

Supply Chain Sustainability at the Bottom of the Pyramid:

The Context of Microfranchising

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Abstract

Supply chain sustainability encompasses the objectives of economic sustainability, environmental responsibility, and social welfare. This exploratory research studies economic and social sustainability regarding supply chain positioning and connections in micro-franchising. An examination of 73 microfranchises revealed two micro-franchise supply chain configurations and the formal economy connections that contribute to sustainability.

Introduction

Supply chain sustainability is growing in importance in both research and practice. The need for concurrent economic, environmental, and social sustainability becomes more evident as awareness of dwindling non-renewable resources, social needs around the globe, and pollution of our planet increase (Carter and Rogers, 2008). The role of supply chain management in economic progress is well documented; but research is lacking concerning the role of supply chain sustainability in economic development, especially at the microeconomic level.

Poverty alleviation efforts among the global population sector that lives on less than \$2 per day, often referred to as the Base of the Pyramid (Pralhad, 2010), include interventions that aim to assist would-be entrepreneurs in business start-up. These social innovations that aspire to assist microentrepreneurs in building economically sustainable ventures indicate the strong connection between social and economic sustainability in lessening privation. Much attention has been given to the enhancement of microenterprise development (Yunis, 2008); however, little focus has been placed on the ability of supply chain management to enhance or detract from enterprise success within poverty frameworks.

The purpose of this research is to provide an initial exploration into the role of supply chain social and economic sustainability in economic development. This will specifically be investigated within the context of microfranchises, which form a subset of microenterprises.

SUPPLY CHAIN SUSTAINABILITY IN ECONOMIC DEVELOPMENT

The largest but poorest sector of the world's inhabitants that lives on less than \$2.00 per day are often referred to as the population living at the Base of the Pyramid (BoP) (Prahalad, 2010).

Poverty alleviation efforts range from macroeconomic policy actions to microeconomic enterprise promotion. In the microeconomic space, many development efforts focus on assisting the poor to start their own businesses, often accompanied by small loans to make capital available to these new entrepreneurs.

While the need for sustainable development is widely recognized, defining sustainability in a way that supports implementation is still in progress (Carter and Rogers, 2008). Some definitions highlight the three elements of the triple bottom line by suggesting the need to pay appropriate attention to 1) economic success, 2) environmental responsibility, and 3) social welfare (Goncz, Skirke, Kleizen, and Barber, 2007; Sikdar, 2003).

In developed countries, economic sustainability of multinational firms, or even small start-up businesses, might be assumed while extending attention to social and environmental concerns. However, in development settings the economic sustainability of enterprises is consistently at risk. While microeconomic efforts to assist the poor in starting businesses have expanded—primarily through microfinance programs—the lack of knowledge and limited business acumen on the part of entrepreneurs create a need for steady attention to enterprise progress. In contexts of extreme poverty, social sustainability may be closely equivalent to economic sustainability of enterprises developed by microentrepreneurs to provide basic necessities for their families.

Just as in formal economy commerce, business format and networks can impact the sustainability of microenterprises. Microfinance institutions attempt to facilitate development through poverty alleviation and social intervention (Ahmed, Chowdhury, and Bhuiya, 2001). The intended means to achieve these goals is the sustainable increase of income of the poor by enabling them to take advantage of market opportunities (Khandker, Samad, and Khan, 1998; Snow and Buss, 2001) by providing small loans to increase the on-going earning capacity of borrowers beyond the cost of the debt repayment. Yet, many of the poor lack not only credit, but also entrepreneurial skills and training (Snow and Buss, 2001).

Microfranchises have been shown to provide a business model that can compensate for some of the lacking experience exhibited by the franchisee; this model has the potential to increase the economic sustainability of the enterprise (Smith and Seawright, 2011). For this reason we have decided to focus this study on microfranchise firms and their supply chains. The following section provides additional information on microfranchise as a poverty alleviation tool.

