ENHANCING MARKET EXCHANGES AT THE BASE OF THE PYRAMID: THE ROLES OF NATIONAL CULTURE, NONTRADITIONAL CAPITALS, AND TRANSFORMATIVE TECHNOLOGIES

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Abstract

The base of the pyramid (BOP) has garnered attention recently, as it constitutes the largest unreached global segment. While international marketers are interested in serving this segment, the BOP is characterized by deep and wide poverty, which dampens market exchanges, or making/selling and buying/consuming activities. This study aims to address a) the specific issue of how national culture distinguishes BOP markets in terms of exchange activities, and b) the broad issue of how market exchanges can grow and flourish by accounting for comparative differences across BOP markets. We do so by drawing on theories of poverty, culture, human assets, and information technology as well as the BOP literature to propose a conceptual framework. The framework proposes that restrictive poverty may be ameliorated through enhanced, or more active, market exchanges. Three factors have an enhancing role: national culture (performance orientation), nontraditional capitals (social and creative), and transformative technologies (mobile telephony). Furthermore, due to differences in culture, capitals, and technologies, BOP markets vary in market exchange behaviors, indicating opportunities for strategic and tactical marketing. We conclude with managerial and theoretical implications of the framework.

Keywords: Base of the pyramid, market exchanges, national culture, social capital, creative capital, mobile telephony
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International marketers are increasingly interested in pursuing the “base of the pyramid,” or BOP, markets. The chief reason is the prospect of a large number of new customers. Faced with saturated markets in the industrialized world, global managers are attracted to the growth opportunities presented by the BOP. The BOP is comprised of the 4 billion or more persons living below the poverty line in developing countries, such as India, Nigeria, and Columbia (Arnold and Valentin, 2003; Prahalad, 2006). Despite earning as little as $1 a day per person, the BOP holds $9 trillion in assets and $5 trillion in purchasing power (Hammond and Prahalad, 2004; Prahalad, 2012). Interest in the BOP stems from both the desire to fulfill the needs of a sizable global market, as well as to increase the well-being of persons traditionally excluded from economic participation. Hewlett-Packard, Procter & Gamble, and General Electric are a few of the multinational corporations that have made forays into the BOP space.

Not surprisingly, much of the BOP research to date has focused on ways to target and improve consumption in these markets by overcoming barriers such as meager savings, low literacy, geographic isolation, and poor to non-existent infrastructures (Kolk et al., 2013; Prahalad, 2006). Examples of such research are Subrahmanyan and Gomez-Arias’ investigation (2008) of what and why BOP consumers buy; Pitta, Guesalaga and Marshall’s examination (2008) of differences in purchasing power among BOP segments; Wood, Pitta, and Franzak’s study on the potential appeal of global umbrella brands to BOP consumers (2008); Nakata and Weidner’s research (2011) on product and marketing designs to
increase product adoption by BOP consumers; and Martin and Hill’s work (2012) on the effects of poverty and psychological needs on life satisfaction in the BOP.

While providing valuable insights, studies to date have largely ignored two critical needs to address the nascent BOP opportunity. The first need is to understand how BOP markets vary cross-nationally or comparatively, especially in market behaviors. As with global top or middle of the pyramid segments, differences by geography are likely despite some shared traits. In other words, the BOP is not uniformly homogenous. In particular, there may be distinctions in market behaviors by national culture (Nakata, 2010; Nakata and Weidner, 2012). It has been observed for example that, in BOP communities where collectivism is high, consumers avoid taking on debt to make purchases in order to save the social embarrassment attached to borrowing money or failing to repay loans (Viswanathan, 2007). Illumination on the role of national culture in market behaviors may thus be useful for strategic and tactical marketing planning, including market selection.

A second and broader knowledge need is to understand how to enhance market exchanges in BOP markets—despite their significant challenges—by accounting for comparative differences among them. Market exchanges refer to both the making and selling of goods and services, as well as the purchase and consumption of goods and services. The BOP is chiefly characterized by deep and wide poverty, dissuading even some of the most experienced global firms from crossing its threshold. Subsistence-level incomes and low literacy along with the near absence of infrastructure—from roads and electricity to banks and manufacturing facilities—present daunting challenges to market entrance and development (Prahalad, 2006; 2012). To warrant the step, firms must know how BOP market exchanges can grow and strengthen in the face of hostile scarcities. We argue that
national culture, nontraditional capitals, and transformative technologies differ among BOP markets and can be leveraged to increase market activities and thereby unleash dormant economic potential. Importantly, leveraging can be done in ways that improve both making/selling as well as consuming/buying activities (see critiques by Ansari et al., 2012; Karmani, 2007a; 2007b; Ramachandran et al., 2012 on the literature’s lopsided focus on the latter).

This study addresses the above knowledge gaps by proposing a conceptual framework a) specifically on how national culture affects market exchanges in the BOP, and b) more broadly on how to enhance exchanges through cultural, capital, and technological resources. Given that culture may vary across BOP settings, we examine the role of national culture, in particular performance orientation, on market exchanges. Furthermore, we study the roles of two other factors that may likewise vary, namely non-traditional assets (social capital and creative capital) and transformative (mobile telephony) technologies. As later explained, these three factors—culture, capitals, and technologies—can directly and interactively increase market exchanges, ameliorating the dampening effects of BOP poverty.

