

The notion of dynamic capabilities - or the ability to modify an organization's configuration of resources – is an important concept in the management literature. The bulk of the research focuses on large established or incumbent organizations (Corner & Wu, 2012; Newey & Zahra, 2009; Zahra et al., 2006) and is primarily concerned with how dynamic capabilities can be used to create a competitive advantage relative to rivals (Barreto, 2010; Helfat et al., 2007; Teece, 2007). Stated differently, existing dynamic capabilities (DC) research assumes economic profit as an organization's primary goal given the ongoing discussion of the influence of these capabilities on competitive advantage (Helfat et al., 2007; Hodgkinson & Healey, 2011; Teece, 2007) and other means of profit generation (Markman et al., 2009). However, scholars are beginning to apply the notion of DC in contexts outside of established, for-profit companies. For example, Tashman and Marano (2010) suggest DC as a tool for economic development that can contribute to the global "Peace through Commerce" movement.

Similarly, we contend that building and modifying resource configurations is done by some firms primarily to generate social value. Specifically, the contemporary organizational landscape reflects the phenomenon of social entrepreneurship, a growing number of ventures started with social value creation as a primary objective and economic value creation as a secondary, albeit necessary goal to ensure financial viability (Dacin et al., 2010; Mair & Marti, 2009; Russo, 2010). Social entrepreneurship has captured the attention of organizational scholars (Dacin et al., 2010; Nicholls, 2010; Short et al., 2009) who conjecture that the creation of social value requires resource configurations that are substantively different from those whose primary motive is economic value creation (Bruggman & Prahalad, 2007; Hall et al., 2012; Wheeler et al., 2005). To date, research on resource accumulation and configuration in social purpose ventures is sparse and predominantly conceptual, primarily urging the application of the

resource based view of the firm (RBV) to social purpose ventures (Dacin et al., 2010; Short et al., 2010). There thus is little systematic analysis showing how these ventures configure and potentially reconfigure resources. We also suggest DC as a useful framework to explore how social ventures' dynamic capabilities reflect the tensions faced when balancing the social value creation central to their *raison d'être* with the need to remain financially viable (Russo, 2010).

The purpose of this paper is to empirically examine how dynamic capabilities form in the context of social entrepreneurship (defined below). Given our focus on new, emerging ventures, we draw on the notion of dynamic *entrepreneurial* capabilities from commercial entrepreneurship literature that suggests emerging ventures must amass, configure and reconfigure resources in the process of creating a viable venture (Corner & Wu, 2012). The explicit research question guiding the study is "How are resources amassed and configured for social purpose ventures?" We apply a microprocess perspective to this question, specifically considering the actions and behaviors that coalesced into patterns reflecting dynamic capabilities. Such a perspective highlights the mechanisms that undergird organizational level abilities and structures (Teece, 2007; Sarasvathy, 2008) and is useful for addressing *how* questions regarding dynamic capabilities (Helfat et al., 2007).

The study makes two contributions to the literature. First, it extends the dynamic capabilities framework beyond its ambition to explain economic value creation (Teece, 2007) to include the creation of social value as a primary venture goal. Scholars have suggested that social value creation is likely to be reflected in resource configurations (Dacin et al., 2010; Short et al., 2009) but empirical research has yet to ascertain if and how this occurs. Second, the focus on dynamic capabilities takes a step towards clarifying the role of strategy in social entrepreneurship. Scholars call for research on strategy in social entrepreneurship but it has been

slow to surface (Weerawardena & Sullivan-Mort, 2001). Some specifically advocate a resource perspective on strategy (Dacin et al. 2010; Short et al., 2009) which a dynamic capabilities approach delivers. We use qualitative methodology in which theory is induced from multiple case studies of social purpose venture founding. Implications of findings for the dynamic capability framework and social entrepreneurship are discussed.

BACKGROUND

Dynamic Capabilities

Dynamic capabilities evolved from the RBV which sees an organization as an idiosyncratic configuration of resources relative to other firms (Eisenhardt & Martin, 2000; Teece et al., 1997). The RBV illustrated conditions under which resource configurations can yield sustained competitive advantage (Barney, 1991) but some scholars viewed it as limited in explaining firms' competitive advantage in changing environments (Barreto, 2010; Priem & Butler, 2001). Teece et al.'s (1997: 516) seminal paper extended the RBV by proposing dynamic capabilities as "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments". Dynamic capabilities enable organizations to either sustain competitive advantage or construct a series of temporary competitive advantages in line with environmental change (Eisenhardt & Martin, 2000).

As already stated, most dynamic capability research focused on large, established (Barreto, 2010; Zahra et al., 2006) or incumbent firms (Corner & Wu, 2012), thereby considering modification of existing resource bundles and sensing of valuable technology developed outside an organization (Teece, 2007). For example, scholars examined how capabilities in existing petroleum companies enabled identification of new opportunities (Adner & Helfat, 2003) and conjectured how incumbent firms might sense new technology and reconfigure to exploit it

(Teece, 2007). A few scholars, however, started to link dynamic capabilities more explicitly to new ventures. Eisenhardt and Martin (2000) suggested dynamic capabilities could be used to create new markets or industries. They argued dynamic capabilities spawn new markets reflecting simple patterns and experiential routines that generate knowledge specific to the emerging situation (Eisenhardt & Martin, 2000). Vohora et al. (2004) touched on dynamic capabilities in their study of nascent high technology ventures, indicating the founder as one source of dynamic capabilities in the context of entrepreneurship, particularly in the early phases of opportunity recognition and entrepreneurial commitment.

Zahra et al. (2006) made a case for extending the concept of dynamic capabilities into the study of entrepreneurship and pointed out that restricting the focus of research efforts to large established organizations limits knowledge of the processes whereby dynamic capabilities emerge. These authors conjectured differences in capabilities across new and established firms including number, scope, and stability of capabilities as well as primary methods for developing them. Helfat et al. (2007) explicitly mention entrepreneurship as a promising context for dynamic capability research because, by definition, entrepreneurial activity is directed toward change. Their conceptualization of dynamic capabilities would encompass emerging ventures since it includes creating as well as extending and modifying resource configurations.