MICROFRANCHISE

The potential of microfranchising to ease poverty, create jobs, and provide a financially sustainable business proposition at the BoP is a developing question. Several BoP financial and social factors must be considered (Christensen, 2008). The financial aspect of supplying the needed credit and structural support is arguably a challenge. Microfinance, the key driver of microenterprise growth (Yunis, 2008), often provides needed financing for the establishment of microfranchise firms. The added benefits to microfranchising include the provision of a standardized business model (Barthelemy, 2008; Kaufmann & Eroglu, 1999; Norton, 1988).

In formal economy franchises, the franchisor-provided business model includes a clear marketing plan that includes product, promotion, pricing, and distribution plans. The franchisor also provides training to franchisees (Justis and Chan, 1991), with accompanying supply chain networks inherent in the business model (Smith and Seawright, 2011). But economic development researchers have not yet explored the supply chain relationships and functions that may exist in development enterprises in general nor in microfranchises in particular. Because the supply chain roles and relationships are critical to franchise success in the formal economy, it is important to examine the contributions of supply chain management to the financial and social sustainability of microfranchises in the BoP context..

This study extends the literature on microfranchising to include an examination of supply chain management and sustainability. We investigate how supply chain roles and connections influence microfranchises in developing regions of the world with franchisors and supply networks in more developed economies. The supply chain relationships potentially created through replicated franchise businesses should increase the likelihood of enterprise economic sustainability, which, in a BoP context, contributes to social sustainability by creating income sources for those who have few income alternatives. A discussion of the potential contributions of supply chain management is presented in the next section.

SUPPLY CHAIN MANAGEMENT CONTRIBUTES TO ECONOMIC SUSTAINABILITY

Researchers have established the importance of supply chain management and design as a key contributor to firm success and sustainability (Piramuthu, 2005). Supply chain configuration influences the achievement of business objectives (Flynn, Huo, and Zhao, 2010). Understanding the role of supply chains in business sustainability can help businesses meet challenges, achieve goals, and establish a sustainable life cycle.

Objective Achievement

Profit maximization is an objective generally pursued by market-based businesses. Cost management, a critical element of profit pursuits, often emerges as a common measurement in supply chain management success (Christopher and Towill, 2001). Since every step in the supply chain adds cost, it is important that each firm adds sufficient value to exceed costs incurred. (Graves and Willems, 2005)

In addition to cost objectives, other supply chain initiatives such as increasing revenue, reducing risk, assuring supply, and managing assets create a more sustainable supply chain (Tang, 2007). Through understanding the company goals and applying the supply chain management solutions, the overall strength of the supply chain can be increased through reduced costs and improved customer satisfaction.

Problem Solving

Through the use of effective supply chain management a more resilient and stable supply chain can be created. This can create greater stability and robustness to meet various problems and potential disruptions. The environment of the business—including political, economic, and cultural contexts—influences the type of supply chain needed. Many supply chain disruptions, ranging from major unexpected events to daily challenges of efficiency and effectiveness management, can be averted.

Supply Chain Flows

Evaluation of supply chains is aided by supply chain mapping. By mapping supply chain configurations and analyzing the strengths and challenges, problem solutions can be integrated into current supply chains to make them more robust. Therefore, supply chains will be able to further develop to be more efficient and effective, thus promoting sustainability (Tang, 2007; Srai and Gregory, 2008). Much of current knowledge regarding supply chain design has begun with supply chain mapping.

The flow of products, information, and money help to explain the roles, activities, and relationships of various players in the supply chain. In the traditional supply chain, the flows of products and materials are unidirectional from the source to the consumer (Piramuthu, 2005). This downstream flow of materials, components, and products illustrates the value-addition of various supply chain roles. Also, the bi-directional flow of information is an integral part of supply chain coordination. While researchers have identified the importance of the flow of money in the supply chain (Flynn, Huo, and Zhao, 2010), little is specified on the direction of the flow. Yet, the well identified downstream flow of goods & services toward end-users indicates the upstream movement of payment for these goods and services.

While the research on supply chain configuration can be very helpful to managers in their supply chain design, this research is primarily conducted within developed countries. The findings are not generalizable to poverty alleviation efforts in developing economies.