Our framework draws on several theories or perspectives not previously directed together toward BOP concerns: Amartya Sen’s theory on poverty, Robert House and colleagues’ theory on culture, Anthony Bebbington’s concepts of human capital, and Anandhi Bharadwaj’s resource based view of information technology. We also apply extant BOP studies to derive the framework, specifying research propositions for future empirical examination. The conceptual approach we take is a specific response to the need for greater theoretical girding in the growing body of BOP research. A recent review of the last
decade of BOP studies concluded that one way to advance this stream is to incorporate theories outside its narrow confines, not only to provide stronger conceptual anchors for this work but also to broaden the field of vision (Kolk et al., 2013). In the next section, we present the theories and perspectives as well as the conceptual framework. Thereafter we specify and elaborate the research propositions, and finally discuss the research and practical implications.

THEORETICAL BASES AND CONCEPTUAL FRAMEWORK

Amartya Sen (1999) forwarded a theory of poverty that has been enormously influential in economic and policy circles, and for which he was honored with a Nobel Prize in Economics in 1998. The United Nations and World Bank have embraced this theory, making it perhaps the reigning view of poverty in developmental economics (Evans, 2002). Sen argues for a more encompassing understanding of poverty than the previously held assumption that poverty is simply the inadequacy of income. Instead he proposes that poverty is multiple, interconnected deprivations in capability, or “unfreedoms.” Individual well-being rests on the ability to live a life of value and to have substantive choices for achievement (Sen, 1997). The poor have diminished capabilities to achieve and live valuable lives (Zheng and Walsham, 2008).

Among the unfreedoms experienced by the BOP are illness from the lack of medical services, low literacy due to unaffordable schools, stress from regular threats to personal safety, fatigue from long hours of back-breaking labor, and social isolation from living in a slum. Poverty can thus be dimensionalized as economic, physical, and psychosocial deprivations. We adopt this view for our framework to represent the BOP’s chief feature,
namely poverty. Generally, we assert that poverty inhibits market exchanges (whether buying or selling) by reducing or limiting human capabilities.

The second theory that informs our framework is Robert House and colleagues’ theory of culture (2004). These researchers developed a framework of national culture based on prior culture theories and a survey of over 17,000 managers in 62 countries (2004:91). Culture—defined as “shared motives, values, beliefs, identities, and interpretations or meanings of significant events that result from common experiences of members of collectives and are transmitted across age generations”—is posited to consist of nine dimensions in two forms (ideals versus practices) (House et al., 2002:5). One of the nine dimensions is performance orientation, or the “degree to which a collective encourages and rewards group members for performance improvement and excellence” (House et al., 2002:6).

We apply House’s theory and the performance orientation dimension to our framework for several reasons. One is that the theory integrates the most widely accepted culture concepts in international marketing, notably Geert Hofstede’s (1980; 2001). A second reason is that it has been substantiated through one of the largest empirical cross-national business studies (House et al., 2004). A third impetus—specific to our selection of performance orientation—is that of the nine House dimensions performance orientation is the most logically tied to economic interests and thus worthy of examination in relation to market exchanges. Positive correlations have been found between performance orientation and economic prosperity and competitiveness (House et al., 2004: 253). Finally performance orientation diverges considerably among developing countries, suggesting it may be an important differentiator across BOP markets.
The third theory we draw upon is by Anthony Bebbington. On the basis of studies on rural poverty in Latin America, Bebbington (1999) identifies assets necessary for sustainable livelihoods. Among these assets are social capital and human capital. Social capital refers to access to social networks and the ability to capitalize on those assets. Human capital refers to the broad complex of knowledge and skills, often developed through formal education, that enables individual achievement and capability building (Bebbington, 1999; Sen, 1999). One facet of human capital is creative capital, a subset of knowledge and skills that accounts for the intangible drive to innovate, invent, and engage in entrepreneurial efforts. In common with Sen (1999), Bebbington proposes that the possession of such capital “not only means people produce more and more efficiently; it also gives them the capability to engage more fruitfully and meaningfully with the world…” (1999, pg. 2022). Such assets then lead to freedom from unfreedoms in the parlance of Sen.

We incorporate Bebbington’s theory into our framework in order to specify two forms of nontraditional, i.e. non-economic, capital that may fuel market exchanges. Studies on BOP markets suggest that human-based assets are underestimated and overlooked strengths in these communities (Burgess, 2006). The abilities to form and leverage social ties as well as to problem solve creatively despite scarcity have been observed in subsistence environments (Ansari et al., 2012; Viswanathan, 2007). Applying Bebbington’s assets approach, we propose that social capital and creative capital propel market exchanges by providing relational lubricants for economic activities, as well as the essential insights and skills to overcome obstacles in the BOP environment.

Finally, we look to Anandhi Bharadwaj’s resource-based view of information technology. Bharadwaj (2000) asserts that information technology, whatever its form, is a
bundle of resources that can be directed toward achieving desired ends. More specifically, the physical hardware/software constituting any piece of information technology enables the user to more efficiently and effectively carry out tasks. Technology thus functions as a tool. This view positions information technology as a resource that facilitates human processes and thus increases capabilities. Interestingly, this perspective dovetails well with Sen’s theory, in that greater human capabilities are avenues of well-being, the opposite of poverty. Researchers are in fact considering how Sen’s theory can reframe information technology not as an end itself, but as a way of building human capabilities in the developing world (Zheng and Stahl, 2011; Zheng and Walsham, 2008).

Extending Bharadwaj’s view of information technology to mobile phones, we propose that these devices elevate human-based assets through capability building, as well as enable individuals to engage more readily in market exchanges. For instance, mobile phones make it more feasible to contact suppliers on a timely basis to order and sell a product (compared to traditional face-to-face discussions). BOP merchants with phones experience greater efficiencies than those without, furthering their business activities.

