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International Food and Agribusiness Management Review
Volume 19 Issue 4, 2016; DOI: 10.22434/IFAMR2015.0204

Received: 8 November 2015 / Accepted: 26 August 2016

The relevance of business practices in linking smallholders and large agro-businesses in Sub-Saharan Africa

RESEARCH ARTICLE

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Abstract

Smallholders often have to certify according to international standards and produce under contract for large agro-businesses to access export markets. While mostly positive effects for the farmers have been found for contracts and certifications, often these effects do not persist because contracts fail and certifications are not renewed. We suggest that individual firm behavior is crucial for the long-term success of farmer-agro-business relationships. In this article, we use data of 386 smallholders in the pineapple export sector in Ghana, analyze them quantitatively and enrich it by a detailed case study of a large-scale agro-business in Ghana. The results show that, in an environment with weak contract enforcement, certification is an agent of change in farmer-agro-business relations and that building trust and aligning expectations of farmers and firms largely determine success. We conclude that individual firm behavior matters more than taken into account in previous research. Our case study shows that three 'R' – reliability, reputation and respect – constitute the basis for contract relationships that benefit all.

Keywords: contract farming, certification, smallholders, Ghana, firm management practices

JEL code: O13, Q13, Q17, Q56

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1. Introduction and literature review

Sub-Saharan African smallholders that target global food markets usually produce under contract for medium or large agro-businesses and certify according to international food standards. While certification with GlobalGAP is a market entry condition for conventional fresh products food, especially for horticultural products, organic certification is required for the high-value organic food market. Even though private, and hence voluntary, standards, retailers normally require that their suppliers adhere to one or more such standards for suppliers from developing countries (Henson *et al.*, 2011; Swinnen *et al.*, 2015). While only about 1% of land in Africa is organic certified as compared to 5% in Europe, organic certified production in Africa is almost exclusively destined for the export market (Willer *et al.*, 2016). In Ghana 0.1% of total land is organic certified (15,563 hectares of agricultural land plus 35,695 hectares used for wild collection based on 2014 data; Willer *et al.*, 2016). GlobalGAP certification operates in over 100 countries and is, in many developing countries, required by agribusiness exporters for fresh fruit and vegetables exports (ITC, 2013; Masood and Brümmer, 2014).¹ This certification requirement creates an entry barrier for suppliers and in particular for smallholders (Schuster and Maertens, 2013). However, those that master the barrier may gain financially (Bellmare, 2012; ITC, 2011; Maertens and Swinnen, 2009; Miyata *et al.*, 2009; Subervie and Vagneron, 2013; Warning and Key, 2002), albeit this may not necessarily be enough to lift poor farmers out of poverty (Beuchelt and Zeller, 2011). In addition, failure rates are relatively high (Bellmare, 2012).

Since certification is usually too costly for smallholders themselves, it is commonly supported by NGOs, bilateral aid organizations or the exporter to which the smallholder is contracted. Generally, the literature finds positive short-run income effects for this kind of contract farming (Barrett *et al.*, 2012; Bellmare, 2012; Bolwig *et al.*, 2009). Most papers study effects one or two years after certification (ITC, 2011), a period after which, when taking into account the full certification costs, these have not been recovered. High contract failure rates and frequent non-renewal of certifications in developing countries (Kersting and Wollni, 2012) may render net benefits negative. One reason for failures may be rooted in firm specific effects, which have hardly been studied so far (Lemeilleur, 2013). The literature has so far neglected the role of certification as a structural element driving contract outcomes, as well as the role of individual firm behavior in shaping long-term effects (Steen and Maijers, 2014). Considering the large initial investment required, the existence of positive net effects crucially depend on survival rates, i.e. the length of a specific contract farming relationship or certification period. In this article we tackle the research gap by showing that firm management practices are crucial to contract survival. Data of 386 either GlobalGAP or organic certified smallholders in the pineapple export sector in Ghana is analyzed quantitatively and enriched by a qualitative analysis of a case study of a large-scale agro-business called Blue Skies.

Certification imposes sunk costs on both contract partners, which they can only recover after several years of working together. Hence, a contractual relationship that enables certification only leads to material benefits if it lasts. This is the main difference to the situation without certification, making it a driver of change in farmer-agro-business relationships. Self-reported changes include a more intense relation and an improved overall relationship following certification, an important basis for long-term relationships. Long-term relationships allow for renewal of the certification. Hence, with certification a longer-term contractual relationship is a necessary precondition for mutual benefit, due to the high initial certification cost.

Nevertheless, many contracts still fail after a short period of time. These failures can only partly be explained by market changes and part-externalization of the certification costs. Firm management practices play a key role. In an environment with weak contract enforcement, trust is particularly important, and this is shaped by contract management.

