Impact measurement for companies sourcing from smallholder farmers in their value chains

KEVIN McKAGUE

Just as no company would launch a new product or make a major investment without considering how to assess its effectiveness, no company should consider working with smallholder farmers without considering how to measure and monitor the financial and social performance of this activity. Most companies working with smallholder farmers do gather some information, but this information often lacks a clear focus. While these stories can help personalize the impact of a strategy, they are not sufficient to improve a company's performance or communicate to discerning external stakeholders. To demonstrate true poverty impact and returns on resources committed, companies need to measure their activities in a systematic way. Facing this gap, a number of companies have experimented with their own approaches to assessing poverty impact, and organizations have proposed a variety of different measurement and monitoring frameworks specifically designed with companies in mind. This paper gives an overview of the business value that can be created from measuring poverty impact in an agricultural value chain initiative and points to some tools, indicators, and lessons learned for how companies can go about maximizing the business and social impact of their work with smallholder farmers.

Keywords: impact measurement, companies, agriculture, value chain, smallholder farmers, private sector, poverty alleviation, tools and frameworks

> Understanding the economic, social and environmental impacts of a company's activities is critical to forming innovative strategies that meet the demands of today's rapidly changing world with brands and services that improve people's lives in a sustainable and equitable way. The challenge for companies lies in measuring the impacts of these strategies not just in terms of financial performance but in how they benefit society (Paul Polman, CEO, Unilever).

JUST AS NO COMPANY WOULD launch a new product or make a major investment without considering how to assess its effectiveness, no company should consider working with smallholder farmers without considering how to measure and monitor the financial and social performance of this engagement. Most companies working with smallholder farmers do gather some information, but this information often lacks a clear focus; it is often in the form of the numbers of farmers the company sources from, perhaps supplemented with anecdotal case studies of how individual farmers have benefited. While these stories can help personalize the impact of a strategy

Kevin McKague (Kevin_McKague@cbu.ca) is Postdoctoral Research Fellow, Ross School of Business, University of Michigan; Visiting Professor, Shannon School of Business, Cape Breton University, Nova Scotia; and Senior Fellow, Center for Peace, Democracy and Development, UMass, Boston.

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and draw a reader in by giving a voice to farmers who face genuinely challenging circumstances to make a living, they are not sufficient to improve a company's performance or communicate to discerning external stakeholders. To demonstrate true poverty impact and returns on resources committed, companies need to measure their activities in a systematic way. Facing this gap, a number of companies have experimented with their own approaches to assessing poverty impact, and organizations have proposed a variety of different measurement and monitoring frameworks specifically designed with companies in mind. This is a good first step, but many of the proposed guidelines are in the early stages of implementation in a new field of activity. It is important, then, that companies not only learn from the guidelines of others but also adapt existing experiments and pilots for their own particular businesses and value chains. This paper will give an overview of the business value that can be created from measuring poverty impact in an agricultural value chain initiative and point to some tools, indicators, and lessons learned for how companies can go about maximizing the business and social impact of their work with smallholder farmers.

Poverty impact measurement by companies

The literature on value chains and poverty alleviation has evolved over the last 20 years. Its initial emphasis was on supporting microenterprises to engage in value chains through the provision of non-financial business development services (Gamser, 1992; Tanburn, 1996; Gibson, 1997). Subsequently, the literature built on the work of Porter (1980) to incorporate an understanding of the competitive forces that shape industries and value chains and the opportunities and constraints for enhancing their potential to benefit enterprises such as smallholder farmers (Kula et al., 2006; London and Anupindi, 2010; McKague and Siddiquee, 2014). As the value chain literature evolved, it increasingly adopted a systems approach that took account of the actors, relationships, and incentives at work throughout the entire chain from end to end (Jones, 2011). This systems approach led to a greater emphasis on working with companies and lead firms in the value chain to ensure that interventions would be sustained by business incentives and market forces (Jones and Miehlbradt, 2009). Although research has been done on monitoring and measuring the poverty impact of value chain programmes from the perspective of donors and NGO implementation organizations (DCED, 2013; Kaplinsky and Morris, 2001; McVay and Snelgrove, 2007; Mitchell and Coles, 2011; Springer-Heinze, 2007; Altenburg, 2007), the issue of poverty impact measurement from the perspective of companies or lead firms within a value chain remains understudied. This is an important area of further research because by monitoring and measuring their poverty reduction impact on smallholder farmers in their value chains (as well as the impact on their business), companies can generate information that will allow them to maximize their development and business impact.