Integrating these theories and perspectives, we develop a conceptual framework of the influences on market exchanges in BOP settings. This framework is captured in Figure 1. In sum it posits that poverty (economic, physical, psycho-social deprivations) diminishes exchanges in the BOP; however, differences in national culture (performance orientation) lead to variance in market exchange behaviors; moreover, greater degrees of certain national culture (performance orientation), nontraditional assets (social and creative capitals), and transformational technologies (mobile phones) counter poverty by enhancing buying/consuming and selling/making activities.
RESEARCH PROPOSITIONS

According to Sen (1999), individuals living in impoverished conditions suffer from several inter-related deprivations. The most apparent deprivation is economic. While estimates vary considerably about what level of income constitutes poverty, the criterion commonly used in the BOP literature has been a World Bank standard of less than $2 per day in earnings (Prahalad, 2006). The World Bank elaborates further that those who live on less than $1.25 a day are “extremely poor,” in contrast to the “moderately poor,” who survive on $2 daily (Arnold and Valentin, 2013). Regardless of the cutoff applied, these individuals subsist on very low levels of material abundance that affect all aspects of life. Meals tend to be irregular, water not potable, homes temporary, sanitation primitive, and little monies available beyond the bare necessities of food and shelter if that (Ruth and Hsiung, 2007).

A second deprivation is physical. Those living in poverty are prone to health problems due to the lack of economic resources to pay for good medical care. Access to such care is also problematic, in that doctors and clinics are not as available in the rural areas where many BOP individuals reside (Peters et al., 2008). Thus BOP persons are more likely to suffer from one or more significant illnesses. Telling statistics are that globally 98% of deaths between birth and 15 years and 83% of deaths between 15 and 59 years occur in the developing or BOP world, and the bulk of these are from preventable infectious diseases (Subramanian et al., 2002). Poor health leads to limited ability to learn and work, which in turn lowers income in a vicious cycle of constraints.
The third deprivation is psychosocial. Poverty is accompanied by high levels of stress and anxiety (Piacentini and Hamilton, 2013). Because resource buffers are few, BOP individuals constantly live on the edge of survival. The sudden loss of work, health, or a family member can catapult them over the edge and into further distress and hardship. Research indicates that life satisfaction and other forms of psychological well-being are diminished for the BOP by consumption inadequacy, or enough essential goods and services to rise above the short-term focus on survival (Martin and Hill, 2012). Given this context, depression, low confidence, and social isolation are common (Hill and Stamey, 1990).

Considering the three deprivations that characterize the BOP, we posit that the two types of market exchanges—buying/consuming as well as making/selling—are impeded by poverty. In particular, economic deprivation results in limited finances to make purchases for personal consumption or to build and run a business as a means of livelihood (Curwin and Whaley, 2011; Hill, 2002). Physical and psychosocial deprivations likewise impede these tasks since bodily health and mental well-being are needed to perform them. Such deprivations, however, vary across BOP markets, with some suffering more lacks than others. For example, 73% of Tanzania’s population lives on less than $2/day, whereas 13% of the Bolivian’s does (World Bank 2005). Both are poor, developing countries but the degree of deprivation contrasts between them. We therefore expect the following:

**P1:** In BOP markets, greater poverty negatively affects a) buying/consuming and b) making/selling activities

It has been theorized that BOP markets are embedded in and shaped by cultural forces, including national culture (Nakata, 2010). National culture reflects the values and ideals as well as actions and customs of a country, and is rooted in religious traditions,
political histories, economic systems, geography and climate (House, et al., 2004). Studies indicate that developing countries, similar to developed, vary considerably in terms of national culture (Hofstede, 2001; House et al., 2002). For instance, Ecuador and Indonesia are high on collectivism (top quartile of House’s scale), and Georgia and Namibia are low (bottom quartile), despite all being emerging economies (House et al., 2004:470). Thus we expect that poor countries, or BOP markets, also have distinct national cultures relative to one another.

The culture dimension of interest in this study is performance orientation, or the degree to which performance improvement and excellence are rewarded. As conceptualized by House et al. (2002; 2004), performance orientation reflects societal differences in the definition and value of success, and shapes the way external challenges and inter-personal relationships are managed for achievement. In higher performance oriented societies, a pervasive belief is that success comes to anyone who tries hard enough, and that assertiveness, competitiveness, and materialism are acceptable. In contrast, lower performance oriented cultures emphasize tradition above merit, social harmony over personal gain, and quality of life more than money and its displays (House et al., 2004:245).

House et al.’s empirical investigation (2004) determined that developing countries diverge on performance orientation, perhaps contrary to the simplistic assumption that poor countries are all the same in lacking “drive.” El Salvador and Zimbabwe are very high, whereas Kazakhstan and South Africa are very low on this dimension, as examples (House et al., 2004:251).
With some BOP markets exhibiting greater performance orientation than others, we propose that market exchanges are elevated in these environments. This occurs because the pursuit of personal opportunities are advocated, encouraging members to engage in creating and selling activities for status, control, and economic benefits. Studies have linked performance orientation with risk-taking entrepreneurial behaviors (Autio et al., 2013; Ozgen, 2012). The tie also exists because spending on self, social flaunting, and individual achievement are encouraged, spurring personal purchase and consumption (Gil, 2009; Hill et al., 2012). We therefore predict the following:

**P2:** In BOP markets, greater performance orientation positively affects a) buying/consuming and b) making/selling activities

In the face of severe constraints, the BOP possesses often hidden, nontraditional assets to counter poverty’s dampening effects on market activities. Social capital is one such asset. Social capital represents the resources embedded in networks of relationships that can be harnessed for personal or collective benefits (Ansari et al., 2012). More tangibly it consists of ties among individuals and trust in those relationships, along with shared beliefs, norms, and languages (Bolino et al., 2002). Social capital is known to fuel cooperation and collaboration, and is considered a powerful means of generating efficiencies in a wide range of contexts, whether organizations (Huff and Kelly, 2003), communities (Putnam et al., 1993), or nations (Fukuyama, 1995).