¹ For Ghana, the GlobalGAP website lists 67 certified pineapple suppliers. However, small-scale producers are certified under a group option. Hence this figure does not represent the number of small-scale farmers actually certified (GlobalGAP, 2016).

In the next step we identify firm management practices as important success factors for the latter. We use subjective self-statements to gain deeper information about the farmers' perceptions and motivations as these shape expectations. The match or mismatch between farmer motivation to join a certification or contract arrangement and the perception of the outcome of this process defines whether the farmer will be satisfied or disappointed with the outcome (Hidayat *et al.*, 2015). Non-alignment may explain many failures of contract schemes. Contracts last when both sides stick to their promises and respect each other. Some agro-businesses manage this much better than others. Our case study shows that three 'R' – reliability, reputation and respect – constitute the basis for contract relationships that benefit all. These successful firms accomplish to establish their corporate culture among their contract farmers and buffer them against international market volatility, contrarily to what Suzuki *et al.* (2011) suggests in common practice. Standards linked with contracts are short-run agents of change; individual firms determine whether they translate into long-run benefits.

The rest of the article is organized as follows. Section 2 describes the data that is used in this paper. Section 3 presents the analysis, Section 4 concludes.

2. Data

The data used in this paper are a farmer survey in Ghana and a detailed case study of Blue Skies, a large-scale agro-business in Ghana. The data sources are linked through farmers identified in the survey and in the case study. We are hence able to compare farmers producing for Blue Skies with farmers in the same sector but producing for another firm.

The farmer survey was conducted from January to March 2010 in six different districts (Ajumako Enyan Esiam, Akuapem South, Ewutu-Efutu-Senya, Ga, Kwahu South and Mfantseman) of the Central, Eastern and Greater Accra regions in a radius of about 100 km north and west of Accra. Stratified random sampling in three stages was used. First, districts with significant amounts of commercial smallholder pineapple production were selected, using information from Sea Freight Pineapple Exporters of Ghana. Next, lists of all pineapple farmer groups in the selected districts that were GlobalGAP or organic certified were obtained.² Finally, a percentage of farmers in each group were selected randomly from the lists. The sample is representative of the selected districts. Identified farmers answered a detailed questionnaire that bordered on the management of the pineapple farm, inputs for the production, harvesting and marketing of the pineapples, the certification process, and relations with exporters and processors that were exclusively medium- and large-scale agro-businesses. Respondents were also made to provide information on household characteristics, social capital and land disposition, as well as non-income wealth indicators and perceptions of different statements about environmental values, organic farming techniques and the use of fertilizers and pesticides.

The dataset includes 386 farmers from 75 villages with either GlobalGAP or organic certification for their pineapple farms. In total, 185 organic farmers and 201 conventional (GlobalGAP) certified farmers were interviewed. Organic farmers sold part of their produce as organic certified to exporters or processors and part of it on the local market, without any reference to the certification. Conventional farmers sold their produce as GlobalGAP certified to exporters or processors and on the local market, without reference to GlobalGAP certification. In principle, organic certified farmers could sell their produce as organic certified (which has the highest price) as first preference, as conventional export produce as second preference, or on the local market. It is not possible for conventional farmers to sell on the export organic market. Organic certification refers to the European standards according to EU regulation (EC) 834/2007 and (EC) 889/2008, which prohibits in particular the use of mineral fertilizers and inorganic pesticides, herbicides and fungicides. All conventional farmers are GlobalGAP certified in our sample. GlobalGAP refers to a catalogue of criteria based on so called good agricultural practices. A particular focus is on food and worker safety, as well as chemical residues.³

² Smallholders are certified in groups under the so-called option 2 certification.

³ The full list of criteria for fruit can be found here: <http://tinyurl.com/zj9zasl>.

Table 1 presents an overview of descriptive statistics for Blue Skies farmers against all other farmers in the sample. Almost all farmers are male, on average 45 years old and live in a five to six person household. Significant differences between Blue Skies farmers and other farmers exist for farming experience, pineapple land and varieties planted. Farms are relatively large within the group of what is considered the group of small farmers in Ghana. This is a result of two particularities of the sector. First, many agro-businesses require minimum farm sizes as a precondition for contract farming. Second, pineapple is usually planted in a rotation system with about half of the land at one point in time fallow. Three pineapple varieties are planted, MD2, Smooth Cayenne and Sugarloaf. Most farmers plant only one of these, with some exceptions having two different varieties on their farm. Economic and agro-business specific variables are presented further in this paper.