About the research

This article is divided into four major sections. The first section identifies the four main business benefits for companies to engage in measuring and monitoring their poverty alleviation impact. These four main business benefits were identified through an in-depth longitudinal study of a major dairy value chain development initiative in north-west Bangladesh that was implemented by CARE and funded by the Bill & Melinda Gates Foundation. The research was carried out between 2009 and 2013 and included four field visits to Bangladesh to interview companies, farmers, CARE staff, industry experts, and other stakeholders at every stage in the dairy value chain. Companies interviewed included BRAC Dairy, PRAN, Grameen-Danone, Milk Vita, and ACI Goodrej. In addition, representatives from the International Finance Corporation and four dairy sector economists and industry experts were interviewed. Archival documents including CARE's monitoring and evaluation data on their partner companies, value chain assessments, memoranda of understanding with company partners, and semi-annual progress reports were analysed. Three confidential meetings between CARE staff and managers of large companies sourcing inputs from smallholder farmers were observed where issues of motivations and incentives were the main focus of discussion. Interviews were recorded and field notes were taken and summarized into the four main business benefits for companies from measuring their social impact.

The second section provides an overview of the four major tools and frameworks that companies can use and adapt to measure and monitor their poverty alleviation impact. These tools were identified and prioritized through a literature review of practices in this newly emerging field that was conducted from 2009 to 2013 in parallel with the research on the Bangladeshi dairy value chain. Examples of how companies have used these tools in their agricultural value chains are offered, based on existing research and secondary sources. The third section offers example indicators and metrics drawn from the frameworks and tools profiled. The fourth section summarizes lessons learned by companies seeking to measure their impact when sourcing from smallholder farmers.

Business benefits for poverty impact monitoring

Based on data from companies in the dairy sector in Bangladesh, and consistent with the experience of company value chain initiatives around the world (McKague, 2011; McKague and Oliver, 2012), I have identified four categories of business benefits when companies measure and monitor their poverty reduction impact: reduced costs and improved efficiencies; opportunity and risk recognition; legitimacy and reputation; and access to resources.

Reduced costs and improved efficiencies

Business benefits from working more closely with smallholder farmers in their value chains include reduced costs and improved efficiencies. This can be achieved in a number of ways. First, through improved quality via improved training, storage, and techniques for safe handling of the agricultural products produced. Higher quality agricultural inputs from farmers reduce waste and rejection rates. Second, companies can reduce procurement costs through working with farmers to aggregate production and transportation. For example, a number of the major dairy processing companies in Bangladesh work with farmer groups or collectors to aggregate milk into larger volumes. Third, companies that work with other value chain actors can also make value chain transactions more efficient and transparent thus enhancing the competitiveness of the entire sector. In some cases, the economic costs may be greater than the purely economic savings, but intangible business benefits should also be taken into consideration because both the tangible and intangible costs and benefits are necessary to generate a clear picture. Intangible resources are discussed further below. Reducing costs and improving efficiencies is an important business benefit that can be achieved by companies that monitor and manage their work with smallholder farmers.

Opportunity and risk recognition

Monitoring a company's interactions with smallholder producers is critical for informed decision-making and for recognizing business opportunities and risks. Careful monitoring of information exchanges helps companies understand early what is working and what isn't and whether intended business and social impacts are being achieved. It also creates an early warning system for market trends and how the business environment for farmers may be changing. In the case of Bangladesh, Melamine-contaminated milk in China caused a severe price shock in the formal milk market, impacting farmer sales. Companies actively monitoring the impacts of events on farmers could be in a better position to mitigate the impacts of these changes and maintain farmer loyalty. Company managers with timely information about farmer performance and market trends are better able to quickly address emerging risks or capture new opportunities. An example of companies identifying a new market opportunity through monitoring smallholder farmers was feed companies that saw the need for packaging feed in smaller (10 kg) bags. The markets that farmers operate in can be complex and dynamic. Tracking impacts, trends, and changes allows companies to solve problems early and identify new business opportunities.