Because impoverished communities lack the economic, political, and technological assets of their well-endowed counterparts, social capital is cultivated and relied upon to maintain and improve the welfare of the collective (Ansari et al., 2012). For example, cooperatives are well-used avenues in India for generating and distributing gains for large groups. Shree Renuka Sugars is one of the best-known cooperatives in India; it has enabled
farmers, who own shares of the firm and are its suppliers, to increase their incomes from sugar growing by ensuring fair market prices for their harvest and removing costly middlemen. Farmers have been able to buy more land, invest in their children's education, and generally improve their quality of life (Agnihotri, 2012).

Researchers have observed that social capital is often the primary form of assets and is relatively abundant in low-income communities (Reficco and Marquez, 2009). People live in high interdependence, receiving and giving assistance to one another in order to carry out daily affairs. Thus an individual who is short on funds to pay school fees may ask a neighbor for a loan, and returns the favor on another occasion when that neighbor is in need of monies to pay the rent. Remittances exemplify the important role of social capital in BOP communities. Families and friends often send to and receive monies from one another, building long distance networks of social capital characterized by symbiotic relationships of interdependence in the absence of bank intermediaries (Bebbington, 1999; Brinkeroff, 2009). In sum, the fabric of life centers on creating and maintaining long-term reciprocal relationships and a deep cultural embeddedness, as observed in Zimbabwe and South Africa (Burgess, 2006).

In relation to market exchanges, we expect social capital to fuel these economic activities. Studies indicate that while consumption is uncertain in the BOP context, there are strong social relationships among buyers and between buyers and sellers (Sridharan and Viswanathan, 2008; Subrahmanyan and Gomez-Arias, 2008; Viswanathan, 2007). Buyers depend heavily on sellers for information about products, access to items, and even funds to make purchases. They develop close, personal ties of reciprocal obligation. Relationships are likewise interactive among buyers. Buyers rely on other buyers for
advice on what to purchase, and may seek the help of fairly literate children or neighbors to understand products and read package labels for them (Sridharan and Viswanathan, 2008). Thus both selling and buying activities should increase with greater social capital.

Research indicates that social capital aids early entrepreneurial efforts (Davidsson and Honig, 2003) by creating an important link between individual success and community capabilities (Ansari et al., 2012). Individuals with greater social capital are more likely to start a new business than those with less. Other research indicates that social capital can help develop and leverage interdependent financial networks locally within BOP communities and to the outside world through remittances; these remittances fund and fuel commercial activities (Ansari et al., 2012). Strong social capital in the marketplace can also facilitate greater access to essential services such as healthcare (Sridharan and Viswanathan, 2008).

Furthermore, we can expect BOP markets to differ in social capital endowments. It has been observed that social capital, often exemplified in the form of trusting bonds and the ease with which cooperative endeavors spontaneously occur, varies considerably from country to country (Fukuyama, 1995). Supportive evidence of variation among BOP markets is provided by indices of social capital, which show for instance that South Africa and Sri Lanka are moderate to high in this asset, while Guinea and Burma are quite low (Young and Lindstrom, 2009). The above leads us to theorize the following:

**P3:** In BOP markets, greater social capital positively affects a) buying/consuming and b) making/selling activities.

The second hidden BOP asset that may foster market exchanges, opposing the effects of poverty, is creative capital. Creative capital is a specific form of human capital. Human capital refers to the broad complex of knowledge and skills, often developed
through formal education, which enables individual achievement and capability building (Bebbington, 1999; Sen, 1999). Creative capital is a subset of knowledge and skills, namely for artistic and entrepreneurial efforts. Creative capital has been examined in urban centers of industrialized countries to explain economic growth. To the degree these centers attract individuals with the knowledge, artistry, and skills to create meaningful new forms of goods and services, or to start new ventures in open sectors, creative capital accumulates and commerce increases (Florida, 2002).

Yet creative capital is present as well in developing countries and BOP communities. In contrast to the munificent resources present elsewhere, BOP communities are marked by myriad forms of scarcity. Paradoxically, constraints can stimulate inventiveness (Ridgway and Price, 1994), following the adage that “necessity is the mother of invention.” Faced with few affordable or accessible products, BOP artists and entrepreneurs create their own solutions to make and sell, termed product invention, such as by repurposing scraps, discarded materials, or items for other uses. Inventiveness extends to finding new forms of business organization or managerial innovation. A detailed example is given by Ramachandran, Pant, and Pani (2012) of Fabindia, an Indian handloom retailer that continuously reinvented itself through innovative management practices in order to source handloom fabrics from, and provide livelihoods to, BOP artisans. Inventiveness includes extending the marketplace beyond local markets along new pathways. Brinkeroff (2008) for instance elaborates on Thamel.com, an entrepreneurial venture in Nepal that connected the local community with the diaspora Nepali community by processing remittances and offering gift services.
Creative capital is likewise evident on the consumer side. BOP consumers have been observed as highly creative in spite of income and other constraints. While meeting basic needs are at the forefront, they also desire to fulfill higher order Maslowian needs, including for social connection, intellectual stimulation, and individual creative expression (Hill et al., 2012; Subrahmanyan and Gomez-Arias, 2008). When it comes to making purchases, BOP consumers have developed sophisticated buy and use strategies to imaginatively stretch their meager budgets. Strategies include bargaining with sellers, demanding quality products, organizing collective purchases (to split the costs and share the product), and obtaining customized services from sellers they have forged deep and mutually beneficial ties with (Nakata, 2008; Viswanathan, 2007).