Finally, research is beginning to emerge that explicitly considers the role of dynamic capabilities for extracting value from endogenous technology (Corner & Wu, 2012; Newey & Zahra, 2009). Both of these studies identify dynamic capabilities developed by scientists forming new ventures to commercialize technologies they had invented. Corner and Wu (2012) introduce the notion of dynamic *entrepreneurial* capabilities which is useful in the present study,

despite its origin in commercial entrepreneurship research. These are capabilities that facilitate the amassing, configuring, and reconfiguring of resources needed to achieve venture viability.

Despite some promising ideas, research on the topic of dynamic capabilities in entrepreneurship is in its infancy (Helfat et al., 2007; Zahra et al., 2006). Moreover, existing research focuses on commercial entrepreneurship thus primarily addressing the creation of economic value. In this study we consider dynamic capabilities in the context of social value creation as well as economic viability. We next review literature on social entrepreneurship to help clarify how this context differs from the purely commercial one.

Social Entrepreneurship

There are three different approaches to social entrepreneurship in the literature (Mair & Marti, 2006; Praszkiel & Nowak, 2012). One stream of research focuses on not-for-profit organizations and considers their initiatives for generating income to supplement more traditional funding from grants and donations (Austin, Stevenson & Wei-Skiller, 2006; Mort et al., 2003; Weerwardena & Mort, 2001). Another stream views social entrepreneurship as any socially responsible practice of for-profit companies, especially those that engender cross-sector partnerships (Bruggman & Prahalad, 2007; Hart, 2005; Hart & Dowell, 2011). A third stream envisions social entrepreneurship as addressing social ills and uplifting marginalized or disadvantaged groups (Alvord et al., 2004; Martin & Osberg, 2007; Zahra et al., 2009).

Given these different approaches, it is not surprising that there is no consensus definition of social entrepreneurship (Nicholls, 2006; Zahra et al., 2009). We refer the reader to excellent reviews of various definitions of social entrepreneurship (see Dacin et al., 2010; Zahra et al., 2009) and we forward a working definition of social entrepreneurship to guide our empirical research. Building on others' work (particularly Alvord et al, 2004; Mair & Marti, 2006; Martin

and Osberg, 2007; Zahra et al., 2009), we define social entrepreneurship as processes like product/ service development, venture founding, and capability building that involve the innovative use and combination of resources for addressing social problems, thereby meeting the needs of marginalized and disadvantaged groups.

Importantly for this research, scholars distinguish social entrepreneurship from commercial, for-profit entrepreneurship (Austin et al., 2006) by considering the kind of value each creates. The essential difference is that social ventures' chief purpose is to create social value while commercial ventures primarily focus on private wealth creation (Austin et al., 2006) or, at best, generate social value as an aside to generating shareholder wealth (Dacin et al., 2010; Mair & Marti, 2009). Social value creation involves creativity or innovation (Austin et al., 2006; Guclu et al., 2002; Mair & Marti, 2006) leading to new products, services, or ventures (Corner & Ho, 2010; Mair & Marti, 2006). However, social value creation is challenging because it must be balanced with financial viability (Austin et al., 2006; Hall et al., 2012; Russo, 2010). For example, social entrepreneurs are often undercapitalized and can struggle to amass resources in view of additional costs they can incur and lower revenues they might derive in creating social value. Many have not been able to do so (Russo, 2010). Conceptual research conjectures possible trade-offs social ventures make when attempting to both create social value and ensure financial viability (see Dees, 1998; McWilliams & Siegel, 2011; Weerawardena & Mort, 2006). A recent empirical study identifies policies that embrace social inclusion and local development as helpful for simultaneously creating social and economic value, but how individual social entrepreneurs make these tradeoffs remains empirically unexamined (Hall et al., 2012). Moreover, we suggest empirical research is needed to ensure that further theorizing about social

entrepreneurship and social value creation does not become too remote from the phenomenon being conjectured about (Van Maanen, Sorensen & Mitchell, 2007).

The literature offers two process notions that potentially inform how social entrepreneurs might amass and configure resources for a new venture. The first is bricolage wherein entrepreneurs use whatever combination of resources is immediately at hand even if these resources are considered marginal or of no value by others (Baker & Nelson, 2005; Baker et al., 2003). Bricolage also involves omitting stages of venture development such as information-gathering (Barney et al., 2011; Corner & Wu, 2012). Bricolage is applied predominantly in commercial entrepreneurship research but has proven quite useful for understanding social entrepreneurship in the resource-poor environments typical of economically disadvantaged countries (Di Domenico, Haugh, & Tracey, 2010; Mair & Marti, 2009). In such environments, entrepreneurs are described as making do with various resources available to them as a way to find workable, but not always optimal, solutions to problems (Baker, 2007; Mair & Marti, 2009). The second process notion that may illuminate resource amassing and configuration is effectuation (Sarasvathy, 2008; Sarasvathy & Dew, 2005). Effectuation involves the series of decisions and agreements entrepreneurs make as they use personal, idiosyncratic resources (skills, knowledge, relationships) to develop good ideas such as helping economically disadvantaged people earn an income (Corner & Ho, 2010). Applying effectuation logic, those interested in addressing a social problem would first consider what resources were at hand and what relationships could be called upon to solve this problem. As is the case with the notion of bricolage, scholars usually apply effectuation logic to commercial entrepreneurship but it is occasionally applied to social entrepreneurship (Corner & Ho, 2010; Sarasvathy, 2008). We contend that bricolage and effectuation are useful concepts from the literature that can provide

conceptual guidance when interpreting qualitative data regarding how social entrepreneurs amass and configure resources for their fledgling ventures.

As already suggested, we see the potential to extend both the social entrepreneurship and the DC literature by applying the notion of dynamic capabilities to the study of emerging social ventures. The scant empirical research on this topic led us to conduct a theory-building study using inductive methods. Reflecting a microprocess perspective, our research conveys a story of entrepreneurs beginning with a smattering of resources completely out of scale with their overwhelming ambitions to solve large, complex social problems (such as the provision of potable water in less developed countries). It is also a story of these entrepreneurs patiently cobbling together diverse, often sub-optimal, but convenient resources from public and private sector sources in sometimes unconventional ways. In particular, our evidence suggests that entrepreneurs' main contribution on the journey to social venture creation and scaling up was generating and regenerating ecosystems that could be inhabited by other actors and organizations essential to solving the previously intractable issues that had characterized the social problems they chose to tackle.