Legitimacy and reputation

Another business benefit for companies from measuring and monitoring their impact on smallholder farmers is enhanced reputation and social legitimacy. Companies able to credibly demonstrate a contribution to poverty alleviation and broad-based inclusive growth position themselves as valuable members of a country's economy and society. Increasingly, governments, NGOs, investors, and other stakeholders are asking companies to demonstrate just how their business alleviates poverty. Gone are the days when most stakeholders were content with companies only paying taxes and creating jobs. Today, membership of reputation-enhancing and resource-providing organizations, such as the World Business Council for Sustainable Development (WBCSD) and Business Call to Action (BCtA), requires that companies report their results in contributing toward poverty alleviation and sustainable development on an annual basis. Legislation in some countries, such as under South Africa's King Code, makes detailed corporate reporting on social impact mandatory. However, whether reporting is suggested or mandatory, measuring company impact reliably and offering up transparent, concrete figures will improve the legitimacy and reputation of a company among its many stakeholders, including those that control access to tangible and intangible resources. Company legitimacy and reputation is important when entering into new partnerships with NGOs; they are valuable partners who bring to the table important resources such as knowledge of local markets and cultural contexts. When companies can demonstrate positive impacts on smallholder farmers they are able to generate social legitimacy and enhanced reputation with stakeholders.

Access to resources

Being able to measure and demonstrate the impact a strategy or activity has on the livelihoods of smallholder farmers in their value chain can help companies access both financial and non-financial resources. Many of the multilateral development banks, including the International Finance Corporation (IFC), African Development Bank (AfDB), Asian Development Bank (ADB), and the Inter-American Development Bank (IADB), demand a demonstration of a company's contribution to poverty alleviation and sustainable development as a prerequisite for securing loans. Collectively, these banks have loaned over US$100 bn to companies in developing and emerging economies, often on preferred terms. Many loans come with access to technical assistance and business development services, also at preferred rates. For example, PRAN, one of the largest dairy processors in Bangladesh, was able to access $37 m in loans from the IFC to increase the integration of rural farmers into their supply chains and create rural jobs. Other funds and partnerships are also available to companies capable of concrete and transparent reporting. The UK's Department for International Development, for example, funds technical assistance for companies wanting to implement an inclusive business initiative, including working more closely with smallholder farmers. The Bill & Melinda Gates Foundation is similarly interested in funding small value chain developments, and purchased 20 digital fat testing meters for BRAC Dairy as part of a CARE programme to pilot test the technology in Bangladesh. Measurement and reporting on their impact therefore has important business benefits for companies sourcing from smallholder farmers in their value chain.

Tools and frameworks for business

Although business benefits exist, the field of measuring and monitoring poverty impacts by business is still relatively new and there are considerable challenges for design and implementation. Tools and frameworks used by NGOs were often not developed from the perspective of private sector companies and their business drivers, as discussed above. Like any other specialized activity, monitoring and gathering data on smallholder farmers in a company's value chain requires some specialized skills. NGOs can be valuable partners in this respect as they have often spent many years on the ground measuring and monitoring impacts. Company monitoring may also require additional financial resources if there is significant complexity of a particular context, but companies may be able to leverage donor resources to help cover these costs. In order to remain cost effective and make the process as easy as possible, companies should look for ways to integrate smallholder farmer data collection into existing data collection initiatives.

A major challenge for any data collection initiative is to ensure that the information collected is trustworthy. This is essential for decision-making and the integrity of communications based on this information. Collection methodologies must pay attention to quality control to enhance reliability. Further, in order for the information to be valuable for business, it should be designed to capture both the positive and the negative impacts and unintended consequences for farmers.

In recent years, a number of frameworks have been proposed to help companies monitor and assess their poverty alleviation impacts. The most prominent approaches

Table 1 Prominent frameworks for measuring and evaluating business contributions to poverty alleviation

Framework	*Description*	*Example*
Business Call to Action's (BCtA) Results Reporting Framework	As a condition of membership of BCtA (a group of 45 companies committed to pursuing market-based core business approaches to poverty reduction), companies are required to annually report progress on a 5-page set of indicators.	Cadbury Cocoa Partnership in Ghana
Business Innovation Facility's (BIF) Monitoring and Evaluation System	Funded by the UK's Department for International Development, BIF provides technical assistance and advice to companies seeking to reduce poverty in their value chains. Companies receiving support are required to track business, development, and environmental results at the beginning and end of the initiative to measure impact.	Guinness in Nigeria
Base of the Pyramid (BOP) Impact Assessment Framework	This framework helps users to identify qualitatively the positive and negative impacts of their ventures to serve the poor. Users are guided to identify impacts at the levels of the producer, consumer, and the community and prioritize management responses.	Danone in Mexico
World Business Council for Sustainable Development's (WBCSD) Measuring Impact Framework	With input from the International Finance Corporation and from business, this framework allows companies to choose their own indicators and walks users step by step through the process of measuring impacts, assessing their contribution to poverty alleviation, and prioritizing management responses.	Nestlé in Peru

are the WBCSD's Measuring Impact Framework, BCtA's Results Reporting Framework, the Business Innovation Facility's Monitoring and Evaluation System, and Ted London's Framework for Investments at the Base of the Pyramid (see Table 1). Illustrative examples of the use of each of these frameworks by companies are given below.