In light of the above, we hypothesize that creative capital enhances market exchanges, and on both sides of that relationship. As creative capital grows in a BOP community or there is more creative capital present, we expect that consumers will increase their interest in and act upon that interest to seek and make purchases. They do so not only because of thinking of new ways to carry out these purchases, but also because they find goods and services meet higher order self-actualization and identity needs. Concomitantly, those who make and sell goods and services find novel ways of identifying, entering, and satisfying market opportunities. This is expressed in creative efforts to start businesses from scratch as well as improve existing ones. Creative capital can ameliorate the effects of psychosocial deprivations as consumers are motivated to be creative to fill non-subsistence needs that accord with their perceived quality of life (Rosa, 2008).

As with social capital, we expect creative capital to accumulate more in some BOP places than others. Reasons for accumulation include cultural openness, public amenities,
and economic opportunities. Studies note that the possessors and producers of creative capital—“the creative class”—are paving the way in developing new forms of business, community, and lifestyle, and will be increasingly important for the economic vibrancy of cities and nations (Florida 2002). Among BOP cities known for attracting artistic and intellectual talent and thus creative capital are Bogota, Columbia; Cluj, Romania; Istanbul, Turkey; and Lagos, Nigeria (Byrd, 2013). Hence we theorize the following:

**P4:** In BOP markets, greater creative capital positively affects a) buying/consuming and b) making/selling activities.

Along with nontraditional assets, another factor driving greater market exchanges may be the transformative technology of mobile phones. In developing countries mobile phone ownership has largely leapfrogged fixed line phones. In the majority of African countries, mobile phone penetration is reaching the critical mass of 40% of the population, far above the single digit percentage ownership of fixed phone lines (Stork et al., 2013). Mobile phones are also bypassing other forms of information communication technologies, notably desktop and laptop computers, due to their lower cost for ownership and use, reliance on short spurts of electricity, high portability and strong connectivity, and versatility in permitting a range of communication data, from rudimentary SMS text messages to smartphone Internet information.

The rapid adoption of mobile phones in the BOP suggests the technology has transformative potential, fundamentally altering how people live, work, and play. In fact, the World Bank has concluded that it is the single-most transformative tool in the developing world, as more and more individuals view it as an essential good (Zhen-Wei Quiang, 2013). The strong diffusion of mobile telephony may be explained by the obstacles the technology overcomes. BOP environments are “characterized by restricted physical
access and poor infrastructure, since a large percentage of BOP communities are located in far-flung rural areas with poor transportation facilities” (Tarafdar et al., 2012:313). Mobile telephony largely overcomes these difficulties by enabling information transfer and interpersonal connections regardless of distance and location.

As access to mobile phones increases, market exchanges should strengthen. In support of this possibility, studies have found correlations between mobile telephony and economic growth in developing countries (at twice the rate of developed countries) (Waverman et al., 2005). For every 10% gain in mobile phone penetration, economic growth rises by .8% (Zhen-Wei Quiang, 2013). Mobile telephony produces these results by improving market functioning, reducing transaction costs, and raising business productivity.

More specifically, with this technology the buying activities of consumers and businesses increase. Consumers use it to determine availability, price, and other features of products and services, as well as to carry out ordering and purchase transactions. What used to be a personal visit to a store or business, requiring hours of costly travel, is replaced by the ease and affordability of a phone call or text message. The selling activities are similarly facilitated. The technology provides the ability to link and coordinate activities among customers, suppliers, and middlemen (Basole and Rouse, 2008). Examples of the powerful effects of the technology in BOP markets are given by Zainudeen, Samarajiva, and Sivapragasam (2011) in a case study of CellBazaar, a mobile-based electronic bazaar in Bangladesh, and by Jagun, Heeks, and Whalley (2008) in an examination of how mobile telephony alters supply chain relationships in the Nigerian cloth weaving industry.
The facilitating role of mobile telephony can be understood from the perspective of the resource-based view of information technology (Bharadwaj, 2000). Mobile telephony is a resource or tool that enables the tasks of buying and selling to be done more quickly, efficiently, accurately, and conveniently. More generally, information technologies like mobile telephony are thought to bring about several benefits to human tasks: automation, information-provision, and transformation of information into greater value (Tarafdar et al., 2012), which in turn reduces the effect of economic deprivation by enhancing entrepreneurial activities. As mobile telephony provides these benefits, and mobile telephony becomes greater, or more pervasive, in a BOP market (developing countries vary in telephony penetration level according to the World Bank\(^1\)), we expect the following:

**P5:** In BOP markets, greater mobile telephony positively affects a) buying/consuming and b) making/selling activities.

Beyond the direct facilitating role of mobile telephony on market exchanges, this technology may have a positive moderating role. In particular, mobile telephony may elevate the effects of social and creative capitals on buying/consuming and making/selling by amplifying and directing social capital and creative capital toward these commercial activities.

Recent studies on mobile telephony in the BOP suggest that the phones propel greater social cohesion and better social relations, and in so doing strengthens economic growth (Frost and Sullivan, 2006). An ethnographic examination of mobile telephony among the BOP in Bangladesh found that phones are applied to make social calls but that the calls often mix in financial or economic concerns. Thus a farmer calls his relatives about personal household matters, and along the way talks about problems with his crops in the

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\(^1\) World Bank 2014
hopes of getting some solutions to improve his business (Dey et al., 2013). A survey of BOP mobile phone adoption in six developing countries including Sri Lanka and the Philippines determined that phone adoption is driven by both social and economic benefits (de Silva et al., 2011). Respondents perceive that the phones improve intertwining social and economic aspects of their lives.

