile payments. Without question, the current convergence of banking systems, payment systems and telecommunications systems is changing the way people access financial services and related information (Granath and Lambeck 2008).

iv. Emerging Market Context

For the purpose of this research study, emphasis will be placed on emerging market economies as defined by Antoine W. Van Agtmael of the International Finance Corporation (IFC) of the World Bank. Drawing upon the IFC's definition, we define emerging markets as economies with low to middle per-capita income. These nations, including India, Africa, Turkey and China, are characterized by nearly 80% of the global population and consist of markets with rapid growth and industrialization currently underway. Wireless mobile technologies indeed benefit consumers in emerging markets through access to vital information. At the same time, mobile network operators reap huge financial rewards through increased customer acquisition and retention and new revenue streams. Emerging markets represent tremendous growth markets for mobile payments given a number of factors including customer preferences, consumer demand and population.

Banks tend to view mobile banking as a way to enhance service to existing customers, while mobile network operators are more focused on addressing the mass market and the unbanked (Ivatury and Mas 2008). According to research by Edgar Dunn Consulting an estimated 615 million mobile wallets exist in 2011, and projections call for this number to grow to 1.4 billion by 2015. Thus, firm evidence exists to support the notion that the convergence of mobile communications and banking will result in astounding increases over historical mobile phone subscriber numbers (EDC 2009).

The majority of Africa's population lives in isolated rural areas characterized by poor infrastructure and substandard living conditions. As a matter of fact, 60% of Africa's population lives in remote, underdeveloped geographies, while 40 percent live in urban areas. This phenomenon likely contributes to the ubiquitous penetration of mobile telephones in Africa. African markets are expanding twice as fast as the flourishing Asian markets with respect to growth in mobile subscribers (World Bank 2011). The intrinsic value of wireless mobile technology in emerging markets is immeasurable given fundamental quality of life improvements and enriched entrepreneurship opportunities for rural African producers and suppliers.

At the same time, a seismic shift in the population is occurring and with it a new phenomenon, known as rapid urbanization, is emerging. According to data, the rate of urbanization in sub-

Saharan Africa between 2000 and 2008 was more than twice the world average (Okonjo-Iweala 2010); as such, the region leads the rest of the developing world. As an emerging economy, Africa is poised to reap tremendous economic rewards from projected growth in emerging markets for decades to come. The region's sustained growth can be attributed to an improved political environment, enhanced macroeconomic stability, and governments' robust commitment to the creation of enabling regulatory environments to spur private-sector development and growth. In addition, Africa's strategic investment in infrastructure is further positioning the continent's countries to dramatically increase exports while realizing significant and sustained growth in GDP.

In tandem, Africa's investment in education is creating a more valuable stock of human capital that will serve the vastly expanding private sector well. It has been said that the ever-increasing population of young people in sub-Saharan Africa is one of the region's most valuable assets, especially in light of the fact that it is a source of competitive labor as well as the base of an expanding consumer market (Okonjo-Iweala 2010). Analysts project that nearly one-fifth of sub-Saharan Africa's population will range in age from 15 to 25 years old by 2050; therefore, the implications for productivity, growth and demand in the region will be far-reaching (Okonjo-Iweala 2010).

Unfortunately, the banking industry in Africa has been plagued with problems of corruption and instability. In the past few decades, the International Monetary Fund (IMF) and the World Bank have instituted much-needed reforms to the banking system in Africa. A fundamental reform consisted of increased penetration by foreign banks to offer credible financial institutions. This past volatility of traditional financial institutions within the emerging market context, coupled with the ubiquitous proliferation of mobile phones, are leading to tremendous value propositions for stakeholders within the mobile payment arena.

Undoubtedly, the needs of multiple stakeholders within the mobile payment context are being met simultaneously. In particular, mobile payments satisfy government requirements for traceability, accountability and transparency with respect to financial transactions while diminishing "informal" economic activities. Additionally, mobile payments enable millions of un-banked and underbanked consumers and suppliers to easily access the formal financial sector

via mobile phones given the dearth of traditional financial outlets within their reach. Further, cashless transactions increase security for consumers and suppliers while simultaneously reducing the threat of violence and physical harm at the hands of thieves.

v. Developed Country Context

In sharp contrast to the dire living situations that persist in Africa and India, the vast majority of households developed countries, like the United States (U.S.), have available access to public infrastructure including electricity, roads and landlines for telecommunication services. For the purpose of this research, developed countries are advanced economies such as the United States, United Kingdom, Japan and Canada. These nations are characterized by high nominal Gross Domestic Product, advanced levels of industrialization, highly developed infrastructure and superior standards of living as compared to emerging markets. An examination of the U.S. provided insights, from a developed country perspective, pertaining to factors affecting mobile payment engagement.

Economic indicators in the U.S. have vacillated between recession and recovery for a number of years. Signs of fiscal woes abound as evidenced by high unemployment levels, lower productivity and stalled GDP. Throughout the nation, consumers and executives of firms alike voice sentiments of uncertainty and caution.

“With the United States slowly recovering from recession, government and business leaders face the urgent task of re-igniting growth and renewal in the American economy. [Leaders] need to spur faster GDP growth, create jobs and reestablish U.S. competitiveness in a rapidly changing global economy. The U.S. needs to accelerate labor productivity growth to a rate not seen since the 1960s. Further, the United States needs to ensure that this productivity growth is broadly based, coming from efficiency gains, innovation and increasing value and quality of goods and services produced” (McKinsey Global Institute 2011).

The mobile payment environment in the U.S. is intricate and crowded compared to developing countries. The U.S. mobile payment platform includes the existing infrastructures of mobile operators, the bank network and payment service provider (FRB 2010). In fact, the abundance of financial institutions and other financial intermediaries in the United States creates a complex landscape with respect to the convergence of diverse, independent sectors within the mobile payment arena. Additionally, regulatory ambiguities, security and privacy concerns, coupled

with the lack of unified standards, are said to be significantly hampering engagement in mobile payments in developed countries like the U.S (FRB 2010).

Another factor impeding the ubiquitous proliferation of mobile payments in the U.S. is the lack of collaboration and cooperation between diverse sectors within the mobile payment arena including financial service companies, telecommunications providers and other merchants. Reportedly banks, mobile network operators and merchants are more cooperative in markets outside of the United States, leading to greater success in terms of mobile payments proliferation (Federal Reserve Board, 2010). It is likely that competitive pressures, uncertainties regarding successful engagement within the mobile payment space and a lack of trust are leading to this phenomenon in the United States market context.

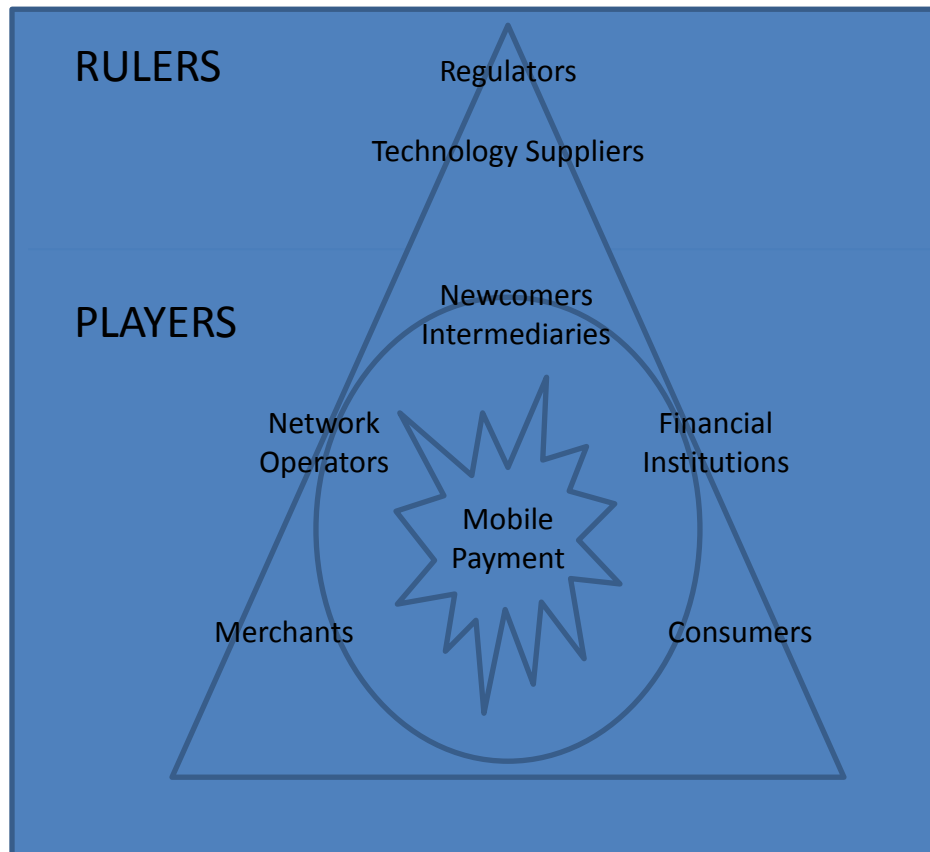
The key to mobile payment engagement in developed countries like the United States rests, in part, in the ability of marketers to communicate the considerable benefits of this alternative payment method while clearly differentiating this method of payment from other traditional forms of payment. Given the complex and intricate mobile payment framework in developed countries, and based on insights from the literature, the researcher expects to find lower levels of mobile payment engagement within these market contexts. Moreover, it is anticipated that considerable effort will be required to create awareness pertaining to mobile payment value propositions in developed countries in order to increase consumer and supplier engagement in mobile payments.

vi. Mobile Payments

A review of mobile payment literature found an extensive volume of mobile payment studies, most of which focused on mobile payment technology innovations. As such, there is a plethora of literature pertaining to mobile payment technology acceptance as well as the diffusion of mobile payment technology. There is also considerable mobile payment literature examining consumer attitudes towards mobile payments. These studies primarily explore factors affecting consumer adoption of mobile payments. Additionally, examinations of the mobile payment services market, underpinned by economic theory, were also found in the literature.