Cadbury in Ghana

Cadbury has used BCtA's framework to measure its impact and report on its Cocoa Partnership in Ghana. BCtA is a global, member-based group of 45 companies that are aiming to reduce poverty through commercially viable core business activities that benefit low-income producers, suppliers, consumers, and distributors. BCtA receives funding from several bilateral aid agencies as well as the UN, and a condition of company membership is completing an annual Results Reporting Framework. Working with other companies, NGOs, communities, donors, and West African governments, the Cocoa Partnership aims to increase incomes and crop yields for cocoa farmers while also addressing health, gender, child labour, and environmental issues in the sector. Working through the Cocoa Partnership, Cadbury, now owned by Kraft Foods, has provided training and technical assistance to over 100 cocoa-farming communities and formed collaborative relationships with many organizations in the cocoa value chain. Cadbury's Results Report, based on BCtA's framework, reports on indicators grouped into the categories of investment, job creation, human capital development, enterprise development, income generation, access to goods and services, and infrastructure and environmental sustainability. As a result, Cadbury and other Cocoa Partnership members are working with a common set of metrics on improving the livelihoods of smallholder cocoa farmers.

Guinness in Nigeria

Guinness has used the Business Innovation Facility's Monitoring and Evaluation System to track impacts on smallholder farmers supplying sorghum and maize to its three brewing facilities in Nigeria. Although maize and sorghum account for 80 per cent of the company's agricultural inputs, until recently it did not directly source these inputs from farmers but instead relied on third party brokers. Increasing demand and competition for quality raw material inputs has driven Guinness strategy towards sourcing directly from smallholder farmers. Guinness is also working with NGOs, donor agencies, banks, and research organizations to facilitate increased farmer training and overcome some existing constraints and inefficiencies in the sorghum value chain. As part of its collaboration with the Business Innovation Facility, Guinness has developed its own indicators to report information on benefits to its business, impacts on poor producers, ecological impacts, and potential for scale. Guinness plans to expand its current pilot project to ultimately source from 6,000 small farmers, while continuing to measure and monitor impacts.

Danone

The Base of the Pyramid Impact Assessment Framework has been used on a social venture, Semilla, supported by the Danone Ecosystem Fund. Semilla sells Danone yogurt door to door in Mexico City. The social venture hires disadvantaged women living in poverty with little education. In addition to providing an opportunity for income generation, Semilla also works with a local NGO to provide the saleswomen with training in life skills and marketing. The Base of the Pyramid Impact Assessment Framework was completed by a team of six researchers who interviewed saleswomen, supervisors, and customers with a structured methodology over a number of weeks. The outcome of the assessment gave venture leaders an indication of the impacts of their enterprise, and how they might enhance positive impacts and mitigate negative impacts to enhance the overall performance of the venture.

Nestlé in Peru

Nestlé has used the WBCSD's Measuring Impact Framework as a learning tool. Although Nestlé's focus was on assessing the impact of a sales agent distribution model in the San Juan de Lurigancho district in Lima, Peru, the framework can also be used with smallholder farmers. Nestlé's venture sought to enhance incomes for women employed as door-to-door sales agents and increase the health of customers who purchased Nestlé's nutritional food products. Nestlé used the WBCSD Measuring Impact Framework to understand the initial impacts of the venture on sales agents, consumers, and the company, and to select indicators to track in future. Nestlé also used the framework to identify key success factors that could be used to replicate the model in other areas of the country. By using this framework, Nestlé was able to learn a great deal about the low-income distributors in its value chain and how the tool could be used to learn about measuring impacts on smallholder farmers.

