1042-2587

Entrepreneurial Opportunities and Poverty Alleviation

Sharon A. Alvarez
Jay B. Barney

Entrepreneurial activity does not always lead to economic growth. While improvements have been made to human capital, property rights protection, and access to financial capital in abject poverty contexts with the assumption that they will increase entrepreneurial activity, the results have been mixed. More recently, many entrepreneurs interested in poverty alleviation are crossing borders to engage in initiatives aimed at reducing poverty internationally. These efforts have also had mixed results. This paper posits that one reason is that entrepreneurial opportunities and their wealth creation potential vary, and the impact of exploiting these opportunities on economic growth in poverty contexts can also vary. This paper identifies self-employment opportunities, often exploited in abject poverty, that do not lead to sustainable growth solutions. Alternatively, discovery and creation opportunities while difficult to exploit in poverty contexts hold the greatest potential for significant economic impact.

Entrepreneurial Opportunities and Economic Growth

Alleviating abject poverty is a difficult problem. Despite three decades of development efforts by agencies and governments, abject poverty still dominates many parts of the globe (Stiglitz, 2002). While total expenditures designed to eradicate abject poverty over this time period vary, reliable sources put this expense at approximately $2.3 trillion by the West (Easterly, 2006). And still, the abject poor—defined as those that survive on less than the equivalent of $2 per day (London & Hart, 2004)—remain with us. These poor number approximately 2.6 billion people around the world (Prahalad & Hart, 2002; World Bank, 2011).[1]

Beyond philanthropy, development efforts have focused on building the human (Cohen & Soto, 2007; Lucas, 1988; Romer, 1990), institutional (DeSoto, 1989; World Bank, 2011), and financial (Yunus, 1999) underpinnings of economic growth. These

Please send correspondence to: Sharon A. Alvarez, tel.: 303-871-3919; e-mail: Sharon.Alvarez@du.edu and to Jay B. Barney at jay.barney@business.utah.edu.

1. The 1990 World Bank Report defines global poverty as the absolute poverty line of income of $2 a day or less and extreme poverty is set at $1 a day or less. At the 1995 United Nations World Summit on Social Development, the Copenhagen Declaration described poverty as "a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information."

DOI: 10.1111/etap.12078

investments are based on the assumption that economic growth[2] is only possible if there is quality human capital (Calero, Bedi, & Sparrow, 2008), strong property rights (Claessens & Laeven, 2003), and access to financial capital (Yunus). The hope has been that these improvements would in turn lead to increased entrepreneurial activity (Davidsson & Honig, 2003; Minniti & Levesque, 2008; World Bank; Yunus), job growth, wealth creation, and economic growth (Schumpeter, 1934).

Indeed, progress has been made in improving human capital, property rights, and access to financial capital among the abjectly poor. Human capital improvements have been addressed through education and training (Cohen & Soto, 2007; Lucas, 1988; Romer, 1990).[3] Property rights protections in developing economies have improved through increased legislation and enforcement (DeSoto, 1989; World Bank, 2011). Moreover, providing financial capital for those in abject poverty has become an important tool in poverty alleviation, and millions of people now have access to capital through microfinance (Yunus, 1999).

Still, while there has been marked improvement in these three areas (Cohen & Soto, 2007; Khavul, 2010; World Bank, 2011; Yunus, 1999), the economic impact of entrepreneurship on poverty has been mixed. Some societies, such as China with manufacturing, South Korea with autos and personal electronics, Bangladesh with garment manufacturing, and Taiwan with laptop computers, have responded to entrepreneurial activities and grown economically while others have not made progress (Easterly, 2006). These mixed results have encouraged many entrepreneurs to transcend boundaries around the world, lowering barriers and forming linkages among cultural values, national policies, and economics (Murphy & Coombes, 2009). However, without an understanding of the different wealth creating potential of entrepreneurial opportunities, much of this work has also delivered mixed results.

One potential reason why entrepreneurship has delivered mixed economic advances may be that the types of opportunities that are exploitable with the kinds of human capital, property rights, and financial capital that are now available to the abjectly poor are not the kind of opportunities that are likely to lead to job creation and economic growth. Entrepreneurs that are crossing international borders to engage in poverty initiatives may be limiting their effectiveness if they are unaware of the wealth creation potential of different opportunities. This paper suggests that failing to understand the job creation and economic growth potential of different types of entrepreneurial opportunities, and the human capital, property rights, and financial capital needed to form and exploit these opportunities, has limited the impact of entrepreneurship on alleviating poverty.

Building on the theory of opportunities that is currently emerging in the entrepreneurship literature (Alvarez, Barney, & Anderson, 2013), this paper suggests, first, for entrepreneurship to become a source of economic growth across borders in conditions of abject poverty, the type of opportunities that entrepreneurs in these settings seek to exploit will need to change from what is currently available. Equally, entrepreneurs that are working in poverty settings internationally benefit from understanding that not all opportunities are equal or have the same wealth creation potential. Second, this paper suggests that the kinds of human capital, property rights, and financial capital required to exploit wealth-creating opportunities are fundamentally different from what is currently available to the abjectly poor.

2. Economic growth in this paper is defined as market productivity and rise in gross domestic product. Economic development is defined consistent with Porter, Sachs, and McArthur (2001–2002) as increasingly sophisticated ways of producing and competing and the evolution from a resource-based to a knowledge-based economy.
3. Human capital skills include education, training, leading, organizational skills, and so forth.

Entrepreneurship and Poverty Alleviation

In the last decade, there has been a growing interest in entrepreneurship as a mechanism for poverty alleviation across international boundaries (Murphy & Coombes, 2009). That entrepreneurship can help alleviate poverty is not new, and reflects the assumption that entrepreneurial activity leads to economic growth (Schumpeter, 1934). However, the economic rationale for the eradication of poverty is not universally compelling to all organizations. For firms that are profit oriented and already in developed economies, market outcomes in contexts of abject poverty—that generally have the additional difficulty of being international—are likely to be inefficient.[4] Often, for-profit organizations that are already operating in developed economies lack a compelling rationale to enter international markets, that are unknown, that are inefficient, and where unanticipated externalities resulting from these inefficiencies can be overwhelming.[5]

Inefficiency is a source of market failure (Wolf, 1987). A market failure would indicate the need for government intervention. However, in contexts of abject poverty, governments would have to convince constituents of a nonpoverty context to bear the costs of poverty alleviation without bearing the benefits. Given that those in poverty contexts have low levels of power, the burden of bearing the costs of poverty alleviation are left to the charitable.[6] Social entrepreneurs often fill this gap between what the private sector is willing to produce, and what the government can provide.

There has been a growing suggestion that social entrepreneurship is an effective mechanism for generating economic and societal value (Murphy & Coombes, 2009). Moreover, social entrepreneurs are often willing to cross international borders and go where the need is greatest and the payoffs uncertain (Seelos & Mair, 2004). While the link between entrepreneurship and economic growth has been broadly assumed, the nature and details of how entrepreneurship influences economic growth, and poverty alleviation, have received less attention (Minniti & Levesque, 2008). This ambiguity is a result of a paucity of theory in social entrepreneurship to either guide research or guide the actions of social entrepreneurs. Moreover, theories used to explain internationalization behavior typically address the multi-national for-profit firms using theories such as transactions cost economics (Buckley & Casson, 2006) that lack the power to make predictions under conditions of exogenous Knightian uncertainty (Alvarez & Barney, 2005; Rivoli & Salorio, 1996).
A more fruitful approach to theorizing would be to draw on entrepreneurship theory on opportunities that specify the conditions of Knightian uncertainty and consider the implications of human capital, property rights, and financial capital for wealth creation (Jones, Coviello, & Tang, 2011).

To answer these questions, this paper begins by defining what entrepreneurial opportunities are. It then identifies the type of opportunity—self-employment opportunities—

---

4. Markets are efficient if the same level of total benefits generated cannot be obtained at a lower cost or at the same level of cost. In addition, there must be distributional equality, the distribution of tax burdens, education, housing, energy, income, laws, opportunities, and so forth. In abject poverty, the presence of poverty itself by definition negates the efficiency of markets.
5. There has been substantial work suggesting that there is a market in what is known as the base of the pyramid (i.e., *The Fortune at the Bottom of the Pyramid* by C.K. Prahalad). However, this work does not address the issue that while there are large numbers of potential customers in the base of the pyramid, they are without purchasing power and not appealing to for-profit firms.
6. Over the last three decades, estimates are that over $2.3 trillion in economic aid has gone to countries with abject poor. There is no evidence to suggest that this aid has alleviated poverty (Easterly, 2006).

the most commonly exploited in abject poverty settings. Then, two other kinds of opportunities—discovery and creation opportunities—are described.

What Are Entrepreneurial Opportunities?

The concept of opportunity has been defined in a wide variety of fields including economics, entrepreneurship, and strategy. While varying in detail, there is remarkable agreement on the definition of opportunities. This definition centers on the notion that opportunities exist when competitive imperfections exist in factor or product markets (Alvarez & Barney, 2007; Venkataraman, 1997). In conditions of perfect competition, firms or individuals do not have the potential to generate economic wealth (Barney, 1986; Casson, 1982; Kirzner, 1979; Venkataraman). Economic wealth can only emerge when competition is not perfect. This is the definition of opportunity adopted in this paper (Alvarez et al., 2013).