The case study of Blue Skies, a large-scale agro-business in Ghana, was based on interviews with its suppliers, i.e. farmers, employees, management and communities in which Blue Skies was active in 2013.⁴ For the purpose of this paper, only the farmer and management interviews will be used. Blue Skies produces fresh cut fruit and fruit salads for export mainly to Europe and freshly squeezed juice for the local market. It buys both organic and GlobalGAP certified fruit from local farmers, mostly in a contract farming arrangement, but occasionally also on the spot market. Set up in Ghana in 1998, it was in 2013 the second biggest private sector employer in Ghana with around 2,000 employees, depending on the season. It has grown into a group of factories processing fresh fruit locally with additional smaller sites in Egypt, South Africa, Senegal, Brazil

⁴ The data gathered for the case study was collected by the author for a report commissioned by Waitrose, one of the buyers of Blue Skies' products. The information is used with permission from Blue Skies and Waitrose.

Table 1. Descriptive statistics of selected variables.

Variable	Definition	Mean Blue Skies Farmers n=71	Mean of all other farmers n=282	t-stat. ¹
GENDER	gender of farmer: 1 if male, 0 if female	0.930	0.935	0.200
AGE	age of farmer (years)	45.37	44.71	1.071
HHSIZE	household size (persons living in household)	5.213	5.643	1.193
ADULT	fraction of adults (older than 15) in household	0.601	0.674	1.137
EDUC	maximal educational level in household (years)	9.572	9.679	0.974
FSIZE	farm size (acre)	14.72	14.01	0.651
OWNLAND	share of land owned	0.293	0.287	
PINLAND	pineapple land (acre)	4.852	3.112	2.091**
CREDIT	access to credit during the last five years: 1 if yes, 0 otherwise	0.304	0.278	1.265
BANK	bank account with more than 200 GHS ² : 1 if yes, 0 otherwise	0.412	0.422	0.123
WEALTH	number of durable goods owned	6.183	6.152	0.933
EXPER	years of experience in pineapple farming	14.79	9.049	3.149***
ENV	importance of preserving the environment 1= very important; 4= not important	1.269	1.513	1.564
DIST	distance to the closest local market (hours)	0.867	0.714	1.857*
MD2	variety MD2 (1 if yes, 0 otherwise)	0.016	0.398	5.872***
SC	variety Smooth Cayenne (1 if yes, 0 otherwise)	0.420	0.416	0.051
CERTYEAR	number of certified years	3.987	3.456	1.011
ORGANIC	organic certified (1 if yes, 0 otherwise)	0.541	0.483	1.312

¹ Significance levels: * = 10%; ** = 5%; *** = 1%.

² A conversion factor of 1 Ghana Cedi (GHS) = 0.46 Euros (calculated on the basis of the exchange rate on January 12, 2010) was used.

and UK. 55% of the total production value is created in Ghana, followed by UK with 16% and Egypt with 15%. It employs over 2,500 people at all sites together and had a turnover of €47.6m and profit of €1.1m in 2012. At the time of the case study, Blue Skies Ghana had 70 supplying farmers, of which 59 were contracted suppliers. The rest are larger independent farms, including outside Ghana (Figure 1). Contracts with farmers are renewable yearly. They specify the certifications, crop variety, quality, brix levels and terms of payment. Prices are fixed in £GBP and renegotiated yearly. The overall acreage grown for Blue Skies is 1,928.

A combination of a standardized questionnaire and open qualitative interviews using the most significant change technique were used. Ten farmers were interviewed, representing the major crops grown for Blue Skies by smallholders: pineapple, mango, papaya and coconut. They were randomly drawn from the contracted supplier list, after two selection criteria were fulfilled: to cover all main crops grown for Blue Skies and to include both farmers that have been supplying to Blue Skies for a long time, and farmers that started recently. 4 pineapple farmers, 3 papaya farmers, 3 mango farmers and 1 coconut farmer were interviewed at their farms, where one grows both mango and papaya and the coconut farm is a sharecropping system with many families working and living on the farm. One person from the Blue Skies agronomy team always introduced us. Hence farmer interviews were not entirely conducted confidentially. This was the only possible way to be well received. Farmers were nevertheless very opinionated and sometimes even asked the agronomy team to listen and witness their complaints or requests. All interviews were made on the farms and with the farmer himself, all of whom were male. Each interview took between 30 minutes to one hour. In addition, interviews and informal discussions were led with the management of Blue Skies throughout the study period. The management of Blue Skies provided us with all the information requested on management practices, farmer statistics and policies, extension, certification, etc. and was available for clarifications and feedback.

The two samples are linked in the following way: farmers who produce for Blue Skies were identified in the farmer survey.