Most poverty alleviation efforts that support enterprise development focus solely on the enterprise, ignoring the role of the supply chain in enterprise sustainability. This research constitutes an initial effort to explore the contributions achievable by extending the view of economic sustainability of the development enterprise to include the perspective of the supply chain. Because microfranchising increases the potential to extend supply chain relationships (as compared to non-franchised microenterprises), this study will take place within the context of microfranchise operations. Three research questions were explored:

RQ1: What supply chain functions are performed by microfranchises that contribute to economic and social sustainability?

RQ2: What are the primary supply chain relationships established by microfranchisors?

RQ3: What impact is observed regarding the flows of product and money that help illuminate the sustainability of the development supply chain?

METHODOLOGY

This research first required the assembly of a new data set of representative microfranchises that have been established in multiple areas of the developing world. Then, each supply chain was mapped based upon collected data, followed by analysis of the identified supply chains.

Data Set Assembly

Due to the limited quantity of data related to organizations operating in Base of the Pyramid (BoP) markets and a similarly limited set of prescriptions for gathering data in such markets, development of this data set started by communicating with organizations and individuals currently conducting research on the subjects of social enterprise and microfranchising. Our communication with these groups and individuals led to the development of a research protocol that included the study of existing data sets of businesses operating in BoP markets, information available through public web search, recorded interviews of individuals conducting business in BoP markets, and through surveys conducted among employees of international organizations operating in BoP locations. Due to the paucity of relevant data in any one source, using a wide variety of sources allowed us to create a large database of microfranchise businesses operating in BoP markets. That said, even though the data set stands out for its size relative to previous such sets, it is still considerably smaller than a similar database would be listing businesses found in a developed market.

In order to understand the forces influencing microfranchises, and their supply chains, in early-stage underdeveloped markets, we gathered data in markets such as those found in the least developed areas of the world such as Sub-Saharan Africa, South East Asia, and some of Central America. All of these markets fit into the lowest quartile of reported GDP Per Capita (GDPPC) in the world. GDPPC is used as a proxy for the Base of the Pyramid.

In order to examine microfranchises that exhibited economic sustainability, we eliminated from our data set any data points of franchises that had been in operation for less than a year. The average longevity of the microfranchises in the data set was 17.5 years. The useable data set of listed microfranchises that contained adequate information available to examine supply chain relationships consisted of n=73 data points.

Data Collection

Once the data set was assembled, members of the research team collected operations and supply chain data on each of the microfranchises. The focus of this data collection was obtaining information about 1) the franchisee and franchisor supply chain functions, 2) the supply chain

relationships established through the franchise relationships, and 3) the flows of products/services and money in the identified supply chain.

Many microfranchises operate in experimental spheres where conditions and opportunities are constantly changing. In order to gather the most relevant information, special efforts were made to ensure that the data were current. We searched through and referenced both published and unpublished online resources, company websites, company documents, academic case studies, and news articles as we gathered data focused on the three points of interest. We also made direct contact with a variety of organizations in order to further clarify specific information and apparent discrepancies. Coordination of data collection methods among members of the research team established a constant standard of quality in our data.

Data Analysis

The first step in the data analysis process involved mapping the supply chains of each of the microfranchises. Based on the collected data, supply chain maps with varying numbers of supply chain partners identified, were produced. All maps contained information that illustrated at least the supplier's supplier or the customer's customer. Some maps contained numerous levels of supply chain partners. In order to assure inter-rater reliability in the supply chain mapping process, the two researchers involved in the mapping process cross-checked 15% of the maps produced by the other. This increased the consistency in the mapping process.

Once the supply chains were mapped for each of the microfranchises, we identified the function performed by the microfranchise in the supply chain. The production or service role(s) carried out by franchisee and franchisor were recorded. Finally, supply chain relationships were documented, including the flow of product and money.

