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Basu, S, Munjal, S orcid.org/0000-0002-8713-687X, Malik, A et al. (1 more author) (2021) Investigating the Causal Configurations of Cost Efficient Firms at the Bottom of Pyramid. International Business Review, 30 (5). 101810. ISSN 0969-5931

https://doi.org/10.1016/j.ibusrev.2021.101810

INVESTIGATING THE CAUSAL CONFIGURATIONS OF COST-EFFICIENT FIRMS AT THE BOTTOM OF PYRAMID

ABSTRACT

This study highlights how social and commercial enterprises, with a local and global presence, sustainably serve the bottom-of-the-pyramid (BoP) markets predominantly in emerging economies, by balancing the goals of cost-efficiency and enhanced social value. Employing the lens of transaction cost economics and configurational theory, we propose that successful venturing into the BoP markets, sensitize firms to create an appropriate governance mechanism for reducing transaction costs and the resultant creation and capture of value. These mechanisms enable those firms to attain cost efficiency and sustainability without trading off their objectives. To that end, we employed the case survey method to analyse 42 cases, from the Harvard Business School repository, on multinational enterprises (MNEs) in emerging economies. Further, we used qualitative comparative analysis to uncover the various causal governance configurations that enabled those firms to serve the BoP markets sustainably.

Keywords: *Bottom-of-the-Pyramid, Transaction Cost, Social and Commercial Enterprises, Causal Configurations, Fuzzy Set Qualitative Comparative Analysis*

INTRODUCTION

The literature on the Bottom of the Pyramid (BoP) markets (Prahalad & Hart, 2002; Prahalad, 2005) poses a unique challenges to theoretical generalization due to 'pluriversality' in the BoP phenomenon (Faria & Hemais, 2017), necessitating scholars to adopt divergent epistemological lens and methods. The challenges exist for example, firstly, in the *descriptive* nature of the phenomena using contextually embedded single case studies. A related second issue of this research is offering contextual prescriptions, abducted and inferred from a set of cases with Prahalad's seminal work (2005), being an example. A third stream endeavours to understand the context from colonial predisposition (Prahalad & Hammond, 2002; Varman, Skålén, & Belk, 2011), while a fourth stream has attempted theme-based review with qualitative and thematic abstraction using limited multi-case studies (Singh, Gupta, & Mondal, 2012; Basu, 2014). Systematic reviews performed a decade later by Kolk et al., (2014) and more recently by Dembek et al., (2019), *however*, highlight the continued lack of generalization.

A key generalization challenge stems from the dominant paradigm, which focuses on *social interventionist* efforts of multinational enterprises (MNEs), in fulfilling the *aspirational needs* of the BoP population, and the challenges to their distribution channels in delivering those *interventions*. This paradigm resonates well with Prahalad's (2005) perception of the MNEs' social goals, complementing their economic goals. Prahalad however, did not specify the *modus operandi*. Further, a preponderance of single case studies, describing *what* the MNE often *did* as *unique and one-off* social interventions, do not contribute to a framework reconciling socioeconomic interventions and outcomes (Kolk et al., 2014). Also, contextual diversities of such cases impede abstraction and generalization of *governance mechanisms* that eliminate entry deterrents, reduce the high mortality rate of social purpose enterprises at the BoP (Cain, 2014; The Guardian, 2013), or balance the latter's socioeconomic value creation and economic value capture (Foss & Saebi, 2017; Olofsson, Hoveskog & Halila, 2018). The lack of balance also resonates in the ethics and corporate social responsibility literature that questions the appropriateness of burdening the MNE, with CSR related value creation. However, we believe that the challenge to generalization also spawns opportunity to theorize; provided *we adopt the appropriate analytical technique, informing us of the unique and innovative MNE governance configurations, as they overcome transactional challenges at the BoP*. We use the special issue on 'Sustainable International Business practices by MNEs in

Emerging Markets' (Wood et al., 2020) to partially address the problem of generalization in the BoP literature.

To exploit the opportunity above, we establish the cornerstones, defining the scope of our study. First, we define the Bottom of the Pyramid (BoP) as a vast market of consumers, over 4 billion people (nearly *two-thirds* of humanity), having a daily income, less than $2.50 a day, and residing in underserved markets, that limit their consumptions, choices and access to financial services. Our definition is derived from the Financial Times (FT) lexicon[1] and is in sync with those proposed by Prahalad, (2005). Second, our definition of the BoP means that we perceive the BoP as a market of consumers than producers. This is in sync with the findings of the review performed by Dembek et al., (2019) and with that of the original thesis of Prahalad (2005). Third, the BoP consumers are predominantly concentrated in the less developed and emerging markets. However, poverty-ridden consumers, (typically illegal immigrants), can also be found in developed countries (Smeeding, 1997), and with the present study, providing anecdotal and empirical pieces of evidence of BoP markets in developed countries also.

With the above three cornerstones in place, we explicate our research objective to investigate *how some firms* (e.g., MNE subsidiaries) *sustain* themselves in the BoP markets, by creating and capturing core values. BoP markets are underserved, which implies the existence of market failure conditions due to some transactional impediments. We build on the market failure aspect and pose two research questions namely (i) *what* and *where* (in terms of *a priori* presence or *ex posteriori* emergence) are the sources of transactional impediments that hitherto prevent other MNEs from venturing into the BoP market with nearly 4 billion consumers and (ii) *how* (or *by what mechanisms*) do firms in the BoP market overcome such impediments or transactional barriers? We premise that some transactional impediments, which make the exchange of goods and services, prohibitively costly at the BoP. Some firms have been able to create unique governance configurations that reduce those transactional impediments. As a result, they can create and capture values, which make them sustainable in those markets. This study intends to *unearth and generalize those configurations* that enable MNEs to overcome transactional impediments in BoP. For simplicity, we have assumed that

[1] Source: https://web.archive.org/web/20170505144805/http://lexicon.ft.com/Term?term=bottom-of-the-pyramid-(BOP), accessed on June 15, 2020.

value creation and capture leads to sustainability (Brandenburger & Stuart, 1996; Chatain & Zemsky, 2011).

Our key constructs, core value creation (VCr) and value capture (VCap) (Baden-Fuller & Haefliger, 2013; Zott & Amit, 2010), are closely associated with the dominant paradigm, that emphasizes the fundamental requirement (on the part of MNEs) to supply in (i) large quantities and at (ii) lower per-unit price (Montgomery, Ryus, Dolan, Dopson, & Scott, 2012; Dolan & Scott, 2009). While bulk supply helps harness scale economies, it concurrently carries the risk of substantial unsold inventories. For the above twin requirements to be fulfilled, without risking unsold inventories, the goods and commodities' fundamental cost structure becomes a governance issue. Therefore, we argue that to reduce costs, MNEs serving the BoP markets must either (re)configure their governance mechanisms and business models at the product design level or reconfigure at logistics and distribution channel level (Whitney & Kelkar, 2010). Reconfiguring activities at the product design level, leading to new innovative products and services, results in creating social and economic values, which we define as core value creation (VCr). In the absence of an optimal logistics and distribution channels, any value created by the firm is likely to be appropriated/captured by others, who have existing channels of delivery. Therefore, core value capture (VCap) focuses on configuring a set of internal and external activities performed by the firm for provisioning the right products to the right market at the right time and place within the challenging settings of the BoP environment that it can appropriate the value thus created. Thus, configurations leading to innovations at the logistics and distribution channel level leads to *core value capture* (VCap) (Foss & Saebi, 2017; Olofsson, Hoveskog & Halila, 2018). Therefore, core value creation (VCr) refers to what question, i.e., what novel value proposition to be crafted or a problem to be solved and for which there is a market demand. Core value capture (VCap) refers to *how* that innovation or novelty is delivered (or procured) for the given demand. Our key constructs of core value creation and value capture are important as they provide the relevant basis for innovations at the BoP market to overcome transactional impediments and become cost efficient and sustainable. In case of product level innovation, facilitating market entry, we propose to investigate the configuration of activities leading to core VCr for the users of a product or service, that makes it an attractive proposition for BoP consumption. Additionally, these firms need to focus on innovation in terms of the (re)configuring their logistics and distribution channels to remain sustainable in BoP markets, that are typically characterized by institutional voids and numerous challenges. The latter configurations enable VCap by the firm.

Besides highlighting the configurations for VCr and VCap in the BoP markets, this paper contributes to transactional cost economics research by identifying the transactional impediments in the large and growing BoP market. Firms out there, face those impediments and respond via products or processes. Consequently, by observing the novelty in either the process or the product, we can triangulate and extrapolate how and where these firms have innovated to overcome transaction cost issues. Second, we uncover different cost reduction configurations adopted by these firms, which allows them to innovate and overcome transaction costs. Given that high transaction costs exist in the BoP markets, appropriate governance mechanisms are needed for innovation. Governance mechanisms can also help in mitigating behavioural uncertainties (Williamson, 1991a). Therefore, through this study, we investigate the configurations of different transactional costs incurred by firms to reduce behavioural risks leading to transactional impediments. Finally, we contribute by adopting a multi-case qualitative comparative analysis method (Ragin, 2006) to unearth the above configurations.

The rest of the paper is organized as follows. First, we offer a review of the theoretical lens employed for this study, with a particular focus on the BoP market from emerging market economies. Next, we provide details of the methodology employed. This is followed by data analysis, interpretation of results and discussion. We conclude by offering limitations, as well as identify areas for future research.