3. Analysis

We now combine and analyze the two datasets in two steps. We first study the role of certification in shaping expectations and business relationships and then look at the role of individual business practices in shaping longer-term results.

Certification as an agent of change in farmer-agro-business relations

The farmer survey has been quantitatively analyzed in particular with respect to return on investment in certification and agricultural practices in Kleemann *et al.* (2014) and Kleemann and Abdulai (2013), showing that different types of certification, namely organic and GlobalGAP can have very different returns on

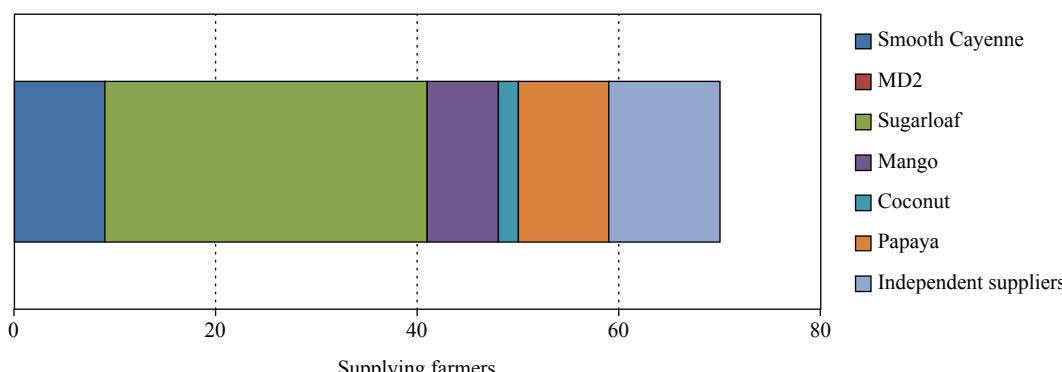


Figure 1. Blues Skies approved suppliers in 2013.

investment and foster different types of agricultural practices. Here, we focus on the subjective statements that farmers were asked to give during the survey. Since the share of organic and GlobalGAP certified farmers among the sample firm and in the rest of the dataset are both around 50%, we abstract from differences between different certifications in this paper.

In our sample of farmers, self-reported changes of the certification process in general include a more intense relationship (farmer and agro-business meet or talk more often to each other), an improved overall relationship following certification and longer contract durations with pre-specified volumes. Specifically, 63% of farmers report an improved overall relationship, against 36% reporting no change and 2% a worse relationship and the results for the intensity of the relationship are 76, 24 and 1%, respectively. Hence, certification alters not only prices and costs; it is also a driver of change in farmer-agro-business relationships and contract specification. One likely reason is the upfront commitment and investment from both sides that is required. The certification process can take several years (e.g. three years for organic) and hence there is a considerable time lag between the decision and the first market transaction as certified product. Longer-term contracts with pre-specified volumes are more frequent among certified farmers. Longer relationships (a larger number of years selling to the same buyer) allow for renewal of the certification. This is in the interest of both sides, due to the high initial certification cost. Certification, if managed as part of a contract relationship, could hence be an element of structure that shapes strategy.

Going more into detail, the information flow and roles of different actors during the certification process are strongly correlated with farmer satisfaction after the process is completed, which in turn is likely to be correlated with contract survival. First, we asked all farmers directly what their motivations for one or the other certification were⁵ and how they first got to know about the possibility of organic and GlobalGAP certification respectively. Organic farmers got information usually from buyers (i.e. large-scale agro-businesses) or other farmers whereas half of all GlobalGAP farmers were informed through NGOs or donors (Table 2). To our knowledge, GlobalGAP certification was at that time intensively supported by US and German development aid and this picture may be the result. For both groups government extension services were hardly ever (in 9% of all cases) relevant information providers.

Buyers and other farmers stress ‘hard’ information (on prices, markets and yield), on certification, whereas NGOs and donors put the focus on ‘soft’ information such as environmental hazards and safe handling. This is the outcome from feedback discussions with buyers and donors and is also reflected in the certification training material provided by those groups. Even more, it is also mirrored in the personal motivation that farmers stated for aiming at a particular certification. When asked in an open question for their motivation for certification, those informed by NGOs or donors stated far more often than those informed by agro-businesses that environmental concerns, health or food safety as determining factors whereas those informed by agro-

⁵ By stressing differences between statements and actions, many researchers affirm that believing in what people say can be misleading (Manski, 2004). Consequently, one rarely sees subjective data in empirical papers. We want to break with this tradition and compare our quantitative results with qualitative information about farmers’ own statements on the subject. We are aware of the measurement errors that come with individual differences in interpretation of questions and expressions, and can thus not make accurate statements using this methodology.