FINDINGS

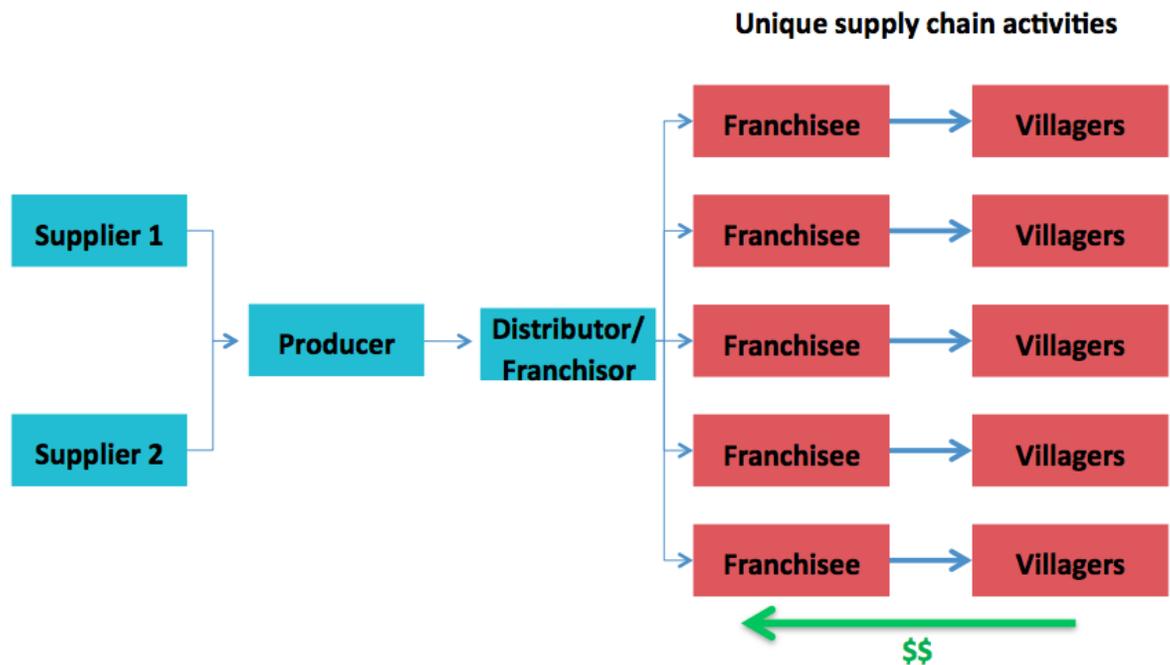
Two models of microfranchises were identified in this study—two major supply chain functions were documented. All of the 73 microfranchises examined fell into one or the other group. These two models mainly differ by the side of the supply chain in which they operate, either operating through upstream production activities or downstream distribution activities. Over 81% of the studied microfranchises perform downstream distribution roles, while nearly 19% perform upstream production roles. In this section we present the two models, including findings regarding supply chain relationships and flows of product and money within the supply chain models. Case examples of microfranchises that illustrate the two different models are included with the explanations.

Downstream Distribution Micro-Franchise Model

The distribution microfranchise model, as illustrated in Figure 1, is the most common supply chain role discovered within our dataset of microfranchises. Franchisees operating within the framework of this model perform a unique supply chain function that is not as commonly found in developed economies—especially in urban areas. These microfranchises distribute otherwise unavailable goods and services, along with information, directly to the end user.

Figure 1

Distribution Micro-franchising



The primary distribution mechanism for consumer goods in developed economies is through retail channels. However, consumers in rural villages lack transportation to retail establishments. Thus, the microfranchisee that transports health-protecting products (i.e. life-saving medications and treated mosquito-blocking bed nets), efficiency improving tools (i.e. eyeglasses and water pumps), and desired consumer items (i.e. lotions and solar lighting or cooking equipment) at a price similar to those paid in city markets create value for their customers. These microfranchisees also receive supplementary income through the profits earned in their small franchise operations.

The franchisor in this model is generally a not-for-profit organization that provides products and training to the franchisees. Through this franchisor the franchisees—and then the consumers—obtain access to products produced in the formal economy, with accompanying economies of scale and product and process technologies that would not be available to villagers living in remote areas. Consumers also receive information about products that may have previously been unknown to them. Business and marketing plan information is also provided to franchisees who often lack business acumen or sophisticated consumer experience. These connections to formal economy supply chains provide value that would otherwise be impossible in most BoP contexts. Thus, franchisors provide information and training, connections to formal economy supply

chains and the goods and services produced by them, aggregation of products from multiple producers, and marketing plans that can be replicated for implementation by multiple microfranchisees.