Entrepreneurs exploit these competitive imperfections to generate economic profits (Schumpeter, 1934). To the extent that entrepreneurs use rare and costly to imitate resources and capabilities to exploit these opportunities, they can become sources of sustained competitive advantage (Barney, 1991). However, not all entrepreneurial opportunities are the same. Alvarez and Barney (2007), Miller (2007), and others (Buenstorf, 2007; Sarasvathy, Dew, Velamuri, & Venkataraman, 2003) have described various types of opportunities; the kinds of human capital, property rights, and financial capital needed to exploit them; and their potential for generating economic growth.

Three of these opportunities—self-employment, discovery, and creation—are discussed here in the context of economic growth in abjectly poor settings.

Self-Employment Opportunities

Self-employment opportunities, like all opportunities, are competitive imperfections in markets. However, these imperfections result from the preferences in abject poverty that have not yet been fulfilled by available supply (Kirzner, 1973). These replication opportunities are not scalable and are rarely sources of employment for anyone except the founding entrepreneur. Examples of self-employment opportunities in abject poverty settings include goat-milking businesses in rural Africa and microretail stores in South America (Table 1).

From the point of view of economic growth, self-employment opportunities have limited potential. Certainly, they are rarely sources of employment, since only a single person can realize the full economic potential of these opportunities. One could argue that while each one of these businesses is small and nonscalable, the totality of these businesses in a community is large. However, from an economic growth perspective, both the "size of the pie" and how it is divided are important.

Some have argued that while self-employment opportunities may themselves not be sources of economic growth, individuals that begin as self-employed entrepreneurs can evolve to engage in entrepreneurial activities with more important growth implications. However, this argument is inconsistent with the human capital, property rights, and financial capital needed to exploit self-employment opportunities vs. other kinds of opportunities.

Discovery and Creation Opportunities

Where self-employment opportunities focus on duplicating the small nonscalable businesses of others in a community, discovery and creation opportunities are often

Table 1

Types of Loans Made by Grameen Bank in 2008

	Number of loans 2008	Percent of total loans
Livestock purchasing, raising, and fattening	1,644,635	30%
Rice paddy cultivating husking and trading	1,309,747	24%
Grocery shop	409,853	8%
Other loans†	2,097,833	38%
Total loans	5,462,068	

† No loan in this category is greater than 4% of total number of loans made.
In 2008 Grameen Bank made 5,462,068 loans, of these 3,364,235 or 62% were one of these three.
- Livestock purchasing, raising and fattening
- Rice paddy cultivating, husking and trading
- Grocery shop

Year	Number of loans for grocery shops
2008	410,000
2007	480,000
2006	575,000
2005	350,000
2004	230,000

Population of Bangladesh in 2006 was 155,000,000 (World Bank).
In 2006, there was one Grameen Bank financed grocery shop for every 270 people in Bangladesh. Grameen Bank is one of over 20 microfinance institutions that are making microloans in Bangladesh.

scalable and build on unique insights of entrepreneurs that can be sources of significant economic profit. Discovery opportunities are formed by exogenous shocks to an industry or market (Shane, 2003). Examples of these shocks include changes in technology, changes in government policy, changes in demographics, etc.

In discovery settings, entrepreneurs who become aware of an opportunity before others exploit the opportunity. These opportunities have been described to occur in conditions of risk due to the amount of knowable information needed to enable *ex-ante* alertness, search, and analysis of information (Delmar & Shane, 2003; Shane, 2003). In these risky conditions, once the entrepreneur successfully discovers the opportunity, others are able to quickly imitate and compete away the profits (Lieberman & Asaba, 2006; Schumpeter, 1934). Since much of the information needed to identify and exploit these opportunities is available through search, execution and speed of execution become critical. Indeed, it has been noted that in developing economies, success in the discovery mode is difficult and costly, and once achieved, it is easily observed and imitated (Mostafa & Klepper, 2013). Nonetheless, entrepreneurs that are able to erect barriers to imitation (Barney, 1991) can obtain a source of sustained competitive advantage from these opportunities (Lieberman & Montgomery, 1988).

Creation opportunities, on the other hand, are the result of entrepreneurial processes that are both purposeful and emergent, and begin a cycle of interactive change while simultaneously changing the environment that together result in an opportunity (Alvarez et al., 2013; Garud & Karnoe, 2001, 2003; Mintzberg & Waters, 1985). In this sense, through an evolutionary process of experimentation and learning, opportunities emerge that may not have existed except for the process that entrepreneurs engaged in to create them. Often the knowledge that is needed to form and exploit creation opportunities does not exist until after the enactment is underway, since knowledge is constructed as part of the process (Berger & Luckmann, 1967; Kogut & Zander, 1992). Indeed, the process may lead to the formation of opportunities largely unrelated to current markets and industries or whose existence and exploitation require the development of fundamentally new knowledge (Schoonhoven, Eisenhardt, & Lyman, 1990). In general, the more novel the opportunity ultimately formed, the more new knowledge and information needs to be created through a series of experimental actions (Galbraith, 1977).

As the opportunity creation process unfolds, the entrepreneur will need others to adopt the emerging opportunity. The entrepreneur must influence users' perceptions and attitudes that will affect the successful implementation of the new opportunity (Szulanski, 2000). New knowledge—technical and social—must be transferred to those who adopt the new opportunity to enable its use, resulting in new behaviors and routines by both those forming the opportunity and those adopting the opportunity (Edmondson, Bohmer, & Pisano, 2001). In this sense, opportunities are co-created between the entrepreneur, customers, suppliers, and other stakeholders in the context (Alvarez et al., 2013).

In contexts that are uncertain, where knowledge is limited, and rationality is context specific, the critical issue for entrepreneurs is creating markets for their ideas. Often these markets do not exist, are thin, or otherwise imperfect—even in developed economies (Pitelis & Teece, 2010). In these situations, it is up to the entrepreneurs to prove their ideas, which often requires the co-creation of markets.

In co-creation, the entrepreneur, consumers, and other stakeholders engage in processes that both create and define value creation; this co-creation process becomes the basis of the created value (Prahalad & Ramaswamy, 2004). Co-created opportunities are both a path-dependent (Arthur, 1989)—and an emergent—path creation process (Garud & Karnoe, 2003; Mintzberg & Waters, 1985). This path-dependent process can, in many circumstances, be costly for others to imitate, since the knowledge gained from the process is often opaque to competitors effectively allowing the entrepreneur to block disruptive threats (Selden & MacMillian, 2006). Once the opportunity and the market are co-created, the entrepreneur will endeavor to capture as much value as possible. In this sense, the process of forming a co-created opportunity is often its own barrier to imitation. In these settings, exploiting co-created opportunities can generate sustained competitive advantages and large economic profits.

While discovery and co-creation opportunities have many important differences, they share certain attributes as well (for a more complete review of opportunities and their theoretical assumptions, please see Alvarez and Barney [2010] and Alvarez et al. [2013]). In particular, to exploit discovery or co-created opportunities requires sophisticated human capital, highly developed property rights, and sophisticated sources of financial capital. Those living in conditions of abject poverty rarely have these skills and thus—even if discovery or creation opportunities exist in such settings—entrepreneurs in these settings will rarely be able to exploit them. This conclusion has important implications for those seeking to use entrepreneurship to facilitate economic growth (Table 2).

Next, the human capital, property rights, and financial capital required to exploit self-employment opportunities are described, along with the limits of these kinds of opportunities to generate real economic growth. Then, the same characteristics are

Table 2

Opportunity Types in Poverty Contexts

	Self-employment opportunities	Discovery opportunities	Creation opportunities
Opportunity	Exist in pre-existing markets or industries. Clearly definable market gaps. Exist whether an entrepreneur exploits them or not; however, can be observed by almost all actors in an economy.	Exist independent of entrepreneur but can only be observed by some.	Do not exist until the entrepreneur enacts the opportunity.
Entrepreneur	Low levels of human capital required, alertness not required.	Alertness Deep experience in an industry, market	Learning happens in the process of forming the opportunity. Entrepreneurial differences as a result of the formation process. Tacit knowledge causal ambiguity
Barriers to entry	No	Transitory	Potential for Long-term/Sustainable
Inimitability	No	No	Yes
Long-term profitability	Low	Risky	Uncertain

described for discovery and creation opportunities. It is shown that while discovery and creation opportunities have real economic potential in abject poverty settings, they require human capital, property rights, and financial capital that are, still to a large extent, missing in these settings.