Table 2. From whom farmers first learned about the possibility to get organic/GlobalGAP certification in percentages.

Information provider	Organic (%)	GlobalGAP (%)
Export agro-businesses	42	14
Government/extension	9	9
NGO or donor	12	50
Other farmers	30	24
Relatives	7	1
Other	0	1

businesses considered yields, prices and contracts most important (Table 3). Blue Skies mostly responded that they were informed by agro-business (94%) and their responses mirror those informed by agro-businesses.

How might this be relevant for the rest of the certification process and even more for the success of the farmer-agro-business contract? According to our data, the quality of the relationship between farmer and agro-business, as subjectively perceived by the farmer, is significantly better in those cases where the agro-business provided the initial information (test statistic of two sided t-test is 2.77). Going further in the procedure, when the agro-business provided the initial information, it likely also organized the certification process and even paid for it (correlation of 0.6). In addition, in those cases where the exporter paid for the certification, farmers received on average double the amount of training than in all other cases. And the quality of the relationship is also perceived as significantly better when the agro-business organized the certification process (test statistic of two sided t-test is 6.11). For our case study specifically, the data shows that usually when Blue Skies is the buyer, they also organized and paid for the certification.

This result points towards the importance of integrating and engaging both partners early in the certification process in order to align expectations and build trust. This was confirmed in the discussions with both sides, with the key factors being building mutual trust. Disappointments in terms of wrong expectations or unreliability of the other party were mentioned as the main reasons for failures of contract schemes. This means that the ability of both certification and contract to deliver on the expectations it created will determine its success. As proclaimed in management theory, aligning expectations and building trust is important for longer-term success. Our case study of a successful agro-business below shows that Blue Skies puts particular emphasis in its farmer-relations management, on frequent and transparent communication and reliability on both sides.

Analysis of the firm factor

The above analyzed positive drive in contractual relationships only transforms into material benefits, if the sunk cost of certification can be recovered, which usually takes several years. Certification demands an upfront investment from both parties, a sunk cost in case the contract fails. This cost is usually higher than the additional benefit generated within the first contract year. Hence, any business should only invest in this contract, if the contract duration is long enough to recover the initial cost. This is the additional incentive to strengthen the relationship.

While the literature finds modest short run income and welfare effects which disappear quickly after the end of the contract, stronger beneficial effects of contract farming should manifest themselves primarily over the medium and long run in higher regular incomes and farm or asset growth. If long-term contract relationships

Table 3. Stated motivation to become certified in percentages.¹

Motivation for certification	Blue Skies farmers (%) n=71	Others informed by agro-business (%) n=162	Others informed by NGO or donor (%) n=153
Better yields	1	11	10
Better prices	20	23	14
Health or food safety reasons	30	21	26
Environmental concerns	20	5	34
Better contracts with exporters	15	15	2
Easier to sell	17	7	5
Cultural reasons/tradition	0	1	0
Customer demands	9	16	11
Other reasons	0	1	1

¹ Multiple selection of responses was possible (up to three).

allow for positive partner-specific investments on both sides such as on farm pack houses, planting of specific varieties, etc. Contracts last when both sides stick to each other. Some agro-businesses seem to manage these farmer relations much better than others, among them our case study firm Blue Skies. Table 4 shows that Blue Skies farmers are better off in several respects. They are compared with all other farmers in the sample. Bilateral t-tests show that Blue Skies farmers have a higher return on investment and a higher profit that is determined by higher revenues, not by lower costs. While we do not have a direct measure of the extent of use of state of the art farming technologies and the overall the level of use of fertilizer, mulch, and other productivity enhancing agricultural practices, we see that Blue Skies farmers use more good agricultural practices and organic farming techniques and this even though they did not receive more training. Training and support institutions named by the farmers are mostly government (mainly ministry of agriculture) and international donors. Training and support by firms mentioned was done by Blue Skies. Other exporters/processors are mentioned in less than 1% of the cases by those farmers selling to other agro-businesses. However, it appears that Blue Skies contract farmers receive slightly less training by other organisations (the difference is significant at 10%). This could be supply or demand driven. Bellemare (2012) and others argue that contract farming is a driver of farm modernization. However, we see here that there are huge differences between contract firms (all farmers in the sample produce under contract).

