

Master Thesis - Abstract

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Potential Sustainability Effects Resulting from Embeddedness

A Case Study of Nescafé in the Philippines



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Abstract

While many studies have been conducted about negative externalities stemming from the doings of multinational enterprises (MNEs), positive externalities have widely been neglected. However, we hypothesize that embedded (economic) activities of a company can lead to the sustainable development of an entire value chain.

This study focuses on the embeddedness of the green coffee bean sourcing operations of Nestlé Philippines Inc. for its Nescafé brand. In order to collect first-hand-data we used a mixed methods approach to assess embeddedness in an explorative manner. Nestlé is strongly embedded within the Philippine coffee value chain. It has many and intense connections to suppliers, government agencies, and NGOs.

Our hypothesis can be confirmed as the embeddedness of Nestlé creates direct and indirect benefits for all actors within the local upstream coffee value chain. While Nestlé profits from good reputation and a steady supply of good quality coffee, farmers profit e.g. from improved productivity.

Introduction

Many studies have been conducted about negative externalities, especially related to negative ecological impacts stemming from the doings of MNEs in developing countries (e.g. Hüsser & Doppler 2011). Positive externalities at the other hand have widely been neglected. Even if in many sustainability assessments embeddedness is a crucial factor within some indicators, it is only included partially (e.g. Grenz et al. 2013). Most embeddedness studies concern social embeddedness (Badry 2009; Heidenreich 2012) or policy embeddedness (e.g. Fransen 2013) but a study including a holistic view of embeddedness in its entirety is missing. The focus of this research is therefore on positive externalities resulting from the embeddedness of an MNE.

My research is part of a larger CTI (Commission for Technology and Innovation) project that will lead to the design and application of a **tool-kit that measures the positive sustainability effects of locally embedded Swiss-based MNEs in developing countries**. This tool-kit will be based on indicators that are surveyed in case study questionnaires, such as the ones used in this study, by students of the Swiss Federal Institute of Technology (ETH) Zurich in different countries and for different products.

This case study was conducted in the Philippines. It analyzes the green coffee bean sourcing of Nestlé Philippines Inc. (here after 'Nestlé') for its Nescafé brand. Programs referring to coffee sourcing are included in Nestlé's Nescafé Plan.

As concrete case studies on the extent and quality of embeddedness of MNEs in developing countries have so far not been carried out, it is worth to investigate Nestlé as the world's largest food company in this setup.

The objectives of this master thesis were:

- To find positive externalities resulting from the embeddedness of Nestlé's coffee sourcing;
- To assess how embeddedness can lead to a sustainable development of a company like Nestlé and the whole coffee value chain;
- To assess the applicability of embeddedness as a concept to measure sustainability effects including the search for suitable indicators.

Theory

The economic term embeddedness means, that people's economic activities are embedded in local culture, community and economic networks (Polanyi 1944; Granovetter 1985). The term embeddedness was invented by Karl Polanyi (1944) to define social relationships of natural economies - where resources were transferred without the use of money - and the way economies are embedded in society and culture. The economic behavior then became more and more autonomous and "...economic transactions were no longer defined by the social or kinship relationship obligations [...] but by rational calculations of individual gain" (Granovetter 1985). Hence, embeddedness is a concept that relates to how companies are rooted in the local context, how they work together with other businesses, institutions, clients, suppliers and employees. Embeddedness is important for an MNE like Nestlé as it can facilitate the access to local competences, knowledge and supply of raw materials such as green coffee beans. Embeddedness further facilitates the coordination among all stakeholders. Uzzi (1997) defined three components of an embedded relationship: Trust, fine grained information and joint problem solving. Positive externalities thereby are created when the production of a good (i.e. coffee) creates a benefit for a third party - not paying for it. For example when through training of farmers by the MNE, pesticides are used correctly and reasonably, then the whole community profits from a less polluted environment and improved health (Uzzi 1997; Badry 2009; Figueiredo 2011; Heidenreich 2012).