More specifically, mobile telephony may leverage social capital for economic ends by building “bridging social capital.” Bridging capital resides in peripheral ties that are high in unique resources and information (Burt, 2001). BOP individuals tend to have an abundance of “bonding social capital,” which consist of close, trusting relations among family and friends. What they are scarce in is bridging capital, which enables obtaining jobs, education, business contacts and other valued resources, including special or costly products, outside their immediate circle. Mobile telephony can help to build bridging capital since the technology enables contacting strangers (e.g. a business or school) without having prior personal relations. Inquiries can be made and sales or purchase transactions completed over the phone, and these ties can be added to a person’s social network. Additionally in areas where social stigma is attached to certain residences (having for instance the “wrong address” or no address), the phone disguises the physical location, enabling BOP persons to transcend stigma when interacting with the upper social strata (Dunn, 2009).

As with social capital, creative capital can be strengthened and applied to economic ends through mobile telephony. The technology extends the inventive, artistic, and entrepreneurial capabilities of the BOP, and those capabilities can be directed toward more and better market exchange activities. This notion is in keeping with Bharadwaj’s view
(2000) of information technology and Sen’s theory of poverty (1999), in that technology functions to elevate human assets through capability building. Researchers considering the potential of information technology for economic and social change in developing countries have noted that mobile telephony provides the poor with the means to achieve, leading to freedoms or capabilities (Zheng, 2009; Zheng and Stahl, 2011).

Mobile telephony fosters creative capital and enables application of that capital to exchange activities by providing new platforms and approaches to economic life. The benefits accrue to both buyers and sellers. For instance, a study of information technology use in the BOP found buyers searching for information about products via SMS advertisements on their cell phones, and shopkeepers identifying goods that are more likely to sell to BOP customers by contacting sources known to spot trends. Entrepreneurs were also found to use mobile phones to hunt for business leads and build networks (Tarafdar et al., 2012). The technology appears to unleash and direct the creative energies of BOP individuals toward more and varied economic undertakings.

Perhaps the best-known example of the potential game-changing impact of mobile telephony in the BOP space is that of m-banking, short for mobile banking. Traditional banks, micro-finance institutions, and telecommunications firms are scrambling to introduce financial services to BOP communities through mobile phones (Hinson, 2010). Services offered through the phone range from remittances and cash-back services to loan repayment and credit and savings accounts. M-PESA, a mobile money system developed in Kenya, is the one of the most visible, having become the dominant financial services provider in that country (Hinson, 2011, Tarafdar et al., 2012). Notably, m-banking has itself become a facilitator for market exchanges, as BOP individuals learn to creatively use its
features for an array of personal and business needs. Purchasing and selling goods are accelerating since m-banking makes such exchanges more feasible, secure, and fast (Jagun et al., 2008). In sum, we propose that mobile telephony has the following additional impacts on market exchanges:

**P6:** In BOP markets, greater mobile telephony positively moderates the effect of social capital on a) buying/consuming and b) making/selling activities.

**P7:** In BOP markets, greater mobile telephony positively moderates the effect of creative capital on a) buying/consuming and b) making/selling activities.

At the same, it is well recognized that mobile telephony is an inert resource; as such, its access or possession does not necessarily translate into higher human capabilities. In other words, just because an individual has a mobile phone does not mean s/he will use it or use it well for market exchange or other activities. Decades of research on information technology (IT) have underscored this dynamic, concluding that technology ownership is linked, though weakly, to improved human functioning (Bharadwaj, 2000). If mobile telephony is to more reliably enhance market exchanges in BOP settings, is there another factor that if present strengthens technology’s enabling role?

That factor may be culture. The same research that demonstrated the weak link between IT and human functioning also determined that cultural factors are likely crucial differentiators in utilizing technology, converting IT from a dormant to an exploited resource (Brynjolfsson and Hitt, 1997; Powell and Dent-Micale, 1997). Studies conducted further back on non-IT technologies have likewise underscored the contribution of cultural factors to the full and effective use of tools and machinery (Emory and Trist, 1960).

We posit that as a cultural dimension, performance orientation may be especially helpful in leveraging mobile telephony for market exchange purposes. With a focus on
striving and goal attainment, performance orientation magnifies recognition of the technology's potential to facilitate making/selling and purchasing/consuming tasks. Once that potential is recognized, individuals apply the technology to these tasks in their drive to excel, innovate, and meet higher performance standards. Suggestive of these dynamics are empirical findings from the World Bank (2006) on the impact of information communications technologies in 56 developing countries around the world. The World Bank determined that countries with greater use of these technologies experience significantly higher labor productivity, investment rates, and sales levels; additionally businesses within these economies grow faster and are more profitable (2006:332).

As performance orientation differs cross-nationally, it serves to distinguish BOP markets from one another in terms of greater and stronger market exchanges. This enhancement occurs not only through the orientation's direct positive influence on exchanges as described in P2, but also by its positive interaction with mobile telephony onto exchange behaviors. We therefore posit the following:

**P8:** In BOP markets, greater performance orientation positively moderates the effect of mobile telephony on a) buying/consuming and b) making/selling activities.

**DISCUSSION**

The purpose of this study is to examine a) specifically how national culture affects BOP market exchanges, and b) generally how market exchanges are enhanced at the base of the pyramid. We propose a conceptual framework where poverty lowers or inhibits market exchanges but is countered by several factors. Assuming national culture, non-traditional assets, and transformative technologies vary by BOP setting, greater performance orientation alongside higher social capital, creative capital, and mobile
telephony increase buying, selling, making, and using activities. The framework is based on extant knowledge from past studies as well as theories and perspectives of poverty by Sen (1999), national culture by House et al. (2004), human assets by Bebbington (1999), and information technology resources by Bharadwaj (2000).