Table 4. Blue Skies farmers in comparison with other contract farmers.¹

Variable	Definition	Blue Skies farmers n=71	All other farmers n=282	t-stat. ²
ROI	return on investment in pineapple farming (one year)	3.13	1.90	3.56***
PRODCOS_KG	production cost GHS ³ per kg fruit	0.11	0.12	0.63
REV_KG	revenue GHS per kg fruit sold	0.26	0.17	9.17***
PROFIT_KG	profit GHS per kg fruit sold	0.15	0.06	5.21***
TRAIN	training received in last 5 years from exporters, NGOs, donors or ministry of agriculture	17.96	14.82	1.03
GAPRACT	number of good agricultural practices and organic farming practices used	4.13	1.89	11.91***
YEARS_BUYER	number of years already selling to the same buyer	2.42	0.97	10.62***
REL_BUYER	quality of relationship to buyer on a scale from 1 (very good) to 4 (very bad)	1.31	2.34	10.66
Details of the quality of the relationship between buyer and seller:				
PICKUP_BUYER	1 if satisfied with delivery/pickup arrangements, 0 otherwise	0.94	0.36	8.24***
VOL_BUYER	1 if satisfied with volumes bought by buyer, 0 otherwise	0.76	0.15	7.00***
BUY_GUARANT	1 if guaranteed volumes bought, 0 otherwise	0.83	0.26	10.08***
TIME_PAY	time lag from pickup to payment (1 = same day; ...; 5 = 3 months or more)	2.91	3.14	2.25**
Intensity of the relationship between buyer and seller:				
MEET_BUYER	frequency of meetings between buyer and seller (times per year)	10.65	5.96	5.38***
PHONE_BUYER	1 if phone number of buyer known, 0 otherwise	0.68	0.20	5.09***

¹ Differences between organic and GlobalGAP certified farmers were the focus of the paper Kleemann *et al.* (2014). Since the share of organic farmers amongst Blue Skies farmers and among the rest of the sample is similar (54% and 48% respectively), this difference between the two certifications in particular in terms of production costs and prices can be neglected here.

² Significance levels: ** = 5%; *** = 1%.

³ 1 Ghana Cedi (GHS) = 0.46 Euros (calculated on the basis of the exchange rate on January 12, 2010).

But Blue Skies farmers are also better off in another respect, which was identified as a crucial success factor in the previous section. Farmers producing for Blue Skies state to have a significantly better and more intensive relationship with their buyer, than all other farmers in the sample. This relationship also lasts for longer already, on average more than two years instead of less than one year.⁶ Intensity is measured by whether or not they have the phone number of the buyer, the frequency of meetings, and how much they know about the further use of their pineapple (destination/processing). Whether the better relationship results in better economic outcomes or vice versa remains unclear. These correlations might not be causal. Therefore we have tried to verify these results through qualitative interviews.

In addition, selection for the 'better' farmers may be an issue that affects some of these results. We tested some standard measures such as farm size, production costs, and experience and while there are no significant differences between Blue Skies farmers in these respects, there may be other factors that we did not capture such as fruit quality and farmer reliability. The selection process is one of the main aspects we focused on in the qualitative interviews.

All agro-business firms in our sample have similar selection mechanisms for farmers in particular concerning minimum farm size and/or level of organization in groups. The common target of this selection mechanism is to find those farmers that produce good quality in a reliable way at an acceptable distance to the firm. Because firms cluster in a small area, they target the same regions for supplier farmers. Nevertheless, because Blue Skies has a good reputation they might have the first choice in terms of supplier farmers. We asked the farmers directly in order to find out whether the selection process differs among firms and what they considered as the most important factors leading to their satisfaction with the contract relationship as well as economic benefits from it. We call the latter results channels below. As most farmers had experiences with other agro-business firms, they were able to compare. While they stated that the selection from the firm side does not differ significantly between firms⁷, they had very clear answers concerning results channels (Table 5). Farmers considered the secure and reliable long-term market and payment stream that Blue Skies is providing as the most important results channel, in particular in comparison with other buyers who were criticized for their unreliability. Blue Skies is respected for its corporate culture of respect, social equality and openness up to the extent that farmers imitate it themselves. Several farmers mentioned their admiration for Blue Skies' management, especially related to mastering past market challenges, such as failures in export due to the ash cloud in island in 2010. Blue Skies is also respected for the quality of its advice and training to the farmers, which is considered, compared to others, much more targeted to their needs and takes up their suggestions and ideas. In addition, Blue Skies, in partnership with two of its buyers Waitrose and Albert Heijn, supports community projects through a foundation. Projects are proposed by the farmers and owned by the communities. The Foundation manager at Blue Skies supports and overviews the implementation and visits each project regularly. The interviews showed, that the foundation is an important add-on because it gives Blue Skies and its farmers a good standing in the communities. They are judged as important by the farmers, but nevertheless second to a stable market (Table 5).