Ondrus (2003) examined the mobile payment market as a whole, with emphasis being placed on the identification of actors within the mobile payment context. The study resulted in the presentation of an actor framework (see Figure 2).

Figure 2. Mobile Payment Arena
(Ondrus 2003)

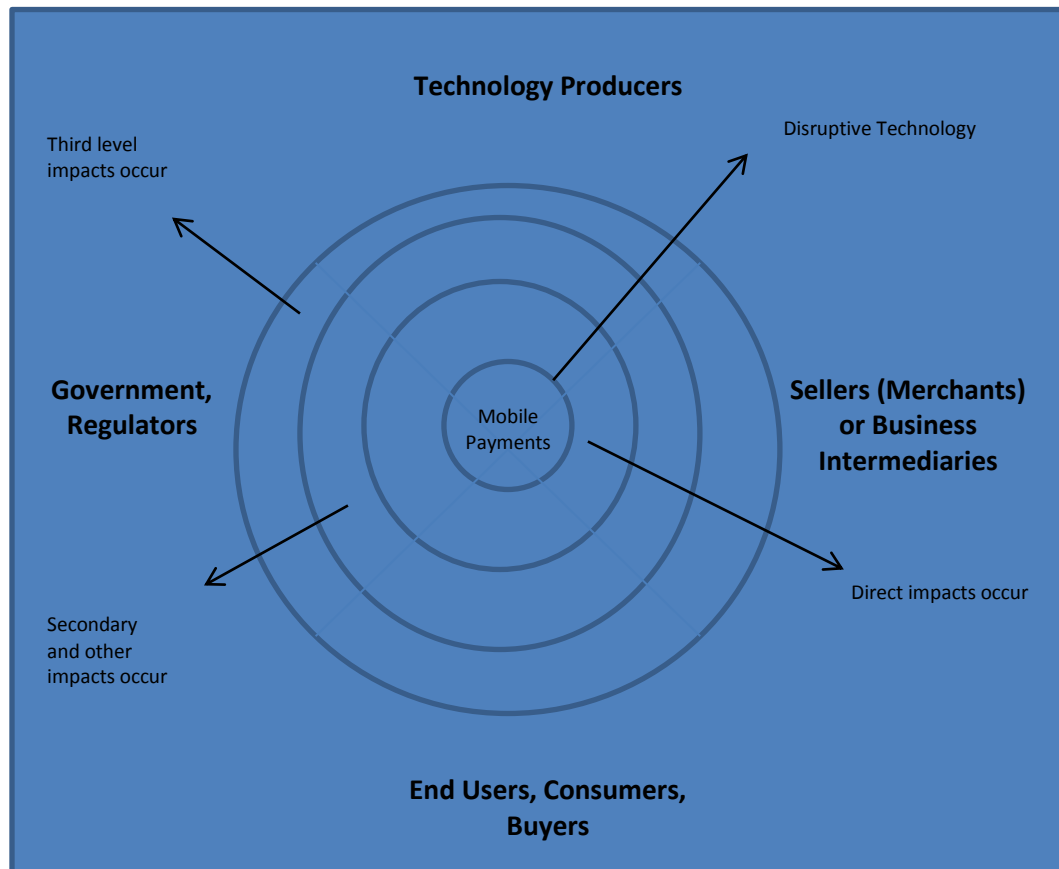


Ondrus (2003) classified participants in the mobile payment market into two separate and distinct groups, “players” and “rulers”. According to the study, “players” are those actors said to be directly involved in a mobile payment transaction, while “rulers” are active within the mobile payment context, albeit not in the real-time processing of mobile payments (Ondrus 2003). The main “players” within the mobile payment market are consumers, merchants, newcomers/intermediaries and financial institutions. Regulators and technology providers are classified as “rulers” within the framework proposed by Ondrus (2003).

Several years later, Au and Kauffman (2007) conducted an analysis of the economics of mobile payments, drawing upon several economic theories to establish an evaluative framework. Theories used in the analytical framework include: network externalities, consumer choice and

demand, switching costs, complementary goods, IT value and economics of technology adoption and diffusion. The robust framework is presented as the basis for the analysis of economic issues for disruptive technologies, such as mobile payments (see Figure 3).

Figure 3. Mobile Payment Framework
(Au and Kauffman 2007)



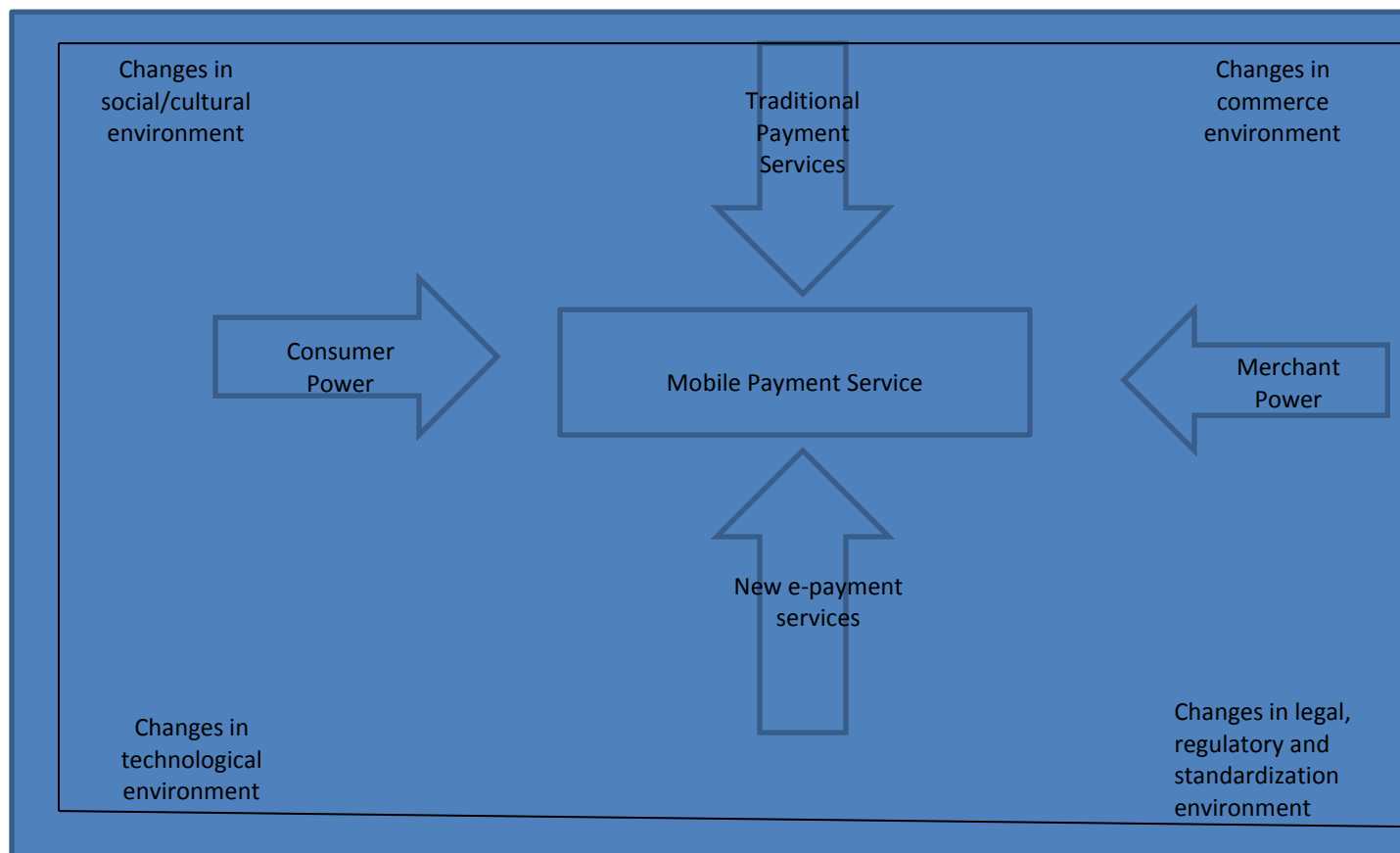
According to Au and Kauffman's framework (2007), mobile payment stakeholders fall within four categories including: technology producers; government and regulators; end users, consumers and buyers; and sellers, merchants or business intermediaries. Concentric circles in the framework depict different levels of impact on the various mobile payment stakeholders, with the innermost circle representing mobile payments as a disruptive technology with direct impacts felt by sellers and business intermediaries, and the ultimate end users – consumers and buyers. The outermost concentric circles represent issues with secondary Au and Kauffman (2007) predict second and even third order impacts on stakeholders.

