Have industrialized countries shut the door and left the key inside? Rethinking the role of private standards in international fruit trade

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Problem Statement

In recent decades, the food sector was characterized by increasing globalization. As a result developing and transition economies were increasingly incorporated into the networks of international agri-food value chains and producers and exporters in these countries had to meet consumer demands mainly in the global North which served as their major export market (Challies 2010). Thus, the agricultural production in the global South more and more shifted away from traditional agricultural products like coffee, tea and cacao to non-traditional agricultural exports (NTAE) like fruits, vegetables, cut flowers and fish in order to meet customer demands and increase producer livelihoods by serving high-value food chains (Challies 2010; Humphrey and Memedovic 2006). In the NTAE sector, the industrialized countries had high market attractiveness for exporting countries due to high prices and strong demand, good infrastructures etc. (Huang 2005).

In international NTAE markets, many developing and transition export-countries have been strongly dependent on a few high income countries (Diop and Jaffee 2005). The European Union, for instance, is a major player in the international fresh fruit market (Comtrade 2014; Huang 2005). The strong dependencies of exporting countries on importing countries were topic of many research articles in the last two decades, many of them dealing with the role of public and private standards in this regard. Whereas the earlier are subject to political decision making at national and supra-national, for instance EU, levels, the latter are in many cases introduced by powerful supply chain actors such as retailers (Henson and Humphrey 2010; Henson and Reardon 2005). Authors of such research articles are still in two minds regarding the impact of food standards on market actors' participation in international food trade (Müller et al. 2013). One part of literature claims that high public, but especially private standards function as indirect, non-tariff trade barriers and cause the exclusion of farmers from transition and developing countries from the world market due to their inability to fulfill the high quality requirements laid down in these standards (Melo et al. 2012; Jongwanich 2009; Reardon et al. 1999). Contrariwise, a second strand of research stresses that these standards may provide a great marketing opportunity for suppliers in those countries and serve as a door opener to highly attractive high-value food chains instead of functioning as a trade barrier (Maertens and Swinnen 2009; Jaffee and Henson 2005).

Today there is evidence for reverse changes in the international food trade: Food prices and demand in developed countries have been stagnating in recent years due to demographic changes and weak economic development while food safety standards have further increased. As a consequence food chain actors in industrialized countries increasingly complain about procurement issues and problems to secure required quantities on international markets (USDA 2014; Poole 2006). At the same time purchasing power in many transition countries and emerging economies has been increasing in combination with often still lower food standards which are comparatively easier to meet for farmers and exporters in developing countries. These circumstances have made emerging economies more attractive for exporters of non-traditional agricultural products and an obvious alternative to industrialized countries as destination markets (v. Braun 2007). From a contingency theory point of view, such changes in market situation may lead to a misfit between the external situation and the formal structure of a food chain (in this case: food standards required) and in consequence to decreasing performance, i.e. growing procurement problems of importers (Lawrence and Lorsch 1967).

Objectives

Against this background, we raise the research question whether it is nowadays not the developing and transition countries suffering from negative effects of especially private food safety standards anymore but the industrialized countries which are increasingly excluding themselves from international trade with non-traditional agricultural products by making use of rising public and private standards and whether the industrialized countries will run into growing procurement problems sooner or later. Due to the current trends in the international food trade, we seek to find out whether and – if they do so – to what extent exporters in developing and transition countries and importers in industrialized countries experience changes of trade flows in the international trade with non-traditional agricultural products. Furthermore, it is the objective of this study to identify the role of private standards in connection to relevant situational factors driving these changes to derive appropriate political, managerial and research implications based on the results of this study. These results of our study are of special interest for fruit and other NTAE importing sectors and public and private standard setters in industrialized countries.

Theoretical Approach

The considerations in this study are based on the contingency approach in organization theory introduced by Burns and Stalker (1961), Woodward (1965), Lawrence and Lorsch (1967) and others. The basic assumption of this approach is that the fit of characteristics of the organization, for instance an agribusiness company, and its external and internal business environment ("Situation") with the formal structure of the organization influences the performance of the organization (see figure 1). Reversely, this means that a misfit between situational characteristics and organizational structure might lead to decreasing performance, thus, requires adaption. (Lawrence and Lorsch 1967).