Human Capital, Property Rights, Access to Financial Capital, and Entrepreneurship

There is little doubt that human capital, property rights, and access to financial capital are essential prerequisites for entrepreneurial activity, both in developed and less developed economies (Webb, Kistruck, Ireland, & Ketchen, 2009). For example, the role of human capital in economic growth has been emphasized for at least the last two decades (Cohen & Soto, 2007). Human capital is an individual's knowledge, skill, ability, and other characteristics that have productive value in workplace contexts (Lepak, Takeuchi, & Swart, 2011). Examples of general human capital are the ability to read and write, but it also includes leadership ability, the ability to communicate with and motivate others, the ability to work with others and to solve problems, and so forth (Nahapiet & Ghoshal, 1998; Greenwood, Li, Prakash, & Deephouse, 2005). Peredo and Chrisman (2006) have described how in abject poverty cooperation in teams is a skill that is often absent and has to be learned. Even basic education can be difficult to obtain as individuals in poverty often are more focused on securing their next meal than on attending school (Yunus, 1999). Yet, that human capital is critical for economic growth is documented (Lucas, 1988; Romer, 1990). In response, nongovernment organizations and government agencies have invested millions of dollars developing human capital (Lucas).

Property rights are an instrument of society that attributes ownership of both tangible and intangible resources to individuals or groups for the purpose of exchange (Demsetz, 1967). Without secure property rights—a condition that often exists in abject poverty settings—exploiting opportunities that lead to wealth creation is problematic. The abjectly poor, with limited skills and access to legal support, are particularly vulnerable (DeSoto, 1989). In these settings, those who bear the risk of the entrepreneurial process are at risk of not being able to appropriate that value. In order to improve property rights protection, developing economies have invested in business regulations, contract enforcement, and state policies designed to increase the likelihood that entrepreneurs can personally benefit from the entrepreneurial activities (World Bank, 2011).

Access to financial capital can also play a critical role in the emergence of entrepreneurship (Cooper, Gimeno-Gascon, & Woo, 1994). Traditional external sources of capital can include banks, friends, family, credit cards, and so forth (Bhide, 1992; Christensen, Anthony, & Roth, 2004). However, these sources of financing are often not available in abject poverty (Yunus, 1999). In abject poverty, individuals do not have a credit history comparable with that used in developed countries to qualify for credit cards or loans from banks. Friends and family are often as impoverished as an entrepreneur. It is this lack of financial capital in impoverished contexts that microfinance loans were designed to overcome (Yunus). Microfinance loans, typically small, unsecured loans to individuals and groups for the purpose of starting a business, are the development solution to a lack of entrepreneurial capital (Khavul, 2010).

Thus, it is easy to see that human capital, property rights, and financial capital are all important for the emergence of entrepreneurship, especially in conditions of abject poverty. However, these three attributes of individuals and economies are actually quite wide and diverse. Human capital includes everything from simple reading and writing to advanced degrees in physics and economics. Property rights can vary from complex laws governing contracts and their enforcement to barking dogs that discourage people from stealing an entrepreneur's real property. The financial capital needed to start a business can range from simple revolving credit loans given to shop keepers to purchase their inventory to complex debt and equity arrangements with banks and other investors.

Moreover, not only can these attributes of individuals and economies vary dramatically, but also the specific types of human capital, property rights, and financial capital necessary to the formation of entrepreneurship can vary depending on the types of opportunities entrepreneurs are looking to exploit. For example, the human capital needed to run a goat-milking business in a rural village in India is likely to be quite different from the human capital needed to run a small manufacturing operation in urban Haiti. This is also true for property rights and financial capital.

It can be concluded that on average, human capital, property rights, and access to financial capital have improved in the developing world in the last several decades, and this has not been helpful in increasing the impact of entrepreneurship on poverty alleviation. Indeed, the kinds of human capital, property rights, and financial capital improvements that have been made only enable entrepreneurs to exploit opportunities that have limited potential for generating real economic growth. The issue is not just, "have levels of human capital, property rights, and access to capital improved?" but also, "have they improved in a way that enables those in abject poverty to engage in entrepreneurship that will generate real economic growth?" (Table 3).

Self-Employment Opportunities and Human Capital

The abjectly poor often have low levels of human capital (DeSoto, 2000; Peredo & Chrisman, 2006). The abjectly poor are poorly educated, have limited business experience, and know little about how to manage cooperative efforts designed to exploit business

Table 3

Institutions and Abject Poverty

	Abject poverty	Improvements in abject poverty
Human capital	Low levels or nonexistent levels of education, work skills, team cooperation skills, entrepreneurial experience	The average years of schooling has increased from 2.46 to 6.73 (Cohen & Soto, 2007)
Property rights protection	Informal and black markets, lack of formal property rights, notions of informal property rights such as "squatters" rights, informally defined through group norms, customs, and individual power positions	Over the past six years, 163 economies have made their regulatory environment more business-friendly (World Bank, 2011)
Sources of financial capital	Microfinance and informal sources of funding such as family, friends, loan sharks, or nefarious groups	In 30 years, Grameen Bank has disbursed $9.1 billion in microloans across 37 countries (Khavul, 2010)

opportunities (Seelos & Mair, 2005). Putting together a business plan—regardless of how rudimentary—obtaining a business microloan and paying it back, and learning basic accounting and inventory management skills, all build human capital skills. The potential development of human capital skills are all benefits that can be obtained from the process of exploiting easily observable self-employment opportunities. In principle, developing these human capital skills is a contribution of microfinance, the loans and businesses financed enable individuals to acquire business skills to exploit opportunities that are more sophisticated. For example, in some cases, entrepreneurs receiving microfinance may gain skills necessary to get better paying jobs and gain the expertise necessary to exploit the wealth creating entrepreneurial opportunities we later discuss.

Self-Employment Opportunities and Property Rights

Underdeveloped economic infrastructure, limited property rights, and unenforced contract law typify abject poverty contexts. In abject poverty settings, even if abjectly poor individuals happen to have the human capital and financial assets required to exploit a wealth-creating opportunity, much of the value they create by exploiting this opportunity can be appropriated by others (Alvarez & Barney, 2004). Government corruption (Heidenheimer & Johnston, 2002), an underdeveloped court system (DeSoto, 1989; North, 1990), and inconsistent application of contract law (DeSoto) can make it difficult to find redress in these settings.

Taken together, the challenges facing the abjectly poor remind one of Kino, an abjectly poor pearl diver in John Steinbeck's novel, *The Pearl*. A hard-working and honest man, Kino nevertheless struggles to support his small family. He naively thinks his life is about to change when, by chance, he finds a giant pearl—the "Pearl of the World." Convinced of its value, Kino tries to improve the lot of his family, first, by negotiating with a doctor, and later with the pearl buyers in town, to sell the pearl—all to no avail. He then decides to travel to the city, with his family, to sell his pearl directly on the world market. Despite warnings from his brother that this effort will destroy his family, Kino persists. An unknown group of trackers follows Kino and his family into the mountains where, after an exchange of gunfire, Kino's wife and son are killed. The book ends as Kino, who has lost everything important to him, throws the pearl back into the water.

Despite the "pearls" that can exist around them, the abjectly poor—like Kino—rarely have the property rights protection necessary to exploit significant wealth-creating opportunities. Their ability to extract significant profits is often threatened by monopolistic or criminal elements that effectively negate these entrepreneurs' property rights—with impunity (DeSoto, 1989). Poorly funded and corrupt judicial systems provide limited protection in these settings (Heidenheimer & Johnston, 2002).

Self-employment opportunities work in contexts of abject poverty because the amount of profit generated by small micro-enterprises is often insufficient to draw the attention of either corrupt government officials or others. Those that seek to steal the profits from these small micro-enterprises can often be dissuaded by what has been termed the "barking dog" (DeSoto, 2000). The notion of "barking dogs" is an informal method of property rights protection, having a dog that barks or a social network of acquaintances that will watch out for each others' interest. These types of property rights protections are simple, and the costs match the actually property being protected. More elaborate forms of property rights protection come with greater monitoring and liability costs that are out of reach in abject poverty contexts.

Self-Employment Opportunities and Access to Financial Capital

While traditional sources of capital lend money on the basis of financial collateral, deep expertise in an industry, or social capital that originates during specific education and industry experience, sources of capital in poverty contexts—including microfinance—have begun to recognize the value of non-industry-specific social capital in securing loans, suggesting that these forms of "financial capital" secured by social capital will often be available to individuals exploiting these self-employment opportunities, despite their lack of entrepreneurial skill.

Opportunities funded are typically to individuals struggling to exploit self-employment opportunities that require minimal levels of human capital skills and property rights protections. These microfinance institutions often combine traditional lending practices with strong social and cultural controls (Bornstein, 1996). For example, it is not unusual for those seeking to obtain capital from a microfinance bank to be recommended to the bank by a family member or a friend (Anderson, Locker, & Nugent, 2002). Once accepted, these individuals join a social network of current bank patrons who monitor both the amount loaned to each member of the network and their repayment performance. Failure to repay loans can limit the ability of an entire network to gain access to loans.

This social monitoring process is one reason that the repayment rate on microfinance loans is so high, often over 99% (Anderson et al., 2002). It is one thing not to pay off a loan made by an institution and thereby put your own financial future at risk. It is quite another to put the financial future of your family and friends at risk by failing to pay off a loan. Family and friends, who act as co-signers on each other's loans, will sometimes make payments rather than let a loan go into default. It is also not uncommon for these people to employ very strong methods—ranging from "shunning" delinquent members of a network to threats of physical abuse—to insure loan repayment (Amin, Rai, & Topa, 2003).