The flow of products down the supply chain to new potential customers can be a benefit for suppliers and end-user purchasers alike. Accompanying this flow of goods and services into poverty areas is the upstream flow of money out of the rural villages. If villagers are able to obtain needed and desired goods and services for their money expended, this is a benefit for the poor. But, potential concerns may arise if unsophisticated consumers are encouraged to spend limited funds for inadequate value while in the process of gaining experience in this new marketplace.

Case 1: Tough Stuff

Tough Stuff is a privately funded organization that distributes solar lights and energy solutions throughout Africa and other parts of the developing world. Tough Stuff's mission is to provide affordable energy products to people who lack access to electricity. The solution they provide is distributing solar energy to poor consumers through lighting, mobile phones, and radios.

Tough Stuff sources products from formal economy producers that have the technology needed to produce appropriate products in large batches. They partner with commercial distributors, government agencies, local NGO's, and microfinance institutions to help franchisees distribute their products. Tough Stuff distributes their products by franchising out a "Business in a Box" (BIAB) to people in local communities referred to as Solar Village Entrepreneurs (SVEs). These SVEs become franchisees by raising money to purchase a BIAB from Tough Stuff and distribute the products by traveling to off-grid communities where the products can be sold. The franchisees are not just purchasing a basket of goods to sell, they are also receiving a proven business model, product and sales training, and access to networks and marketing support. The franchisees purchase the BIAB at wholesale, sell the goods at retail prices and keep the profits for themselves. These franchisees can earn additional income while remote villagers gain first-time access to affordable energy products.

Tough Stuff's distribution model of micro-franchising uses a direct sales approach to distribute products to remote villagers. However, the distribution model can also follow the example of franchises like McDonalds where community members purchase a franchise and sell the products or services in a set location. Instead of traveling to hundreds of different villages to sell products or services, these types of distribution franchises set up shops in rural communities which allow community members access to beneficial goods and services.

Case 2: Vodashops

Vodashops are a good example of the microfranchise distribution model. Vodacom is one of the largest phone providers in South Africa. They found that rural villagers also want access to phones and are willing to pay for that access. Vodacom has franchised Vodashops to local villagers who provide phone access to their community. Vodacom provides Vodashops to a franchisee for an initial franchise fee, which Vodacom subsidizes. Once the franchisee

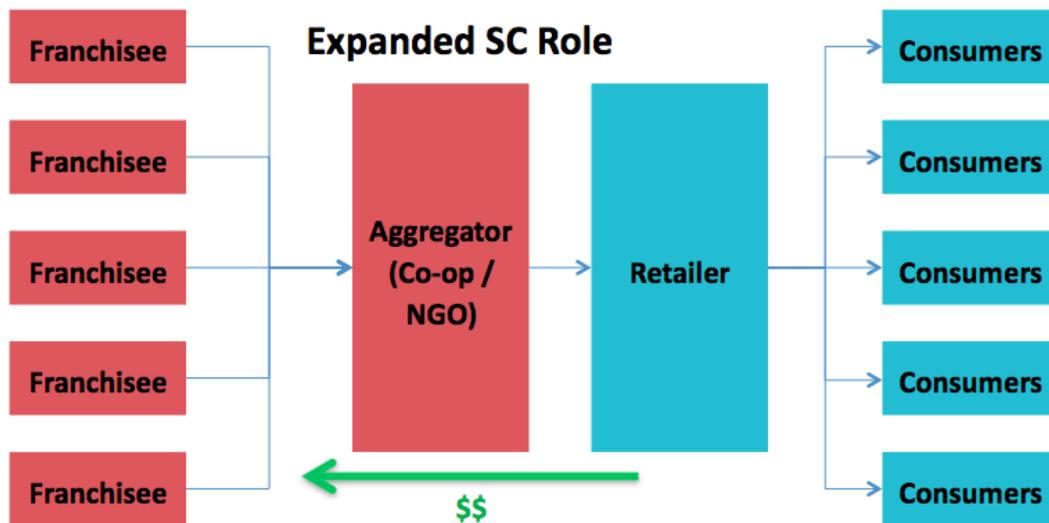
purchases the Vodashop, Vodacom builds the kiosks and provides the phones while the franchisee is responsible for equipment, transportation, and purchasing phone minutes. The franchisee purchases minutes from Vodacom at discounted rates and sells phone minutes at retail rates. Concurrently their community gains access to telephone services. The franchisee essentially acts as the community phone booth with generally five to ten phones per shop. In addition to phone shops and minutes, franchisees receive third party training and support, while having access to the branding of one of the largest phone providers in South Africa.