Situation = Context

Characteristics of the organization and its environment

Formal structure of the organization the organization the organization

Source: Adapted from Kieser and Ebers (2014)

Due to its abstract and generalizable viewpoint and reductionist character, the contingency approach has been operationalized for various types of organizations, situations and institutional arrangements over time (Flynn et al. 2010). In this regard, organizations could be single companies or even whole supply chains (Kieser and Ebers 2014; Otter et al. 2014) and their situational parameters could be internal such as age and size of the organization or external in nature such as socio-economic circumstances, market characteristics, customer structure or the global cultural context (Kieser and Ebers 2014). Furthermore, formal structures include inter alia the degree of formalization but also of standardization (Pugh and Hickson 1971; Pugh et al. 1968). More recent studies have these instruments also categorized as procedural design parameters and distinguished them from structural, motivational and personal instruments (Kayser et al. 2015). The aspect of formalization will be in the focus of this study as private food standards required are an expression of standardization and need to fit to various market characteristics and customer structures in various destination countries,

when defining the organization as the whole international supply chain, in order to maximize organizational performance (Lawrence and Lorsch 1967). However, the operationalization of organizational performance is recognized as a main pitfall in contingency theory – an issue that even increases the more complex the organization as the unit of investigation becomes. Since the term "efficiency" which is often used in this context is distensible in nature, this study will waive the quantification of parameters and focus on a major qualitative aim of supply chain activities instead: The optimal allocation of goods at any time (Kieser and Ebers 2014; Van der Vorst 2006).

Material and Methods

In this study the contingency approach is applied on the international fresh fruit trade as an example for NTAE-supply chains. In doing so, we focus on the European Union as destination market since it is one of the most important actors in global fruit trade (Huang 2005). Therefore, it would also be vulnerable in case of increasing procurement problems due to a misfit between situational factors and the organizational design of supply chains. The European Union is, with nearly 10 million tons and about 20 billion US Dollar of fresh fruit imports in 2013, a major but also very dependent costumer on the world market (Comtrade 2014). Germany alone accounts for 9 % of global fruit trade volume and is with a population of about 80 million the principal market in the EU (Comtrade 2014; Hart et al. 2007).

Germany is even in comparison to other European countries an extreme case insofar that it is the only country setting its own quality requirements diverging from the European legislation. This is mainly due to standards on maximum pesticide residues on fresh fruits set by large retailers (Soon and Baines 2013). This development is mainly due to repeated public campaigns of nongovernmental organizations accusing retailers of threatening consumer health through high (although in most cases legal) pesticide residues. Higher standards on pesticide residues have helped retailers to avoid public campaigns (Melo et al. 2012). Thus, the standards producers and exporters have to meet in the German fruit market have increased in the recent past. Consequently, the country can be seen as a prime example for other highly industrialized countries such as the United States regarding standard setting and has therefore been chosen as country of investigation in this study. Furthermore, Germany is a country where prices for fresh fruits (and other food products) are comparatively low (Comtrade 2014) due to intensive price competition between retailers and the market dominance of lowprice hard discount stores. To get a detailed understanding of the specific issue, qualitative data collection by using semi-structured in-depth interviews was chosen in this study (Denzin and Lincoln 2011). Qualitative surveys, in comparison to quantitative approaches, contain research methods as well as data collection and analysis without a numerical basis (Creswell 2009; King et al., 1994). Since the broad constructs of the contingency approach are hard to quantify especially on a supply chain level and comparable as well as reliable data is scarce¹, the qualitative approach is preferred in this context. Furthermore, intensive interviews have the advantage to obtain detailed information from a relatively low number of participants (Neves et al. 2013; King et al. 1994) since the strength of a semi-structured interview lies in its opportunity for participants to express their own perspective freely and in their own terms. However, the interview is prepared and guided to avoid missing important aspects. This