The average loan for these opportunities is between U.S.$125.00 and U.S.$350.00, and microenterprises typically financed are grocery shops, milk cows, rice paddy trading, and so forth (Grameen Bank Annual report 2008). These loans require specific plans for the money and often have an interest rate of over 25% (Khavul, 2010). Despite high interest rates, microfinance loans have provided many individuals with a means to overcome abject poverty.

While self-employment opportunities in abject poverty do offer hope to many individuals and require limited human capital, property rights protections, and financial capital, these self-employment opportunities are not without limitations.

Self-Employment Opportunities and Economic Growth

Easily observable self-employment opportunities do have limitations. When individuals in abject poverty are able to exploit self-employment opportunities, typically it will only be because they require very limited amounts of human capital and financial capital, and thus are likely to have only limited return potential (Elahi & Danopoulos, 2004). These opportunities, while a learning situation, are typically not economically sustainable and being sole proprietorships do not have the impact on job creation that is ideal for economic growth.

When firms in a market share a common product and do not differ in terms of human capital requirements or do not require specific capabilities, there are limited barriers to entry or imitation. Microfinance loans often encourage many individuals to open firms that imitate other firms within the same market. Microfinance firms are unable to predict the equilibrium level of investment and for that reason overinvest in a particular opportunity—a phenomenon discussed in economics (Coase & Fowler, 1937). When there are no barriers to entry and little to no interfirm differences in a market, economic wealth is competed away until wealth is eliminated. In other words, microfinance loans enable virtually anyone to enter the market through the formation of an easily imitable business. This enables more firm entry into the market than is considered ideal in a perfectly competitive model and allows them to remain in the system by securing loans from microfinance institution that do not take into consideration the current level of competition (Kirzner, 1997). When barriers to entry are eliminated and easily imitated opportunities are exploited, supply begins to exceed demand, causing profits to decrease and thus limiting or eliminating wealth creation possibilities. In its simplest terms, when large numbers of women in a village sell goat's milk, the supply of milk goes up, demand for milk stays constant; the price of milk falls below the cost of production, and the goat gets eaten.

In a developed economy, individuals would have other jobs available to them after a failure. However, in abject poverty, individuals do not have alternative jobs, and in the case of failure, individuals have the microfinance debt to repay. Even successful individuals have done so at the cost of fierce competition and may have excess debt. Finally, since the failed competitors are trying to pay back their microfinance loan, these failed competitors do not have sufficient capital to be customers to the surviving firms. Borrowers even take out loans from other microfinance institutions to pay off the loans they already have. This scenario has led to massive defaults in one of India's largest states as reported in the *New York Times* (November 17, 2010):

> "Durgamma a widow in an India state started with a 200 dollar loan but had to take out additional loans from other microfinance institutions to make payments on the high interest rates ending up with over 2,000 dollars in debt before she had to default" (Polgreen & Bajaj, 2010).

The story of Neth, a poor woman trying to overcome prostitution in Cambodia by opening a grocery shop also illustrates this principle.

> "Armed with a micro-loan Neth opened a little grocery shop in her village. Initially, the shop did well and did a booming business since there were no other shops in the

village. But when other villagers saw Neth's business flourishing, they opened their own shops. Soon the village had a half-dozen shops and Neth found her sales faltering. Mortified that her capital was gone, Neth sought a job in the city." (Kristof & WuDunn, 2009)

Human Capital in Discovery Opportunities

To exploit discovery opportunities, entrepreneurs take advantage of both general human capital—their education; their knowledge about how to plan, lead, organize, and control; and so forth—and specific knowledge they already possess about the industries and markets within which an opportunity is embedded (Shane, 2000).

The assumption of alertness is an important attribute of discovery opportunities, and financial capital without alertness can result in easily imitable opportunities in which profits are quickly competed away. As the discovery view of opportunities suggests, lots of opportunities exist in economies; if everyone can see these opportunities and all are sufficiently skilled to exploit these opportunities, it is difficult for anyone to generate profits beyond a very short term (Alvarez & Barney, 2007).

An example of a discovery opportunity in abject poverty that required alertness is that of a cockroach mechanic in the Ekurhuleni township of Daveyton, South Africa. Cockroach taxicabs are repurposed 1970s Chevrolets that had been originally used to tow caravans in South Africa. In the 1980s, when the Chevys became too old and expensive to repair, they were sold to eager taxi drivers in the township of Ekurhuleni. Formal taxi drivers from Cape Town would not go into the township of Ekurhuleni and thus the "cockroach taxis" provided a much-needed service to the villagers of Ekurhuleni. However, these taxis need frequent repair and service. An enterprising mechanic in the township started a repair and certification process for these cockroach taxis. This entrepreneur, Sibusiso, is a trained mechanic who was aware that in the formal market for taxis, there was a certification process assuring the reliability of the taxis. Sibusiso was alert to the opportunity of repairing and certifying the cockroaches due to his experience and training as a mechanic. Armed with this specific knowledge and human capital skills, he was able to start a profitable business and erect a barrier to entry. Without mechanic skills, it would be difficult to compete with Sibusiso.

Even if the abjectly poor are aware of wealth-generating discovery opportunities within the markets they populate, they will rarely be able to exploit these opportunities. The exploitation of discovery opportunities, and their associated processes, that have wealth-generating potential are often left to individuals who have developed human capital technical skills, business skills, and financial networks that can provide capital. This was the case of Sibusiso, who had a chance to gain training as a mechanic and work in a mechanic shop that was not in an abject poverty context.

The discovery opportunity exploited by Sibusiso required industry-specific knowledge that was not readily available to all individuals. Therefore, even if others noticed that Sibusiso was profitable, they could not easily imitate him because they lacked the specific human capital skills. This is not to say that the opportunity was inimitable; indeed, it could be imitated, but only by those with industry-specific knowledge. Sibusiso had a first mover advantage that would give him some time to erect other barriers to entry that would keep competitors from competing away his profits.

However, even though it appears that Sibusiso had a well-defined discovery opportunity, one that already existed in a different context, what is not acknowledged is that opportunities cannot be transferred across contexts without adapting the opportunity to the new context (Weick, 1995). This would suggest that opportunities in a new context must be co-created even if the opportunity exists in another context. For example, Sibusiso must form contracts with taxi drivers for mechanic services in a context that is not accustomed to paying for reliable, safe, quality transportation. This is a value that Sibusiso will need to co-create with his customers in order for the opportunity to be valuable. While the taxi opportunity has many qualities of a discovery opportunity such as prior knowledge and alertness, Sibusiso will still need the creation skills of experimentation and learning to form this opportunity in a different context.

Still, Sibusiso is an exception, on many dimensions. While it should be noted that not everyone—even in developed economies—becomes a successful entrepreneur, Sibusiso had the advantage of having certain infrastructure that is not often available to many of the abjectly poor. For example, he was able to obtain training as a mechanic, there were a sufficient number of available cockroach cabs to profitably service, he was able to co-create a demand for quality that had not previously existed, and finally, he was able to keep his profit. A lack of property rights protection is one reason why the abjectly poor tend to remain abjectly poor.

Human Capital in Creation Opportunities

Consider, for example, the relationship between human capital skills and resources and the formation of creation opportunities. As suggested in Table 1, individuals operating in conditions of abject poverty will generally have very low levels of human capital skills and resources. However, the formation processes of creation opportunities emphasize that entrepreneurs in this setting "begin where they are" when they form entrepreneurial opportunities. In the initial stages of forming this type of opportunity, there are small trial and error experiments that begin the process. The amount and type of human capital required is typically unknown; however, there is an assumed level of general human capital required.

The story of the goat is sad and frustrating, but all too common in the world of the poor. The story of Sibusiso is more inspiring. Perhaps the most inspiring story is that of Muhammed Yunus and his creation of the Grameen Bank. Muhammed did not intend to start a business, let alone an industry. However, inspired by the Bangladesh famine of 1974, he made a small loan of $27 (856 taka) to a group of 42 families. Instead of being proud that he had helped these families in need, he instead felt shame that his society could not provide $27 to 42 individuals to enable them to make a living. The next day, Muhammed went to a bank, and asked the bank to lend money to other villagers in abject poverty. "The bank manager's jaw fell open and he started to laugh . . . calling Muhammed an idealist" (Yunus, 1999, p. 52). Feeling as if he had no other recourse, Muhammed took out a personal loan lending the money to the villagers. He never intended to become a moneylender. Indeed, as Yunus states, "I did not know anything about how to run a bank for the poor so I had to learn everything from scratch" (p. 61). After frequent and drastic changes to his informal lending model, Muhammed grew Grameen Bank to an organization that employs over 25,000 people in Bangladesh and has dispersed more than $9 billion in loans across 37 impoverished countries (Khavul, 2010). Muhammed Yunus and the formation of Grameen Bank is an example of a creation opportunity.