In 2007, Dahlberg et al conducted an examination of mobile payment research and categorized and summarized the extant body of mobile payment literature. The study found that the principal

actors within the mobile payment market are mobile payment service providers and their customers, noting that these roles within the mobile payment market are filled by various parties including telecom operators, banks, consumers and merchants. Additionally, the study revealed involvement by other vendors within the mobile payment market such as handset, software and network vendors as well as providers of other technologies used to facilitate mobile payment innovations.

In the aforementioned study, Dahlberg et al developed a framework of four contingency and four competitive forces factors, to organize and analyze past mobile payment research while identifying areas ripe for future exploration (see Figure 4). This multi-faceted evaluative framework includes both market and contingency factors thereby providing insights and clarity regarding the mobile payment services market as well as mobile payment services development.

Figure 4. Factors Impacting Mobile Payment Services Market (Dahlberg 2007)



The proposed framework describes the primary competitive forces of the mobile payment services market including consumer power, traditional payment services, new e-payment

services and merchant power. On the other hand, contingency factors such as changes in the technological environment, changes in social/cultural environment, changes in commerce environment and changes in legal, regulatory and standards environment will impact the competitive forces.

According to Dahlberg et al (2007), past mobile payment research has not focused on the impact of social and culture factors on the adoption of mobile payments; nor has a comparative analysis of traditional payments and mobile payments been conducted. Moreover, there is a need for research studies that provide deeper insights and greater detail regarding the mobile payment context (Dahlberg et al 2007).

vii. Mobile Payment Inter-organizational Alliances

For the purpose of this study, as previously indicated, a mobile payment is defined as any transaction paid for using a mobile device and encompasses an array of transactions from the purchase of airtime, to point-of-sale payments, to person-to-person transfers. Based on insights from mobile payment literature (Baptista and Heitmann 2010), mobile payments can potentially flow between many different stakeholders. In *Figure 5*, shown, the researcher illustrates potential flows within a mobile payment framework wherein there are two distinct classifications: 1) *payer* is defined as mobile payment initiator, as such, the mobile payment flows away from this stakeholder (*outflow*); and 2) *payee* is the recipient of the mobile payment therefore the payment flows to this stakeholder (*inflow*).

Figure 5. Mobile Payment Flows

→ Payer	Government	Private Sector/ Companies	Individuals
↓ Payee			
Government	Intergovernmental Budget Transfers, Bill Payments, Fees	(Government) Tax Payments, Fees	Bill Payments, (Government) Tax Payments, Fees
Private Sector/ Companies	Subsidies, Bill Payments (e.g. Utilities)	Supply Chain Payments/Settlements, Distribution Chain Payments/Settlements	Bill Payments, Fees
Individuals	Social Welfare Payments/Aid, Subsidies, Salaries/ Wages, Dividends	Salaries/ Wages, Rebates	Remittances, P2P Transfers, Fees

As illustrated above, mobile payments facilitate flows at many different levels, between broad classifications of stakeholders. Potential flows include but are not limited to: government to government (G2G), government to individuals (G2P), between private sector companies (b2b), and between individuals (P2P). For example, governments such as Haiti are using mobile payments to provide disaster relief subsidies to citizens in the aftermath of a recent natural disaster.

In Africa, Coca-Cola is utilizing “Zap”, a mobile payment product developed by telecommunications giant Zain, to facilitate mobile payments throughout the beverage maker’s distribution chain (*see shaded section of Figure 5 above*). Zain, one of the largest telecommunications companies in the Middle East and Africa, is employing its mobile payments expertise to help Coca-Cola improve security, increase cashflow and enhance the accuracy of accounting in designated markets (Baptista and Heitmann 2010). Several distinct business models have emerged within the mobile payment space as shown in Table 2.

Table 2. Mobile Payment Business Models

(Source: Interviewee Insights)

<i>Business Model</i>	<i>Description</i>	<i>Examples</i>
MNO-Led	The mobile network operator (MNO) acts independently to deploy mobile payment applications to Near Field Communications (NFC)-enabled mobile devices. The applications may support a prepared stored value model or the charges may be integrated into the customer’s wireless bill.	Safaricom M-Pesa-Kenya; Orange Money-Kenya, Bharti Airtel-India and Zain’s Zap-Bahrain, Tanzania, Sierra Leone, Ghana, Niger, Malawi and Uganda
Bank-Led	A bank deploys mobile payment applications or devices to customers and	WIZZIT- South Africa, MTN Banking-South Africa and DBBL mobile banking-

	<p>ensures merchants have the required point-of-sale (POS) acceptance capability.</p> <p>Payments are processed over the existing financial networks with credits and debits to the appropriate accounts.</p>	Bangladesh
Bank-MNO Joint Venture-led	Banks and MNOs collaborate to deploy mobile payment applications or devices to customers.	MTN Money- South Africa and Uganda; Zain's Zap-Kenya
Independent m-Commerce	An independent peer-to-peer service provider provides secure mobile payments between customers or between customers and merchants.	Beam-India; V-Cash-Bangladesh ; Moneybox, Mobikash, CelPay, MoPay, Splash, SWAP Mobile, eFulisi, and Masary.
Collaboration Model	This model involves collaboration among banks, mobile operators and other stakeholders in the value chain, including a potential trusted third-party that manages the deployment of mobile applications. Payments in this model are processed over the existing financial networks with credits and debits to appropriate accounts.	Isis

In emerging markets and developed countries, a host of companies are creating mobile payment applications to enable P2P transfers and even facilitate cross-border remittances between

individuals as illustrated above. Several distinct business models have emerged wherein leadership of the mobile payment initiative is either shared amongst stakeholders, or given to an actor in a particular sector such as banks or mobile network operators (MNOs). Using mobile payments to facilitate financial transactions is advantageous in that it is a more secure method of payment, and it improves the accuracy of financial reporting thereby decreasing fraud. Additionally, mobile payments increase the speed and efficiency of performing financial transactions.

Regardless of the chosen mobile payment business model, it is imperative that convergence between multiple sectors take place in order to facilitate an end-to-end mobile payment solution. To accomplish this, organizations must embrace these new business models while deploying them collaboratively, with agreement and support of all parties involved in the mobile payment inter-organizational alliance. The process steps for diffusing a mobile payment solution can be extensive and arduous, but the rewards can be great. **Table 3** illustrates the dynamic model of mobile payment diffusion, presented in mobile payment literature to examine and assess the impact of actors' entrance into the mobile payment arena (Ondrus and Lyytinen 2011).

Table 3. Dynamic Model of Mobile Payment Diffusion (Ondrus and Lyytinen 2011)

<p>Phase 1: Build an alliance between MNOs and financial institutions</p> <p>Diffusion Imperative: Actors must identify and select partners, leading to the formation of a strategic alliance known as a <i>mobile payment ecosystem</i>.</p>	<p>Phase 2: Involve merchants and business intermediaries</p> <p>Diffusion Imperative: As a <i>"newcomer"</i> the ecosystem must engage with other businesses to strengthen collaboration.</p>	<p>Phase 3: Attract customers</p> <p>Diffusion Imperative: As an <i>"insurgent"</i> the ecosystem must create awareness and generate interest from consumers.</p>	<p>Phase 4: Work with device and infrastructure manufacturers</p> <p>Diffusion Imperative: As a <i>"novice"</i> the ecosystem must forge relationships with key players to facilitate scalability and adaptability of mobile payment solutions.</p>
<p>Phase 1-4: Deal with regulatory issues</p>			

As **Table 3** illustrates, there are distinct stages in the diffusion of a mobile payment solution. First and foremost, strategic inter-organizational alliances must be formed wherein mobile network operators and sources of liquidity, such as financial institutions, forge partnerships to facilitate the delivery of mobile payment solutions. Then, as a unit, the “*newcomer*” (Ondrus and Lyytinen 2011) formed by the inter-organizational alliance must proactively forge relationships within the business community, including merchants and business intermediaries, in order to strengthen its competitive position in the marketplace.

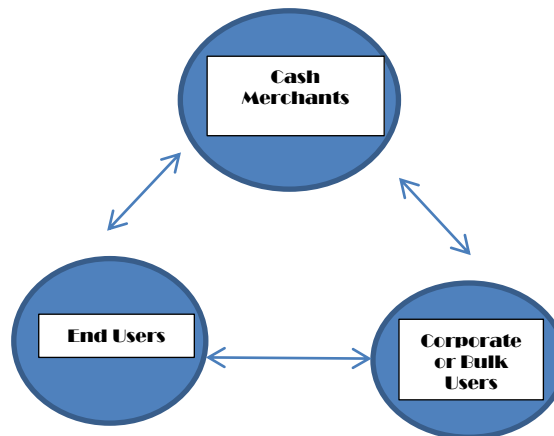
Next, the inter-organizational alliance must act as an “*insurgent*” in the marketplace in order to generate awareness, attract customers and gain market share. Lastly, these *novices* must forge relationships with device and infrastructure manufacturers that are interoperable and permit scalable, mobile payment solutions (Ondrus and Lyytinen 2011). Given the imperative for enabling regulatory environments in successful mobile payment diffusion, the regulatory aspects of mobile payment solutions should be managed beginning in Phase 1 and continued through Phase 4 of the deployment process in order to succeed.