¹ Trade data such as import and export flows from/to the European Union (especially to Germany) are difficult to obtain because of re-imports/exports in all current databases. Furthermore data bases for many, especially for developing and transition countries, are incomplete, unreliable, heterogeneous or even not existent at all.

research method allows identifying undiscovered developments and requires a new point of view (Cohen and Crabtree 2006). According to Cassell and Symon (1994) qualitative approaches are a valuable tool especially in times of changes, since changes are due to time lags in quantitative data often not observable in the moment they occur. Additionally, "with quantitative methods we may be able to assess that a change has occurred over time but we cannot say how or why." (Cassell and Symon 1994: 5). Thus, in this study a qualitative approach is used to explore:

- Do experts perceive a change of the role of private standards in international fruit supply chains?
- How did the change of the role of private standards occur?
- Why did the change of the role of private standards happen?

Study design and sample description

To obtain the qualitative data, a series of semi-structured telephone interviews with industry experts from import as well as from export countries were conducted between September and November 2014 using an interview guideline. An interview guideline, with open-ended questions was developed to gather detailed information from industry insiders' perspectives (Leech 2002). Additionally, ad-hoc questions were spontaneously phrased in the end of the interview in case that new issues arose during the dialogue. Both interview guidelines, for importers and for exporters, closely resemble each other to ensure the compatibility of the results. Both guidelines contained four main sections: general data (A), company data (e.g. size, export markets), certification systems, product portfolio and product sources (B), questions about specific aspects of the role of private standards in international fruit trade (C) and socio-demographical information of the respondent (D). Section C as the centerpieces of the interview guidelines included key questions about

- experts' trade relations with the EU, specifically with retailers in the EU,
- experts' perception of food quality certification and private standards in fruit trade,
- the emergence of new destination markets for fruit worldwide.

For the interviews especially managing directors but also experts on logistics, marketing, purchasing, sales and quality management were addressed in a targeted manner. The importers were selected on the basis of the companies' fruit trade flows, their trade relations with the German food-retail sector and their firm size. Exporters were only selected if they operate in accordance with European quality requirements and are GlobalGap-certified.

The first attempts to come into contact with the experts took place at the German *Fruit and Vegetable Congress* 2014 in Düsseldorf, Germany, and additionally through an internet-based search. Interviews lasted between twenty and ninety minutes and were recorded. After transcribing all expert interviews qualitative data analyses were carried out by using the software Atlas.ti for coding and processing the data.

Table 1: Interviewed importers' product and county portfolios

Importer	Apple	Pineapple	Banana	Pear	Kiwi fruit	Grape	Citrus
1	ZA^1			ZA		ZA	ZA
2	AR, CL,			ZA, AR,		ZA, AR, CL	ZA, AR, UY

	NZ			CL			
3				ES, IT, ZA, AG, UY		ES, IT, ZA, AG, UY	ES, IT, ZA, AG, UY
4		CR, PA, EC	CO, CR, EC				BR
5	NZ	CR, EC	EC				ES, ZA
6						ES, EG, PE	ES
7			CO, EC				
8			PE, CO, EC		IT, NZ, AU		
9	EU, Overseas	EU	CR, CO, EC	EU, Overseas			
10	ZA, AR, CL	CR, CI	PA, CO			IT, GR, ES, ZA, AR	ES, IT, ZA, AR
11			CR, EC, VN, CN				
12	CL	CR	EC, CO, CR	CL	CL	ZA, IN, CL	ZA
13	NZ, CL, ZA	CR, PA	EC, CR, CO	ZA, CL, AR	NZ, IT	IN, ZA, BR	ZA, AR, MX
14	FR, IT, NZ, AR, CL	CR	CR, EC, CO	IT, ES, ZA, CL	IT, FR, GR, NZ, CL	IT, GR, ES, CL, ZA, Ar, BR, IN	ES, TR, IT, ZA, CN, AR