Entrepreneurs forming and exploiting creation opportunities will need a variety of more general human capital skills—including planning, leading, organizing, and controlling skills. These nonopportunity-specific skills are often developed through the opportunity creation process, although some level of these skills often needs to exist before the creation process can even begin. The poor might have already gained these skills in several ways. They may have previously exploited a self-employment opportunity. Another possibility is that they may have participated in their communities by helping build infrastructure projects during which they acquired many needed skills (Peredo & Chrisman, 2006).

In these creation settings, as entrepreneurs test successive hypotheses about what does and does not constitute an opportunity, they learn a great deal about the skills that are required to exploit these particular opportunities. This path-dependent learning process (Argote, 1999; Arthur, 1989) generates skills and resources that entrepreneurs may not have possessed, *ex ante*, and skills and resources that entrepreneurs may not have known were going to be valuable, *ex post*, in exploiting the opportunities they ended up creating.

Property Rights in Discovery Opportunities

Poorly enforced property rights are particularly important for the abjectly poor seeking to exploit discovery opportunities. Because discovery opportunities are formed by exogenous shocks to pre-existing markets, information about these opportunities may diffuse rapidly among potential entrepreneurs. This is why moving rapidly to exploit discovery opportunities is so important, even in developed markets (Alvarez & Barney, 2008).

However, moving rapidly to exploit these opportunities is of limited value if secure property rights with regard to these opportunities do not exist (Lieberman & Montgomery, 1988). Without secure property rights, first movers only reduce the search costs of later movers who appropriate the profits that, if secure property rights did exist, would have gone to the entrepreneurs (Lieberman & Montgomery).

Despite the discovery opportunities that can exist around them, the abjectly poor often do not have the infrastructure required to exploit discovery opportunities. If they are able to understand the wealth-generating potential of these discovery opportunities, their ability to extract profits is often threatened by monopolistic or criminal elements that effectively negate these entrepreneurs' property rights—with impunity (DeSoto, 1989). Poorly funded and corrupt judicial systems provide limited protection in these settings (Heidenheimer & Johnston, 2002).

Property Rights in Creation Opportunities

Property rights can be secured in at least two ways. First, property rights can be secured as a matter of law (DeSoto, 1989). Firms can file for patents and can register trademarks, and any patent or trademark infringements can be challenged in a court of law. Individuals and firms can hold title to real assets and buy and sell them accordingly. Again, any disputes with regard to ownership claims can be settled in the courts (North, 1990).

However, in practice, this legal approach to securing property rights has some important limitations. While it can be very efficient and effective when there are no disputes with regard to who owns which property rights, the costs when disputes emerge about these rights can be substantial. It is decidedly true in conditions of abject poverty, where individuals have neither the means nor the skills needed to secure their property rights through the legal system.

In these settings, how then are property rights secured? This is a difficult challenge for those exploiting discovery opportunities, since without secure property rights, it will be difficult to appropriate much of the profit associated with exploiting a discovery opportunity. However, for creation opportunities, the learning by doing that enables individuals to form, and ultimately, exploit creation opportunities can also secure an entrepreneur's property rights with regard to these opportunities. Learning by doing can sometimes result in causal ambiguity between an entrepreneur and those looking to appropriate their property rights (Barney, 1991).

Under conditions of causal ambiguity, would-be usurpers may have challenges understanding what it is that an entrepreneur is doing to exploit an opportunity. Without this knowledge, it is relatively more difficult to appropriate opportunities that were originally developed by an entrepreneur (Alvarez & Barney, 2004). In this sense, rather than a patent, trademark, or registered title, it is the specific knowledge developed by the entrepreneur through the process of forming a creation opportunity that secures the property rights of that entrepreneur (Arthur, 1989). Indeed, as in the example of the Grameen Bank, imitators have since struggled to replicate the successful Grameen model with little success being forced to come up with their own lending models (Yunus, 1999).

A strong social network may also play a role in creating this casually ambiguous protection. These strong social networks are common among the abjectly poor. Individuals that form and then successfully exploit creation opportunities must build skills and resources that previously might not have existed while co-creating the opportunity by forming the social context together with other individuals in that context. These socially constructed opportunities are the result of several iterative actions and reactions between the entrepreneur and their social environment. The co-evolved opportunity is by definition embedded within the community and the social networks within the community (Garud & Karnoe, 2003).

Financial Capital in Discovery Opportunities

Entrepreneurs in this view gain access to the capital they need to exploit these opportunities from banks, venture capitalists, and other formal sources of capital by providing information about the potential value of an opportunity (Bhide, 1992). They typically rely on well-established economic infrastructure to gain access to critical raw materials and markets (Foss & Foss, 2005) together with well-defined property rights (Alvarez & Parker, 2009) and well-regulated contract law (Foss & Foss) to generate and appropriate the economic profits associated with exploiting an opportunity.

Ironically, the people who engage in exploiting wealth-creating discovery opportunities are rarely the abjectly poor—they are simply not in a position to exploit discovery opportunities that might form in these markets. Even our previous example of Sibusiso was not abjectly poor—he was poor and had the advantages of education and given the nature of his business could get a loan that was larger than a microloan. The abjectly poor typically do not have the human capital and limited access to the financial assets needed to exploit these opportunities (DeSoto, 2000; Peredo & Chrisman, 2006). Moreover, because they are poor, they have few financial resources to draw on. The financial resources available such as microfinance have not been traditionally designed to exploit wealth-generating discovery opportunities

The need for human capital, property rights protection, and financial capital for the identification and exploitation of discovery opportunities on one hand and the lack of these attributes in abject poverty contexts on the other hand underscores the difficulties of economic growth in abject poverty. While discovery opportunities have a greater potential for economic impact than self-employment opportunities, they are also more difficult to exploit in poverty contexts. The acknowledgement of the potential and difficulties of discovery opportunities in abject poverty allows for more understanding of what might be required in abject poverty for greater economic growth. Perhaps one of the most important roles of those who seek to promote economic growth is to build the specific types of human capital skills, property rights protections, and have sufficient financial capital that at least an important portion of the opportunities in an economy are discovery wealth-creating opportunities.

Financial Capital and Creation Opportunities

While creation opportunities provide a way to get around some of the traditional challenges in abject poverty, one challenge it does not circumvent is financial capital. As has already been observed, contexts of abject poverty are characterized by limited access to traditional sources of capital. However, even in developed contexts, creation opportunities are often not funded by traditional external sources of capital—including banks and venture capital firms (Bhide, 1992; Christensen et al., 2004). In these conditions, the problem facing sources of capital are not information asymmetries that "alert" entrepreneurs can explain to obtain funding. In creation settings, the lack of information is not a matter of search; it is that the information does not yet exist since the entrepreneur has not yet acted. Entrepreneurs often cannot explain to outside capital sources the nature of the opportunities they are going to exploit because they do not know this nature themselves.

In a creation setting, it is also not possible for entrepreneurs to effectively calculate the opportunity costs associated with their actions. Instead of opportunity costs, creation theory suggests that entrepreneurs use the concept of "affordable loss" to judge the downside associated with engaging in entrepreneurial actions (Sarasvathy, 2001). An affordable loss is simply that value, both economic and personal, that potential entrepreneurs are willing to forgo if the actions they engage in happen to not lead to actual opportunities to produce new products or services. In this context, an entrepreneur engages in entrepreneurial actions when the total losses that can be created by such activities are not too large. According to creation theory, the potential gains from these activities—gains that cannot be anticipated even probabilistically—do not play a major role in deciding whether or not to engage in entrepreneurial actions.

"Bootstrapping" is likely to be a much more common way to finance activities taking place under creation conditions. In "bootstrapping," entrepreneurs finance activities from their own wealth, or from the wealth of those closely associated with them—the triumvirate of "friends, family, and fools" (Bhide, 1992). These three "F's" (friends, family, and founders) are patient capital that are also forgiving should all of the capital be lost. These sources of capital invest in the entrepreneur—his or her character, ability to learn, flexibility, and creativity—not in a particular business opportunity an entrepreneur plans to exploit. However, in poverty contexts, the three "F's" often do not have the money to fund opportunities with uncertain outcomes and typically certain losses.

Microfinance was not designed to address the funding problems of creation opportunities. Microfinance was designed to be a source of capital in which entrepreneurs without credit worthiness in the traditional sense could substitute social capital to obtain financing for opportunities that are limited in terms of business scope. When traditional forms of financing are not available to entrepreneurs in abject poverty, microfinance would fill the void. However, as already observed, the micro-loans are both small and limit the opportunities that entrepreneurs can pursue. While not all creation opportunities require high levels of financing, they do require flexibility about the opportunity and the willingness to lose the investment.