Through the framework we argue that these cultural, capital, and technological factors not only individually and independently contribute to greater market exchanges, but also that they do so in certain combinations with one another. Performance orientation when co-present with mobile telephony elevates the positive impact of the technology by providing the motivation to apply this tool to exchange tasks. In societies where performance orientation is high, and individuals are driven to achieve and enjoy its fruits, people more readily embrace this tool to start businesses, improve operations, and search for and buy goods and services.

Similarly, mobile telephony combines with creative and social capitals, amplifying their positive effects. It does so by capitalizing on existing social and creative capitals, as well as generating and directing more of these assets toward economic concerns, all of which spur market exchanges. Ours may be the first conceptual model explicating how poverty’s constraints in BOP markets can be ameliorated via a cluster of cultural, human, and technological resources, which augment and expand both sides of the exchange relationship. As BOP markets are distinguished in the levels of these resources, we can expect variation in the degree of exchange activities. Some markets will have more buyer and seller activities and others less, despite the generally dampening role of poverty. This study offers several implications for marketing managers and scholars.

Managerial Implications
It is well understood that unless there are pathways to developing and realizing the potential of the BOP, it will be continue to be under-served and avoided by international marketers no matter how tantalizing the prospects. In this study we tackle the chief obstacle to venturing into the BOP space, namely its pervasive poverty. We identify three kinds of factors that astute marketers can leverage to elevate market exchange activities in opposition to restrictive poverty. The following managerial implications are possible leveraging strategies.

Given that we determined cultural performance orientation strengthens market exchanges directly and interactively, a specific managerial implication is to select BOP environments with higher performance orientation for entry or long-term investment. This strategy is consistent with foreign market selection approaches that compare and account for differences among markets, in the quest to identify markets more hospitable and responsive to a firm's efforts (Keegan, 2014). In other words, acknowledge that all BOP localities are not the same, and that those with higher performance orientation are more attractive targets for market development.

Another implication is to customize marketing strategies and tactics based on the selected BOP market's level of performance orientation. This principle may be especially important to observe when executing advertising and promotions, the most culturally sensitive marketing element (House et al., 2010). In support, a recent study demonstrated that advertising using hard sell approaches are favorably viewed in high performance oriented cultures, but produce negative reactions (irritation) in low performance oriented societies (Okazaki et al., 2010). Thus any advertising should be designed to be culturally congruent, tailored to the target market’s level of performance orientation.
Because our study indicates that the human-centered assets of social and creative capitals are pivotal for growth in market exchanges, another managerial implication is to select markets with greater endowments of these assets, as well as implement marketing initiatives in BOP communities to support and expand these forms of capital. An example of the latter strategy is offered by Opportunity International, a global nonprofit microfinance organization that has pioneered banking efforts in BOP communities in Africa, Asia, Latin America and Eastern/Central Europe. Microloans are given in group settings, along with consumer teaching on the fundamentals of financial literacy, such as by showing a film on household finances to an entire village (Berger and Nakata, 2013). These programs market and deliver the organization’s services, but do so in ways that cultivate social capital. Similarly, CARE’s Rural Sales Program fosters creative capital by teaching and encouraging entrepreneurial skills and motivations.

Lastly, our study notes that mobile telephony independently and jointly fuels market exchanges. Given the potency of mobile telephony, and its fast growing penetration and acceptance across the BOP world, incorporating this technology into marketing strategic and tactical efforts is the final managerial implication. Strategically, the approach is to select BOP markets where phone penetration is higher and/or faster. This would improve the likelihood and speed of market exchange development and thus effective marketing. Tactically, incorporation can happen in multiple ways. The simplest is a one-way phone-based communication about a good or service, such as an SMS advertisement. More involved is using the phone to develop relations with customers, suppliers, or other members of the value chain, so that two-way responses and interaction are sought and captured. For instance, the SMS advertisement can come with a discount e-coupon, which is
redeemable virtually or in person. The next level would be multi-way communications and relations to develop networks. The advertisement with coupon can be shared by a group for multiple discounts or for a single group purchase. These are not specific recommendations but illustrations of what can be done at a tactical level in marketing schemes to integrate mobile telephony.

Successful models for integrating SMS communication in BOP business efforts can be seen in healthcare marketing. In Kenya, mobile telephony provides outreach and support to HIV positive patients, which improves communications and relations with health service providers as well as medication adherence and health outcomes (Chi and Stringer, 2010; Lester et al., 2010). This approach has also been successful among HIV positive patients in Brazil (Costa et al., 2012), tuberculosis patients in Kenya (Hoffman et al., 2012) and malaria patients in Kenya (Zurovac et al., 2011), with patients reporting that the SMS messages make them feel more engaged with their treatments.

More significant are strategic forms of integration. Any or all aspects of a marketing strategy can be reconsidered or considered from scratch in light of mobile technology, resulting in radical departures from traditional marketing strategies. An exemplar of this approach is M-PESA, which was conceived on the basis of mobile phones as the sole delivery platform for financial services (Duncombe, 2012; Simon, 2011). As such, efforts were concentrated on making the user interface friendly, and building a network of retailers willing to act as cash dispensing agents. The service, once rolled out, reached a receptive market in Kenya as there were no safe and reliable alternatives for the services offered. The success of M-PESA in Kenya rested on many factors, but central was the strategic integration of mobile telephony into the core service.
More broadly, our study points to the importance of finding new ways to strengthen commercial exchanges in the BOP and not just to increase consumption among the poor. As increasingly recognized and criticized, the view that the BOP is simply another market to target and cultivate for sales (especially by large multinational firms) raises ethical concerns about exploitation (Martin and Hill, 2012; Mason et al., 2013). The original and full intent of the BOP strategy is to reduce poverty, improve quality of life, and enable economic participation by a historically marginalized population, all the while attending to the business necessity of profitability (Prahalad, 2006). This will be achieved through humane, culturally sensitive, and economically just approaches.