LITERATURE REVIEW

In the BoP literature, the prime philosophical lens assigns a benign and social interventionist role to the firm, either as a seller (Prahalad, 2005) or as a procurer (Karnani, 2007). However, a second and a less dominant philosophical lens posits an *opportunistic role* to the firm as they seek entry to gain business-level insights and for pre-empting future competition. Consequently, the second lens is an antithesis of the first. As observed by Kolk et al. (2014), and contrary to the first paradigm's assumptions, the BoP space is not void. It is primarily populated and entrenched by various small local firms (Brinkerhoff, 2008; Arnould & Mohr, 2005; Kolk et al., 2014). This insight gives rise to two contentious issues. First, the MNEs may be interested in gaining market intelligence on the BoP markets, rather than fulfilling social objectives. In-depth case-based research has been undertaken on incremental BoP initiatives of MNEs to unearth the BoP secrets (Dembek et al., 2019), strengthening this belief. Secondly, smaller local players' continued existence implies that the potential of profitable entrepreneurship exists in the BoP markets. By logical extension, the smaller entrepreneurs have already overcome *transactional hurdles*, which the MNEs, as of latecomers, are attempting to learn and leverage. The second paradigm can also be analysed fundamentally using transaction cost theory to investigate the transactional impediments and concomitant governance mechanisms needed by MNEs, (or already developed by some of them), in integrating BoP to mainstream markets through value creation and capture. Specifically, it is essential to investigate, the location and nature of transaction costs, as perceived by the firm, as they tend to create and capture value. It may be noted that *transactional impediments apply to both* the opportunistic firm (as per the second paradigm) and the socially oriented firm (from the first paradigm), in their venture into the BoP market.

Transaction Costs at the BoP

From its initial enquiry into the need for internal organization, despite the availability of market mechanism (Coase, 1937), transaction cost theory has evolved to address more immediate organizational concerns (Roberts & Greenwood, 1997) like specific organizational designs and configurations to specific circumstances (Williamson, 1991a, 1991b). This means, environmental (including market) considerations dictate the emergence of governance configurations in a firm. Consequently, by looking at the resultant configurations, we can reasonably ascertain the defining environmental conditions. While the literature on transaction cost itself is vast, we focus on those aspects, which we believe are relevant in the BoP context. We believe that focusing on behavioural opportunism is essential since we focus on social interventionist (or loosely philanthropic) and opportunistic (or profit-making commercial) firms. Specifically, we focus on *when*, such opportunism emerges, and *what* are the *cost related manifestations* of such opportunism.

An overview of transaction cost economics literature provides the following insights on the *temporal nature*, *causes*, and transaction cost manifestations. Temporally, transaction costs can exist *ex-ante*, i.e. the transacting/contracting partners, (like the buyer and seller), are aware of the hurdles that jeopardize or impedes the exchange of goods and services (Crocker & Reynolds, 1993a; Williamson, 1981). Alternatively, transaction costs may emerge *ex-post*, i.e. after a contract/agreement/understanding is reached, because one of the parties may exhibit opportunism (i.e. enhance self-interest at the cost of the other), by exploiting some loopholes in the contract (Williamson, 1981). Ex-post transaction cost is hazardous for the contracting parties, as efforts to make the contract as full-proof as possible cost time, money, and mutual trust. In terms of cause, transaction costs are an outcome of either *hard* or *soft* issues. The hard causes of the transaction cost emerge from the lack of institutional and governance infrastructures which ex-ante inhibits transaction (Coase, 1960; D C. North, 1987). The soft or the behavioural aspects of transaction cost are an outcome of the opportunism, which depends on three factors: *asset specificity, bounded rationality* and *frequency*. Thus, the party has assets specific to the exchange and has a relative advantage over the other. Likewise, the party which can leverage information (or is less boundedly rational) or has size advantages (affecting transaction frequency) can show behavioural opportunism (Argyres & Liebeskind, 1999; Chiles & Mcmackin, 1996; Dahlman, 1979; Williamson, 1981, 1985, 1991b, 1991a, 1996). Therefore firms must devise governance structures to control for the emergence of behavioural opportunism (Shelanski & Klein, 1995). Finally, given the transactional impediments, ex-ante or ex-post or on account of infrastructural or behavioural, transaction cost actually manifests in firms' expenses to overcome those transactional impediments. Broadly firms incur four types of costs that are attributed as transaction costs. They are (i) information searching costs, (ii) cost of bargaining and contracting, (iii) cost of monitoring and (iv) cost of enforcement (Alchian & Woodward, 1988; Williamson, 1985).

In the context of BoP markets, scholars (e.g., Khanna & Palepu, 2000; Prahalad, 2005) state that, due to institutional voids and various other institutional impediments, the firm faces high transactional costs. Most of these are *ex-ante* in nature due to weak institutional infrastructure. Consequently, we may expect high information searching cost or where information is not readily available, a high bargaining and contracting cost in terms of manifestation. Therefore, for this paper, we define *ex-ante transaction cost* as a manifestation of (i) information searching cost and/or (ii) bargaining and contracting cost *only*. Though BoP markets may have some form of informal indigenous institutions to direct social and economic order, lack of formal constraining and governing institutions may enhance ex-post transaction cost, thereby increasing the cost of monitoring and enforcement (Williamson, 1975; 1981; 1985; 1991a; 1991b; 1996). This means that firms may incur constant monitoring and enforcement costs to limit the emergence of ex-port opportunism. For this paper, we define ex-post transaction cost to manifest as (i) monitoring and or (ii) enforcement costs. We do not envisage information searching cost or bargaining and contracting costs to be part of ex-post transaction cost, as *a priori* information would pre-empt ex-post uncertainties. Likewise, bargaining and contracting as activities are possible only when there are some existing and tangible factor inputs to bargain for. The ex-post transactional constraints may pose ongoing challenges to the sustainability of firms in the BoP market, and sometimes could lead to market failure altogether. This serves as the point of departure for investigating innovative configurations of governance mechanisms, leading to reduction in transaction costs, with respect to core VCr and VCap, our twin constructs of interest.

Innovative Governance Configurations and Transaction Cost Reduction at the BoP

In addition to transaction impediments stated above, firms in BoP market face the additional challenge of designing and delivering appropriate products that fit a price-sensitive, fragmented, and infrequent set of buyers (Prahalad, 2005; Prahalad & Hammond, 2002; Prahalad & Hart, 2002), who can exhibit opportunism. The challenge magnifies in the absence of conventional marketing processes and mechanisms. For example, BoP consumers may prefer freebies like price discounts, without concomitant loyalty to the firm giving those freebies. The problem exacerbates due to the inherent conflict in balancing social and economic objectives. So how would firms at the BoP sustain? To that end, scholars have looked into innovative and novel governance mechanisms, specific to the host context, employed by firms to circumvent the problem of opportunism due to weak or non-existent formal institutional infrastructure. Conventional wisdom dictates that firms should engage in a market-based mechanism, thereby limiting unpredictable and unanticipated exposures. However, ill-defined cost allocation and incentive deter market-based governance.

Moreover, empirical evidence like that of Shakti-Ammas (Prahalad, 2005) limits a pure market-based transaction. Similarly, weak institutional infrastructure coupled with unique social norms and impersonal exchanges inhibits specialization (D C. North, 1987), while heterogeneous customers, unique local market conditions and market fragmentations inhibit hierarchical configurations like vertical integration (Scott, 1995; Dahlstrom and Nygaard, 1999). As on date, Walmart's discount stores format, a retail chain widely known to serve the cost-conscious customers, does not exist at the BoP. Its absence is a boon for Casas Bahia's likes, a Brazilian retail chain, who serve the BoP of its home and host nation. Whether the likes of Casas Bahia, with their unique and indigenous governance forms, can challenge Walmart in its home turf, is the central tenet of the second paradigm, we stated above. Put differently, by neglecting the BoP markets due to their ex-ante transaction costs, established MNEs may risk the emergence of ex-post transaction costs in their home markets, coming from BoP host country firms that have perfected a cost-efficient governance mechanism. Simultaneously, pure hybrid forms like empowerment, piece-rate employment, autonomous profit centres, consortiums, franchising or quasi-integrations (Makadok & Coff, 2009), with the clear principal-agent relationship are difficult to observe in their totality. Therefore, the BoP market exhibits characteristics that cannot be fully comprehended under any of the above three governance mechanisms: *market-based, hybrid* and *hierarchical governance.*

As BoP firms need to balance their social value creation and economic value capture goals, the literature on Business Models provides helpful insights. As a result of these business models, we mean how firms create and capture value (Amit & Zott, 2001; Baden-Fuller & Haefliger, 2013; Zott & Amit, 2010). Business models of socially oriented firms in the BoP market who are pursuing social and economic goals (Mair & Schoen, 2007) require a much deeper understanding of how different set of interrelated variables help create and capture a sustainable competitive advantage in such markets (Terjesen, Hessels and Li, 2016; Foss and Saebi, 2017; Olofsson, Hoveskog & Halila, 2018). The literature on business model offers illustrative insights of how firms need to design a system of interdependent and interrelated activities for VCr and VCap (Zott & Amit, 2010; Zott & Amit, 2013; Malik, Pereira & Budhwar, 2018). Some of the novel governance mechanisms referred in the literature involve (i) impersonal exchange without third party enforcement where the transacting parties are *not unknown* to each other (Williamson, 1975, 1991, 1996; North 1987); (ii) exclusive dealing contracts and co-ownership, (iii) investment offsetting norms (Heide & John, 2006); (iv) equity linkage or partial ownership (Pisano, 1990); (v) quasi-firms or prime-contractor and subcontractor organization (Eccles, 1981) and (vi) long term commercial contracts (Rose & Joskow, 1990). However, long term contracts often suffer from incomplete or non-binding clauses (Crocker & Reynolds, 1993b). That coupled with limited familiarity, may precipitate behavioural opportunism leading to transactional failures at the BoP. To overcome such a possibility, the literature suggests informal contracts or agreements based on (individual or group) reputational assets (Shelanski & Klein, 1995) that are outcomes of relation-specific investments. Such arrangements pre-empt the cost of information and possible ex-post opportunism under asymmetric conditions (Ellickson, 1989). Ceteris paribus, nothing prevents one party from violating the informal agreement. However, reciprocal resource commitment supports the reputation of transacting parties, thereby preventing opportunistic behaviour.