Table 2: Interviewed producers' and exporters' geographic origin and product portfolio

	ter viewed producers				
Exporter	Chile	South Africa	Costa Rica	Guatemala	Ecuador
1 (PE) ¹			Pineapple		
2 (E)			Pineapple		
2 (E)			Pineapple,		
3 (E)			Banana		
4 (PE)			Pineapple		
5 (E)			Pineapple,		
5 (E)			Banana		
6 (PE)					Pineapple
7 (PE)					Banana
8 (PE)		Citrus			
9 (PE)	Grape				
10 (PE)	Apple, Pear,				
	Grape, Kiwi fruit				
11 (DE)	Apple, Pear,				
11 (PE)	Grape, Kiwi fruit				
12 (DE)	•	Apple, Pear,			
12 (PE)		Citrus, Grape			
13 (P)					Banana
14 (P)			Pineapple		
15 (E)		Grape			
16 (PE)		Citrus			
17 (E)		Grape			
18 (PE)		Apple, Pear,			
		Citrus, Grape			
19 (E)		•		Citrus	
20 (PE)	Grape				
21 (PE)	Citrus				
22 (PE)		Apple, Pear			
	1 D -	- Primary producer: E	E - Drimary producer	s who export their own	products: E-Exporters

The sample consists of 14 leading German importers of fresh fruit from the Southern hemisphere (see Table 1). The interviewed experts on the importer-side are between 28 and 58 years old and have between one year and 40 years of working experience. Most participated experts are managing directors (10). Furthermore, one marketing director, one

key account manager, one quality management representative and one expert on sales and purchasing were interviewed. Surveyed import-companies, mostly operate in the legal forms of GmbH (11) and GmbH & Co. KG (3), employ between six and 800 employees.

Furthermore, 22 exporters and primary producers were interviewed from main non-EU export countries to the European Union and Germany as presented in Table 2. The surveyed experts on the exporter-side are between 34 and 56 years old and have between 9 months and 13 years of working experience. Two of the exporters are farmers (100 % self-/in-house production), five are direct exporters and 15 are producers who export their own products (30-90 % self-/in-house production). Most of the latter kind of companies is organized as cooperatives.

Results

In the evaluation of the expert interviews it has to be differentiated between the statements of importers and exporters to approach the problem from different angles and derive recommendations for political and managerial decision-makers and future research directions.

Importers

The interviews with importers clarify that German fruit importers select their suppliers on the basis of various criteria. However, the essential criterion for delivering to the European and German market is a GlobalGap certification: "Certifications, such as GlobalGap and IFS, are simply basic preconditions due to the underlying customer requirements" (Importer 11). In this context customer requirements are the basis for specifications - especially certifications - of German food retailers for companies which supply to the EU market. Thus, "(...) if they do not have any certification, they do not have to deliver" (Importer 3).

All surveyed experts that import companies confirm that national retailers demand private standards (such as GlobalGap, IFS, BRC, etc.) as the basic precondition for supply; therefore, these standards have become quasi-mandatory for producers in developing and transition countries (Meuwissen et al. 2003). In addition to these private standards, which ensure quality and traceability, the maximum residue levels set by the European Union and other food law regulations have to be complied with. According to the importers interviewed, the requirements stemming from these established public standards and the limitations regarding some pesticide residues are easy to fulfill for producers: "(...) the governmental standards everybody may fulfill. There are no problems; problems tend to occur with the retailer specifications" (Importer 4). In contrast, the very stringent requirements relating to pesticide residues of German food retailers are regarded as particularly problematic. For the delivery to German food retailers, traceability and monitoring of quality criteria are in the focus of importers. However, through the enforcement of strict and specific requirements, imports to the German food market have become substantially more difficult. Thus, for producers and suppliers from exporting countries there is no way round if they want to sell their fruits in Germany.

Apart from general perceptions of private standards - especially maximum residue levels - as entry barriers to fruit trade with the EU market, experts have a critical opinion about certification systems. Thus, some doubts have been raised concerning the relevance of a certificate. "It is not a sufficient criterion to have a GlobalGap certification to make sure everything runs as we like to do and is required by the German food retailers" (Importer 8). Requirements in the field of certifications have to be fulfilled, nevertheless, they do not guarantee reliably that German consumers' and retailers' expectations are met. To avoid

penalties by German food retailers, importers set their own specific standards for their suppliers.