RESEARCH METHOD

The research design reflects a qualitative, inductive approach to addressing the research question. Such an approach is suitable for under-researched and poorly understood phenomena (Eisenhardt & Graebner, 2007). Moreover, induction is appropriate for examining process research questions such as the 'how' question pertaining to dynamic capabilities posed here (Helfat et al., 2007). This approach limits generalizability; so findings are best viewed as exploratory and suggestive of patterns in a population of social ventures. Our research examines multiple cases of social entrepreneurship through a replication logic whereby each case was used

to test emerging theoretical insights (Yin, 2003), facilitating understanding of a complex phenomenon (Alvord et al., 2004).

Cases and Data Collection

Social entrepreneurship data collection can be exorbitantly expensive (Alvord et al., 2004) and poses perhaps the greatest challenge to researchers (Short et al., 2009). This is because social entrepreneurship occurs across multiple national contexts, sizes of organizations, and varied product/ service offerings. Short et al. (2009) advocate creative solutions when sourcing social entrepreneurship data and we adopt one such solution, the use of existing accounts (Alvord et al., 2004).

We constructed cases from existing accounts of ventures founded to address social problems thereby helping marginalized or disadvantaged groups. We selected ventures described in four teaching cases that were prize winners in the oikos Global Case Writing Competition in the social entrepreneurship category supported by Ashoka in 2009 and 2010. Teaching cases describing the four ventures were available in the public domain in books published by Greenleaf and served as our first data source. The second data source was information from press releases, company reports, media articles, social accounts, and educational materials available on the Internet. We ensured that the Internet information, drawn together subsequent to the time of the teaching cases, did not confuse the timeframes or contaminate the accumulated data with post hoc rationalizations. A third data source was the teaching notes prepared for the teaching cases. We asked authors for permission to review the teaching notes which they allowed. Table 1 names and summarizes the cases and indicates data sources. Table 2 reports descriptive information on each case.

Insert Tables 1 and 2 Here

Data Analysis

We constructed individual case chronologies from gathered evidence. We then did within-case analysis where the analytical goal was to identify theoretical constructs and patterns within each social venture case with respect to how resources were amassed and configured. We used tables and other analytical devices to facilitate analysis (see Miles and Huberman, 1994). When commonalities in patterns began to emerge, we took note of them but did not further refine emerging patterns until we finished our analysis of separate cases. Developing patterns ultimately were tested by replication logic as we transitioned to cross-case analysis.

Cross-case analysis produced patterns of how resources were amassed and configured. We began with patterns noticed during within-case analysis but additional patterns emerged as we progressed through cross-case analysis. We generally compared two or three cases at a time before considering whether or not a pattern generalized across all four cases. The approach kept us strongly connected to the data so that we did not prematurely elevate the level of abstraction. As patterns emerged, we cycled back to the data to ensure that any identified patterns were well-grounded in evidence.

FINDINGS

How are resources amassed and configured for social purpose ventures? We found overlapping patterns that coalesced into two microprocesses whereby social entrepreneurs amassed, configured, and reconfigured resources to solve social problems: cobbling across sectors and effectuating ecosystems. Cobbling across sectors captures how entrepreneurs amassed resources and involved patiently piecing together a critical mass of resources from

diverse sources that enabled delivery of a product or service but also facilitated an exchange of knowledge between agents in developed economies and those in economically disadvantaged locations. Entrepreneurs solicited zero cost and repurposed “spare-parts” resources when trying to manifest this critical mass. Effectuating ecosystems reflects how social entrepreneurs configured and reconfigured resources by creating communities that encapsulated resources/capabilities essential to solving the intractable social problems being addressed. Specifically, an entrepreneur recruited other entities like governments and NGOs into a community, effectively stitching others’ resources onto those of the venture such that crucial local knowledge and skills needed to solve the focal social problem were available. Although the two microprocesses are discussed separately here, it is important to remember that the two overlap and continually interact given that amassing and structuring resources could happen somewhat simultaneously.

As such, these two microprocesses provide insight into the micro-level, grass roots solutions to social problems that have been discussed but rarely empirically examined in existing research (Hall et al., 2012; Mair & Marti, 2009). The following sections depict these micro-process patterns in detail, illuminating the “how” and “why” of resource acquisition and configuration in the context of social entrepreneurship.

Microprocess pattern 1: Cobbling Across Sectors

In trying to address social problems, entrepreneurs generally face environments very limited in resources. Existing literature describes these environments as resource constrained (Di Domenico et al., 2010; Hall et al., 2012; Peredo & Chrisman, 2006) lacking basic resources that are taken for granted in more economically developed regions (Mair & Marti, 2009; Robinson, 2006). Our evidence suggests that, given this resource scarcity, social entrepreneurs devote substantial time to cobbling together disparate resources imaginatively. This cobbling bridges

diverse sectors including the public and private sectors as well as economically developed and less developed regions. Stated differently, entrepreneurs fit together zero cost and “spare-parts” resources encountered through personal connections or serendipity as they start implementing potential solutions to social problems. This activity constitutes the microprocess of cobbling across sectors and resulted in the start-up of a fledgling social purpose venture in all four cases.

Our data indicate that social entrepreneurs used three mechanisms when cobbling across sectors: *casting a net widely*, *identifying partnerships*, and *scrambling for more*. These mechanisms are defined in Table 3 and illustrated by collected evidence. Mechanisms interacted and coalesced to reflect a dynamic capability whereby entrepreneurs amassed resources in support of a social purpose venture.