Upstream Production Micro-Franchise Model

The production micro-franchise model, illustrated in Figure 2, is a scalable supply chain model in which franchisees cooperate with a franchisor in the process of procuring and aggregating products and services produced in very small lots. In the production micro-franchise the franchisor becomes an aggregator for the goods and services of the franchisees. Both parties establish relationships for their mutual economic, social, and sometimes even cultural benefit. Each franchisee will typically gain increased access to previously unreachable markets (often global markets), as well as training to improve quality of produced goods. The franchisor/aggregator will often use a production micro-franchise as a means to procure raw materials and finished goods while utilizing already established human capital.

Figure 2

Production Micro-franchising



NGO-initiated Production. In the case of an NGO initiated production micro-franchise, the aggregating cooperative is considered an effective way of penetrating the informal economy that exists in the rural or disconnected parts of the world. Without the benefits of large scale product aggregation, independent farmers, craftsmen, and other producers find it difficult to remain competitive. As the world economy continues to become more globalized and liberalized, the production micro-franchise offers participants a way to remain relatively independent and survive. The NGO initiated production micro-franchise also provides a way for individuals and small- to medium-sized enterprises to sustainably increase their income and maintain long-term income security.

Case 3: Palestine Fair Trade Association

One example of an NGO established cooperative program is the Palestinian Fair Trade Alliance. According to their website, The Palestine Fair Trade Association (PFTA) is the largest fair trade producers' union in Palestine, with over 1,700 small Palestinian farmers joined in fair trade collectives and cooperatives across the country. PFTA not only aggregates the farmer's olives, consolidating the olive oil production process, but they also provide valuable training and other benefits to the franchisee farmers. Through the act of franchisee aggregation, the PFTA connects with fair trade exporter Canaan Fair Trade, which allows farmers access to downstream formal-economy supply chains. This affords rural Palestinian farmers an opportunity to remain on their lands and avoid urban migration, while sustainably making a living. The increase in income not only benefits the individual farmers and their families, but also stimulates the hyper-local economies that exist in their villages.

The key to this micro-franchise's sustainability is the inclusion of a fair-trade premium, or a sum of money paid on top of the agreed product price for social investment projects. Canaan Fair Trade guarantees farmers a 10 percent fair-trade premium above market price to encourage farmers to continue their crop production as well as keep the production aggregation function sustainable. The PFTA also made an effort to establish a quality standard, guaranteeing that all their products are certified organic. This allows Canaan Fair Trade to add an additional 10% premium to their price to further balance operational expenses.

Workers Cooperative. In a workers cooperative, the workers themselves, as equal partners, are the sole beneficiaries of the production micro-franchise. The workers (who can be farmers, craftsmen, tradesmen, etc.) aggregate their production by pooling their resources for a common goal, which is often simply to avoid bankruptcy while maintaining independence within their own business. The aggregation of their goods or services helps the cooperative build capacity, compete, and sustain profitability. The workers, in this case, are the initiators of the production micro-franchise aggregator and will also be responsible for its perpetuation. Small worker cooperatives will manage a production micro-franchise as a collective of member owners, while larger organizations and groups will usually develop a more hierarchical governing structure. This governing body will establish bylaws and regulations regarding quality standards as well as the financial support of the aggregation function.