Alternatively, Mas (2011) proposed a reduced set of actors (see Figure 6), including only cash merchants, corporate or bulk users and end users. Cash merchants, the sources of liquidity in a mobile payment inter-organizational alliance, are organizations seeing an opportunity to make money from reselling mobile money and exchanging it for cash, on demand. Corporate or bulk users are defined as actors who make payments to many people, while end users are defined as persons who want to keep some money in an account, and occasionally transfer some money to others (Mas 2011). The framework offered by Mas includes two demand-side actors, namely corporate or bulk users and end users, as well as one supply-side actor, known as cash merchants who serve as the sources of liquidity.

Noticeably absent from Mas’ framework are mobile network operators (MNOs) who are vital actors within the mobile payment space. Furthermore, mobile payment literature supports the important role of MNOs in the delivery of mobile payment solutions. MNOs likely provide the technology platforms, including hardware and software, through which mobile payment

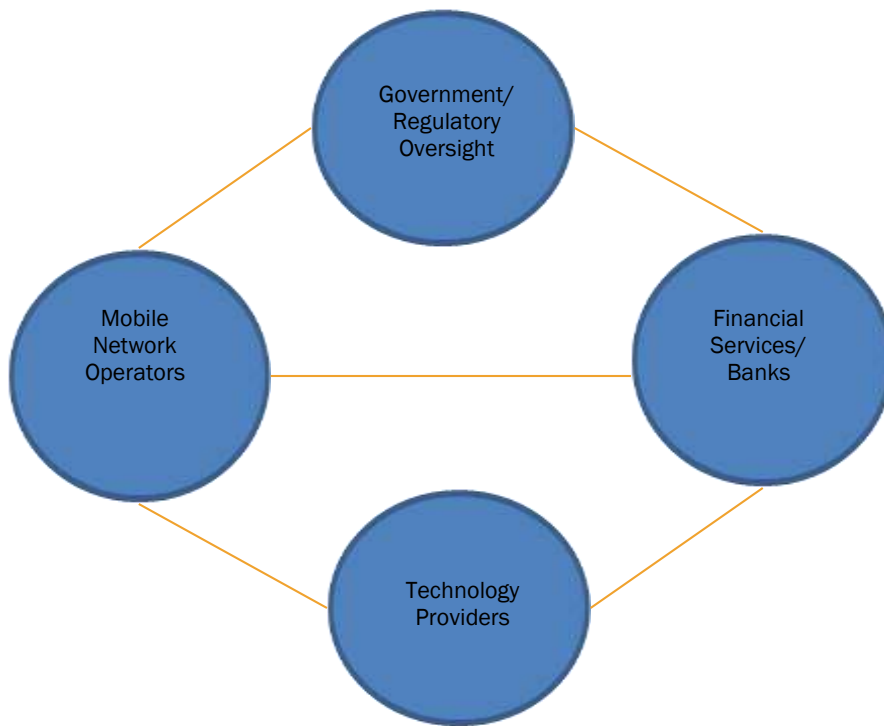
solutions are executed. For that reason, this researcher believes the actor framework offered by Mas (2011) isn't the most suitable framework for use in the current study.

Figure 6. Mobile Payment Actor Framework
(Mas 2011)



The focus of the current study pertains to engagement in mobile payment activities. Hence, the alternate mobile payment actor framework (see Figure 7), modifies the framework offered by Mas (2011) by establishing four key categories of actors within the mobile payment arena. The noted actors, for this study, are financial service providers, telecommunications service providers (i.e. mobile network operators), technology providers and government.

Figure 7. Modified Mobile Payments Actor Framework
(Hazard-Robinson 2011)



Business model innovation has become an imperative for organizations across the globe given the need to penetrate untapped consumers in emerging markets, particularly middle and bottom-of-the-pyramid economies. Other notable drivers of business model transformations include stalled developed country economies and the proliferation of disruptive technologies and related innovations on all markets and sectors (Casadesus-Masanell and Ricart 2011).

III. Research Methodology

A qualitative research design was selected, as Myers (2009) recommends the use of qualitative research in instances where the topic is new and there is a dearth of previously published research. Further, qualitative research is recommended when a study involves the examination of a particular topic in-depth (Myers 2009; Miles and Huberman, 1994). The intent of this study is to garner deeper understanding of the global mobile payment environment, with a specific focus on mobile payment inter-organizational alliances. In particular, we sought to discover key factors affecting mobile payment engagement and their relationship to inter-organizational alliance configurations and interactions.

This research aims to investigate mobile payment engagement, with a particular interest in the influence of inter-organizational alliance configurations and interactions thereupon. Drawing

upon insights from literature (Ondrus 2003, Au and Kauffman 2007, Ondrus and Lyytinen 2011, Mas 2011) an examination of mobile payment engagement from the perspective of four separate and distinct categories of actors within the mobile payment arena was undertaken. In doing so, we sought to understand *how* mobile payment inter-organizational alliance configurations and interactions influence mobile payment engagement.

i. Sampling

The research consisted of purposive sampling stratified by actor classification wherein respondents covered a broad geographic area representing organizations from four designated sectors: banking, mobile network operators from the telecommunications sector, technology providers and government. Moreover, subjects represented diverse organizations with respect to company size, ranging from large multinational companies to small and medium enterprises. With respect to their mobile payment engagement, respondents had extensive experience in mobile payment deployments in key markets, primarily within the emerging market context.

The respondents included executive-level managers, prominent within the mobile payment arena, who are instrumental in making strategic business decisions within the mobile payment context. Several respondents are senior executives responsible for spearheading mobile payment deployments in key emerging markets; as such, these individuals are considered pioneers within the mobile payment arena and their mobile payment deployments are hailed as flagship ventures across the globe. Sample interviewee characteristics are shown in ***Table 4***.

Table 4. Sample Interviewee Characteristics

<i>Sector</i>	<i>Role(s)</i>
Mobile Network Operators	<ul style="list-style-type: none">▪ CEO, multinational MNO▪ Senior executive, multinational MNO▪ Senior executive, emerging markets MNO
Banking	<ul style="list-style-type: none">▪ Senior executive, emerging market bank▪ Director, financial services company▪ Advisor, multinational financial services companies
Technology Providers	<ul style="list-style-type: none">▪ CEO, emerging market payments technology provider▪ Senior executive, multinational corporation engaged heavily in mobile payments arena▪ Executive, mobile payment SME
Government	<ul style="list-style-type: none">▪ Director, International business advisor▪ Senior level Advisor, regulatory consultant

Exploratory interviews were conducted upon receipt of oral consent from subjects. It should be noted that respondents were not compensated, but participated in the research study on a voluntary basis. Additionally, no identifiable private information was collected from respondents. In order to protect each respondent's privacy and confidentiality, interview outcomes data and the names of respondents providing said data will be maintained separately.

ii. Data Collection

Exploratory interviews were conducted wherein interaction with respondents consisted of semi-structured interviews, and subjects participated in this process voluntarily. Interview subjects consisted of strategic-level managers, from the four distinct sectors previously outlined, all of

whom are actively engaged in mobile payments. That being said, subjects provided insights from technology provider, banking, mobile network operator and government perspectives.

The interview instrument explored the following categories: 1) definitions of mobile payments, 2) factors driving engagement in mobile payments, 3) factors impeding engagement in mobile payments, 4) critical success factors for mobile payment alliances 5) roles and relationships within mobile payment alliances, 6) mobile payment alliance configurations, and 7) benefits of engagement in mobile payments. Interviews were scheduled with subjects based on their availability, and were conducted by Skype or telephone. Interviews lasted between one and two hours, on average, and were recorded to improve data quality and ensure data integrity with consent from the subjects (*see Appendix B*).

Interview questions were primarily open-ended, with some scaled questions. Interviews were conducted between December 2011 and April 2012, and transcribed immediately following each interview to ensure accuracy. A preliminary coding scheme, mapped closely to the interview script and research question, was developed. Individual transcripts were subsequently coded consistent with the theme of the research question. Thereafter, the coding scheme was finalized.

Qualitative data analysis techniques employed for the current study include descriptive and pattern coding. Each transcript was subsequently check-coded, which consisted of re-coding each transcript, to achieve at least 90% coding accuracy. Check-coding improves the accuracy and consistency of the coding and analysis process (Miles and Huberman 1994). Overall, we sought to garner insights and relevant information pertaining to inter-organizational alliance configurations in order to develop a comprehensive understanding of inter-firm relationships as well as factors influencing engagement in the mobile payment arena. Relevant SNA metrics for the research include the following: 1) existence, frequency, duration and intensity of continuous ties; and 2) existence, frequency, duration and intensity of discrete ties.

IV. Data Analysis and Findings

i. Drivers of mobile payment engagement

General Drivers

Respondents cited *competitive pressures*, within and across sectors, and *financial inclusion* as key drivers for mobile payment engagement in general. Financial inclusion refers to the

aspiration to provide access to formal financial services for unbanked and underbanked consumers. Interestingly, only government and mobile network operators cited macro-level economic development drivers such as *strengthen economy* and *increase gross domestic product* (GDP) among the factors compelling their engagement in mobile payments in general. Yet agreement emerged, across categories of actors, regarding the notion that mobile payments are indeed another channel for accessing existing payment platforms. In order to further examine context- specific drivers, respondents were also asked to reveal factors driving mobile payment engagement in diverse geographies such as emerging markets and developed countries, respectively (*see Table 5*).