Insert Table 3 about Here

Wello provides a good example of the casting a net widely mechanism. Wello was founded to manufacture and distribute a water wheel that enabled African villagers to transport more water in less time from available sources to their villages. This device ensured better health through cleaner water and helped liberate women and children from the typical six to eight hours per day spent collecting water. However, the venture began as a good idea for the founder Cynthia Koenig when she was a graduate student at the University of Michigan. She had no resources apart from her own spare time to invest in this grand idea. For Koenig, casting a net widely took the form, in part; of accessing zero cost resources when starting up the venture (see Table 3). In particular, the founder secured donations of free travel from airlines as she commuted to develop her waterwheel idea into a viable venture. She secured donated skills from professionals for the website design and branding of Wello. Similarly, she recruited a team to

design and engineer the waterwheel for affordability and durability in the African context. She applied for and received fellowships from NGOs which provided seed funding, mentoring, and living support as she worked to establish Wello. She also received substantial no cost publicity from Google which featured Wello in a competition it had for world changing ideas. Accessing zero cost resources required patience and meant that the start up of the venture was a long, slow process characterized by alternating quiet times and more intense periods of activity when resources become available and a quantum leap in venture development could be accomplished.

The founder of The ReUse People also practiced casting a wide net to garner resources for his venture. The ReUse People was established to deconstruct buildings and recycle deconstructed materials (lumber, doors, cabinetry, flooring) selling these materials to retail customers but also donating them to impoverished groups. True to the principles of recycling, the founder was very skilled at gathering and repurposing “spare-parts” resources (see Table 3). For example, he got his start by taking over a friend’s non-profit company registration, 501(c)3 in the US that was not being used. He simply renamed the company in the registration “The ReUse People” and saved himself the substantial time it would have taken to generate a new non-profit registration. The company’s first project involved collecting and donating second hand building materials to the socioeconomically disadvantaged of Tijuana, Mexico after a devastating flood. The materials included items donated by US retailer Home Depot, returned items that were difficult to re-sell in the American market. The founder negotiated for transportation and other costs to be covered jointly by several US and Mexican municipalities. The ethos of repurposing “spare parts” is seen even in programs the company had to train the unemployed and underemployed in deconstruction. The venture had multiple programs focused on youth, in conjunction with the California Conservation Corps, and on ex-convicts.

The second mechanism underlying the microprocess of cobbling across sectors involved founders identifying partnerships and gaining commitment of resources from partners (see Table 3). WHI provides a good illustration of this mechanism. The venture was founded to apply an ultra-violet (UV) technology developed in the US to disinfect water supplies in impoverished Indian villages. The technology could disinfect water very cheaply thereby saving lives threatened by water-borne disease. These partnerships were cross-sector ones starting with the development of the UV technology itself. It was created in Berkley Labs and a testable prototype was made feasible through a grant from the US government. However, the cost of setting up the first UV water system for a village was \$US 50,000 and thus not affordable by targeted villages. Village leaders also were not convinced that the water systems were worth the expense and effort of installation. The founder, Tralance Addy, started identifying partnerships in order to bring water systems to impoverished Indian villages. He sourced funding from private interests that enabled him to start manufacturing the UV units. NGOs committed to educating villagers on the importance of disinfected water for health. Addy negotiated with financial institutions who agreed to lend the funds needed to set up water systems. Borrowed funds were paid back through small fees charged by villages for disinfected water. These details illustrate the identification of partnerships across sectors (public/ private/ NGOs) but they also show how partnerships are required to integrate knowledge across the socioeconomic divide of economically developed and less developed countries (see Table 3). Perhaps the best illustration of bridging the socioeconomic divide was Addy's partnerships with indigenous *panchayats*, groups of elders who settle disputes within and between villages. These alliances ultimately convinced villagers of the efficacy of WHI's water systems, for their local context, and provided land on which to locate the systems.

Another good example of the identifying partnerships mechanism can be seen in the PlayPumps case. PlayPumps provided water systems that included merry-go-rounds (also called roundabouts) that pump water from boreholes while children play on them and tanks to store surfaced water. The PlayPumps venture was started to provide a reliable, safe source of water for impoverished villages in South Africa. Such a device could reduce death and illness and promote social justice since it decreased the time involved in getting water, a job that fell to women and children in Africa. However, a PlayPumps system cost about \$10,000 installed which meant that the poor villages they were intended for could not afford them. PlayPumps founders thus began amassing resources to bring these water systems to villages in need by creating a series of partnerships. The venture was able to start manufacturing playpumps due to a combination of private investment and international agency funds. Installation of individual water systems was funded through donations, and system maintenance was paid for by private company advertising on the water storage tanks. Colgate-Palmolive had a long standing arrangement whereby it advertised on PlayPumps' water storage tanks. Local villagers were trained to maintain the systems so that jobs were created as part of installing PlayPumps water systems. The company also developed a model whereby it worked with governments (local and national) to find good locations for PlayPump systems and to gain permission to access groundwater and distribute it. Similar to WHI, PlayPumps implemented partnerships that not only amassed the resources necessary to bring playpumps to impoverished villages but also enabled the flow of technology and know-how from more prosperous socio-economic countries to impoverished areas (see Table 3). In fact, in 2003 the venture was one of three finalists for the *Mail & Guardian's* "Investing in the Future" award for effective use of partnerships offering innovation and social relevance.

We call the final mechanism underlying the cobbling across sectors microprocess “scrambling for more” (see Table 3). As implied, founders discovered they needed more resources than originally expected. This was due to a failed business model that needed re-inventing in one case (WHI) but mostly due to the desire to scale up ventures and bring products/services to additional markets (WHI, Wello, The ReUse People, PlayPumps). One way this mechanism manifested was as additional business models within a single social venture; designed to garner resources uniquely available in a new market (see Table 3). WHI, for example, created a business model different from the one used in India when introducing its UV water disinfecting technology into the Philippines. The revised model had two components: municipal governments supplied water and electricity while small franchises called “Aqua Stores” disinfected and distributed the water to city inhabitants. The model allowed charging a price only one third that of bottled water. A franchise cost \$US 8,000 and the Rotary Club offered loans to help economically disadvantaged Filipinos purchase franchises. WHI provided franchisees with branding, location selection for stores, and technical advice.