Case 4: Shri Mahila Griha Udyog Lijjat Papad

Shri Mahila Griha Udyog Lijjat Papad, popularly known as Lijjat, is a powerful example of a successful workers cooperative production micro-franchise. Lijjat is a women's empowerment cooperative located in India that involves nearly 42,000 individuals. Initiated by seven Gujarati women from Mumbai in 1959, Lijjat has proven the scalability and sustainability of its model through years of profitable operations. The organization operates as a collective ownership, and accepts all its working members as equal members who share both profits and loss. Since Lijjat is an all-women's production micro-franchise, members are referred to as "sisters", and all decisions are based on consensus, where any other member sister has the right to veto. There are over 100 geographical branches and divisions all over India. In each branch women are divided into groups where some knead dough while others package and check for quality. Lijjat's supply chain is set up so the procurement of raw materials is handled by the head office and distributed to the geographical branches. At each geographical branch, papats are produced by local women and then distributed to a nearby depot for collection, and then sold to exporters or other retailers. In this way, underemployed women in urban and rural towns are able to use skills they already possess skill set to participate in a globally reaching supply chain.

For-profit Production. Production micro-franchises can also be established by for profit companies. These market based production micro-franchises are initiated and perpetuated by a third party company or enterprise that seeks to capture the benefit of product or material aggregation. Often times the company will see an opportunity to capitalize on already present infrastructure or industry that exists in the informal economy, and seek to incorporate it in its supply chain. Though the creation and maintenance of the production micro-franchise will require some financial investment, the company is usually able to claim many additional benefits beyond increased access to goods or services. Through its association with the production micro-franchise as well as the franchisees themselves, the company running the aggregator is able to increase local brand recognition and boost sales.

Case 5: Unilever's Bango Brand

Unilever is one such company that has explored the opportunity to utilize a production micro-franchise in a for-profit supply chain. Unilever, owner of the Bango brand in Indonesia, utilized the production micro-franchise model to increase raw material procurement capability. In order to create its specialty black soy bean soy sauce, Bango must use only unique black soy beans from the island of Java. The previous black soy bean sourcing strategy was not able to meet product demand and consequently Bango and Unilever were losing sales. In order to encourage more local farmers to grow black soy beans for Bango, the company initiated many production micro-franchises that enabled farmers to establish direct trading relationships with Bango production facilities. Though Unilever pays new franchisees the same price for their soy beans as existing suppliers, the removal of a complicated system of middle men has resulted in an increase of 10-15 percent in profit margins for the rural farmers. The production facilities are also committed to buying all the black soy beans supplied by the production micro-franchises that meet Bango's quality standards. The existence of a guaranteed market offers a great incentive to many rural farmers to participate in the program.

After the introduction of production micro-franchises in Java, Unilever saw a significant expansion of the Bango brand, which saw sales grow by nearly nine-fold. Close links between the Bango brand and those rural farming communities increased brand proliferation and permeation, resulting in increased brand recognition throughout the island. Unilever was also able to meet the rise in product demand with its access to additional soy beans from the production micro-franchises. And the increased sales of Bango soy sauce increased brand recognition of additional Unilever brands sold in Indonesia. Though connecting the farmers to a global supply chain required an initial investment by Unilever and Bango, Unilever believes that the additional economic and social benefits from the production micro-franchise program outweigh the costs, making the venture a sustainable one.

In all three cases of the production microfranchise model, the role of aggregator performs many critical functions that create supply chain connections. First, extremely small production lots are collected into a batch large enough to be more efficiently marketable. Second, the aggregator also provides training and, sometimes, quality standards to the producing microfranchisee, thereby supplying otherwise unobtainable information from intermediary- or end-users. And, finally, the aggregation function connects the producers that operate in the informal economy with formal economy supply chains and markets for their goods and services. An additional advantage to this model is the direction of the flow of money. Since money flows up the supply chain, money flows into the rural villages, bringing much needed cash into that economy.

CONCLUSION

This initial inquiry that explored the role of the supply chain in BoP operations has focused specifically on the context of microfranchising. Mapping the supply chains of 73 microfranchises highlighted the existence of two supply chain roles filled by these franchise operations: 1) distribution model and 2) production model. In both of these models the franchisor was found to provide training that increases human capital as well as connections from the informal economy franchisee to other formal economy supply chain functions. Additionally, following the flow of product and money in the supply chains reveals whether cash is flowing into or out of the BoP environment, and what previously unavailable goods are making their way into new locations.