Table 5. Drivers of Mobile Payment Engagement
 (Source: Interviewee Insights)

	MNO	BANK	TECHNOLOGY	GOVERNMENT
GENERAL DRIVERS	1. competitive pressures	1. competitive pressures	1. competitive pressures	1. competitive pressures
	2. financial inclusion	2. financial inclusion	2. financial inclusion	2. financial inclusion
	3. macro-level economic development			3. macro-level economic development
EMERGING MARKET DRIVERS	1. enhancing consumer quality of life	1. competitive pressures	1. profits	1. profits
	2. financial inclusion	2. government pressure to increase financial inclusion	2. market share growth	2. financial inclusion
	3. profits	3. shareholder pressure to cut costs	3. consumer preferences	3. consumer preferences
	4. market share growth	4. Meet needs of consumers	4. Financial inclusion	4. Enhancing consumer quality of life
	5. strengthen economy			5. economic development
	6. increase Gross Domestic Product (GDP)			
	7. technology innovation			
	8. proliferation of new technology			
DEVELOPED COUNTRY DRIVERS	Not applicable	1. competitive pressures	1. increase transaction speed	1. proliferation of technology
		2. financial inclusion	2. simplify transactions	2. simplify transactions
			3. consumer convenience	

Emerging Market Drivers

Unanimously, respondents pointed to lagging technology, poor infrastructure, weak economies and lack of access to financial services as factors leading to the dismal situation in emerging markets with respect to financial access. Despite these challenges, respondents noted that key drivers of mobile payment engagement in emerging markets included *financial inclusion, competitive pressures, profits, economic development, technology* and *enhancing consumers' quality of life*. Key insights emerged, by actor category, regarding context-specific drivers for mobile payment engagement in emerging markets. From the perspective of a mobile network operator, "...the ability to provide low cost, convenient ways to meet the needs of consumers while expanding [our] market and increasing profits..." is a summation of notable drivers of engagement in mobile payments. A bank respondent noted that key drivers for their engagement in mobile payments overall center around "...competition, government pressure to [increase] financial inclusion and shareholder pressure to cut costs by finding more effective [delivery] channels". Conversely, a government respondent noted that a key driver for engagement in mobile payments overall, from their perspective is to "...facilitate financial inclusion". While there are a myriad of drivers influencing firm-level engagement in mobile payments across categories of actors, it is clear that these actors indeed recognize the significant value gained from actively participating in mobile payment activities.

A technology provider shared insights including the following, "...emerging markets offer very specific need for this kind of solution due to the high number of users who have mobile handsets but no bank account...because financial institutions cannot reach these users". A government respondent provided even more in-depth insights, stating that their engagement in mobile payments is driven by "...[the need to] facilitate financial inclusion, to provide a new payments infrastructure where there was none before, to drive economic development and ultimately to lift people out of poverty". Conversely, another government respondent noted, "...we want to make peoples' lives better while [facilitating] a profit". That being said, mobile payments address a broad range of needs within emerging market contexts, spanning from meeting basic consumer financial needs to ultimately facilitating much-needed convergence in bottom-of-the-pyramid countries.

Developed Country Drivers

From a developed country perspective, respondents provided a different set of drivers than those cited for emerging markets, as shown in *Table 5*. It should be noted that the MNOs interviewed for this study do not currently engage in mobile payments in developed countries.

Not surprisingly, mobile payment engagement in developed countries isn't primarily driven by the need to facilitate financial inclusion or to develop the economy. Rather, it is more so driven by competitive pressures and consumer preferences for faster transaction speeds, simplified transactions and consumer convenience. Moreover, engagement in mobile payments in developed countries is also driven by a desire to proliferate new technology innovations, according to government respondents.

A technology provider summed up their driver for engagement in mobile payments in developed countries as follows, "it is more about convenience and speed of transactions to simplify transactions like point-of-sale transactions." Banks, on the other hand, cite competitive pressures and a quest to facilitate financial inclusion as additional drivers for their engagement in mobile payments in developed countries. Clearly, developed countries do not suffer from the infrastructure and institutional voids that characterize the emerging market context. Instead, developed countries are characterized by an intricate, complicated existing payment infrastructure marked by institutional complexities.

ii. Impediments to mobile payment engagement

General Impediments

Relevant insights into the impediments to mobile payment engagement also emerged from the interview process. According to respondents, the primary factor hampering engagement in mobile payments in general is the prevailing regulatory environment. Specifically, disabling regulatory environments are significant impediments to mobile payment engagement according to actors interviewed in this study (see **Table 6**).

Table 6. Impediments to Mobile Payment Engagement
 (Source: Interviewee Insights)

	MNO	BANK	TECHNOLOGY	GOVERNMENT
GENERAL IMPEDIMENTS	1. regulatory environment	1. regulatory environment	1. regulatory environment	1. regulatory environment
EMERGING MARKET IMPEDIMENTS	1. regulatory environment	1. regulatory environment	1. regulatory environment	1. absence of industry standards
	2. competitive pressures	2. partnerships—need for unusual and unprecedented partnerships		2. infrastructure voids
	3. partnerships—cooperation and collaboration between banks and MNOs	3. infrastructure voids		3. slow adoption of technology
DEVELOPED COUNTRY IMPEDIMENTS	Not applicable	1. regulatory environment	1. competitive pressures	1. absence of industry standards
		2. partnerships—need for unusual and unprecedented partnerships	2. infrastructure complexities	2. low consumer demand
		3. infrastructure complexities		

Emerging Market Impediments

Respondents were also asked to consider the impediments to mobile payment engagement in both emerging markets and developed countries, respectively. From an emerging market perspective, respondents from every sector, except government, emphasized *regulatory roadblocks* as an impediment to engagement in mobile payments (see **Table 6**). Government respondents noted that the *lack of industry standards* and *infrastructure voids* were the primary impediments hampering their engagement in mobile payments. At the same time, banks stated that the *unusual and unprecedented nature of partnerships* hampered their engagement in mobile payment activities. MNO's go a step further by pinpointing partnership related issues with banks as an impediment to their engagement in mobile payments. It is also important to note that MNOs also cite *competitive pressures* as an impediment to their engagement in mobile payments, though all sectors previously indicated that *competitive pressures* were drivers of their engagement in mobile payments.

One respondent from the banking sector talked about impediments to engagement in mobile payments and remarked, "...overall, I think [it's the] need for unusual or unprecedented partnerships." As a point of convergence, a technology provider noted the [absence] of a "...willingness to cooperate between MNOs and banks [impedes mobile payments engagement]". Given this, strong support is found for the importance of inter-organizational collaboration and cooperation (*i.e. discrete and continuous ties*) within the mobile payment alliance context.

Interestingly, government respondents focused more on *industry standards*, *slow adoption of technology* and *infrastructure voids* in their responses related to the impediments for mobile payment engagement. For example, one government respondent noted the following, "...standards in the industry or the absence thereof prevent everything." As a point of divergence from the other actors, one technology provider expanded the list of impeding factors to include *corruption* and *consumer education and awareness*. As such, a major downside of cash-based economies was exposed, namely corruption. Moreover, the need to engage in targeted technical assistance and training efforts for consumers was raised. Such activities are expected to lead to enhanced mobile payment uptake based on insights from the interviews.

Developed Country Impediments

Respondents provided keen insights pertaining to impediments for mobile payment engagement in developed country as per **Table 6**. As previously stated, the MNO interviewees for this research study do not currently engage in mobile payments in developed countries.

Banks revealed the negative effect of the *unprecedented nature of partnerships* on mobile payment engagement, indicating that it was indeed an impediment within the developed country context as well. While both bank and technology respondents noted *infrastructure complexities* as one of their biggest challenges in developed markets, only bank respondents reiterated *regulatory environment* when considering impediments to engagement in developed markets. In contrast to respondents from other sectors, government cited the *absence of industry standards* as a notable impediment to its engagement in mobile payment activities in developed country contexts.

As a further point of divergence, government respondents stated that *low consumer demand* in developed countries is also an impediment to mobile payment engagement. Moreover, technology respondents indicated that *competitive pressures* are an impediment to engagement in mobile payments in the developed country context despite having identified *competitive pressures* as a general driver of their engagement in mobile payments within all contexts. Interestingly, the *lack of access to banks* is **not** viewed by respondents in either sector as an impediment; rather, it is deemed a driver or enabler of mobile payments engagement in both market contexts.

iii. Critical success factors for mobile payment inter-organizational alliances

Interview subjects stated that the critical success factors for mobile payment inter-organizational alliances align closely with the identified drivers of mobile payment engagement, with no distinctions based on geographic or market context. Critical success factors that emerged were *widespread collaboration*, *alliance building* and *agreement among all parties in the mobile payment ecosystem*, as well as *technological innovation*. That being said, strong support for the importance of the network theory construct *ties* is found. Specifically, respondent insights confirm the importance of interactions and relationships between and amongst alliance members in order to ensure active engagement in mobile payments.

iv. Roles and relationships within inter-organizational alliances

Respondents revealed the importance of collaboration and partnerships within the mobile payments arena. Each category of actors acknowledged the importance of the other actors within the mobile payment inter-organizational alliance structure. In doing so, they noted the importance of agreement amongst and between actors relative to price, revenue split, and business model. Moreover, actors explicated the imperative nature of mutual trust, respect and commitment to the overall inter-organizational alliance.