Mutual resource commitments at the BoP markets may be observed through the process described as value co-creation by Prahalad & Ramaswamy, (2004). Value co-creation happens as users/consumers of the value also contribute to shouldering the cost of creating those values. Consequently, *pairing and sharing* the cost of specific factor input and the resultant benefits happen between the buyer and seller, which leads to higher levels of customization and ready acceptance by the buyer. For example, ITC’s e-chaupal project to collaborate with farmers in disseminating market data on crop prices enabled ITC to understand farmers' price sensitivity (as sellers). Having collected and collated that data, ITC performed the next level of customization by introducing *e-chaupal sagar*, a marketplace where farmers can buy and sell inputs and outputs. This is critical, as the BoP population gain insights into the extent of intermediation cost, besides being better off by either buying relatively cheap or selling at a relatively higher margin. Also, value co-creation implicitly assumes an element of mutual *cost externalization* to a willing partner that effectively reduces opportunism from either partner (Williamson, 1985; Tirole, 1988; Dietrich, 1994). For example, in the case of ICICI Microfinance, a self-help group (SHG) would *internalize* the cost of monitoring its group members' behavioural opportunism, thereby eliminating the need to monitor individual borrowers. In effect, the micro-financer externalizes the monitoring and enforcement cost to the group, without incurring additional costs. Complementarily, the individual borrower, by being part of the SHG, also externalizes his/her credit cost to the group. For the borrower, the cost of ostracization and being left out from all future transactions, by the other members of the SHG, prevents the emergence of individual-level opportunism (Hirshlifer & Rassmusen, 1989). Therefore, SHG acts as the intermediate governance arrangement that minimizes both the transacting parties' overall cost. At the same time, the firm's own resource commitment, reputation and institutions prevent its own opportunism (Grossman & Rossi-Hansberg, 2008). Continuing with e-chaupal sagar, ITC will not procure crops at dirt cheap rates from farmers at e-chaupal sagars and sell agricultural inputs at a premium, as it can ill-afford to burn its reputation amongst the BoP population. Such governance arrangements can be leveraged both in terms of economically designing the product by receiving requisite inputs and delivering the product and services in a cost-efficient way. We systematically investigate the same as described in the method section below.

RESEARCH METHOD

Our objective is to analyse the sustainability of MNEs serving the BoP markets. MNEs are defined as firms with their HQ in home country location, which is distinct from production/manufacturing and selling activities in other (host country) locations as per Buckley and Casson (1985, 1998, 2009, 2010, 2020), Buckley and Strange (2011), and Casson (2018). MNEs operate in host countries through their wholly owned subsidiaries or other hybrid forms of governance like JVs or strategic alliances (Makadok and Coff, 2009). We premise that MNEs shall be sustainable in their BoP venture to *create and capture* values from those markets. Firms create values (VCr) through core utilities coming from product/service and capture value (VCap) through channels (or formats) of delivering those products and services in the BoP markets. However, BoP markets are characterized by transactional impediments that inhibit value creation and capture. Value creation gets impeded if products have sub-optimal utility for the consumers. That, in turn, may happen, if the products/services are designed, among other things, with inadequate information on the buyers' tastes and preferences, especially for mass-customized products (Dellaert & Stremersch, 2005). Alternatively, positioning above the reserve price or not allowing buyers to bargain and negotiate may affect its utility (Jedidi, Jagpal, & Manchanda, 2003).

Consequently, value creation by the MNE gets affected. Likewise, the same can be embedded in the sub-optimal channels or formats of product/service delivery. Having inadequate information may lead to the wrong product's delivery to the wrong set of customers at the wrong time, resulting in subsequent unsold inventories and a failure to capture values. Alternatively, the inability to recoup instalment payments for products already sold, due to suboptimal monitoring and enforcement, may lead to failed value capture. Thus, the transaction costs are seen to manifest at VCr (product/service utility) level or at VCap (delivery) level or both. These transaction costs can be *ex-ante,* meaning the firms know *a priori*, the cost's nature. Alternatively, the costs may emerge *ex-post*. Either way, firms respond by creating novel configurations. Therefore, by observing the novel configurations, we can interpret and extrapolate the different transaction costs faced by the firms in the process of value creation and value capture. Moreover, we can also interpret whether those transaction costs existed ex-ante or emerged ex-post.

Our objective required us to search for process-level information on the emerging governance configurations and generalize the same across the BoP spectrum. With this agenda in mind, we adopted, in tandem, (i) the case survey method and (ii) fuzzy set qualitative comparative analytical method. Case survey method is appropriate when a large number of cases on the same broad theme or topic is available, and where the phenomenon under investigation is contextually embedded as in case research (Yin, 2014). But unlike case research, which limits the number of cases that can be studied at a time, mainly when the stated phenomenon occurs in contextually and geographically diverse locations, (Yin, 1981), the case survey method overcomes those limitations. It enables the study and thematic abstraction of the phenomenon in the context of occurrence by administering a close-ended questionnaire by reader-analyst (Yin & Heald, 1975). Case survey method is also appropriate where archival data is absent or large-scale, survey-based data are unreliable, given the fleeting nature of the buyers (across geographical locations) or limited response time available to firms' representatives, present *on-site* at the BoP market. While the case survey method enables us to identify and abduct the constructs, creating the causal linkages, can induce subjective biases. To overcome that, we adopt the fsQCA method, which uses principles of set theory to objectively derive causal configurations, thereby eliminating subjective biases and complementing case survey method.

Our choice of case survey method was also facilitated by the availability of many cases, in reliable repositories like that of Harvard Business School (HBS), and which we could access and *use for research* with due permission. Mostly, the cases in HBS are an outcome of case research performed by scholars on individual firms, which are stylized to meet the objective of class discussion, typically unearthing embedded problem and recommending a solution to a managerial dilemma (Singhvi & Desai, 1977). The problem can be reformatted to fit into research questions, and which in the current research means (i) unearthing the transaction costs and (ii) commenting on the governance mechanisms for value creation and capture. With these agendas in place, we adopted the following strategies. First, we prepared a close-ended questionnaire that focused on the following three broad constructs:

(i) Transaction Costs: Description of physical infrastructural barriers or lack of institutional infrastructure that inhibit transactions and increase (a) information searching cost, (b) bargaining and contracting costs, (c) monitoring costs and (d) enforcement costs.

(ii) Governance Configurations: Description of the process of governance mechanisms (or activities) used by the firm to overcome, (in isolation or combination) the four types of transaction cost manifestations as stated above.

(iii) Value Creation/Capture: Explicit descriptions (*or absence of it*) of products/services and how they were designed for the BoP market. The product was not customized for the BoP market, and a generic product/service was pushed into BoP, we deemed that as non-value creation. The same process was followed for value capture, as in describing modifications/changes in the delivery model or supply chain configurations.

Second, we self-administered the instrument on ourselves. We read the cases and individually noted down the descriptions, as provided in the cases, against the different items under the three broad constructs of transaction costs, governance mechanism and value creation/capture. We only chose those descriptions where there was unanimity amongst the reader-analysts. Third, one of the authors tested all the cases, at least twice, by incorporating those cases in specialized elective courses, designed for MBA, executive MBA and other executive education participants, over one and half years (5 trimesters). Notes were meticulously kept on the responses during *evaluation-based class participation* by the above participants. These responses were compared with those of the authors (reader-analysts), which increased the confidence in the case survey method.

Finally, given our *objective* to find the governance *configurations*, we coded the six variables (i.e., value creation, value capture, activities to control/overcome the four types of transaction cost), dichotomously, with presence being coded (1,0) and absence as (0,1). We then analyzed the above-dichotomized data using fuzzy set qualitative comparative analysis (fsQCA) to find the different causal configurations and the necessary consistency and coverage ratios for answering our research questions (Roig-Tierno, Gonzalez-Cruz, & Llopis-Martinez, 2017). As our objective, we preferred fsQCA to unearth causal governance configurations than variance analysis (Marx, Rihoux, & Ragin, 2014; Marx & Dusa, 2016). Since each configuration is designed for a particular transaction cost, we then work back and propose the combination of transaction costs and their temporal antecedents (ex-post/ex-ante).