The exploratory methodologies employed in this research highlight the potential of supply chain management to contribute to economic development. Further research is needed to test specific hypotheses concerning the potential of specific supply chain designs and implementations to enhance economic and social sustainability of BoP businesses, particularly microfranchises.

Social innovations within BoP environments aim to intervene and alter the cycle of poverty. The establishment of microfranchises, and their supporting supply chain functions, is one intervention that has been shown to move program participants toward social and economic change in their lives. This research indicates the possibility that supply chain configuration may influence the achievement of the social objective of poverty alleviation via the creation of economically sustainable microfranchises. It also contributes solutions to the problems of

providing income and previously unavailable goods and services to the poor. This research can inform practitioners involved in the formation of microfranchise operations. Supply chain planning and design, along with franchise design, can strengthen the social and economic sustainability of their poverty alleviation efforts.

References

- Ahmed, S., Chowdhury, M., and Bhuiya, A. (2001). Micro-credit and Emotional Well Being: Experience of Poor Rural Women from Matlab, Bangladesh. *World Development*, 29 (11) 1957-1966.
- Barthelemy, J. (2008). Opportunism, knowledge, and the performance of franchise chains. *Strategic Management Journal*, 29, 1451-1463.
- Bower, J. L. and Christensen, C. M. (1995). Disruptive Technologies: Catching the Wave. *Harvard Business Review*, January – February.
- Carter, C. R. and Rogers, D. S. (2008). A Framework of Sustainable Supply Chain Management: Moving Toward New Theory. *International Journal of Physical Distribution and Logistics Management*, 38 (5), 360-387.
- Christensen, L.J. (2008). Alleviating poverty using microfranchising models: Case studies and a critique. In C. Wankel (Ed.), *Alleviating poverty through business strategy* (pp. 149-170). New York: Palgrave Macmillan.
- Flynn, B. B., Huo, B. and Zhao, X. (2010). The Impact of Supply Chain Integration on Performance: A Contingency and Configuration Approach. *Journal of Operations Management*. 28. 58-71.
- Graves, S. C. and Willems, S. P. (2005) Optimizing the Supply Chain Configuration for New Source, *Management Science*, 51 (8) 1165-1180.
- Justis, R. T. and Chan, P. S. (1991). Training for Franchise Management. *Journal of Small Business Management*, 29.
- Kaufmann, P.J. & Eroglu, S. (1999). Standardization and adaption in business format franchising. *Journal of Business Venturing*, 11, 69-85.
- Khandker, S. R., Samad, H. A., and Khan, Z. H. (1998). Income and Employment Effects of Micro Credit Programmes: Village-level Evidence from Bangladesh. *The Journal of Development Studies*, 35 (2), 96-124.

Norton, S.W. (1988). An empirical look at franchising as an organizational form. *Journal of Business*, 61, 197-218.

Piramuthu, S. (2005). Knowledge-based Framework for Automated Dynamic Supply Chain Configuration. *European Journal of Operational Research*. 165. 219-230.

Prahalad, C. K. (2010). *The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits*, Prentice Education Inc., Upper Saddle River, New Jersey.

Sikdar, S.K. (2003), "Sustainable development and sustainability metrics", *AIChE Journal*, Vol. 49, No. 8, pp. 1928-32.

Smith, I. H., Seawright, K. (2011). Development franchising as social innovation: Compensating for a lack of entrepreneurial expertise and connecting to formal supply chains. Paper presented at the *Business as Social and Environmental Innovation Conference*, Cape Town, South Africa.

Snow, D. and Buss, T. (2001) Development and the Role of Microcredit. *Policy Studies Journal*, 29 (2).

Srai, J. S. and Gregory, M. (2008). A Supply Network Configuration Perspective on International Supply Chain Development. *International Journal of Operations and Production Management*. 28 (5) 386-411.

Tang, C. S. (2007). Robust Strategies for Mitigating Supply Chain Disruptions. *Journal of Logistics Research and Applications: A Leading Journal of Supply Chain Management*, 9 (1) 33-45.

Yunis, M. (2008). *Creating a world without poverty: Social business and the future of capitalism*. Philadelphia, PA: Public Affairs.