Example indicators and metrics

A number of the frameworks listed in Table 1 include sample indicators and metrics that companies could use to measure their poverty reduction impact in working with smallholder farmers in their value chain. In particular, the BCtA and Business Innovation Facility offer specific metrics that can be tracked. However, each business context and value chain will be unique and may require adaptation of the sample indicators suggested. An illustrative list of indicators is provided here that can be tracked to monitor and measure impacts on smallholder farmers. Example indicators and metrics include:

- Number of farmers benefiting
- Increased incomes and reduced costs for farmers
- Training and capacity building
- Resources leveraged
- Opportunities created and local enterprises developed
- Access to inputs, goods, and services for farmers

- Empowerment
- Impacts on equality, including gender
- Access to markets
- Social protection and stability
- Ecological value created and protected
- Social institution and physical infrastructure building

Frameworks typically have lists of indicators from which companies can pick and choose according to their particular value chain context, internal priorities, and external stakeholder communication needs. No one set of pre-determined indicators is applicable to every company in every industry and country context. Instead, indicators can be selected and adapted for the individual context of each value chain.

Principles and lessons learned

Interviews with companies in the dairy value chain in Bangladesh and an overview of the experiences of other companies reveal a number of key principles and lessons learned that can be applied to whichever approach a company chooses to take.

As with any data collection system, the design of an impact measurement system begins with the information needs of the companies using the data. The key business drivers for companies were discussed above. Not only will this information be used by company managers and decision-makers, but it must be accessible to a variety of other stakeholders. Once these foundation blocks are identified, there are five tensions that need to be managed in designing and implementing a company's poverty reduction monitoring system. The system must: 1) be simple but thorough; 2) qualitative and quantitative; 3) positive and negative; 4) capture individual and system changes; and 5) be consistent and flexible.

Simple but thorough

The tension between a system that is simple but thorough and useful but realistic is likely the most challenging of all. The measurement and monitoring process must not be too burdensome, resource intensive, or complicated as to impair its use. At the same time, and as much as possible, it should be sufficiently robust to gather enough timely, accurate data to aid in internal decision-making and be credible for external communication. Information should be prioritized and proxies can be used for simplification. Companies can aim to do their best within constraints, remembering that resources and capabilities from partners may be available.

Quantitative and qualitative

An evaluation of poverty impacts in the value chain needs to present as much of the whole story as possible, including things that can't be measured. To the extent possible, collect both quantitative and qualitative indicators. Quantitative indicators are those that can be specifically measured, such as change in the incomes of farmers. Qualitative indicators include stories and case studies of how individual farmers have benefited from being included in a company value chain.

Positive and negative

Seek to capture both positive and negative impacts. Any significant change is associated with some negative impacts even if the overall net change can be positive. Sometimes, interventions have unintended consequences. Knowing what isn't working is important to learning, adaptation, and mitigation. Knowing what is working means being able to focus resources and raise the overall impact of the initiative.

Individual and system changes

In order to capture a holistic picture, information should be captured at different levels. This means tracking impacts on individual farmers and communities as well as larger system changes at the level of the industry nationally or even at the global level. While larger system changes will be difficult to quantify, it is nevertheless important to pay attention to trends. Perceptions of key stakeholders may help in this regard.

Consistent and flexible

In order to be comparable over time, information must be gathered in ways that will allow for comparison and the identification of changes. At the same time, the system will need to adapt as its users learn more about what information is most important. The system thus needs to allow for updating and refinement while allowing for comparability. It may take time to produce results, but consistency balanced with flexibility will allow users to capture these important dynamics.

Conclusion

Companies that source agricultural inputs from smallholder farmers in developing countries are increasingly called upon to provide credible evidence of their impacts. Drivers for this increased attention to measuring impact on poor producers come from internal business benefits that can be achieved – reduced costs, reduced risks, increased recognition of market opportunities, and increased access to resources – as well as external drivers such as enhanced legitimacy and reputation in the eyes of governments, consumers, and communities. However, companies seeking to improve their monitoring and measurement of impacts on smallholder farmers in their value chains face considerable challenges in design and implementation of reliable systems because the field is so new. A number of frameworks have begun to be developed specifically to provide guidance to companies. These frameworks often offer example metrics and indicators that can be selected and adapted according to the unique needs of each individual value chain and company. When implementing monitoring and measurement systems, experience to date has resulted in a number of principles and lessons learned that can be useful guides for current and future impact measurement initiatives. It is hoped that further knowledge of why and how lead firms and companies can measure the impacts on smallholder farmers in their agricultural value chains can contribute to more inclusive and sustainable economic development and more prosperity for all.

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