Data Set

As stated before, our data set primarily consists of cases from the Harvard Business School (HBS) and its allied case repository, supplemented by the original nine cases in the book by Prahalad (2005). We chose HBS cases due to their (i) reliability, (ii) a structured way of presenting rich information, (iii) description of process-level activities undertaken by the firm and (iv) the authors' insights (via the teaching notes). Despite criticism about case writers' biased perspective in presenting the decision dilemma, HBS cases, especially the empirical types based on primary data, do diligently focus on the phenomenon at hand and are reviewed before publication. Consequently, they are as reliable as any archival data from reputed repositories. Moreover, the case survey approach provides a necessary focus on the phenomenon of interest. The items/questions designed by reader-analysts, and cross-checked amongst the researchers, suffice to control any such concerns. Our reliability, tested across four reader-analyst, for the level of questions, is above 0.96, implying high dependability (R.K. Yin & Heald, 1975).

Case Selection Criteria

As BoP is the context of our study, our search algorithm employed a purposive sampling frame. Our sampling focuses on keywords such as the Bottom of the Pyramid, BoP, BoP strategies, emerging economies, and poverty alleviation in the Harvard Case Repository.

We read the summaries from the repositories and downloaded 103 cases till June 2018. We sought and obtained written permission from Harvard Business School Publishing representative in India to undertake academic research. From the initial set of 103 cases, we performed a second-level content analysis based on (a) the self-administered questionnaire amongst reader-analysts and (b) nature of the firm at the BoP. We included firms that were (i) private enterprises operating at BoP, (ii) public enterprises but operating in conjunction with the private sector under a public-private-partnership (PPP) mode at the BoP; and (iii) cases of dedicated projects undertaken by above firms. We include both (a) for-profit and (b) not-for-profit (philanthropic/charitable) firms/organizations, as philanthropic firms can also be professionally managed and operationally efficient, with long term economic goals. We have not included pure government organizations, as state organizations have by definition a developmental role to play (Jefferson, 1998) and more often than not, are not economically efficient (Majumdar, 1998).

Further, financial and fiscal disciplines in government organizations (in emerging economies) are different from those of the private organizations – wherein, the latter is more focused on returns on assets and investments. More importantly, government organizations are institutions created by the biggest institutional hierarchy (i.e., the state). Consequently, the state's ideological issues shall pre-empt any opportunistic behaviour-based transaction costs (Berry et al., 1998).

Thus, in line with the above firm-level classifications and as a result of consensus amongst reader-analysts based on a self-administered questionnaire, we were left with 42 cases, which we deemed adequate for QCA (Ragin, 1987). Of these 42 cases, 20 belong to the *not-for-profit* category, who have an overarching social objective while 22 firms are *for-profit* commercial ventures. The data also consists of 4 cases from developed economies/European countries, while 38 cases are from emerging economies. We retained the cases from developed economies to provide us insights about the governance configurations from emerging economies vis-à-vis full data set that includes firms from developed economies.

Data Analysis

We first performed an in-depth content analysis of all the 42 cases to identify the key activities and the key deliverables for each firm. After the key activities and the resultant key deliverables were identified, we self-administered the close-ended case survey questionnaire on the key activities and deliverables to determine (i) the core Vicar in products/services, (ii) the core

VCap through distribution channel/supply chain, (iii) the *comparative* novelty in core VCr and VCap, via-a-vis industry practices, (iv) elements of transaction cost reduction in either core VCr and or VCap. The analysis was facilitated by the choice of HBS cases, as they, in general, provide information on industry competitors. The relative changes (or their absence) in core VCr and VCap are reported in Table T1.

Table T1 about here

This is followed by identifying the constructs causing the relative changes in core VCr and VCap and how the same is linked to the corresponding reduction in transaction costs. Any transactional difficulties between the firm and the corresponding BoP market will, ceteris paribus, be either due to cost-wise inadequacies in the VCr or VCap in products/services or delivery channels respectively. Consequently, any innovative change in core VCr and VCap (*effect*) that results in the firm establishing a transactional relationship with the BoP market, through the creation of novel governance configurations, must help identify the corresponding specific transactional impediment/trigger (*cause*). The identified constructs, both in core VCr and VCap, and their linkages to transaction costs, is presented in Table T2.

Table T2 about here

This is followed by identifying cost-reducing governance mechanisms in VCr and VCap associated with the four types of manifestations of transaction costs, namely, information searching, bargaining and negotiation, monitoring and enforcement costs. The activity-based governance mechanisms vis-à-vis reduction in transaction costs are identified below:

(i) *Reduction of Information Searching Cost*: Externalization of searching cost, a subsidy from the government, risk mitigation through education, group lending, creation of informal channels, training of civil servants, brand building and philanthropic activities.
(ii) *Reduction in Cost of Bargaining and Contracting*: Risk mitigation by engaging groups, group lending, development risk to the concessionaire and minimum guaranteed price.
(iii) *Reduction in Cost of Monitoring*: Includes group lending, development risk to the concessionaire, creation of informal channels and network, community-based care and operating through a franchise model.

(iv) *Reduction in Costs of Enforcement*: Through the use of government protection against trade union activities, civil servants' training for enhancing the relationship with regulators, community-based care, and operating through a franchise model.

The corresponding novelty (in cost reduction) to entice BoP consumers through product utility-based value creation are minimum guaranteed price, brand building through local vital persons, philanthropic activities associated with the products, free technical support. The novelty in core VCap in the formats or channels of delivery includes development risk to the concessionaire, creation of informal channels and network, usage of low-cost infrastructure, community-based care, operating through a franchise model and so on.

With the elements thus identified, we code the presence of the variables as “1” or otherwise as “0” against all the 42 cases, which are coded as C1-C42. Innovative cost reduction in core VCr and VCap are the two outcome variables, while the reduction in information searching cost (IC), bargaining and contracting (BCC), monitoring cost (MC) and enforcement costs (EC) were used as the conditional variables. The coded Table T3 is presented below.

Table T3 about here

We used the data-analysis software Tosmana version 1.6 (Cronqvist, 2018) to analyze the database thus created.

RESULTS AND INTERPRETATIONS

The resultant FSQCA output consisting of causal configurations with two primary outcomes (core value creation and core value capture) and four conditional variables and for the 4 categories (social, commercial, emerging market and full set) are presented in Table T4 below.

Table T4 about here

Given the twin research questions of determining the governance configurations and from there to extrapolate the prevalence of ex-ante and/or ex-post transaction costs for the four categories, the causal configurations suggest the following:

The configurations of VCr for socially oriented/not-for-profit firms suggest a clear preference for governing *ex-post* transaction costs when information cost is not incurred

(~IC*MC*EC). Alternatively, when mechanisms to collect information are in place, they back it up by bargaining and monitoring. Commercial/profit-oriented firms also mimic their socially oriented peers, but they stop short of enforcement. Thus, commercial firms exhibit configurations that cater to ex-ante and ex-post transaction costs, with only one configuration that exclusively focuses on bargaining and contracting.

The configurations for emerging markets subsume the profit-oriented firms' configuration and exhibit the same specific combination of ex-ante and ex-post transaction cost (IC*BCC*MC). In all other cases, we find governance mechanisms to cater to either ex-ante or ex-post transaction costs. When we compare the above configurations with those that include firms from developed economies, we find an additional configuration that has less of ex-ante and more of ex-post transaction costs (BCC*MC*EC) but with lower coverage (0.125), indicating the limited effects of the developed economy firms within the data set.

For value creation purpose, firms in the emerging economies do not focus on reducing enforcement costs (ex-post costs), when they have already considered ex-ante (IC&/BCC) transaction costs. This is true for the configuration exhibiting both ex-ante and ex-post costs. However, when we add cases of developed economies, the element of enforcement comes in. This suggests that either *monitoring suffices* when ex-ante costs are in focus. Alternatively, MNEs simply *cannot enforce* at the BoP of emerging economies and *save themselves* from incurring futile additional costs. The alternative explanation emerges from the inclusion of BoP cases from developed economies. Here, robust institutions enable easier enforcement, especially when the novelty/innovation is embedded in the product/service.

The configurations for value capture, however, show characteristics which are different from value creation. For socially oriented firms, the dominant configuration (60% coverage) focuses on ex-ante (IC) cost, while the least important (15% coverage) configuration looks into ex-post (MC) cost *without focusing* on ex-ante costs. However, we also find a configuration amongst a quarter of the cases, where firms have created mechanisms for ex-ante bargaining and ex-post monitoring and enforcement (BCC*MC*EC). This mimics the experience of BoP from developed economies in value creation. In contract, commercially oriented firms predominantly focus on configurations for ex-ante transaction cost reduction and specifically not on enforcement (IC*BCC or BCC*~EC). They also show one configuration (with lower consistency = 88.9% and coverage = 40%) that has both ex-ante (IC) and ex-post costs (MC), but again no enforcement costs.

The configurations of value capture for emerging markets and those that include BoPs from developed markets show similar configurations. Here the focus is predominantly on governance mechanism to reduce ex-ante costs (IC*BCC or IC*~EC or BCC*~EC) with a specific absence of any mechanism to control enforcement costs in the presence of ex-ante information costs. There is a configuration to mitigate ex-post transaction costs (MC), but with relatively lower consistency (95% for emerging markets and 92% for full data set). Specifically, there are no overlaps between *ex-ante* and *ex-post* transaction costs.