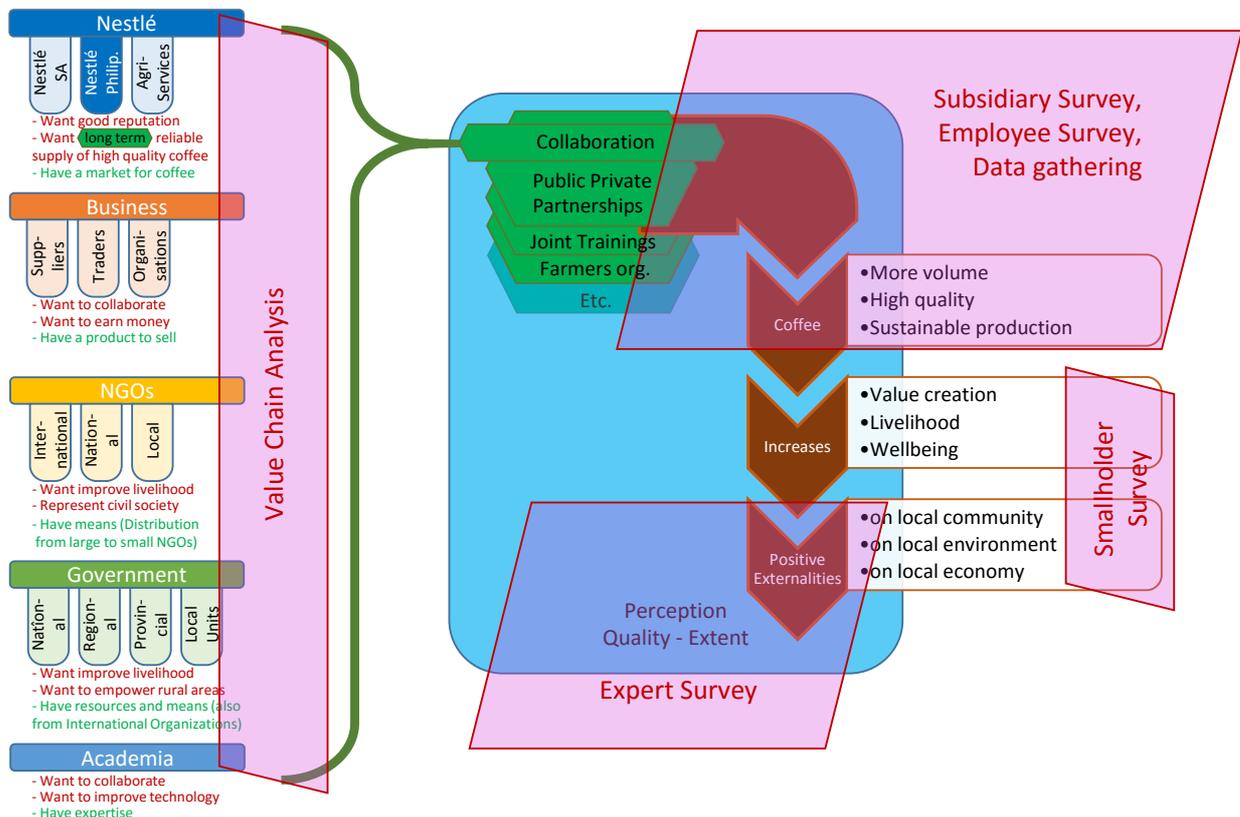


Figure 1: Possible impact pathways of embedded activities including the applied methods: Left: Stakeholders of coffee value chain (Red: incentives, green: offers stakeholder can have or give). Green Hexagons: Embedded activities with its impacts (brown arrows). Purple Rhomboids: Research methods used to investigate the different steps of the Philippine Robusta coffee value chain

Potential impact pathways are depicted in Figure 1. Different stakeholders within the Philippine coffee value chain have different incentives to collaborate with each other. Those incentives are written in red on the left side. Written in green are the offers of each group it can provide in exchange. Nestlé for example aims for example for good reputation and a long term supply of high quality coffee. It can in return provide a market for coffee farmers to sell their product.

Embeddedness can be segmented differently. One possibility are the six types of embeddedness of Halinen and Törnroos (1998) who divided embeddedness into temporal, spatial, social, political, technological and market embeddedness. Other categories are possible and can be used to group indicators as well. For the case studies conducted in this CTI project we distinguished seven dimensions of embeddedness. Social, economic, technological, environmental and infrastructural embeddedness as well as relational and structural and political embeddedness. The temporal aspect is appearing in all seven dimensions.

Methods

As there exists no ready-to-use-method, this case study uses a mixed method approach including different qualitative and quantitative surveys to assess embeddedness in an explorative manner to collect primary data (Kelle 2009; Kuckartz 2014). The applied methods along the value chain are indicated in Figure 1.

First, a value chain analysis was conducted to find the important stakeholders concerning the Robusta coffee sourcing business (upstream value chain) of Nestlé Philippines. The internal view was provided by Nestlé in a subsidiary questionnaire. Additional data was gathered from corporate and governmental publications.