Table 4

Comparison of Opportunities in Conditions of Abject Poverty

	Replication	Discovery	Creation
Human capital	Low levels or nonexistent levels of education, entrepreneurial experience, or specific industry experience	Discovery opportunities in these require alertness a form of human capital that requires specific education and industry experience	Skills and human capital are initially general and further developed as a result of the creation process creating a barrier to imitation by virtue of causal ambiguity
Sources of financial capital	Limited typically to microfinance and informal sources of funding such as the family, friends, loan sharks, or nefarious groups	Need some savings or family members with savings, potentially could get a formal loan more likely to finance a discovery opportunity	Microfinance is less likely to finance a creation opportunity, friends and family would be the usual source but in abject poverty, these sources lack the funds; possible solutions include foundations adapting to include financing for creation opportunities
Property rights protection	Weak enforcement of property rights or lack of formal property rights, notions of informal property rights such as "squatters" rights	Vague property rights make fixed long-term plans difficult, encouraging ventures requiring little or no property and consequently lower capital requirements	The flexibility and frequent changes inherent in creation opportunities make uncertain property rights less of a challenge as causal ambiguity creates informal property rights
Enforcement of contract law	Contract laws are weakly defined or poorly enforced informally defined through group norms, customs, and individual power positions	Social capital and informal norms become important for the purpose of contract enforcement	The flexibility and frequent changes inherent in creation opportunities make poorly enforced contract law less of a challenge

If microfinance loans are not designed to enable discovery or creation opportunities, and friends and family do not have the ability or wherewithal to fund these opportunities, where do individuals in abject poverty find the patient capital to fund wealth-creating opportunities? (See Table 4.)

In 1995, Harish Hande started a solar energy business in Karnataka, India with a loan from a foundation of 250,000 rupees—approximately U.S.$5,000. Frustrated with the lack of electricity in rural India, where even the most basic lightbulbs were not available, Hande sought to bring light to Karnataka. Lacking the necessary power lines to transfer electricity, an alternative infrastructure was required. Solar panels became the solution. In the early days of his business, Hande lost money. Indeed, there were days that Hande did not even have bus money, and it was not until 2000 that he broke even (Sen, 2008).

Today, Hande is a great success and is touted as a savant social entrepreneur. Even though Hande only needed a relatively small amount of capital, the opportunity was not fundable in local markets and was too large for microfinance. Hande had to go to a foundation that was willing to give him capital, knowing in advance that Hande might not succeed and that he might not pay the money back.

A solution like this blends the local expertise of the entrepreneur and fulfills the mission of the foundations to fund poverty alleviation. Foundations can greatly enhance the prospects of those entrepreneurs in poverty contexts, both those exploiting discovery opportunities and creation opportunities. This help is by both providing access to financial capital and collaboratively, with the community, helping to build infrastructure. Foundations can also help the community to learn negotiation skills, among themselves and with potential outside buyers and distributors. If all else fails, foundations might even have enough "clout" to ensure that outsiders treat the community fairly until the community builds enough of its own power.

Discussion

This paper began with a deceptively simple question; are simple investments in human capital, property rights protections, and financial capital—without taking into consideration opportunity type—enough to foster the kind of entrepreneurship that is a source of economic growth? Building on the widely held assumption that entrepreneurship can lead to economic growth (Schumpeter, 1934), this paper examines the likelihood that those living in abject poverty will be able to form and exploit different types of entrepreneurial opportunities—self-employment, discovery opportunities, and creation opportunities. It concludes that all three types of opportunities are possible in abjectly poor settings. However, an overinvestment in microfinance and thus self-employment opportunities may have limited the investment in other opportunity types. The microfinanced self-employment opportunities are easily observable marginal opportunities that may yield marginal profits but are subject to imitation and often quickly replicated until profits are competed away. A more balanced approach to the types of opportunities encouraged in these settings—such as discovery and creation opportunities—may lead to more stable long-term economic growth.

What implications does this conclusion have for those interested in reducing abject poverty? The answer to this question turns on important differences between policies designed to encourage economic growth vs. subsistence self-employment opportunities. It turns out that many of the efforts—by governments, NGOs, and international growth agencies—have focused more on nurturing opportunities with little wealth creation potential in abjectly poor settings and, perhaps unintentionally, discouraging opportunities that require sophisticated levels of human capital, property rights protection, and financial capital such as discovery and creation. The effect is that individuals who exploit easily observable opportunities may move from abject poverty to poverty only to be trapped in poverty.

Even the poor with little to no skill can articulate a need for their product. Community individuals and outside foundations who finance microfinance loans can easily understand these products. This is consistent with Western ideals of business planning—plans that work when there is a well-specified market or need. Moreover, these self-employment opportunities seem so obvious that they are thought to have a low failure rate. Certainly, these are not high risk or uncertain opportunities. However, as this paper has shown, low wealth creation potential does indeed have its own type of failure. Moreover, when the downside range of failure is limited, so too is the upside range of potential success. While these self-employment opportunities are not totally without merit, what is still lacking is a bottom up entrepreneurial solution that may increase productivity and innovation generating growth and wealth that ultimately may be sustainable (Aghion & Armendariz de Aghion, 2004). What is still lacking is the understanding that connects how entrepreneurship—and specifically the formation of different types of opportunities—transforms and leads to economic development.

Future Research Opportunities for International Entrepreneurship Scholars

To say that economic growth enables the formation of entrepreneurial opportunities is to state the obvious. To state that changes in demand may encourage the formation of opportunities is well studied. Perhaps a more fundamental question to the study of entrepreneurship is how does the formation of opportunities create new demand, and thus, result in new markets and more entrepreneurial opportunities? Differences between how entrepreneurial opportunity types are formed and exploited have primarily been examined in developed economies. In developed contexts, entrepreneurs forming and exploiting discovery and creation opportunities are able to do so within the context of a well-developed economic infrastructure, with defined and enforced property rights, sophisticated financial markets, and developed human capital.

The institutional characteristics of property rights, financial capital, and human capital are the attributes of a developed economy. While many theorists have suggested that institutions are the cause of entrepreneurial activity, a more nuanced perspective might be that institutions are not the cause of entrepreneurial activity but the effect of such activity. At the very least, institutions and entrepreneurial activity co-create in an iterative fashion. Institutional characteristics of developed economies enable entrepreneurs to generate and appropriate any economic profits that may be associated with exploiting entrepreneurial opportunities (DeSoto, 2000; North, 1990). However, often in less developed economies, entrepreneurs must rely more on the attributes of the opportunity to provide protection against imitation, but also appropriation by others that have not formed and exploited the opportunity. Perhaps the field of entrepreneurship can learn much from international entrepreneurship by understanding how opportunities are formed, exploited, and even more important, how they evolve in a co-created manner across international boundaries.

A second area of inquiry elucidated by this paper is the role of institutions themselves. Certainly, there has been much written about opportunities embedded within institutional context. However, less work has focused on how as entrepreneurs act to form opportunities they sometimes co-create institutions in the process. Two areas that may be informed by viewing institutions as being co-created as a result of the opportunity formation process are financial institutions and firms.

Funding for Entrepreneurship

This paper has argued that the self-employment opportunities that are funded using microfinance are insufficient for economic growth. The paper then illustrates the use of foundation financing as a potential source of patient capital. However, there are at least two other forms of financing that have not been described in this paper, diasporas and foreign direct investment.

Diasporas, defined as the migration and settlement of people away from a homeland (Safran, 1991), have been understudied in entrepreneurship as potential patient capital for co-created opportunities in developing contexts. Total remittance transfers sent by immigrants across the globe from the United States to relatives are estimated to be between \$50 billion and \$100 billion.[7] Since 1990, remittances sent home have been greater than the equivalent of the U.S. government's foreign aid budget (Yang, 2011). According to the

7. Bureau of Economic Analysis and World Bank reported in *New York Times*, April 27, 2013.

Center for Global Development, “Remittances may well be the best single way to foment development.”[8]

In the case of Cuba, Cubans that have immigrated to the United States supply relatives still in Cuba with cash and resources to start businesses. Some of these entrepreneurial businesses are doing well enough now that money is going back to the original funders.[9] This is a phenomenon that is yet to be acknowledged much less studied.

Questions such as how do diaspora remittances affect the discourse of the recipients and does this discourse influence the types of opportunities pursued have not been studied. Do these remittances and ensuing discourse provide local entrepreneurs with a broader window into entrepreneurship and thus the types of opportunities pursued are more wealth creating? Also, if relatives invest in opportunities through their remittances, are they earning a return on their money either through ownership or interest payments? Are the diaspora planning to return to their home country and using remittances as an investment to ensure income at a later date? These are underinvestigated questions.

Foreign direct investment, an investment made in a country by a foreign person or organization, has also received less attention in the entrepreneurship literature. While foreign direct investment has been extensively researched in the international business literature, it has been less examined in the entrepreneurship literature. Given the amount and role of foreign direct investment in developing countries, it is particularly curious that there has been a paucity of research connecting entrepreneurship, foreign direct investment, and economic growth.