It is conspicuous that socially oriented firms shall be more concerned in *delivery mechanisms* that reduce the emergence of ex-post enforcement costs when efforts in mitigating ex-ante costs through bargaining and contracting are already undertaken. One expects such behaviour from profit-oriented firms, who closely control revenue leakages in delivery channels. However the evidence of such behaviour in not-for-profit firms would suggest that they are more concerned with the impact of their interventions, given the constraint of resources of socially-oriented firms in general (Ciambotti & Pedrini, 2019; Desa & Basu, 2013; Zhan & Tang, 2013). Higher impacts may be derived from the need to broad-base the interventions to reach maximum beneficiaries at minimum cost. This will require hard bargaining and near full-proof contracting coupled with close monitoring and contractual enforcement against deviant and ex-post opportunistic behaviour. Thus, we find an emphasis on governance mechanisms that cater to both ex-post and ex-ante transaction costs for socially oriented firms at the BoP.

DISCUSSION

Our analysis of the venture of firms in host countries at the BoP markets reveals that incumbents do perceive real transactional challenges, both on account of lack of institutional infrastructure as well as against behavioural opportunisms existing at the BoP much in line with the basic perception of the institutional void (Khanna, Palepu, & Sinha, 2005; Mair & Marti, 2009). While this may be a common experience for any new entrant across any new market, BoP firms show unique ways of externalizing activities in the way they deliver and distribute their products and services, leading to innovative cost reduction in the core VCap. For example, the entire process of setting up a distribution channel and hiring and training and imbibing a sense of social responsibility and operational reliability are left on Shakti-Ammas and Dani-Mamas. They are not afflicted with the liability of newness in their respective environment (BoP market). The firm essentially outsources these critical activities and do not actively manage beyond their BoP point of contact.

Consequently, they do not incur any logistical/operational or social costs at the last mile. This is counter-intuitive as a robust and well-managed distribution channel is often the competitive advantage source (Barney, 2012; Ketchen Jr & Hult, 2007). Outsourcing part or whole of such distribution channel may create unanticipated dependencies, compromising firm's bargaining power, profitability and eventually its sustainable competitive advantages. Retail giants like Wal-Mart and Amazon have meticulously built up their distribution network to the last mile customer, to leverage it via scopes of cross-selling and up-selling.

In contrast, BoP firms tend to externalize some of the critical activities (and associated costs) to BoP *entities* which are hierarchically unrelated to the MNEs as per conventional wisdom (Ostrom, 2005; Williamson, 1975b). For one, the Shakti-Ammas and Dani-Mamas are neither employees nor *exclusive* commission agents of their respective MNEs. Thus, the cost of monitoring in value capture (delivery/distribution) is externalized to beneficiary/community-based groups (like self-help groups) themselves, or in some cases to franchisees for more formal products and services. This may appear to be a hands-off approach. However, hybrid governance forms like franchising suggest that the principal/franchiser exerts considerable authority on the franchisees, although the asset ownership lies with the latter (Makadok & Coff, 2009). A similar situation exists at the BoP which is evident from one of the configurations (prime implicant ~IC*MC*EC) which shows that BoP firms may not engage in information searching (e.g., risk mitigation through group lending, creation of informal channels), but are aware on the need to monitor and enforce and create mechanisms whereby such costs can be innovatively taken care of (e.g., invoking state assistance against delinquency). Such an approach leads to *heads I win and tails I don't lose,* for the firm. For the BoP population, this is acceptable as the alternatives are worse or non-existent. Thus, BoP centric firms have developed deep insights on *what* and *how* to control and *what* and *where* to relax, in terms of costs and activities, without triggering behavioural opportunism from either of the transacting parties. This approach enables them to meet their social objective without compromising economic goals (Prahalad, 2005; Prahalad & Hammond, 2002).

Our research provides insights on how socially oriented and commercial firms perceive value creation and value capture at the BoP. As reported in the result section, socially oriented firms exhibit configurations that emphasize on the enforcement aspect of ex-post transaction costs for both value creation and capture. That is to say; they perceive that *lack of enforcement* is a credible threat to sustainability at the BoP and devise governance mechanisms to reduce it. This is especially true when mechanisms to collect relevant information are not devised ex-ante. In contrast, enforcement cost does not figure in any of the configurations for commercial firms. Nevertheless, monitoring is an important aspect, even when mechanisms are put in place for information searching and bargaining and contracting (IC*BCC*MC – for value creation and IC*MC – for value capture). That commercial firms stop short of enforcement while social firms practice so, is *counterintuitive* and at abeyance to the literature. Enforcement resorts when one of the transacting parties renege on the terms of the contract, due to behavioural opportunism, especially when the benefit of breaking the contract is more than sustaining it (North, 1995; Polinsky & Shavell, 1992). One would expect enforcement more concerning commercial firms either by or against them than social firms. Profit orientation and a threat to the bottom line should trigger investigation and enforcement of extant contracts if necessary (Clague, Keefer, Knack, & Olson, 1999; Noorderhaven, 1992). This also implies that commercial (more than social) firms should devise mechanisms to pre-empt enforcement costs. However, evidence from BoP suggests the opposite.

One plausible explanation for lack of enforcement mechanisms for commercial firms (especially the MNEs) could be their intentions. Meaning, commercial firms know that they will not enforce on their own as any such efforts would be perceived as exploitative from anti-colonial sentiments[2] that permeate these markets. Alternatively, they may be bidding their time, collecting information on local and informal institutions and closely monitoring their supply chains (IC*MC for VCap) and relying on the breadth and depth of their resources for the time being. A third alternative could be as follows. By definition, the BoP population earn less than $2.5/day ($ 2.0/day as per Prahalad, 2005), and therefore their household savings are minimal or even non-existent. Either the poor at the BoP can pay, if they have a need and want to buy, or they cannot pay and cannot buy, even if they have a need. Therefore, innovating on payment mechanism assumes importance. Commercially oriented BoP firms specifically focus on mechanisms to collect information (e.g., whether deferred payment models can trigger consumptions in population with limited purchasing power) and engage in monitoring in cases where consumption precedes deferred payments. In cases where information cost is not considered (due to non-viability of deferred payment model) the same is made good by bargaining for price discovery and contracting. This is true for aspirational products, designed for a non-BoP market, but introduced at the BoP. These products are not cheap, and despite that, they may attract BoP customers who may/may not have the wherewithal to pay, but the firm has no way to know that (as information was not collected). Under such a situation, it becomes necessary to bargain on prices and create governance mechanisms (like engaging Self

[2] Most of the BoP markets are located in erstwhile colonies.

Help Group, rather than bargaining and contracting with individuals) for payment compliances. Once those mechanisms are in place, commercial firms may periodically monitor but not enforce, thus saving on costs and enhancing sustainability at the BoP.

In contrast, socially oriented firms do not appear to innovate much by way of obtaining critical inputs on product design. The configurations with higher consistencies show emphasis in containing ex-post costs (MC*EC). These firms are possibly driven by their superordinate goal of emancipating the poor. Hence, they may perceive that bargaining for price discovery is inconsequential. Alternatively, they may believe that their products/services are in high demand at the BoP.

Consequently, searching and bargaining to discover payability or designing deferred payment schemes are redundant. In cases where deferred payments are the norms, the same is backed by monitoring and enforcement. Alternatively, where socially oriented firms have focused on information collection and find conditions similar to what their commercial peers have experienced, they may resort to bargaining. In the process they may generate various options for potential purchases, bargain hard for favourable (to the firm) payment terms, and then ensure that the buyer does not run away without paying the contracted amounts. Linkages with state or enforcement agencies come useful for delinquent buyers, thus saving on costs.

In general, the characteristics of both social and commercial firms are observed in those of emerging markets. However, between emerging markets and those that include cases from developed markets, we find a configuration in the latter group, and in the value capture stage, where bargaining, monitoring and enforcement are emphasized, when information searching is not focused. In developed economies, the BoP population has an anecdotal existence, mostly illegal immigrants from less developed neighbouring countries. Because of their legal status, adequate information on their payability and income levels may not be readily available. Consequently, to also serve them, firms must create mechanisms that reduce their bargaining, monitoring and enforcement costs and which shows up in our analysis.

In general, the governance mechanisms towards value capture show higher consistency and coverage than value creation. This is in line with international product life cycle logic (Vernon, 1966) where products developed in western economies, gravitate towards the underdeveloped markets near the end of their life cycle. Making these products available becomes a challenge. Consequently, we find that BoP centric MNEs are more focused on identifying sustainable delivery/logistics centric governance forms at the BoP that enable them to *stay connected with such markets*, rather than value creation or business of philanthropy or enforcing compliances. They actively seek ways to reduce the cost of delivering their goods and services and have not done much to produce cost-efficient products per se. This also explains why value capturing mechanisms pay emphasis (higher consistency) on ex-ante costs associated with collecting information, bargaining and contracting with potential channel partners than the governance of ex-post transaction costs like monitoring and enforcement.