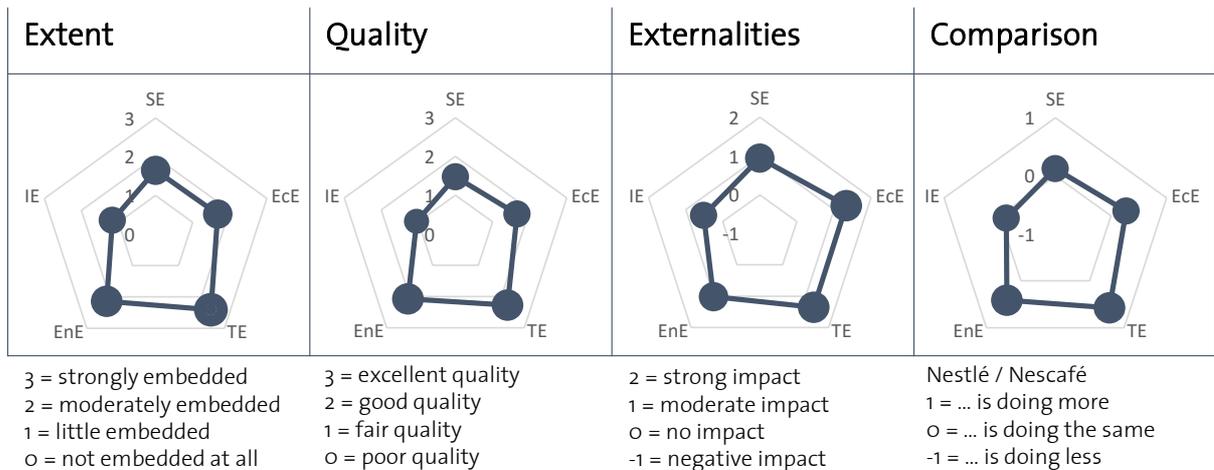
The smallholder questionnaire served to find out about the externalities Nestlé's collaboration with smallholders and local actors has on local communities, the local environment and local economy. Farmers were surveyed in focus groups in Cavite and Northern Mindanao, two major coffee production regions.

The external perception of Nestlé's programs and collaborations was measured by an expert survey. Thereby, four stakeholder groups were interviewed including open and closed questions. The stakeholder groups included academia (e.g. university professors), business representatives (e.g. business chambers), government agencies (from local to national agencies), and NGO representatives (local to international). The small number of respondents of the expert questionnaire prevented a representative statistical analysis but a descriptive analysis was suitable. The results of the perception survey are displayed in Figure 2. It shows the aggregated results of the four parts of the questionnaire. Each pentagon shows five embeddedness dimensions. The size of the pentagon indicates the level of embeddedness (the bigger the better). The dots in the corner indicate the number of respondents on every dimension. The more answers the bigger the dot.

Results

I found broad consensus among interview partners for the different dimensions of embeddedness as shown in Figure 2. Nestlé is strongly embedded within the Philippine coffee value chain. This accounts especially for the technological, the economic and the environmental dimension. Hence, Nestlé's efforts to promote and train new, productive, and environmentally friendly practices are recognized also by external experts. Social effects are mainly indirect and induced through improved

livelihood conditions whereas infrastructure is seen as the duty of the government and therefore Nestlé is perceived as only little embedded in this area.



SE = Social Embeddedness, EcE = Economic Embeddedness, TE = Technological Embeddedness, EnE = Environmental Embeddedness, IE = Infrastructural Embeddedness

Figure 2: Graphical output of the perception survey among experts. It is divided into the four parts of the questionnaire with questions about the extent of Nestlé's embeddedness, the quality of Nestlé's embeddedness, potential positive externalities appearing from the presence of Nestlé, and the embeddedness of Nestlé compared with other companies/competitors active in the region.

Nevertheless, Nestlé has many and intense connections to government agencies, NGOs, and suppliers. This network is essential for Nestlé in securing a constant supply of coffee. Coffee production in the Philippines is rapidly decreasing already for several decades due to different reasons like aging and mismanaged plantations, and rural exodus. Nestlé puts emphasis on a strong supplier-development by the formation of self-determined, entrepreneurial farmers.

The 4C coffee-standard for example does not only include trainings on productivity and quality but also on health and safety, quality and traceability, or farm management. 4C stands for "The Common Code for the Coffee Community". It is an entry-level standard including economic, social and environmental principles for a sustainable production, processing and trading of coffee. This leads to an optimization of input use and output. 4C and other programs of Nestlé include the promotion of safe and environmentally friendly practices like soil conservation methods and agroforestry. It is known and confirmed here, that especially buyer driven, business to business standards can lead to more sustainable producer practices and reduce the uncertainty for the buyer (Aerni 2013). This is also important for Nestlé's coffee sourcing. Provoked by international public pressure, such standards help Nestlé as well to improve the traceability of coffee back to the farmer.