Perhaps even more glaring is the lack of research on entrepreneurship, foreign direct investment, and industrialization. Studies of successful export industries in developing economies have found that industry origins stemmed from pioneering firms whose founders and workers were trained by foreign agents (Rhee & Belot, 1990). For example, in Bangladesh, the garment industry can be traced to Desh Garments founded in 1978 whose 126 workers were trained for 6 months through a technical partnership with Daewoo, a South Korean firm (Mostafa & Klepper, 2013). These workers were able to gain human capital in the form of tacit knowledge about production processes in the garment industry. As Desh grew, more employees acquired the needed human capital skills to start their own entrepreneurial firms, and by 1988, there were 664 garment producers and today over 4,500, which can be traced to the pioneering Desh firm (Mostafa & Klepper). Bangladesh is one of the world’s largest exporters of textiles today, and foreign aid did not account for this industrial growth, however foreign direct investment coupled with profit seeking entrepreneurs did.

Theory of the Firm

The theory of the multinational enterprise and foreign direct investment build on the hegemony of transactions cost economics (Buckley & Casson, 1976). However, beyond the contributions of Buckley and Casson, limited progress has been made on the theory of the multinational firm and foreign direct investment (Pitelis & Teece, 2010). Incorporating entrepreneurial co-creation—the desire of entrepreneurs to create and appropriate value by starting and organizing firms that co-create cross-border markets, influence and involve stakeholders, and shape uncertain contexts—into the theory of the firm can form the basis of a new theory of the firm (Alvarez & Barney, 2005). Incorporating entrepreneurial

8. Ibid.
9. Field notes taken by Sharon Alvarez, May and December 2011.

co-creation can help the theory of the firm move from an "economic based paradigm toward a multidisciplinary perspective that is richer in descriptive content and stronger in predicative power" (Pitelis & Teece, p. 1248).

The economic view of the firm takes entrepreneurship as exogenous to its models, and knowledge is assumed to exist—although it is asymmetric, and transferred at low cost and without friction (Barney & Ouchi, 1986). Acknowledging that entrepreneurship is endogenous to the firm and that entrepreneurs must often make decisions about how firms are organized before it is clear that there is even a market the co-creation of value becomes central to the theory of the firm. By assuming conditions of uncertainty and knowledge that has yet to be created, scholars can explore more fundamental issues of firm and market origins. The case of entrepreneurs forming firms that co-create value across borders should be seen as a reason for the existence of the multinational firm (Pitelis & Teece, 2010). While calls for a new entrepreneurial theory of the firm are not new, studying the emergence of the entrepreneurial firm in cross-border contexts may make it possible to develop an entrepreneurial theory of the firm that is also applicable to the multinational corporation and foreign direct investment.

Institutional Friction

A question that has not been addressed in the entrepreneurship literature is how are opportunities that are developed in one context transferred or developed in another context? International business theory on institutional friction (Shenkar, Luo, & Yeheskel, 2008; Stevens & Shenkar, 2012) may inform entrepreneurship theory on opportunities. Drawing from friction theory in the physics and engineering literature, "friction" has been adopted by the international business literature to describe the resistance, tension, and discord that occurs when two cultural or institutional systems come into contact with each other (Shenkar, 2001). Institutional friction describes the relationship encountered by an entrepreneur in transferring an opportunity across institutional boundaries such as the case of Sibusiso and the cockroach taxi. While the taxi opportunity has many qualities of a discovery opportunity such as prior knowledge, a defined market, and so forth, still opportunities cannot be transferred across contexts without adapting the opportunity to the new context (Weick, 1995). This is true whether the context is a different international boundary or a different context in the same country as in the case of Sibusiso. This also suggests that opportunities in a new context must be co-created even if the opportunity exists in another context.

The friction metaphor assists in understanding the obstacles and resistance an entrepreneur encounters when trying to bring an opportunity into a new institutional context. The different context may have norms that cause delayed or reluctant acceptance of the opportunity. The amount of resistance encountered in a new context varies, requiring experimentation and adaptation on the part of the entrepreneur and relevant stakeholders to gain acceptance for the opportunity. Transferring opportunities across institutional boundaries is not as straightforward as simple replication. Ultimately, the skills required for development and growth may have more in common with skills associated with creation and co-creation opportunities such as experimentation and learning, than with skills associated with discovery opportunities such as search and prior knowledge.

REFERENCES

Aghion, P. & Armendariz de Aghion, B. (2004). New growth approach to poverty allievation. In R.B.A.V. Banerjee & D. Mookherjee (Eds.), *Understanding poverty* (pp. 73–84). Oxford: Oxford University Press.

Alvarez, S.A. & Barney, J. (2005). How entrepreneurs organize firms under conditions of uncertainty. *Journal of Management*, *31*(5), 776–793.

Alvarez, S.A. & Barney, J.B. (2004). Organizing rent generation and appropriation: Toward a theory of the entrepreneurial firm. *Journal of Business Venturing*, *19*(5), 621–635.

Alvarez, S.A. & Barney, J.B. (2007). Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, *1*(1–2), 11–26.

Alvarez, S. A., & Barney, J. B. (2008). Opportunities, organizations, and entrepreneurship: Theory and debate. *Strategic Entrepreneurship Journal*, *2*(3), 171–173.

Alvarez, S. A., & Barney, J. B. (2010). Entrepreneurship and epistemology: The philosophical underpinnings of the study of entrepreneurial opportunities. *The Academy of Management Annals*, *4*, 557–583.

Alvarez, S.A., Barney, J.B., & Anderson, P. (2013). Forming and exploiting opportunities: The implications of discovery and creation processes for entrepreneurial and organizational research. *Organization Science*, *24*(1), 301–317.

Alvarez, S.A. & Parker, S. (2009). New firm organization and the emergence of control rights: A Bayesian approach. *Academy of Management Review*, *34*(2), 209–227.

Amin, S., Rai, A.S., & Topa, G. (2003). Does microcredit reach the poor and vulnerable? Evidence from northern Bangladesh. *Journal of Development Economics*, *70*(1), 59–82.

Anderson, C.L., Locker, L., & Nugent, R. (2002). Microcredit, social capital, and common pool resources. *World Development*, *30*(1), 95–105.

Argote, L. (1999). *Organizational learning: Creating, retaining and transferring knowledge*. Norwell, MA: Kluwer Academic Publishers.

Arthur, W.B. (1989). Competing technologies, increasing returns, and lock-in by historical events. *Economic Journal*, *99*(394), 116–131.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120.

Barney, J.B. (1986). Strategic factor markets: Expectations, luck, and business strategy. *Management Science*, *32*(10), 1231–1241.

Barney, J.B. & Ouchi, W.G. (1986). Basic concepts: Information, opportunism, and economic exchange. In J.B. Barney & W.G. Ouchi (Eds.), *Organizational economics*. San Francisco, CA: Jossey-Bass Inc., Publishers.

Berger, P.L. & Luckmann, T. (1967). *The social construction of reality. A treatise in the sociology of knowledge*. Garden City, NY: Anchor Books Doubleday.

Bhide, A. (1992). Bootstrap finance: The art of start-ups. *Harvard Business Review*, *70*(6), 109–117.

Bornstein, D. (1996). *Price of a dream: The story of the Grameen Bank*. New York: Simon & Schuster, Inc.

Buckley, P.J. & Casson, M. (1976). *The future of multinational enterprise*. London: Macmillan.

Buckley, P.J. & Casson, M.C. (2006). The internalisation theory of the multinational enterprise: A review of the progress of a research agenda after 30 years. *Journal of International Business Studies*, *40*(9), 1563–1580.

Buenstorf, G. (2007). Creation and pursuit of entrepreneurial opportunties: An evolutionary economics perspective. *Small Business Economics*, *28*, 323–327.

Calero, C., Bedi, A.S., & Sparrow, R. (2008). Remittances, liquidity constraints and human capital investments in Ecuador. *World Development*, *37*(6), 1143–1154.

Casson, M. (1982). *The entrepreneur: An economic theory* (2nd ed.). Oxford: Edward Elgar.

Christensen, C.M., Anthony, S.D., & Roth, E.A. (2004). *Seeing what's next*. Boston: Harvard Business School Press.

Claessens, S. & Laeven, L. (2003). What drives bank competition? Some international evidence. In *Journal of money, credit and banking* (Vol. 36, pp. 563–583). Columbus, OH: Ohio State University Press.

Coase, R., & Fowler, C. (1937). The pig-cycle in Great Britain: An explanation. *Econometrica*, *4*(13), 55–82.

Cohen, D. & Soto, M. (2007). Growth and human capital: Good data, good results. *Journal of Economic Growth*, *12*, 51–76.

Cooper, A.C., Gimeno-Gascon, J., & Woo, C.Y. (1994). Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing*, *9*(5), 371–395.

Davidsson, P. & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, *18*(3), 301–331.

Delmar, F. & Shane, S. (2003). Does business planning facilitate the development of new ventures? *Strategic Management Journal*, *24*(12), 1165–1185.

Demsetz, H. (1967). Toward a theory of property rights. *American Economic Review*, *57*(May), 347–359.

DeSoto, H. (1989). *The other path*. New York: Basic Books.

DeSoto, H. (2000). *The mystery of capital: Why capitalism triumphs in the West and fails everywhere else*. New York: Persus Books.

Easterly, W. (2006). *The White man's burden: Why the West's efforts to aid the rest have done so much ill and so little good*. New York: Penguin.