Scrambling for more also manifested when ventures engaged the economically disadvantaged to help scale-up the venture (see Table 3). Wello offers a colorful example with its “business in a barrel” idea. The barrel is Wello’s waterwheel and the founder envisioned enterprising African villagers purchasing a waterwheel to start a water delivery business, thereby fulfilling Wello’s mission to distribute potable water as widely as possible. The waterwheel held 20 gallons so an aspiring micro-entrepreneur could collect this amount from a nearby water source and sell smaller amounts to neighbors for a price, thereby earning an income. Wello’s price of \$US34 for a waterwheel made it affordable for an impoverished family to invest in using a microloan. As mentioned above, WHI also engaged economically disadvantaged Filipinos

when it set up Aqua Store franchises as part of its business model to bring potable water to urban areas of the Philippines. Such an approach engages the members of impoverished communities in efforts to help solve their own problems such as the inaccessibility of potable water. This approach is in contrast to much of the Base of the Pyramid (BOP) literature which views the poor as customers, not as agents able to participate in creating solutions to the problems they face (Hall et al., 2012).

Finally, scrambling for more also took the form of grass roots fundraising made possible by the Internet, social media, and publicity regarding social mission. PlayPumps illustrates this grass roots fundraising very well. It relied on donations for installing water systems so fundraising was always crucial for the venture. It worked with some key foundations and international aid agencies to fund its first playpumps installations but publicity helped to make the venture and its social mission widely known. As mentioned, the venture placed in the *Mail & Guardian* “Investing in the Future Awards”. It also was shortlisted for the US\$1 million dollar Alcan Prize for Sustainability by the Prince of Wales’ International Business Leaders Forum and the US first lady, Laura Bush, supported the venture channeling \$US16.4 million into the building of playpumps. With the publicity these events produced, PlayPumps was able to appeal widely to individuals for donations to build more water systems. The venture began to use the Internet for fundraising, taking online donations and establishing a Facebook site. It partnered with “Save the Children” to kick off a “100 pumps in 100 days” campaign to mobilize funds from smaller donors. Donations came in from schools, churches, and community groups as well as individuals.

In summary, cobbling across sectors was an effective process for amassing resources for two reasons. First, looking widely for resources across multiple sectors - governments, NGOs,

international agencies, and the poor themselves - helped entrepreneurs overcome what scholars have described as the extreme scarcity of resources typical in the communities targeted by social entrepreneurs (Di Domenico et al., 2010; Hall et al., 2012; Mair & Marti, 2009). Importantly, entrepreneurs' ability to link with diverse sectors enabled them to begin to amass resources commensurate with their lofty ambitions like solving the water problem in Africa. As such, the cobbling across sectors microprocess shows how social entrepreneurs consistently test and attempt to overcome conventional environmental limitations (Di Domenico et al., 2010).

Second, this microprocess was effective because entrepreneurs, through a constellation of partnerships, secured resources that helped bridge the socio-economic divide present in these cases. Entrepreneurs applied ideas and technology from economically developed countries to impoverished settings but recognized that knowledge and resources from those impoverished settings also had to be stitched into the bundles of resources being constructed in order for products/ services to adequately address targeted social problems. As such, entrepreneurs were effectuating products and services by partnering with prospective beneficiaries and customers to gain their knowledge about what could work and to secure resource commitments for product development (Dew et al., 2011; Sarasvathy & Dew, 2005). The microprocess thus provides a view of the economically disadvantaged as endogenous to social entrepreneurial processes being enacted in these cases. Such a view is in contrast to that reflected in bulk of the BOP research wherein the poor are thought of predominantly as customers contributing to the profits of multinational corporations (Prahalad, 2004; Prahalad & Hart, 2002) and therefore exogenous to the development of products and markets that might serve them.

Microprocess pattern 2: Effectuating Ecosystems

The environments faced by social entrepreneurs are not only resource poor but also lack infrastructure and institutions that are taken for granted in more developed regions (Mair & Marti, 2009; Robinson, 2006). Such environments often do not have well developed networks that social entrepreneurs from outside the region can link into when trying to develop a product or venture that solves a social problem (Peredo & Chrisman, 2006). For example, social entrepreneurs find it challenging to access appropriately skilled employees and to develop markets for novel products or services (Hall et al., 2102).

Our evidence shows how social entrepreneurs cope with such environments. In particular, they effectuate ecosystems when founding ventures in less developed regions to compensate for the lack of networks and other social structures that might otherwise provide easy access to resources. Stated differently, they create complex structures, bring together a variety of different internally and externally controlled resources, and configure business models to match local conditions. Collected data indicate that social entrepreneurs are continually dealing with numerous, critical gaps in infrastructure and working to configure resources to fill gaps in order to effectively deliver a product or service in impoverished markets. This configuring of resources and relationships is reflected in the microprocess of effectuating ecosystems described in detail in Table 4. Underlying the microprocess are three mechanisms as defined in the table and illustrated below by selected examples. They are: *structuring complex entities, crafting communities of resources to create social value, and reconfiguring for new markets / geographical areas*. Together these mechanisms constitute a dynamic capability whereby the entrepreneurs configured and reconfigured resources to develop and sustain the social purpose ventures.

Insert Table 4 about Here

The PlayPumps case is a good example of the structuring complex entities mechanism. This venture came to function as a hybrid organization over time. Roundabout Outdoor Pty Ltd, founded in 1997, was the for-profit organization with a social mission that installed and maintained the playpumps. PlayPumps International was founded some seven years later as a nonprofit organization to arrange donated funds for installing water systems. PlayPumps International was formed as a South African NGO specifically to forge fundraising partnerships with corporations, foundations, governments and individuals. In 2006 it was also incorporated as a US 501(c)3 (non profit) organization. Trevor Field cofounded both Roundabout Outdoor Pty Ltd and PlayPumps International which collectively constituted a single social purpose venture, as neither part could ultimately function alone. In fact, Roundabout Outdoor started out by obtaining a license, refining the water system concept and technology and then registering a trademark for the PlayPump Water System in virtually every country where the founders believed it would be used in the world. Such behavior is perhaps more akin to a commercial venture than a social venture (Austin et al., 2006). However, the founders realized that donated funding was almost always needed to set up a new playpumps system because the villages most in need could not afford them. As a result, the hybrid structure was created and maintained. The structure was necessary to scale up, providing playpumps systems in many needy villages, and to function successfully internationally given the rules around charitable donations. Such complexity in structure occurs, as in this example, even when the venture is relatively small in size, in terms of total numbers of employees. That it took time for this structure to develop is not

so surprising given the raft of other activities that needed to take place for the PlayPumps' concept to gain traction.