The result from the close and trustful relationship between farmers and Nestlé can be observed by the sourced amount of 4C-coffee: In 2014 the Philippine coffee production dropped because of adverse weather conditions due to El-Niño. However, the amount of 4C coffee sourced by Nestlé seemed not to be affected. Hence, the promotion of community-friendly production practices, how they are included in the 4C-program, seems to have a positive impact not only on the environment, but also on productivity at the farm level and can lead to competitive advantages for the MNE, as it gets exclusive and secure access to good quality coffee (Andersson et al. 2002; Figueiredo 2010).

Furthermore, the presence of Nestlé in distant regions has led to new opportunities for farmers and rural communities. There, coffee is often the only cash crop. This immediately increases the economic capacity of farmers and communities. As more income is generated, this leads to externalities like improved livelihood, better nutrition, or education for the whole community. This in turn may strengthen the good relationship and the mutual trust between Nestlé and the farmers which was found in this study.

Other benefits and promoters of trust are improved access to markets, market information, and financial services that result from the collaboration of farmers with Nestlé. Thereby, Nestlé plays an important role in linking the farmers with services provided by government agencies or NGOs. Some NGOs for example provide financial services. The linking is often done by organizing farmers in associations or clusters. As its counterpart Nestlé provides the farmers with technical assistance and thus gets an increased amount of good quality coffee.

With the help of Nestlé farmers got better organized (i.e. in the mentioned farmer organizations) and through the Text-Connect program farmers are being informed about every change of the coffee price, information asymmetry is being reduced. Thereby, farmers improved their bargaining/market power and traders had to reduce their margin. This shows, that even though Nestlé is the dominant company in sourcing and manufacturing coffee, it empowers farmers by providing constant market information.

In a few points the interviewed experts were not agreeing: While some saw advantages in new, high-yielding varieties, others found them not being suitable for the local low-input farming conditions. Hence, it could be an option to extend the collaboration with local universities to further adapt coffee production to local conditions and practices. Unfortunately, there are in general still very few public private partnerships (PPPs). Reasons can be found in the prevalent corruption and bureaucracy (World Economic Forum 2011). PPPs are important for the promotion of coffee production and as shown in this thesis can have significant impacts on the local economy, environment, and community. These direct impacts in turn can create externalities for the local community as shown above and finally lead to a more sustainable coffee value chain for all actors.

Conclusion

Based on my findings, I conclude, that Nestlé Philippines is very well embedded regarding its coffee sourcing in the Philippines. Starting with its global Creating Shared Values strategy and the local Nescafé Plan with its projects, Nestlé Philippines is engaging at the community level and thus has very good relationships on all levels within the Philippine Robusta coffee value chain.

Sustainability effects brought about by Nestlé's embedded activities were found in the benefits for the local economy, the local environment, and the local community. Examples for embedded activities are trainings for farmers at all levels of the value chain provided or mediated by Nestlé, the text-connect program providing price transparency, public-private partnerships with the local government or NGOs, as well as international standards about coffee production introduced e.g. through the 4C program. International standards, as they are introduced by MNEs, lead to a more sustainable value chain as they force their suppliers to comply with the standards as well. However, I found not only direct externalities like more productive, socially, and

environmentally friendly practices as they are promoted and trained by Nestlé. Many effects were induced through an improved livelihood as there are social effects on education or health through improved nutrition and new economic opportunities.

As found in this study, Nestlé as a company itself profits as well from its embedded activities. It is a win-win situation. The company thereby has an improved reputation, access to a steady supply of coffee at an improved quality, and hence facilitates its operations. These are probably the main reasons to locally embed. Nevertheless, the Nescafé Plan could engage even more in some areas as the embeddedness in the fields of infrastructure and health was perceived as relatively low. Nestlé is promoting itself as a “healthy company” hence, there might be room for improvement.

Embeddedness including (even more) Public-private partnerships can be a method to address opportunities like the growing demand for coffee, or threats like calamities or the ongoing rural exodus. Therefore, Nestlé should continue with its embedded programs to further develop a sustainable coffee value chain. The trustworthy relationships with farmers, NGOs and government agencies should be maintained and the programs should be expanded to reach even more farmers. To increase the awareness about the positive externalities created by Nestlé (e.g. from environmentally friendly practices), Nestlé should extend the communication of its different programs also to the local population.

Methodologically, embeddedness proved to be an applicable concept investigating the sustainability of a company or subsidiary because of its holism. In future research even more emphasis could be put on the character of the ties between a company and its stakeholders.

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