Fundamental to these approaches is attending to both sides of the exchange relationship, so that along with the long-emphasized purchasing and consuming activities, the making and selling activities are fostered, and the latter by enterprises bred from also within BOP communities. This does not mean that foreign businesses should avoid merchandising and distributing their wares to the BOP market, but that opportunities should be concomitantly sought to partner with, invest into, and help propagate local BOP businesses in their quest for viability and self-determination. An example of such partnership is the Shree Renuka Sugars cooperative, where sugarcane farmers earned larger returns than they had independently and the firm correspondingly grew (Agnihotri, 2012).

Lastly our study indicates that marketing managers should attend to the multiple dimensions of poverty as elaborated by Sen (1999). Thus marketing efforts in BOP markets should not be confined to managing barriers presented by low income (for example by lowering the price of a good or shrinking its package), but furthermore attend to the
physical and psychosocial constraints of poverty. Astute managers will develop marketing programs (and partner with BOP firms) to address the multiplicity of deprivations and the desire of the poor to possess the means for higher capabilities. An example is the CARE Bangladesh Rural Sales Program, a BOP program that empowers women to earn independent income by selling foreign and locally produced goods. The program increases income to these women, as well as empowers and develops esteem (Dolan et al., 2012). Thus psychosocial constraints are addressed in addition to economic.

**Research Implications**

We adopted Sen’s specification of multiple deprivations as poverty; however, a question that remains is exactly how these deprivations affect market exchanges. It may well be that economic lacks serve as the chief influence, and that physical and psychosocial deprivations play lesser roles. But among these dimensions of poverty are there combinations and levels that have less deleterious impact on market activities, forming more feasible BOP segments to focus commercial efforts on? The BOP is not a uniform market, and understanding differences among submarkets may serve to guide marketing approaches. Studies may be done to gain insights on these distinctive submarkets.

With respect to national culture, we examined one culture theory and one dimension within it. There are opportunities to explore other theories or dimensions in relation to market exchanges and BOP market dynamics. For instance, it would be valuable to compare House et al.’s performance orientation with Hofstede’s masculinity dimension. These two factors have overlapping yet distinct facets, which may influence market behaviors in some shared and unique ways. Another opportunity is to research how market exchanges—in a reverse flow—influence and shape national culture. Although it is
largely assumed that national culture is slow to change and that economic life is subsumed by national culture, the possibility of a reverse flow and symbiotic relationship has been raised (Inglehart and Welzel, 2005).

While we applied Bebbington’s human assets concept, there are other assets in BOP communities that may be explored in future studies. One is cultural capital. Cultural capital is typically understood from the vantage point of class distinctions and the advantages granted to certain social groups over others through education and upbringing (Bourdieu, 1984). Yet in recent discussions of culture and poverty, the possibility has surfaced of a reverse or inverted form of cultural capital that favors the lower classes over middle or upper (Lamont et al., 2010). Carter (2005) proposes the concept of “nondominant cultural capital” to refer to tastes, styles, and speech patterns attached to poor minority communities. In a study of the adoption of Western forms of cultural capital by the poor in Turkey, Üstüner and Holt (2007) found that non-local forms of cultural capital are replacing traditional local forms. What tensions arise when non-local forms of cultural capital obscure local forms? This question is worthy of study in the context of globalization and the movement of ideas and cultural products from South to North, another reverse flow.

An additional research implication is to study the role of governmental, regulatory, and political environments on BOP market exchanges. To the degree that these environments support and guide the infrastructure investments that make mobile telephony possible and upgradable with each successive generation of technology, it would seem to elevate the prospects for strong market exchanges. Similarly governmental approval and transparent regulation of commerce would likely play a major role in the
development of market exchanges in BOP settings. These factors can be examined in tandem with nontraditional assets and information technologies to determine the relative contributions to exchange activities.

Finally, while it is largely assumed that information technology is beneficial when introduced, there is need to understand how its use in BOP communities perpetuates economic and social disparities. Efforts to expand information technology to the BOP can result in uneven access, with wealthier segments benefitting more (Kannabiran et al., 2008; Kuriyan et al., 2008). Typically, mobile telephony reaches the higher socio-economic stratum first and only slowly trickles down to the lower, once prices for access and ownership drop significantly. The technology has a positive impact on economic growth in developing countries, but wealthier segments disproportionately gain relative to the bottom of the pyramid (Dunn, 2009; Hinson, 2011; Milek et al., 2011). Consequently, research should be conducted to learn more specifically about these effects in relation to market exchange activities within BOP communities, and ways to reduce inequities within the BOP to better achieve the goal of full economic inclusion.

CONCLUSION

This study fills gaps in the BOP literature by offering a theory-based conceptual framework of enhancing market exchanges through national culture, nontraditional human-based capitals, and transformative mobile technology. Global and BOP firms may use the model to frame and guide their marketing activities in these underserved markets, overcoming some of the challenges posed by deep poverty. We hope other scholars will join us in investigating further ways of delivering ethical solutions to BOP markets by applying the strengths of commerce and sound business practice.
Figure 1. Conceptual Framework

- National Culture (Performance Orientation)
- Poverty (Deprivations)
  - Economic
  - Physical
  - Psychosocial
- Nontraditional Capitals
  - Social Capital
  - Creative Capital
- Transformative Technologies (Mobile Telephony)
- Market Exchanges
  - *Buying (a)
  - *Making/Selling (b)

Arrows indicate relationships:
- (+) P2a, b
- (-) P1a, b
- (+) P3a, b
- (+) P4a, b
- (+) P5a, b
- (+) P6a, b
- (+) P7a, b
- (+) P8a, b

Moderating Effect
REFERENCES