CONCLUSION

Our study attempts to identify the relevant causal configurations towards cost reduction at product design and or distribution level. While we claim novelty in our adopted analytical technique in the BoP context, our study is not free from limitations. First, our outcome variables, namely Core Value Creation (VCr) and Core Value Capture (VCap), at times, tend to overlap intuitively. This is because different activities to create and/or capture values can reduce the same type of transaction cost. It is the commonality of these transaction costs, which imparts a sense of overlap. For example, activities performed *ex-ante* to reduce language-based barriers lead to a subsequent reduction in information cost, creating values. Simultaneously, governance mechanisms, created to reduce ex-post uncertainties from information asymmetry, leading to value capture. Here governance mechanisms lead to a reduction in information cost. In both the cases of value creation and capture, the transactional impediment, that is reduced is information cost, which is a common antecedent factor for both VCr and VCap. This intuitively imparts the sense of overlap. However, it may be noted that this overlap *does not compromise* the unique causal configurations associated with VCr and VCap, which is the objective of this research. We highlight this issue as *caveat emptor*, for researchers, who may wish to adopt our findings in a variance-based analysis. Second, our choice of transaction cost as the epistemological lens, although robust and relevant, can be supplemented by alternative theoretical perspectives such as the stakeholders' perspective.

Given the evidence of cost externalization to partners, such perspectives make eminent sense for future research. Third, we have assumed that firms have innovatively reduced cost of product/service or cost of distribution in their endeavour to enter the BoP. It is also possible that firms with deeper pockets may enter without any cost considerations, thereby end up outwitting and outbidding competition from incumbents. We have *not* considered this option as we have not found any empirical evidence to this effect. However, some of the recent technology-centric retailers like Amazon, who are increasingly using drones to deliver in infrastructurally weak and inaccessible locations, may be studied using traditional case-based research. Such studies may result in validation or outright refutation of our current findings, especially regarding configurations for VCap. Fourth, we have not delved into the question of *why, similar* governance configurations, may emerge in *disparate* geographical locations, concerning interventions by firms, which themselves are *different in their objectives* (socially oriented or commercially motivated) and *country of origin*. In other words, we have not investigated the *spontaneous emergence* of the institutionalized responses (as in similar governance forms but independent of one another), to similar environmental cues. The similar cue, in this case, being the transactional impediments. This is an exciting future research agenda that we look forward to in future research.

Finally, adopting the case survey method, and given the availability of cases, complementing it with Set Theory-based QCA logic is a novel approach. The combination of these two methods optimizes the choice between depth and breadth of study. Pursuing pure case-based research, across different geo-political boundaries, in search of firms (or MNE subsidiaries), operating at the margin of the society, would have been prohibitively costly if not outrightly impossible. A closure (on the number of selected cases) would have been nigh impossible from a replication logic. Putting an artificial cap on the number of cases would have been inappropriate. Alternatively, administering a cross country-based survey instrument might have (questionably) yielded higher numbers, but would lack the requisite depth and credibility. A survey questionnaire filled up by a representative of the decision-maker, in a limited period, cannot compare against case studies, conducted under academic supervision (or by the researcher), and available from highly reputed repositories like HBSP. Over and above, by using the QCA, we could analyse new configurations from many cases, more *extensively and objectively*, than what was possible from case-based research per se. QCA has distinct merits over statistical techniques, in so far as in-depth analysis of cases is concerned. A contradictory finding in QCA, (for limited N-size) triggers an iterative search and refinement of analysis within the case, while the same is considered as a measurement error in econometric tools (Fiss, Sharapov, & Cronqvist, 2013). This, we claim, as a distinct improvement over other dominant forms of qualitative research, both in terms of depth and breadth. We hope that our effort and procedure specified herein is valid and replicable of use by the academic fraternity.

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Table T1: Key Activities in Core Value Creation and Value Capture at the BoP

Case_id	***Firm/Project***	**Country of Operation**	**Core Value Creation in Products/Services**	***Core Value Capture Activity***
C01	Aaron's Inc.	United States of America	Lease and Buy - Household appliances	Cost reduction by selling its own manufactured products and lease ownership.
C02	Acumen Fund	Sub-Saharan Africa	Venture capital funding for socially relevant not for profit organisations	Operational efficiency in philanthropic projects. They are providing an efficient portfolio management practices.
C03	The Akshaya Patra Foundation	India	Free meal for school children and low-cost meal for blue colour workers	Centralised kitchen, volunteers and self-help groups, religious overtone ensures hygienic food.
C04	Alpen Bank	Romania	Credit Card Business	Different market. They are using a pricing approach for the non- or less-affluent market segment.
C05	Ancora Project – Catholic University of Chile	Chile	Primary Health Care Service	The cost was externalized to Government. Offers family health care approach using therapeutic and prophylactic through education Government protection against opportunistic behaviour by Trade Unions.
C06	Aravind Eye Care	India	Cataract Operation and Related Eye Care Services	Scale and Scope Economies through labour process theory principles of specialisation and deskilling.
C07	Banco Compartamos	Mexico	Microfinance, loans without collaterals	Strong service network and novel workforce design incorporating team diversity for loan recovery proved successful.

C08	Baring Private Equity Partners India Limited-*Safe*Save	India and Banglades h	Micro-Financial Institution with savings account to urban slum dwellers	Community members as loan collecting agents reduced information asymmetry. Encouraging and educating people on savings ensured longer-term sustainability.
C09	Casas Bahia	Brazil	Commoditized but Branded Retail Goods	Information asymmetry induced risk – mitigated by employing local people. Searching cost externalised to credit rating agencies.
C10	Cemex (Patrimonio Hoy)	Mexico	Ready Mix Concrete for a *unit- based* construction	Risk mitigation activities focused on group lending to mitigate opportunistic behaviour. Free technical support leads to captive customers.
C11	Codevasf	Brazil	Irrigation Infrastructure	Purchasing power parity model and arable plots licensed for 25 years lease. Cost Externalized to Government or concessionaire. Risk of development to the concessionaire.
C12	Danimal	South Africa	Yoghurt sales through local intermediaries' involvement	The creation of informal channels and network reduces risk. Risk externalised to Dani-Mamas as intermediaries.
C13	E+CO	Tanzania, Ghana	Seed Investment provision to Clean Energy Enterprises	Cost of operation externalised to donors—almost risk-free preliminary testing of concepts.
C14	Empleados Ya	Chile	Low Skilled Labour Intermediation	Cost borne by partners. Reduction of information asymmetry by reconciling Accounts Executives and Recruiters – who represent opposing interests.
C15	Esquel	China	High-quality cotton fabric futures for farmers	They are mitigating supply-side risks by guaranteed minimum price. Government intermediaries mitigate contractual risks.
C16	Farmacias Similares	Mexico	Discount Drug Stores and Medical Clinics	Self-advertisement by campaigning against bureaucratic and MNE nexus – mitigating information asymmetry. Open frontage display increases viewership and reduces information asymmetry.
C17	Habitat for Humanity International	Tanzania, Nepal	Housing for low-income groups	Cost externalized to Government. Political relations help mitigate opportunistic behaviour.

C18	Health Reach Clinic		Language advocacy support for health care service providers	Cost externalized to third parties as granting organizations and deploying more efficient diagnostics.
C19	HLL – Annapurna Salt	India	Iodized Salt(K15) Microencapsulation Technology for local villages	Creation of an informal distribution channel – with cost externalized to channel partners—Shakti-Ammas (local women) to establish brand credentials and network.
C20	HLL - Lifebuoy	India	New Fragrance, New Size, & Triclosan existing and new markets	Market penetration by the creation of informal channel – the cost of development shared/externalized to partners. Family as Unit, children, young mothers & Village elders as influencers.
C21	ICICI – Micro Finance	India	Rural Micro Credit, SHG Savings Account	Risk mitigated through group lending. Group prevents opportunistic behaviour—also, the cost of setting up an informal channel shared by SHG.
C22	IDFC India	India	The creation of a foundation to fund technology demonstrators and trains civil servants for infrastructure and management issues.	Through the acquisition of businesses from other banking and financial institutions, the training of civil servants will facilitate the prevention of opportunistic behaviour by the borrower—creating informal networks to reduce information asymmetry and leverage legal enforcements.
C23	Integrated Health Outreach System	Spain	Health Care Service for local population speaking local dialect (Spanish)	They partnered with locals with a Spanish dialect. Reduce information asymmetry by employing the local population—stress on securing funds from local institutions Cost shared by donors.
C24	ITC – e-chaupal	India	Internet Connection via Phone line/VSAT Real-time information, intermediary elimination	Reduce rent-seeking intermediaries—usage of low-cost infrastructure. Forward and reverse transactions directly between buyers and sellers.
C25	Jaipur foot (BMVSS)	India	Flexible Prosthetic Limbs	One day solution treatment. Economies of scale. Government and Philanthropic organizations bear the cost. A brand built without the cost involved. Cost borne by Govt & Philanthropic Groups.