With respect to factors affecting partner selection within these alliances, respondents noted that there are financial, business and technology factors influencing their selection of partners. The most important drivers of partner selection for firms engaging in the mobile payment arena are financial wherewithal, business plan strength, service quality, credibility and technology capacity. These outcomes largely correspond with the key drivers of engagement in mobile payments.

Data revealed that many emerging markets dictate who will lead the mobile payment alliance through regulatory intervention, primarily favoring banks. As such, in many markets, only banks can obtain licenses to lead mobile payment initiatives. However, respondents revealed the importance of consumer perceptions with respect to who leads the mobile payment alliance within other market contexts. In the absence of regulatory stipulations, there is a general consensus that the customer will create the momentum, and the mobile payment initiative will be driven by the firm with the existing customer relationship *or* the strongest brand.

A particularly interesting finding surrounds the question of alliance leadership and merits additional study. Respondents from all sectors stated that there isn't a true leader within inter-organizational alliances, they are all equal partners. Even so, banks tend to see themselves as the leader of the mobile payment initiative within any market context. At the same time, mobile network operators reveal that they must carefully navigate within the mobile payment inter-organizational alliance space in that they *must* allow banks to believe they [i.e. the banks] are leading the mobile payment alliance when in actuality the mobile payment initiative is being led by the mobile network operator. A deeper examination of this potential tension within the intra-organizational alliance will be undertaken during future research activities.

The researcher polled subjects about the frequency, intensity and duration of their interactions with other inter-organizational alliance members. However, the subjects provided vague responses when asked for specifics regarding their relationships with other firms within the mobile payment alliance. The researcher considers flows to be one of the most important kinds of ties within the mobile payment inter-organizational alliance framework; however, respondents indicate they either do not measure these flows or state they are simply a part of continuous and ongoing interactions with other firms within the mobile payment arena. Support for this notion is found in previous Social Network theory research outcomes (see, for example, Borgatti and Li 2009). The aforementioned findings, pertaining to inter-firm roles and relationships within mobile payment alliances, informed the development of the model and related propositions.

v. Critical factors that can destroy inter-organizational alliances

Respondents were asked about the critical points that can destroy inter-organizational alliances. Overwhelmingly, the key issues revolve around interactions and relations between and amongst alliance members (*i.e. discrete and continuous ties*). The following is a summarization of factors thought to be detrimental to mobile payment inter-organizational alliances, according to respondents.

Table 7. Factors that Destroy Inter-organizational Alliances
(Source: Interviewee Insights)

- ✓ Absence of mutual risk and benefit sharing
- ✓ Banks and MNOs not speaking the same language
- ✓ Branding issues
- ✓ Disabling regulations
- ✓ Greed [by alliance members]
- ✓ Improper compensation structure
- ✓ Ineffective business model
- ✓ Infighting amongst alliance members
- ✓ Internal politics amongst alliance members
- ✓ Lack of demand
- ✓ Lack of seamless integration
- ✓ Power struggles and egos within the alliance
- ✓ Privacy
- ✓ Security
- ✓ Technology issues
- ✓ Unclear goals

Irrefutably, continuous and discrete ties in mobile payment inter-organizational alliance are imperative and help ensure the success of mobile payment engagements. Similarities and relations (continuous ties) help establish a framework and understanding amongst alliance members as to each party's goals and objectives. Moreover, interactions and flows (discrete ties) between and amongst inter-organizational alliance members strengthen the overall ties between alliance members while solidifying a viable working relationship amongst the alliance members.

Said insights were viewed as seminal findings and thus, subsequently informed the development of the model and propositions. In particular, insights emerged pertaining to the imperative nature of both continuous and discrete interactions between alliance members in order to strengthen and solidify inter-firm collaboration and cooperation thereby enhancing mobile payment engagement. In the absence of these ties, successful inter-firm collaboration is less likely given the greater likelihood of goal incongruence, power struggles, failure to mutually share risk and benefits, ineffective business models and trust issues.

vi. Benefits and measures of mobile payment engagement

Benefits of Engagement

The respondents were also asked about the benefits of mobile payment engagement and more specifically, how they measured the benefit of their engagement. Respondent's confirmed sentiments previously shared pertaining to the overall benefits of increasing profits and growing market share. As such, these key business drivers were also considered fundamental benefits of mobile payment engagement. At the same time, interesting insights emerged for several sectors pertaining to other benefits of mobile payment engagement, as summarized below.

Table 8. Benefits for Mobile Network Operator Engagement
(Source: Interviewee Insights)

- ✓ Branding/improved brand image
- ✓ Churn reduction
- ✓ Decreased costs
- ✓ Financial inclusion
- ✓ Increased customer acquisition and retention
- ✓ Leverage agent structure
- ✓ Leverage real estate on-hand
- ✓ New revenue streams

Key business advantages are deemed the primary benefits for mobile network operator engagement in mobile payments. In particular, respondents cite churn reduction as a significant benefit of mobile payment engagement. Churn reduction is defined as the number of customers lost over a specified period of time divided by the number of customers gained over the same period of time. As such, it equates to the loss of customers to some other MNO.

In addition, respondents report new revenue streams, increased customer acquisition and retention, selling bandwidth, leveraging agent structure and real estate as additional key business advantages of mobile payment engagement. Further, respondents cited financial benefits including decreased costs as key benefits for engagement in mobile payments. Lastly, respondents cited social benefits for MNO engagement, such as financial inclusion, along with brand improvement as relevant benefits of engagement.

With respect to banking sector benefits of engagement in mobile payments, respondents primarily emphasized business benefits. Specifically, emphasis was placed on a bank's ability to gain new customers, earn new services revenue, operate in an expanded geographic footprint and gain a new outlet for doing business. An added benefit for bank engagement in mobile payment activities is financial inclusion, according to respondents.

Table 9. Benefits for Bank Engagement
(Source: Interviewee Insights)

- ✓ Expanded geography without branch network
- ✓ Financial inclusion
- ✓ New customers
- ✓ New outlet for doing business
- ✓ New services revenue
- ✓ Reduced customer care costs

Notable findings during the examination of bank roles within the mobile payment arena led to suppositions regarding an inverse relationship between the extent of development of the banking infrastructure, as defined in this study, and mobile payment engagement.

From the standpoint of technology provider benefits of engagement, respondents primarily characterize benefits as business related. For instance, interview subjects indicated that technology providers benefit in the way of increased revenue, an additional outlet for business and an extension of their product and/or service portfolio. Additionally, respondents reported that technology providers also reap the social benefit of meeting consumer needs.

Table 10. Benefits for Technology Provider Engagement
(Source: Interviewee Insights)

- ✓ Extend portfolio
- ✓ Meet consumer need
- ✓ New outlet for doing business
- ✓ Revenue

Respondent's primarily focused on macro-level benefits of government and regulator engagement in mobile payment activities. In particular, subjects reported key financial benefits of mobile payment engagement for government/regulators including an increase in the velocity of money and a higher tax base. Economic benefits such as increased Gross Domestic Product (GDP) were also noted. The underlying premise, as communicated by respondents, is that these benefits would emerge as a result of a diminished volume of transactions in the informal economy.

Table 11. Benefits for Government Engagement
(Source: Interviewee Insights)

- ✓ Decreased black market
- ✓ Economy growth
- ✓ Higher tax base
- ✓ Increase in Gross Domestic Product (GDP)
- ✓ Increased trade
- ✓ Increased velocity of money

Measures of Engagement

With respect to cross-category analysis of relevant *measures* of the benefits of each sector's engagement in mobile payments, respondents from the technology, banking and mobile network operator categories primarily indicated that profits and market share were the key measures. On the other hand, government and regulatory respondents placed more emphasis on the economic aspects of mobile payment activities including increased trade, increased GDP and overall

growth in the economy. Moreover, government respondents remarked about the supplementary effects of mobile payments; namely, increased velocity of money as a result of decreased “black market” (i.e. informal economy) activities.

Additionally, comparisons versus competitors in the mobile payment market emerged as a relevant measure of the benefits of mobile payment engagement for respondents from the technology, banking and mobile network operator categories. However, as further evidence of the evolving nature of the mobile payment space, a banker said the following, “[there are] no hard and fast rules, this market is too young”. Drawing upon data gathered from study participants, a mobile payment engagement model was developed, along with related propositions, in an effort to better understand the mobile payment arena while offering a framework for examining opportunities to engage in mobile payments within diverse market contexts.

Mobile Payment Engagement Model

The following is the conceptual model for mobile payment engagement informed by the researcher’s exploratory examination of mobile payment engagement. Six propositions related to mobile payment engagement are also presented in tandem. Relevant constructs included in the conceptual model, which emerged from qualitative interviews undertaken as part of the study of mobile payment inter-organizational alliance configurations and interactions, include regulatory enablement, assessment of economic opportunity, continuous ties, discrete ties, maturity of existing banking infrastructure, maturity of existing telecommunications infrastructure and mobile payment engagement.