The transparent management of problems and difficulties by Blue Skies was particularly mentioned by several farmers, including for unsuccessful examples. In addition, the quality rather than the quantity of the training was highlighted. We provide a characteristic unsuccessful example from the interviews. The typical organic Sugarloaf pineapple farmer has been growing Sugarloaf for many years and has been with Blue Skies from the beginning of their operations. He emerged from a poor family background. His farm is comparably small, but has grown considerably over time together with Blue Skies. Pineapple production is his family's main income source. He sells about 50% of his fruit to Blue Skies. The rest of his harvest is sold at a lower price on the local market. This is the only alternative market for him. The additional income from selling to Blue Skies not only helped him to increase his farm size, but also to send his children to

⁶ The sample was random and representative at the time of survey, which implies that there should be no differences in average contract duration if there is no 'firm factor'.

⁷ However, Blue Skies, due to their long presence, may be better informed about the characteristics of different farmers, and therefore able to select more effectively. Without panel data, it is not possible to assert or reject this supposition.

Table 5. Most important results channels from the perspective of the farmers in descending order.

Reliability and consistency	<ul style="list-style-type: none"> ‘Blue Skies is the most reliable buyer and always pay everything and on time. Prices are fair and we are told about quantities in advance. And there are additional incentives that other buyers do not provide.’ ‘Other exporters were not reliable.’ ‘Sometimes we expect to sell more but we understand it is because of the orders that Blue Skies receives from their customers. We stay with Blue Skies because it is reliable and we can constantly supply them. There is no other consistent buyer in Ghana.’ ‘I would prefer to sell to Blue Skies even if I get a higher price elsewhere.’
Volume	<ul style="list-style-type: none"> ‘We sell almost all our fruit to Blue Skies. And we would sell more. We want to expand the farm and improve housing for workers if we are able to sell more.’
Corporate culture	<ul style="list-style-type: none"> ‘We feel that we are all part of the Blue Skies family. We can openly discuss our problems and complaints with the agronomy team. Aspiring farmers are built up to succeed by Blue Skies. We admire how they manage, especially in difficult times.’
Training	<ul style="list-style-type: none"> ‘The constant training from Blue Skies is very beneficial. They visit us every 2-6 weeks for audits and trainings that cover amongst others certification, cropping, farm management. We also ask for advice with current prevalent problems. They take our concerns seriously.’
Credit	<ul style="list-style-type: none"> ‘We would like to receive a loan for the expansion of the farm. We cannot get it from Blue Skies and the banks are not helping either. They have very high interest rates and demand huge collateral. But on an individual basis, needs are considered. We can get soft loans (without interest) as advance payment. We know that we can count on Blue Skies that they will do their best.’
Community projects	<ul style="list-style-type: none"> ‘I was very involved in getting the Foundation project in my community and I am very proud of it. I am now also in the management committee.’ ‘We are applying to the Foundation to get a Junior High School to our community. But more important, is more demand for fruit.’

better schools and to invest in a taxi as additional off-farm business. However, in the past few years, the demand for Sugarloaf from Blue Skies has decreased and become unstable. Many farmers, especially the smaller ones, had to leave Blue Skies and are now selling exclusively on the local market or switched to staple crops. To try to counter this trend, Blue Skies is actively promoting the Sugarloaf variety among its customers as well as trying to find new customers for Sugarloaf. They are supporting farmers in testing new farming techniques, e.g. using plastic mulch, while being careful not to induce high expectations that they cannot meet. While the farmer is not happy with the low demand, he understands the demand situation and respects Blue Skies for its efforts.

We conclude that the satisfaction of Blue Skies farmers and their economic success is at least in a considerable part due to the way that Blue Skies treats its farmers and not due to selection effects. But does this also benefit Blue Skies, i.e. is it a win-win situation? Without being able to establish causality, we observe that Blue Skies has had its operations in Ghana since 1998, over time considerably increasing in size. During this period, many others have failed (e.g. Coastal Groves, Kingdom Fruit Juice, Nsawam Cannery and Athena) or remained much smaller (e.g. Peelco and WAD).

In the next step, we try to understand the corporate causes behind the big difference between Blue Skies farmers and other contracted farmers that we found in the farmer survey and in the qualitative interviews. We benchmarked Blue Skies with other similar firms. A list of firms used for the benchmarking can be found in Supplementary Table S1. In particular, we looked at three points: smallholder orientation, prices and corporate social responsibility. While Blue Skies does not differ significantly from other agro-businesses in

terms of buying practices and corporate social responsibility, it differs in terms of soft factors.⁸ Reliability and consistency, corporate culture and training and were identified as most important results channels by the farmers (Table 5). We hence contoured the main factors within Blue Skies by reviewing their policies and observing their actual behavior in day-to-day business.

The Joint Effort Enterprise is the Blue Skies model for a sustainable business. It is built upon three strands, as can be seen in Figure 2.