C26	Kaskazi Network Limited	Kenya	Retail Distribution Solution for densely populated areas with poor access	Reduce information asymmetry by employing the local population. BSRs are an efficient sales and distribution channel. Uplift stocks from whole sellers and sell directly to retailers at the recommended wholesale price. Also provides retail census information for prospected clients.
C27	Keggfarms India	India	Genetically modified poultry products for rural consumers	Creation of vendor cum chicken raiser – who helped popularize the brand. Superior quality eggs and chicken as a result of selective breeding Leads to positive externalities.
C28	Magazine Luiza	Brazil	Retail Commodities home delivery within 48 hours in small cities	Risk shared by partnering financial institution. Social Insertion strategy to partner with local providers, partnering with Unibanco to provide financial services and payment for 24 months. Virtual showrooms reduce information asymmetry for buyers.
C29	McDonald's strategy for Corporate Success and Poverty reduction	Multiple Locations, including the USA.	Inclusive development through Fast Food Franchise through local employment	CSR activities aimed at brand strengthening and reducing information asymmetry. Employees are incentivized to enrol in retirement funds or complete their education.
C30	Merck: Global Health and Access to Medicines	Uganda and Brazil	Access to affordable drugs through partnership clinics	Partnering and Cost-sharing with global institutions. Brand Image strengthening through the distribution of affordable drugs. Collaborate with UN organizations to distribute critical drugs. Case-by-case pricing.
C31	Micro Insurance Agency	Multiple Locations in Sub-Saharan Africa	Inclusive micro-financing and risk management and novel packaging	Use of IT infrastructure to reduce information asymmetry. Local staffs help to reduce asymmetry. Adapting the financial products and providing training to local staff; tying up multiple products; vouchers sold through various retail locations, use of IT infrastructure to connect purchaser, vendors and healthcare facilities; use of technology to minimize transaction costs.

C32	Narayana Hrudayalaya Hospitals	India	Using a hybrid strategy of attracting paying patients Heart Care and Related Medical Services for low-income markets	Cross subsidy model where the rich subsidize the poor. Cost advantage through collective bargaining. Low overhead costs. Implicit subsidy from junior doctors who work for long hours to gain experience. Insurance scheme aimed at reducing risks. Rented expensive machines instead of buying them- reducing sunk cost and fixed overheads; collaborated with other hospitals to have higher bargaining power as buyers and get discounts on supplies and equipment types; uses IT and software to minimize inventory and quicker processing. They have developed the next generation talent pool by offering courses and modules of training and made health care affordable by offering micro- health- insurance products.
C33	Oprah Winfrey's dream school	USA	Underprivileged School Programme	Charity driven and hence cost to donors.
C34	Orange Cameroon	Cameroon	Telecom services to the low-income group	No significant descriptors.
C35	P&G Children's Safe Drinking Water	Pakistan	Subsidised water purifier for socially disadvantaged	Cost externalized to local and international institutions and user. The subsidy is the key. They partnered with seasoned and expert local and international government and non-government organizations to expand the use to developing countries. The program operated either on partial cost recovery, where the user paid only for the product, or donor funds subsidized other program costs. In case of emergencies, full subsidies were provided.
C36	Partners in Health- HIV care in Rwanda	Rwanda	Community-based Health care and socio-economic services model	Community-based care model minimizes opportunistic behaviour—used local and trained health workers for counselling and educating about preventive health products. Additional services ensure loyalty. The programs targeted broader health system beyond the four evaluation criteria.
C37	Procter and Gamble (Brazil)	Brazil	Tropicalised FMC Goods in emerging markets	Customized products increase asset specificity with customers. Technological advantages of reducing costs. Desired performance at affordable prices; attractive

				packaging and communication; the appropriate balance between lowest costs and the right superior technology.
C38	SELCO:	India	Sustainable, customized energy service to the poor	Risk mitigation exercise by assessing customer's requirement and purchasing power. Close liaising reduces information asymmetry. Stress on pre-sales and post-sales services and AMCs. Assessment of the customers' requirements and repurchase capacity.
C39	Salud Digna	Mexico	Preventive health care services available at a nominal fee.	Scale Economies. Brand building through an informal channel – by word of mouth. The philanthropic brand enables lower input cost. Assembly line mode of operation to streamline scheduling and workload distribution. Quick appointment for patients. Focus on measurement of each activity. Intensive use of IT infrastructure. Results of test known online. Publicity by word of mouth. Philanthropic orientation enables cheap procurement of capital items.
C40	The Generic Pharmacy	Philippines	It offers low-priced pharmaceutical products and free health checks.	Risk mitigation by operating through a franchise model and partnering with respected citizens of the locality. Order processing by telephone and distribution exclusively by the firm. One central warehouse, one company-owned retail store and one packaging and forwarding centre, franchises located near markets, hospitals and large drug stores.
C41	Unitas	India	It is a microfinance business for the propose of financing small business ventures.	Risk mitigation by operation through MFI. Value-added consulting services prevent client attrition. Conversion of non-profit organizations to for-profit organizations helps share economic risks. A standardized approach involving the Unitus Acceleration Model (UAM) accelerates the growth of MFIs that could be replicated worldwide. UAM has three different aspects- Partner selection; Partner relationship and the exit and transformation process.
C42	Voxiva	Peru	Voice and Data Service to the Health Care Sector	Usage of amortized infrastructure – no additional investment cost. Customization (asset specificity) likely to prevent client attrition. Transfer of realtime data to a dedicated server, dedicated – shared application platform ALERTA.

Table T2: Elements of Innovative Governance Configurations and linkages to Transaction Cost

Elements of Innovative Configurations	Identified Constructs	Linkage to Transaction Cost
Core Value Creation (VCr)	Mid-Day Meal	Interpreted as an incentive for attendance
	Bridging Language Divide between Doctor and Patient	Means to reduce informal barriers like language
	The superior quality of eggs and chicken, selective breeding	Selective Breeding produce chickens which are specific to the breeding firm and quality ensures customer loyalty.
	New Product/Service like Malaria Voucher System	They are reducing health-related costs like monitoring, safety, etc.
Core Value Capture (VCap)	Lease Ownership	Reducing uncertainty due to information asymmetry
	Subsidy from Government	They are reducing the cost of monitoring, enforcement, etc.
	Risk mitigation by engaging groups	Monitoring Cost reduction
	Risk Mitigation through Education	Reducing the cost of cultural barrier
	Government Protection against Trade Union Activities	Reduction of Opportunistic behaviour
	Group Lending	Monitoring Cost reduction
	Externalisation of Searching Cost	Reducing searching, contracting and monitoring costs
	Free Technical Support	Creating asset specificity and means of continued engagement
	Development Risk to Concessionaire	Reducing searching, contracting, monitoring and enforcement costs
	Creation of Informal Channels and Networks	Creation of specific assets thereby ensuring customer loyalty
	Mitigating Supply-side Risk by Guaranteed Minimum Price	Reduce negotiating and contracting costs
	Training of Civil Servants	Reducing monitoring and enforcement cost
	Usage of Low-cost Infrastructure	Reduce transportation cost
	Brand Building through Philanthropic Activities	Reducing searching, negotiating and contracting cost
	Community-based care model	Reducing monitoring costs
	Cross Subsidy Model	Reducing tariff, tax etc
	Operations through Franchise Model	They are reducing monitoring and enforcement cost.

Table T3: Coding of the Firm Names and Variables of Interest

Name of the Firm	Case_ID	VCr	VCap	IC	BCC	MC	EC	Not-for-Profit Cases	For-Profit Cases	Emerging Market Cases	Developed Market Cases
Aaron's Inc.	C01	0	1	1	1	0	0	0	1	0	1
Acumen Fund	C02	0	1	1	1	0	0	1	0	1	0
The Akshaya Patra Foundation	C03	1	1	1	0	0	0	1	0	1	0
Alpen Bank	C04	0	0	1	0	1	1	0	1	0	1
Ancora Project – Catholic University of Chile	C05	0	1	1	1	0	0	1	0	1	0
Aravind Eye Care	C06	0	1	1	1	0	0	1	0	1	0
Banco Compartamos	C07	0	1	1	1	0	0	0	1	1	0
Baring Private Equity Partners India Limited- *Safe*Save	C08	0	1	1	1	0	0	0	1	1	0
Casas Bahia	C09	0	1	1	1	0	0	0	1	1	0
Cemex (Patrimonio Hoy)	C10	0	1	1	1	0	0	0	1	1	0
Codevasf	C11	0	1	1	1	0	0	1	0	1	0
Danimal	C12	0	1	1	1	0	0	0	1	1	0
E+CO	C13	1	1	1	1	1	0	1	0	1	0
Empleados Ya	C14	1	1	0	1	0	0	0	1	1	0
Esquel	C15	0	1	0	0	1	0	1	0	1	0
Farmacias Similares	C16	0	1	1	0	1	1	0	1	1	0
Habitat for Humanity International	C17	0	1	1	0	1	0	1	0	1	0
Health Reach Clinic	C18	1	1	1	0	1	0	0	1	1	0
HLL – Annapurna Salt	C19	0	1	1	1	0	0	0	1	1	0
HLL - Lifebuoy	C20	0	1	1	1	0	0	0	1	1	0
ICICI – Micro Finance	C21	0	1	1	1	0	0	0	1	1	0
IDFC India	C22	0	1	1	0	0	0	1	0	1	0
Integrated Health Outreach System	C23	0	1	1	1	0	0	1	0	0	1