A second example of the structuring complex entities mechanism occurs with WHI where again organizational form is used strategically. WHI was set up as a for profit company in 1996 and was bought out, reconfigured and recapitalized by WHI founder Addy's private venture management company, Plebys International in 2002. WHI had struggled to sell sufficient ultraviolet water units to break even. With the aim of developing companies around technologies that can serve impoverished markets, Plebys International restructured WHI and then reduced the seventy shareholders to a core group of nine. WHI then changed the business model to offer the ultraviolet water disinfecting as a service. WHI effectively arranged loans so communities could pay for the water systems to be installed, with those using the water paying nominal user fees. After the loans were paid back, the water systems were able to continue to generate funds for maintenance and for other improvements in local communities. Where the system had been financed by WHI, then the communities were able to share the net revenues from the user fees with WHI. Organizational form was used strategically in service of the achievement of the social mission again in 2006. To expand the business, WHI developed a franchise model. Franchisees benefitted from a marketing and service model, with ongoing checks for quality and maintenance built-in. Despite significant success in achieving its social mission of providing safe drinking water to economically impoverished customers, and ongoing commitment to the ideal of being a for-profit company, WHI remained a donor-backed organization.

The second mechanism that supports the effectuating ecosystems microprocess is crafting communities of resources to create social value (see Table 4). WHI with its reliance on donors is again a good example here, with the founder stitching other entities' resources onto WHI's own.

WHI (India) created a web of resources to solve the water problem for villages including technology licensed from the US, local organizations to market the systems, legitimacy and land permissions from village elders, and funding from the private sector. Underpinning the technical solution was the need to educate villagers on the importance of purified water, safe for drinking so as to make the case for the installation of the community water system. That is where NGO involvement came in. None of these elements were trivial. All partners were important to effectuating the ecosystem required for the delivery of the community water system that aimed to eventually supply safe water to over 2 billion inhabitants with little or no potable water supply. Partners contributed different kinds of resources - tangible and intangible. Some such as the village elders functioned solely at the local level, other partners functioned across localities. WHI had the ongoing role of working with donors to convince them of the social value being achieved. In particular, it worked with local marketers, village elders and franchisees to set up and ensure the water systems functioned as promised. Sometimes local entrepreneurs delivered water for a fee and NGOs were used to teach villagers about health and hygiene issues associated with safe drinking water.

Other cases also evidenced the mechanism of crafting communities of resources. Such communities were needed to sustain ventures' operations, thereby achieving the social mission on an ongoing basis. Given the seriousness of the social problems, they are unlikely to be addressed quickly. Ventures required resource configurations for long term operation and success, and this is where the importance of partners being part of a community of resources comes in. Reliable partners are needed and a stable cadre of employees to relate to them. The ReUse People case illustrates a community that was crafted to create value over the long run. The venture established relationships with traditional demolition companies because it had few

demolition crews of its own. It also had links with building materials donors such as Home Depot, a for profit company, as well as Habitat for Humanity, a nonprofit entity. The ReUse People also established relationships with nonprofits and impoverished communities to take a relatively large but sometimes sporadic supply of materials. All these partners constituted a community of resources crafted to deliver across a complex value chain.

The third mechanism for effectuating ecosystems is reconfiguring for new markets / geographical areas (see Table 4). Reconfiguring becomes necessary because the new market or geographical area is somehow different from previous markets served. Stated differently, entrepreneurs had to fill different gaps in the new geographic area such that a disparate ecosystem had to be built. One way this occurred was for founders to create multiple business models within the same venture. We have already described the business model WHI created to implement its ultraviolet water systems in India. A different business model was created for the Philippines given this country's idiosyncratic conditions. At the heart of this model were small "mom and pop" franchises operating WHI-branded Aqua Stores that ran in compliance with sanitary and quality standards. In Manila the Rotary Club facilitated access to loans so that the WHI water purification systems could be installed in places where reticulated water systems were considered too expensive for the local authorities and chlorination was too costly. In several other countries WHI used different constellations of public and private partners to ascertain the needs of the local people, to train local operators and maintain the water systems – and by mid 2009 claimed to be providing safe drinking water to more than one million people.

Creating different organizational identities and/or structures for different markets was evident in the other cases too. Wello, like WHI, was interested in providing sustainable incomes as well as improving the health of communities. It planned sales of waterwheels for individual

family use in some areas and micro-franchises based on entrepreneurs selling water in others. The gravity of the social problems being addressed and the huge potential for additional social value creation naturally fuelled the desire for expansion into new markets by WHI and PlayPumps who were more established. By 2008, PlayPumps had installed more than a thousand water systems in Lesotho, South Africa, Mozambique, Swaziland and Zambia in places like school playgrounds, clinics and community centers, working with local people to achieve their involvement and ownership early on. Different sponsors were involved in the different countries. Memoranda of Understanding between the company and the respective government authorities allowed free passage through borders and relaxation of import duties, along with the identification of water resources and the institution of water bore drilling programs for the disadvantaged. Operating in North America, The ReUse People's expansion still necessitated decisions about local logistics, how to fill the gaps in new geographic regions – whether to continue to certify contractors using a somewhat unsystematic approach, or to hire and train new crews itself. Moreover housing construction was sometimes a little different in different places, utilizing more brick for example, necessitating a different downstream deconstruction and cleaning process with other opportunities for employment of the unskilled.