Edmondson, A.C., Bohmer, R.M., & Pisano, G. (2001). Disrupted routines: Team learning and new technology implementation in hospitals. *Administrative Science Quarterly*, *46*(4), 685–716.

Elahi, K.Q. & Danopoulos, C.P. (2004). Microcredit and the Third World: Perspectives from moral and political philosophy. *International Journal of Social Economics*, *31*(7), 643–654.

Foss, K. & Foss, N.J. (2005). Resources and transaction costs: How property rights economics furthers the resource-based view. *Strategic Management Journal*, *26*(6), 541–553.

Galbraith, J.R. (1977). *Designing complex organizations*. Reading, MA: Addison-Wesley.

Garud, R. & Karnoe, P. (2001). *Path dependence and creation*. Mahwah, NJ: Lawrence Erlbaum Associates.

Garud, R. & Karnoe, P. (2003). Bricolage versus breakthrough: Distributed and embedded agency in technology entrepreneurship. *Research Policy*, *32*, 277–300.

Greenwood, R., Li, S.X., Prakash, R., & Deephouse, D.L. (2005). Reputation, diversification and organizational explanations of performance in professional service firms. *Organization Science*, *16*(6), 661–675.

Heidenheimer, A. & Johnston, M. (2002). *Political corruption: Contents and contexts*. Piscataway Township, NJ: Transaction Publishers.

Jones, M.V., Coviello, N., & Tang, Y.K. (2011). International entrepreneurship research (1989–2009): A domain ontology and thematic analysis. *Journal of Business Venturing*, *26*(6), 632–659.

Khavul, S. (2010). Microfinance: Creating opportunities for the poor? *Academy of Management Perspectives*, *24*(3), 58–72.

Kirzner, I. (1973). *Competition and entrepeneurship*. Chicago: University of Chicago Press.

Kirzner, I. (1979). *Perception, opportunity, and profit*. Chicago, IL: University of Chicago Press.

Kirzner, I.M. (1997). Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature*, *35*(1), 60–85.

Kogut, B. & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, *3*(3), 383–397.

Kristof, N.D. & WuDunn, S. (2009). *Half the sky: Turning oppression into opportunity for women worldwide*. New York: Random House.

Lepak, D.P., Takeuchi, R., & Swart, J. (Eds.). (2011). *Aligning human capital with organizational needs*. Oxford: Oxford University Press.

Lieberman, M.B. & Asaba, S. (2006). Why do firms imitate each other? *Academy of Management Review*, *31*(2), 366–385.

Lieberman, M.B. & Montgomery, D.B. (1988). First-mover advantages. *Strategic Management Journal*, *9*, 41–58.

London, T. & Hart, S.L. (2004). Reinventing strategies for emerging markets: Beyond the transnational model. *Journal of International Business Studies*, *35*, 350–370.

Lucas, R.E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, *22*, 3–32.

Miller, K.D. (2007). Risk and rationality in entrepreneurial processes. *Strategic Entrepreneurship Journal*, *1*, 57–74.

Minniti, M. & Levesque, M. (2008). Entrepreneurial types and economic growth. *Journal of Business Venturing*, *23*, 603–612.

Mintzberg, H. & Waters, J.A. (1985). Of strategies, deliberate and emergent. *Strategic Management Journal*, *6*(3), 257–272.

Mostafa, R. & Klepper, S. (2013). *Industrial development through tacit knowledge seeding: Evidence from the Bangladesh garment industry*. London, ON: Ivey School of Business.

Murphy, P.J. & Coombes, S.M. (2009). A model of social entrepreneurial discovery. *Journal of Business Ethics*, *87*, 325–336.

Nahapiet, J. & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, *23*(2), 242–266.

North, D. (1990). *Institutions, institutional change and economic performance. Political economy of institutions and decisions*. Cambridge: Cambridge University Press.

Peredo, A.M. & Chrisman, J.J. (2006). Toward a theory of community-based enterprise. *Academy of Management Review*, *31*(2), 309–328.

Pitelis, C.N. & Teece, D.J. (2010). Cross-boarder market co-creation, dynamic capabilities and the entrepreneurial theory of the multinational enterprise. *Industrial and Corporate Change*, *19*(4), 1247–1270.

Polgreen, L. & Bajaj, V. (2010, November 17). India Microcredit Faces Collapse From Defaults. *New York Times*.

Porter, M.E., Sachs, J.D., & McArthur, J.W. (2001–2002). *Executive summary: Competitiveness and stages of economic development*. New York: Oxford University Press.

Prahalad, C.K. & Hart, S.L. (2002). The fortune at the bottom of the pyramid. *Strategy + Business*, *26*(First Quarter), 2–14.

Prahalad, C.K. & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, *18*(3), 5–14.

Rhee, Y.W. & Belot, T. (1990). *Export catalysts in low-income countries: A review of eleven success stories*. World Bank Discussion Paper. Washington, DC: World Bank.

Rivoli, P. & Salorio, E. (1996). Foreign direct investment and investment under uncertainty. *Journal of International Business Studies*, Second Quarter, 335–357.

Romer, P.M. (1990). *Human capital and growth: Theory and evidence*. Paper presented at the Carnegie-Rochester Conference Series on Public Policy.

Safran, W. (1991). Diasporas in modern societies: Myths of homeland and return. *Diaspora: A Journal of Transnational Studies*, *1*(1), 83–99.

Sarasvathy, S.D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, *26*(2), 243–263.

Sarasvathy, S.D., Dew, N., Velamuri, S.R., & Venkataraman, S. (2003). Three views of entrepreneurial opportunity. In Z.J. Acs & D.B. Audretsch (Eds.), *Handbook of entrepreneurship research: An interdisciplinary survey and introduction* (Vol. I, pp. 141–160). Dordrecht: Kluwer.

Schoonhoven, C.B., Eisenhardt, K.M., & Lyman, K. (1990). Speeding products to market: Waiting time to first product introduction in new firms. *Administrative Science Quarterly*, *35*(1), 177–207.

Schumpeter, J.A. (1934). *Theory of economic development: An inquiry into profits, capital, credit, interest and the business cycle*. Cambridge, MA: Harvard University Press.

Seelos, C. & Mair, J. (2004). *Social entrepreneurship: The contribution of individual entrepreneurs to sustainable development*. Barcelona: Universidad de Navarra.

Seelos, C. & Mair, J. (2005). *Sustainable development: How social entrepreneurs make it happen*. Working Paper No. 611. Barcelona: IESE Business School, Univerity of Navarra.

Selden, L. & MacMillian, I.C. (2006). Manage customer centric innovation systematically. *Harvard Business Review*, April, 1–8.

Sen, S. (2008). Let there be light. *India Today*, XXXIII(27).

Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, *11*(4), 448–470.

Shane, S. (2003). *A general theory of entrepreneurship. The individual-opportunity nexus*. Northampton, MA: Edward Elgar.

Shenkar, O. (2001). Cultural distance revisited: Towards a more rigorous conceptualization and measurement of cultural differences. *Journal of International Business Studies*, *32*, 519–535.

Shenkar, O., Luo, Y., & Yeheskel, O. (2008). From "distance" to "friction": Substituting metaphors and redirecting intercultural research. *The Academy of Management Review*, *33*(4), 905–923.

Stevens, C.E. & Shenkar, O. (2012). The liability of home: Institutional friction and firm disadvantage abroad. *Advances in International Managment*, *25*, 127–148.

Stiglitz, J. (Ed.). (2002). *Globalization and its discontents*. New York: W.W. Norton & Company.

Szulanski, G. (2000). The process of knowledge transfer: A diachronic analysis of stickiness. *Organizational Behavior and Human Decision Processes*, *82*, 9–27.

Venkataraman, S. (1997). The distincitive domain of entrepreneurship research: An editor's perspective. In J. Katz & R. Brockhaus (Eds.), *Advances in entrepreneurship, firm emergence, and growth* (Vol. 3, pp. 119–138). Greenwich, CT: JAI Press.

Webb, J.W., Kistruck, G.M., Ireland, R.D., & Ketchen, D.J.J. (2009). *The entrepreneurship process in base of the pyramid markets: The case of multinational enterprise/non-government organization alliances*. Stillwater: Oklahoma State University.

Weick, K.E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage Publications, Inc.

Wolf, C.J. (1987). Market and non-market failures: Comparison and assessment. *Journal of Public Policy*, *7*(1), 43–70.

World Bank. (2011). *World development report: Conflict, security, and development*. Washington, DC: World Bank.

Yang, D. (2011). Migrant remittances. *Journal of Economic Perspectives*, *25*(3), 129–152.

Yunus, M. (1999). *Banker to the poor*. New York: PublicAffairs.

Sharon A. Alvarez is Professor of Management and Entrepreneurship, Walter Koch Chair of Entrepreneurship at Daniels College of Business, University of Denver, Denver, CO, USA.

Jay B. Barney is Presidential Professor of Strategic Management and Pierre Lassonde Chair of Social Entrepreneurship at Eccles College of Business, University of Utah, Salt Lake, UT, USA.