ITC – e-chaupal	C24	1	1	1	1	1	0	0	1	1	0
Jaipur foot (BMVSS)	C25	0	1	1	0	1	0	1	0	1	0
Kaskazi Network Limited	C26	0	1	1	1	0	1	0	1	1	0
Keggfarms India	C27	1	1	1	1	1	1	0	1	1	0
Magazine Luiza	C28	0	1	1	1	1	0	1	0	1	0
McDonald's strategy for Corporate Success and Poverty reduction	C29	0	1	1	0	1	1	0	1	1	0
Merck: Global Health and Access to Medicines	C30	0	1	1	1	1	1	0	1	1	0
Micro Insurance Agency – Malaria Voucher System	C31	1	1	0	0	1	1	1	0	1	0
Narayana Hrudayalaya Hospitals	C32	0	1	1	1	1	1	1	0	1	0
Oprah Winfrey's dream school	C33	0	1	0	0	1	1	1	0	0	1
Orange Cameroon	C34	0	0	0	0	1	1	0	1	1	0
P&G Children's Safe Drinking Water	C35	0	1	0	1	1	0	0	1	1	0
Partners in Health- HIV care in Rwanda	C36	1	1	0	1	1	1	1	0	1	0
Procter and Gamble (Brazil)	C37	0	1	1	0	1	1	0	1	1	0
SELCO	C38	0	1	1	1	1	1	1	0	1	0
Salud Digna	C39	0	1	1	1	1	1	1	0	1	0
The Generic Pharmacy	C40	0	1	1	0	1	1	0	1	1	0
Unitas	C41	0	1	1	1	1	1	1	0	1	0
Voxiva	C42	0	1	1	0	1	0	1	0	1	0

Table T4: Results: Transaction Cost Reducing Configurations in Value Creation and Value Capture

(Outcome 1: Core Value Creation (VCr) as Outcome)

Description	Prime Implicants	Consistency	fsQCA Solutions	Consistency	Coverage	fsQCA Solutions (Full)	Consistency	Coverage
Not-For-Profit (Social) Cases	~IC*MC*EC	0.6667	~IC*MC*EC	0.6667	0.5000	~IC*MC*EC+IC*~BCC*~MC*~EC+IC*BCC*MC*~EC	0.5714	1.0000
	IC*~BCC*~MC*~EC	0.5000	IC*~BCC*~MC*~EC	0.5000	0.2500			
	IC*BCC*MC*~EC	0.5000	IC*BCC*MC*~EC	0.5000	0.2500			
For-Profit (Commercial) Cases	IC*MC*~EC	1.0000	IC*MC*~EC	1.0000	0.5000	IC*MC*~EC+IC*BCC*MC+~IC*BCC*~MC*~EC	0.8000	1.0000
	IC*BCC*MC	0.6667	IC*BCC*MC	0.6667	0.5000			
	~IC*BCC*~MC*~EC	1.0000	~IC*BCC*~MC*~EC	1.0000	0.2500			
Emerging Market Cases	~IC*MC*EC	0.6666	~IC*MC*EC	0.6667	0.2500	~IC*MC*EC+IC*~BCC*~MC*~EC+IC*BCC*MC*~EC+~IC*BCC*~MC*~EC	0.6667	0.7500
	IC*~BCC*~MC*~EC	0.5000	IC*~BCC*~MC*~EC	0.5000	0.1250			
	IC*BCC*MC*~EC	0.6667	IC*BCC*MC*~EC	0.6667	0.2500			
	~IC*BCC*~MC*~EC	1.0000	~IC*BCC*~MC*~EC	1.0000	0.1250			
Full Data Set	IC*~BCC*~MC*~EC	0.5000	IC*~BCC*~MC*~EC	0.5000	0.1250	IC*~BCC*~MC*~EC+IC*BCC*MC*~EC+~IC*BCC*~MC*~EC+~IC*BCC*MC*EC	0.7143	0.6250
	IC*BCC*MC*~EC	0.6667	IC*BCC*MC*~EC	0.6667	0.2500			
	~IC*BCC*~MC*~EC	1.0000	~IC*BCC*~MC*~EC	1.0000	0.1250			
	~IC*BCC*MC*EC	1.0000	~IC*BCC*MC*EC	1.0000	0.1250			

(Outcome 2: Core Value Capture (VCap) as Outcome)

Description	Prime Implicants	Consistency	fsQCA Solutions	Consistency	Coverage	fsQCA Solutions (Full)	Consistency	Coverage
Not for Profit (Social) Cases	IC*~EC	1.0000	IC*~EC	1.0000	0.6000	IC*~EC+~IC*~BCC *MC+BCC*MC*EC	1.0000	1.0000
	IC*BCC*MC	1.0000	~IC*~BCC*MC	1.0000	0.1500			
	~BCC*MC*~EC	1.0000	BCC*MC*EC	1.0000	0.2500			
	~IC*~BCC*MC	1.0000						
	~IC*MC*EC	1.0000						
	BCC*MC*EC	1.0000						
For-Profit (Commercial) Cases	BCC*~EC	1.0000	BCC*~EC	1.0000	1.0000	BCC*~EC+IC*BCC +IC*MC	0.9524	1.0000
	IC*BCC	1.0000	IC*BCC	1.0000	1.0000			
	IC*MC	0.8889	IC*MC	0.8889	0.4000			
Emerging Market Cases	MC	0.9545	MC	0.9545	0.5676	MC+IC*~EC+BCC *~EC+IC*BCC	0.9737	1.0000
	IC*~EC	1.0000	IC*~EC	1.0000	0.5676			
	BCC*~EC	1.0000	BCC*~EC	1.0000	0.4595			
	IC*BCC	1.0000	IC*BCC	1.0000	0.5646			
Full Data Set	MC	0.9167	MC	0.9167	0.5500	MC+IC*~EC+BCC *~EC+IC*BCC	0.9524	1.0000
	IC*~EC	1.0000	IC*~EC	1.0000	0.5750			
	BCC*~EC	1.0000	BCC*~EC	1.0000	0.4750			
	IC*BCC	1.0000	IC*BCC	1.0000	0.6000			

Consistency threshold: 0.5, Frequency threshold: 1, Created with Tosmana Version 1.6
(Here as per set-theoretic assumptions, the symbols “+” implies “or”, “*” implies “and”, “~” implies “not”. Thus “MC+IC*~EC” means “MC or IC but not EC”, while “BCC*~EC+IC*BCC” means “BCC but not EC or IC and BCC”.)

Appendix – 1 Details of Case Studies Used

Bell, D. E., Neves, M. F., Castro, L. T. E., & Kindred, N. (2010). Codevasf. Harvard Business School. Product Code: 9-510-042.

Baron, D. P. (2008). Social entrepreneurship: banco compartamos. Stanford Graduate School of Business. Case:P-71.

Chu, M., Koljatic, M. & Silva, M. (2010). Ancora: a private university providing healthcare for the poor. Harvard Business School. Product Code: 9-306-088.

Chu, M. & Cuellar, R. G. (2011). Farmacias similares. Harvard Business School. Product Code: 9-307-092.

Chu, M. & Smithgall, C. (2010). Aaron's: Household goods for the U.S. base of the pyramid. Harvard Business School Case. Product Code 9-311-047.

Denend, L. (2007). Unitus (A): microfinance2.0- reinvesting an industry. Case: SI-87A.

Frei, F. X. & Pinho, R. R. D. (2006). Magzine luiza: builing a retail model of "courting the poor". Harvard Business School. Product Code: 9-606-048.

Grossman, A. & Cuellar R. G. (2010). Salud digna: dignified health for everyone. Harvard Business School. Product Code: 9-311-051.

Healey, J. F., Hoyt, D. & Meehan, B. (2007). Acumen fund and waterhealth international: The role of venture philanthropy. Stanford Graduate School of Business Case. Product Code: SM-158.

Hawarden, V. & Barnard, H. (2010). Danimal in South Africa: management innovation at the bottom of the pyramid. Product code: 910M99.

Hagiu, A. & Corsi, E. (2009). Planet finance: broad scope in microfinance. Harvard Business School. Product Code: 9-708-441.

Isenberg, D. (2008). Keggframes (India)- which came first, the kuroiler or the KEGG?. Product Code: 9-807-089.

Jones, G. & Lluch, A. (2010). Ernesto tornquist: making a fortune on the pampas. Harvard Business School. Product Code: 9-807-155.

Koljatic, M., Silva, M. & Herrera, J. (2009). Empleados ya: a headhunter for the poor. Social Enterprise Knowledge Network. Product Code; SKE- 129.

Kakani, R. K. & Thakur, M. (2009). Baring private equity partners India limited: banking services for the poor in Bangladesh. Richard Ivey school of Business. Product Code; 909M52.

Kohli, U. (2008). Consultancy development organization. Richard Ivey School of Business. Product Code; 908M34.

Kanter, R. M. & Bird, M. (2008). Procter & gamble brazil (A): 21/2 turnarounds. Harvard Business School. Product Code: 9-308-081.

Kayalkar, J. (2011). The generics pharmacy. Richard Ivey School of Business. Product Code: W11061.

Khaire, M. & Mcginn, K. (2011). Sewa trade facilitation center: changing the spool. Harvard Business School. Product Code: 9-810-044.

Monsegur, A. O., Zagazeta, F. & Rodriguez, P. (2006). Cementing the bottom of the pyramid; a new direction at Cemex. Darden Business Publishing. Product Code: UV0665.

Mckague, K. & Branzei, O. (2007). E+ co: a tipping for clean energy entrepreneurship (A). Richard Ivey School of Business. Product Code: 907M54.

Mukherji, S. & Jose, P. D. (2010). Selco: harnessing sunlight to create livelihood. Product Code; IMB 321.

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