In summary, effectuating ecosystems manifested as a necessary process in configuring and reconfiguring resources for several reasons. First there were large gaps in existing infrastructure which had likely contributed to or exacerbated the extent of the social problem – and these had often appeared difficult to bridge. Indeed given the difficulty in delivering profits in all four of our cases, and the not unusual reliance on donor funding (Anderson & Dees, 2002), we can see why fully private sector ventures had shied away from providing solutions, and why

for the most part there was little of the traditional rivalry in these product/service provision sectors.

Furthermore, effectuating an ecosystem was important in that trialing and refining the initial product service/offering – or proposed solution to the evident social problem – in one location provided useful knowhow for how to pitch the offering in others. Such was the case, even where the other locations presented different problems. Useful problem solving capabilities were learned and demonstrated by those running these ventures.

Finally, success in one location and attendant publicity mobilized additional supporters, made the proposition more attractive for funders, and gave both existing and new partners more confidence in the ability of the venture to overcome problems – particularly where there were obvious gaps in infrastructure to fill or bridge. Conversely, failure in one location risked arousing the skeptics, diminishing funder and partner confidence in another – and meant the entrepreneurs were even more highly motivated to avoid such an outcome. Entrepreneurs thus enacted the cobbling across sectors mechanism to make the ventures work. But what is at stake here is much wider than venture success. It is the solution to the widespread social problem that can only really be achieved through scaling up – and the effectuation of ecosystems. What we see is what Dees (1998) defines as the relentless pursuit of new opportunities to further the mission of creating social value, continuous engagement in innovation and modification and the refusal to accept existing resource limitations.

DISCUSSION AND CONCLUSION

The purpose of this paper was to empirically examine how dynamic capabilities form in the context of social entrepreneurship. Our findings show entrepreneurs using two microprocesses to amass and configure resources as they found and run social purpose ventures.

The microprocesses of cobbling across sectors and effectuating ecosystems intermeshed to create resource configurations that not only gave rise to new social purpose ventures but also created entire communities of resources that were collectively able to solve social problems that had previously proven to be intractable. Moreover, the microprocess perspective provided rich detail regarding how entrepreneurs overcame institutional and infrastructural deficiencies in the impoverished regions they sought to help. Together the microprocesses paint a picture of social entrepreneurs using bricolage and effectuation processes to stitch resources from external entities (donors, NGOs, governments) onto their ventures' resource configurations. It was this whole community of resources that actually exceeded the bounds of the venture itself, which enabled social value creation and sustainable solutions to problems.

Collectively, findings have three implications for the wider literature. First, findings differentiate dynamic capabilities in the social value creation context from those in the context of economic value creation. Dynamic capability scholars have emphasized that resources are either acquired (purchased) or internally generated in the context of economic value creation (Helfat et al., 2007; Maritan & Peteraf, 2011; Teece, 2007). However, the social value creation context studied here paints a more complex picture of resource acquisition. The impoverished settings explored here reflect environments that are severely resource constrained (Hall et al., 2012; Mair & Marti, 2009) so resource acquisition happened in very creative ways. In particular, resources were acquired through donations in the form of funds and volunteered human capital skills, as spare parts that had to be repurposed, and as capabilities that remained housed in external entities but which social ventures could call upon when needed.

Second, the surfaced microprocesses clearly show that the essence of dynamic capabilities in social entrepreneurship is building community. In fact, the effectuating ecosystem

microprocess implies that our entrepreneurs built more than just ventures, they had to create community around the social problem and the solution they were proposing for it. Moreover, communities reflected very diverse interests (governments, for-profit companies, NGOs, tribal elders, media, and international aid agencies) that were able to collectively integrate knowledge from more developed economies with that of indigenous knowledge and culture. This mesh of knowledge enabled solutions that could be sustained by the local population over the long run. Given the importance of community building to these social ventures' dynamic capabilities, we suggest that strategic thinking about social entrepreneurship and its success should be based on the notion of building collaborative advantage, not competitive advantage, the principle used in commercial entrepreneurship and business. We define collaborative advantage as the capacity to generate and sustain relationships focused on solving a social problem. Moreover, we propose collaborative advantage as a "methodology" for creating social value in the same way that competitive advantage and its economic formulas for generating profit margin in excess of rivals (Porter, 1985) is a methodology for creating economic value. A full development of this concept of collaborative advantage in the social entrepreneurship context is beyond the scope of this discussion section but future research could examine its efficacy in creating social value.

Third, findings have implications for the social entrepreneurship literature in that an important part of the DC of the studied ventures was to engage the economically disadvantaged groups targeted for help in creating solutions that would suit their idiosyncratic conditions. Evidence shows founders gaining knowledge from targeted groups to develop workable solutions to social problems, empowering target groups to be franchisees to distribute needed products, and training and funding target groups to maintain systems set in place. As such, findings shows entrepreneurs did not think of targeted groups simply as customers but as

potential partners in creating social value. Viewing customers as possible partners suggests an alternative perspective to much research examining economically disadvantaged groups, namely the Base of the Pyramid (BOP) which tends to view impoverished groups as customers for multinational corporations (Hall et al., 2012; Prahalad, 2004). Future research could compare the efficacy of these two perspectives with regard to creating sustainable solutions to social problems.

Our study has limitations to be considered when interpreting findings. The first is the use of existing accounts to construct cases. Although these cases have benefits such as generalizability (to theory) beyond a single national context and single product/service (Alvord et al., 2004), one could argue that they do not yield as thick a description as would be produced by first-hand interview data. We attempted to ameliorate this potential limitation with the rich and varied data available on the Internet. Another limitation is that three of the cases were about providing potable water to impoverished regions. In part, external validity is enhanced by the widespread nature of this social problem globally and the extent to which it is a core issue being tackled currently by social entrepreneurs. External validity also is enhanced by the fact that teaching cases about these companies placed in the oikos competition. Nevertheless, a sample of cases across a more diverse set of social problems could have expanded the generalizability of findings to theory further.

In conclusion, this paper responds to the call for more research on strategy in the context of social entrepreneurship. Our findings suggest that social purpose ventures possess dynamic capabilities for creating community or ecosystems, not just ventures, in order to provide sustainable solutions to long standing social problems. This finding echoes a theme identified by others who argue that institutions and infrastructure must be created alongside of ventures in

order to effectively address intractable social problems (Mair & Marti, 2009; Peredo & Chrisman, 2006; Robinson, 2006). Findings thus show that the process of social purpose venture creation may well engender more than just the venture itself; it may structure capability platforms upon which others can build. A fuller understanding of social venture creation's role in building capability platforms in less developed regions awaits future research.