First, Blue Skies invests strongly into building up a long-term supplier base through its, in comparison, large and well equipped agronomy department. 15 people take care of the permanent suppliers, dealing with training, certifications, audits, quality assurance, crop planning, etc. Farmers also receive individual assistance and access to subsidized inputs such as compost. Extension workers know 'their' farmers personally and treat them on an equal basis. They encourage farmers to think in an entrepreneurial way taking their thoughts and ideas seriously. At the same time, Blue Skies invests heavily in high quality training of its farmers and staff. This way they gain confidence, skills and experience, while Blue Skies gains a good reputation as buyer. Second is the active practice of the strong corporate culture and undisputable values implied by the business model summarized in Figure 2. This is much harder to benchmark against other similar firms. However, it was observed that corporate culture is very strong and lived in day-to-day business practice with the management acting as role models. In addition, farmers, which had experiences with other firms, frequently explained the difference between Blue Skies and other firms in terms of corporate culture. The Blue Skies culture is based on mixing people from diverse backgrounds minimizing hierarchies and visible distinctions between people. On the social side everyone is treated equally and with respect. Management is based on trust and peer pressure, which is unusual in Ghana, where it is usually based on supervision. This culture creates a strong identification with Blue Skies among farmers. It also implies that those who do not fit in leave voluntarily. The third success factor is reliability. Blue Skies behaves in a protective way towards its farmers and surrounding communities, trying to buffer them against market volatilities, while transparently communicating own challenges. This is in contrast to the findings by Suzuki *et al.* (2011), which explain the opposite as common practice. This combination of protection and open communication creates a trustworthy and resilient relationship between suppliers and Blue Skies. In summary, our case study shows that three 'R' – reliability, reputation and respect – constitute the basis for contract relationships that benefit

⁸ In addition, not the focus of this paper, but highly relevant for the overall local impact of Blue Skies is its principle of value adding at source. This principle translates into local employment opportunities in Ghana and up to 70% of the production value stays in the country, compared to about 15% when processing takes place outside Ghana.

		
Employing people from different backgrounds and cultures because we believe that we will generate better ideas if we have a diverse range of skills, experience and perspectives.	Respecting people equally because we believe that if we respect each other for who we are, then we will feel happier about our work and proud to do a good job. This is our culture.	Operating profitably and efficiently because we know that we cannot continue to produce the best fruit products in the world unless we generate the funds that will enable us to survive and grow.

Figure 2. The Blue Skies business model at a glance (adapted from Blue Skies: <http://blueskies.com/about>).

both sides. Certification creates a mutual dependency that did not exist before. Successful certification for smallholders in turn depends in many cases on a successful contractual relationship with an agribusiness. This research shows that this strengthens the relationship only if the R exist.

4. Conclusions

With increasing relevance of certification standards such as GlobalGAP, organic and Fairtrade and associated contract relationships between exporters and smallholders, many researchers have analyzed the income and welfare effects of such arrangements. But they have so far neglected the role of certification as a structural element driving an increase in contracts, which result in a win-win situation only if they can be maintained over several years. The length of the contractual relationship is in turn to a large extent determined by individual firm behavior. This paper shows that certification is an agent of change in farmer-agro-business relations. Because it requires a large upfront investment in terms of certification cost, training and changes in farm management and involves a considerable time lag between decision to invest and first benefits, aligning expectations of farmers and buyers (i.e. agro-businesses) and building trust between the partners is crucial for the success of the whole process. Some agro-businesses are more successful than others in managing the required kind of trustful and strong relationship with their contracted smallholders. Individual firm behavior matters more than taken into account in previous research both before certification (expectations) and after (income effects/personal satisfaction). Our case study of Blue Skies shows that three 'R' – reliability, reputation and respect – constitute the basis for win-win contract relationships. Successful firms manage to establish a joint corporate culture among their staff and contract farmers and buffer risks of international market volatility while demanding high quality and reliability. Given that beneficial effects of smallholder agro-business relationships primarily show up in the longer run in the form of recovered investment and higher regular incomes, individual firm management is crucial. Standards linked with contracts are short-run agents of change, the individual firms determine whether they translate into long-run success. Future research would benefit from calculating survival rates of agro-business-smallholder contracts and link them to economic benefits. For supporters of certification processes, be it NGOs, donors, or agro-business firms, this means that more importance should be placed on longevity of contracts and to 'soft' factors such as trust building and forming a joint culture in addition to 'hard' facts such as market opportunities and entry barriers.

Supplementary material

Supplementary material can be found online at <https://doi.org/10.22434/IFAMR2015.0204>.

Table S1. Other companies analyzed for benchmarking.

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