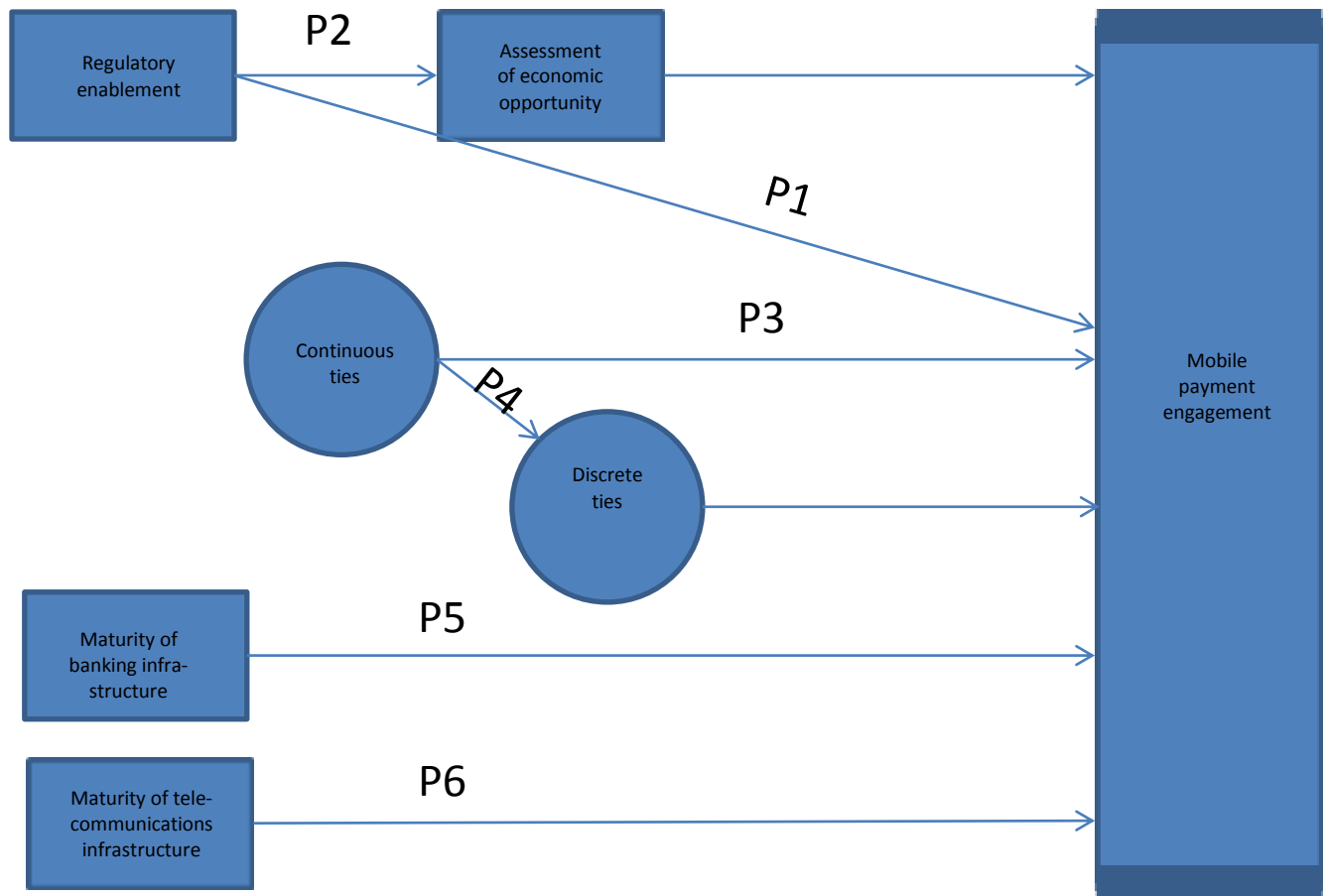
The relevant constructs are defined in **Table 12** and are as follows:

Table 12. Mobile Payments Engagement Constructs

<u>Construct</u>	<u>Definition</u>
<i>Mobile Payments Engagement</i>	Defined as the organizations involvement in mobile payment activities. Measured by mobile payment activities as per respondent/subject.
<i>Assessment of Economic Opportunity</i>	Defined as the organization's perception of the valuation of the financial benefits of engagement in mobile payments. Measured on a scale from negative to positive.
<i>Regulatory Enablement</i>	Defined as the extent to which regulatory environment enables mobile payments solutions and/or deployments. Measured on a scale from negative to positive.
<i>Discrete Ties</i>	Defined as interactions (i.e. sell products to, makes competitive moves in response to, etc.) and flows (technology transfers, cash infusions, stock offerings etc.) between firms. Measured by existence of ties as per respondent/subject.
<i>Continuous Ties</i>	Defined as similarities (i.e. joint membership in trade associations, co-located offices etc.) and relations (i.e. joint ventures, alliances, distribution agreements, own shares in etc.) between firms. Measured by existence of ties as per respondent/subject.
<i>Maturity of Banking Infrastructure</i>	Defined as the existing state of development of the banking infrastructure. Measured on a scale from undeveloped to developed.
<i>Maturity of Telecommunications Infrastructure</i>	Defined as the existing state of development of the telecommunications infrastructure. Measured on a scale from undeveloped to developed.

The mobile payment engagement model, developed by the researcher to illustrate the relationships posited within the mobile payment inter-organizational alliance context, is illustrated, in *Figure 8*.

Figure 8. Mobile Payment Engagement Conceptual Model



In summary, support for the testable propositions evolving from this research, and pertaining to mobile payment engagement, is as follows:

Proposition 1:

Regulatory enablement strongly influences mobile payment engagement.

Disabling regulatory environments, marked by regulatory roadblocks, surfaced as a primordial impediment of mobile payment engagement within both emerging markets and developed countries during the qualitative research phase of the current study. In contrast, enabling regulatory environments advance mobile payment proliferation and increase engagement in mobile payment activities. We expect to find support for the strong influence of enabling regulatory environments on mobile payment engagement during the quantitative phase of future research activities.

Proposition 2:

Assessment of economic opportunity moderates the relationship between regulatory enablement and mobile payment engagement.

Research outcomes from the qualitative interviews indicate the importance of business drivers within the mobile payment context. Specifically, market share growth and profits emerged as primal drivers for engagement in mobile payment activities. The researcher posits that these perceived opportunities to enhance market share and profits moderates the relationship between regulatory enablement and mobile payment engagement. As such, the researcher expects to find support for the same in the proposed quantitative research phase.

Proposition 3:

Continuous ties influence mobile payment engagement.

Qualitative data outcomes illustrate the influence of firm similarities and relations, known as continuous ties, on engagement in mobile payment activities. In particular, joint ventures, alliances, distribution agreements and other relations are prevalent among inter-organizational alliance members. The researcher also expects to find support for this proposition at the culmination of the quantitative data collection and analysis activities planned for future research studies.

Proposition 4:

Discrete ties amongst inter-organizational alliance members moderate the relationship between continuous ties and mobile payment engagement.

Discrete ties evolved as an intervening construct between continuous ties and mobile payment engagement. For example, discrete ties such as interactions and flows of information, resources and technology occur more often when a continuous tie already exists between firms. As such, the relationship between continuous ties and engagement in mobile payment activities appears to be moderated by discrete ties between firms within the inter-organizational alliance. Support for this proposition is anticipated in the proposed quantitative research outcomes.

Proposition 5:

The maturity of the existing banking infrastructure in a market influences mobile payment engagement.

Research outcomes demonstrate the huge void created by sparsely deployed traditional banking institutions and assets, such as ATMs. Inaccessibility to traditional banking is leading to large populations of unbanked or under-banked consumers, particularly in emerging markets. Historically, banks have deployed their (traditional) infrastructure in areas where there are significant opportunities for revenue and profitability...i.e. ATMs, brick-and-mortar branch network. “Mobiles create a much broader distribution channel for the banks and create an opportunity for profitability for the banks. Previously the banks did not serve these populations because they could not profitably serve them” (Gabriel 2012). As a result of this phenomenon, the existing banking infrastructure influences engagement in mobile payment activities. Further examination of this phenomenon through quantitative research methods is expected to reveal seminal findings in this area. Notably, the researcher posits an inverse relationship between the maturity of the existing banking infrastructure, as defined in the current study, and mobile payment engagement.

Proposition 6:

The maturity of the existing telecommunications infrastructure in a market influences mobile payment engagement.

Qualitative interviews revealed the importance of a trustworthy and reliable telecommunications infrastructure to facilitate the delivery of mobile payments in a market. Particularly, respondents noted that mobile network operators must provide the comprehensive carrier network to deliver mobile service, even to remote geographic locations, while also having an expansive retail distribution network to bolster the mobile payment agent structure. “The beauty of the mobiles is that they penetrate out to rural and remote areas that are not profitable for banks to serve [through traditional infrastructure deployments]” (Gabriel 2012). Therefore, the telecommunications infrastructure appears to influence engagement in mobile payments. Support for this proposition is expected to be found in the proposed future quantitative research efforts.