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Table 1
Social Entrepreneurship Cases and Data Sources

Case	Service/ Product Provided	Social Value Created	Data Sources
PlayPumps	Provides merry-go-rounds that pump water from boreholes (while children play on them) and storage units for water	<ul style="list-style-type: none"> -Death and illness reduced with potable water -Gender equality improved by freeing women from long hours of water collection -Children's school attendance facilitated (less time spent collecting water) -Health education provided 	<p>Teaching case: (Purkayastha, 2009)</p> <p>Other: Unicef report, NGO press releases, venture website</p>
ReUse People	Provides deconstruction of residential and commercial buildings ; also storage for and retail sales of reclaimed building materials	<ul style="list-style-type: none"> -Reclaimed items donated to economically disadvantaged communities -Youth trained, local volunteerism enhanced -Partnerships with NGOs created -Training and employment programs for ex-convicts 	<p>Teaching case: (Corbett and Powell, 2009)</p> <p>Other: Press releases, ReUse educational materials, venture website</p>
Wello	Produces and distributes devices (waterwheels) enabling collection and transport of four times the volume of water collected by traditional means	<ul style="list-style-type: none"> -Gender equality increased because time to collect water substantially reduced - Women can engage in income earning activities -Children's school attendance facilitated 	<p>Teaching case: (Gordon, 2010)</p> <p>Other: venture and U. of Michigan websites, educational materials, press releases</p>
WaterHealth International	Provides ultra-violet technology to supply purified water in impoverished areas, different business models tailored to disparate locations	<ul style="list-style-type: none"> -Diseases from contaminated water (e.g., cholera) substantively reduced -Gender equality improved, women free from trekking long distances for water -Women can engage in income generation for family 	<p>Teaching case: (Faheem and Purkayastha, 2010)</p> <p>Other: brochures; press releases from multiple entities; venture website</p>

Table 2
Case Descriptions

Case	Founder	Age/ Size*	Location	Key Resources
PlayPumps	Trevor Field	10 years 100 employees	Southern Africa	<ul style="list-style-type: none"> -Internationally recognized design for low-technology water collection device (playpump, a children’s merry-go-round) -Patented playpump device and trademarked features of system (storage tank, commercial advertising) -Awards and publicity legitimizing social mission and configuration -A hybrid (profit/ not-for-profit) structure -Cross sector alliances (NGOs, government, corporations, individuals)
ReUse People	Ted Reiff	10 years Number of employees unknown	USA, Mexico	<ul style="list-style-type: none"> -Warehouse/ retail space in Oakland, California, USA -Non profit tax registration in US, 501(c)3 -Supply chain across entire deconstruction industry (deconstruction, shipping and logistics, retail) -Relationships with municipal governments, NGOs, and other public sector organizations
Wello	Cynthia Koenig	2 years 3 Employees	Africa, India	<ul style="list-style-type: none"> -Waterwheel device allowed four times increase in water collection -Manufacturing facility shippable in railway container -Non-profit tax registration in US, 501(c)3 -“Business in a barrel” franchise plan enabled economically disadvantaged to become entrepreneurs
Water Health International	Tralance Addy and Ashok Gadgil	13 years 125 employees	India, Philippines Ghana ...,	<ul style="list-style-type: none"> -Ultra violet water disinfecting technology -Plebys International LLC (Addy’s venture management company) -Prominent shareholders (i.e. Dow Venture Capital, Johnson & Johnson) -IN INDIA: Infrastructure of Community Water Systems and network of maintenance workers, links with village elders -IN THE PHILIPPINES: Network of “Aqua Stores” that were public/ private partnerships, Rotary Club loans for private entrepreneurs

*At time chronologies were constructed

Table 3
Microprocess Pattern 1: Cobbling Across Sectors

Mechanisms for Cobbling Across Sectors			
	Casting net widely	Identifying partnerships	Scrambling for more
<i>Mechanisms defined and accumulated into pattern</i>	Founders collected resources from diverse sources , accessed through personal contacts at start up; used bricolage and effectuation processes	Founders experimented with possible partners, gained commitment in form of resources	Founders discovered more resources needed than originally expected, especially to scale-up; experimented with increasingly complex and diverse resources, looked for disparate resources in different contexts
Form mechanism took in cases of social entrepreneurship	<p>Accessed zero cost resources given authenticity of social mission</p> <p>Gathered and repurposed “spare-parts”</p>	<p>Partnerships spanned sectors of government (local and national), private business, and non-government organizations (NGOs)</p> <p>Partnerships focused, in part, on transforming knowledge from economically developed countries into a form useful for less economically developed contexts</p>	<p>Multiple business models in one venture; adapted for expansion into new region</p> <p>Engaging the economically disadvantaged to scale up (i.e., as maintenance workers, micro-franchisees)</p> <p>Grass-roots fundraising through internet, social media, and publicity about social mission</p>

Table 4
Microprocess Pattern 2: Effectuating Ecosystems

Mechanisms for Effectuating Ecosystems			
	Structuring complex entities	Crafting communities of resources to create social value	Reconfiguring for new markets/ geographical areas
<i>Mechanisms defined and accumulated into pattern</i>	Founders structured multiple entities of varying forms within a single venture	Founders stitched other entities' resources onto ventures' resources	Founders created multiple business models within same venture
Form mechanism took in cases of social entrepreneurship	Created hybrid structure of for-profit and nonprofit entities within single venture, allowed for private investment (and income generation) as well as donations towards social mission Developed (micro)franchises to distribute product/ service to wider market	Incorporated resources of other entities (local and national governments, NGOs, foundations, for-profit companies) into community of resources ensuring necessary capabilities and knowledge available to solve social problems	Created different business models within same venture to take advantage of resources idiosyncratic to a particular market Created different organizational identities/ structures for different markets