The researcher posits that the aforementioned propositions will be supported through confirmatory, quantitative data to be collected at a later date by way of a survey. Myers (2009) noted that "...both qualitative and quantitative research approaches are useful and needed in researching business organizations." As such, planned future research includes a survey of 150 strategic-level actors within the mobile payment space in order to test the propositions emerging from the exploratory, qualitative data. Moreover, a whole-network empirical analysis of a targeted mobile payment inter-organizational alliance is also recommended. Given the ubiquitous proliferation of mobile payments and the global effects of technological innovations of this nature, it is likely that much attention will be given to mobile payments and related technologies in future academic and practitioner literature.

V. Summary and Conclusions

Without question, the implications of mobile payments in many market contexts are far-reaching and evolutionary. Mobile payment applications are described as being disruptive innovations because their effects are life altering and literally change the way consumers go about their daily routines. Renowned international telecommunications expert and mobile payments pioneer Chris Gabriel (2012) shared a few poignant examples of the implications of mobile payment proliferation, and reveals keen insights as to why mobile payments matter.

Dercu, a very remote village outside of Kenya, has no banks...but there are many people with mobile phones. Phones cost less than \$20.00 USD. The villagers in this remote area routinely use mobile payments to send and receive money to relatives in Kenya and other areas outside of their remote village. The cost per transaction is literally cents...not dollars as it would be if they used Western Union or some other company to perform the same transaction.

Mobile phones also create opportunities for trade in these markets in that they provide first-time access to relevant, real-time market information and data. Said data enables these remote villagers to more competitively participate in trade activities (through access to real time information and ability to procure goods immediately via mobile payment transactions).

For example, villagers in Dercu routinely buy and sell camels (which they refer to as bulls)...these villagers used to wait days to learn the trading prices of bulls in the market. Now, through their mobile phones, they are able to obtain real-time data and pricing information and also immediately procure the bulls via mobile payments technology.

Undoubtedly, the utility of mobile payment technology is immeasurable in emerging markets and in other geographic areas plagued by poor infrastructure and the lack of access to traditional banking. Mobile technology proliferation is creating first-time access to financial markets and relevant information for many consumers and suppliers in remote parts of the world. Insights from literature coupled with findings from semi-structured interviews reveal the need for organizations to design innovative mobile payment inter-organizational alliances by identifying and selecting partners who effectively and efficiently operate within the emerging mobile payments business landscape, while adding value to the overall inter-organizational alliance configuration.

Moreover, it is imperative that regulatory agencies champion and create *enabling* regulatory environments in order to facilitate mobile payment engagement and diffusion. Even so, definitive determinations must *first* be made with respect to delineation of the appropriate agency to provide regulatory oversight of mobile payments given the convergence of multiple sectors with previously divergent oversight frameworks. Other key findings from the study include the emergence of similar drivers for mobile payment engagement in both developed and emerging market context, namely competitive pressures and financial inclusion.

The current research study was undertaken with the aim of advancing understanding of mobile payment inter-organizational alliances in an effort to facilitate widespread engagement in mobile payments activities; thereby increasing diffusion and adoption of mobile payment technological innovations. The research outcomes from this exploratory examination led to the development of a model for mobile payment engagement, and strongly suggest that ties between and amongst firms in inter-organizational alliances help ensure the success of mobile payment engagement. Support was found for the following: 1) similarities and relations (continuous ties) help establish a framework and understanding amongst alliance members as to each party's goals and objectives; and 2) interactions and flows (discrete ties) between and amongst inter-organizational alliance members strengthen the overall ties between alliance members while solidifying a viable working relationship amongst the alliance members.

Based on the research presented herein, the researcher posits that the proposed mobile payment engagement model is a vital tool for examining mobile payment engagement as well as understanding the convergence-related challenges associated with mobile payment inter-organizational alliances. The aforementioned issues must be addressed in order to facilitate the ubiquitous proliferation of mobile commerce and related applications, such as mobile payments. Without question, the mobile payment context will continue to evolve and as it does, other frameworks for engagement are likely to surface in the near future. However, the model proposed herein is relevant and efficacious; thus, it will immediately aid in the examination of mobile payment engagement opportunities with diverse market contexts given the phenomenal growth currently underway in the mobile payment space.

This study employs a qualitative approach to obtain real world insight into the dynamism of the mobile payment arena; thereby providing practitioners with a plausible framework within which to examine opportunities to engage within the mobile payment arena. From a theoretical perspective, the proposed research will contribute to the extant scholarly knowledgebase pertaining to engagement in mobile payments.

VI. Expected Contribution and Publication Strategy

This study led to the development of a model for examining mobile payment engagement opportunities that is expected to immediately aid in the examination of mobile payment engagement opportunities with diverse market contexts given the ubiquitous proliferation of mobile technology innovations across the globe, including mobile payment applications. The proposed model and related propositions advance a deeper understanding of key considerations pertaining to mobile payment inter-organizational alliance configurations and interactions, within both emerging market and developed country contexts. From a theoretical perspective, the research contributes to the extant scholarly knowledgebase pertaining to mobile payment engagement.

Although this study solely consists of qualitative research, wherein the nature of relationships is self-reported, it provides keen insights and advances the understanding of mobile payment engagement by firms with a vast amount of context specificity. Moreover, given the absence of related insights in literature, this subject is worthy of further exploration. As such, further examination of this phenomenon using quantitative research methods would provide greater insights relative the engagement in mobile payment activities. Additionally, an in-depth analysis of a whole mobile payment inter-organizational alliance (i.e. network) would enhance understanding of the influence of mobile payment alliance configurations and interactions on engagement in mobile payments.

The researcher presented the current research as research-in-progress study at the International Network for Social Network Analysis (INSNA) Conference on March 15, 2012 in Redondo Beach, California.

Upon successful defense of the dissertation, a multi-faceted publication strategy will be undertaken. First, a paper will be submitted to an academic business journal in an effort to enhance the literature pertaining to inter-organizational alliances, with particular emphasis on understanding how configurations and interactions within these networks affect engagement in mobile payments. Second, a practitioner journal will be targeted for the purpose of providing valuable data and insight regarding mobile payment engagement, likely with a comparative analysis of mobile payment engagement in emerging markets and developed country market contexts.

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Appendices

Appendix A.

Approved IRB Consent Form

Appendix B.

Interview Protocol

Dr. Deborah D. Hazzard-Robinson
Strategic Leader, Administrator and Visionary

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Dr. Deborah Hazzard-Robinson, a recent graduate of the Executive Doctorate in Business program at Georgia State University, is a native of Columbia, South Carolina. She currently serves as President of 2 Higher Heights, LLC, a global management consulting and training firm in Atlanta, GA. Her educational background includes a Bachelor's degree from N.C. State University in Raleigh, N.C., and a Master's of Business Administration from Winthrop University in Rock Hill, S.C. In addition, she holds certificates in Employment Law, an Advanced Certificate in Human Resource Management, and Commercial Lending.

Her background includes successful roles within the financial services sector as well as in local government. She has a wealth of leadership and managerial experience inclusive of more than fifteen years in strategic change management, human resource management, community development and program management. She has served in senior level roles in the public and private sector, and has also engaged non-profits through capacity building, technical assistance and strategic management consulting.

She has demonstrated proficiency in fiscal responsibility, program and process improvement, operational efficiency, strategic planning and public policy. Moreover, she effectively builds and maintains relationships with public officials, community leaders, citizens and other stakeholders.

Dr. Hazzard-Robinson's doctoral research focused on Corporate Social Responsibility (CSR) and sustainability trends in MNCs within the Information and Communication Technology (ICT) industry, and Social Network theory as a framework for the examination of the impact of wireless mobile technology innovations (such as mobile payments) in Emerging Market and Developed Countries.

Recent academic honors for Dr. Hazzard-Robinson include:

- Authored research entitled "Social Network Theory in Interorganizational Alliances: An Exploratory Examination of Mobile Payments Engagement".
- Authored research abstract entitled "Social Network Theory in Interorganizational Alliances: An Firm Level Empirical Analysis of Mobile Payment Solutions" that was accepted for a 20-minute oral presentation at the annual meeting of the International Network for Social Network Analysis in March 2012.
- Co-authored research that was presented at the 7th International Conference on Environmental, Cultural, Economic and Social Sustainability held January 5-7, 2011 at the University of Waikato in New Zealand. Research topic pertained to Sustainability and Corporate Social Responsibility (CSR) in the Information and Communication Technology (ICT) sector.

- Participated in the Doctoral Consortium at the 1st International Conference on Engaged Management Scholarship held on June 2, 2011 at Case Western Reserve University in Cleveland, Ohio. Presented research-in-progress manuscript related to wireless mobile technology innovations in emerging markets.
- Co-authored group research that was presented at the 1st International Conference on Engaged Management Scholarship held June 2-5, 2011 at Case Western Reserve University in Cleveland, Ohio. Presented research pertaining to Sustainability and Corporate Social Responsibility (CSR) in the Information and Communication Technology (ICT) sector.

Areas of Expertise include:

- Strategic Leadership
- Leading through Change
- Developing and Managing Superior Work Teams
- Business Model Innovation
- Stakeholder Engagement
- Employment Law
- Human Resource Management
- Strategic Thinking and Analysis
- Performance Management
- Managing Difficult Employees
- Improving Employee Productivity
- Supervisory Training and Coaching,
- Business Process Reengineering
- Process Improvement
- Compliance
- Internal Auditing
- Internal Investigations
- Purchasing
- Public Sector Budget Management
- Community Outreach
- Community Development
- Negotiation