Another issue from importers' perspective is to comply with a whole certification jungle with numerous different quality requirements: "In general, however there are no difficulties. There are no problems with GlobalGap in any case; the problems tend to be about the multiplication of certifications. There are so many and everybody develops another one" (Importer 12); "From my point of view the problem for producers is that they have so many standards which overlap each other. They have British certifications, the US certifications and other specific ones (...)" (Importer 4). As interviews show, experts often face these complications due to a lack of integration of the various private standards. Thus, producers and suppliers of fresh fruit have to separately meet requirements of the market in the EU, the United States, and Great Britain and special standards defined by individual food retailers. The importers considered that the retailer policy on pesticides is a reaction to the headlinegrabbing presentation of fruit and vegetables contaminated with pesticides nongovernmental organizations, whether the story is true or not. In this regard some nongovernmental organizations (NGOs) held promotional campaigns publicizing the hazardousness of fresh fruit some years ago. Thus, consumers have become increasingly doubtful as a result of negative headlines. "These people had a strong influence, and this has led to a broad range of such special requirements in the EU and in German food retail" (Importer 2).

Following that, retailers established lower pesticide residue levels to avoid negative publicity and loosing consumers and consumer trust. "(...) there were problems and then the only theme was "food safety". Every discount store has started to make its own food safety standard. These standards [Note: especially maximum residue levels] are going far beyond the standards of the European Union" (Importer 3). At the same time average retail prices have not increased in the same way as the requirements for the producers. As a result it has become more and more difficult for producers to deliver fruits with the conditions required and at the same time assure the profitability of their business. "It is getting harder and harder to fulfill the standards. (...) But it costs a lot of money and requires a lot of time. The question is, if they overshoot the target" (Importer 4). However, importers state that it is difficult to revert these strict requirements, concerning maximum residue levels, even if they are meanwhile considered as partially too excessive. "But it is difficult for food retailer to break out of this role and say: instead of 70 % we now need only 80 % or 100 % [Note: of the European standard]. In this case (...) consumer will be concerned about dumping at the expense of food safety" (Importer 8).

In this regard, importers perceive the German food retail sector as price- and quality-dominated so that producers have to comply with these standards despite of low prices. Especially low customer prices in conjunction with stagnating or declining fruit consumption and rising quality requirements in Germany are – according to the experts in the importer sample – the main factors making Germany less attractive as a destination market for suppliers in international fruit trade: "It will no longer be simple, to enthuse producers for us. We cannot longer say: come to us we have best prices and you will have a sufficient income. This is seen more and more critically today. We are no longer in the position to pay such prices" (Importer 4).

At the same time importers are concerned about the rising advantages of newly emerging growth markets for exporting countries which extend their existing trade relations and open new sales channels. "We [Note: Germany] have achieved a consumption level: despite of all

the assurances that people would or should eat more fresh fruit and vegetables it does not necessarily happen. In this regard there are other countries such as Russia or China which are definitely increasing at least in parts in imports [Note: of fresh fruits]" (Importer 4). Such new growth markets, e.g. China, India, and Russia, show an increase of per capita food consumption and purchasing power to buy high value food such as fresh fruits. "There is a great appetite for fresh fruit and vegetables in these countries, with a stronger tendency than we have in Germany. In this respect, competition is rising there" (Importer 8).

Therefore, most experts argue that there are changes in international fruit trade flows at the expense of European markets. In addition to the Asian and Russian market, domestic markets in the exporting countries also gain relevance due to increasing income of many consumers, shorter distances to end markets, and, thus, easier logistics and less stringent quality standards. Thus, producers and exporters usually do not have to fear complaints and sanctions in their home markets. "In the meantime producers have got several alternatives and that is a very simple problem, which we need to address. This mean that we just have strong competition" (Importer 4). The majority of the importers agree that there is growing competition on the world market especially for Germany and are anxious about the availability of the fresh fruit quantities needed for Western Europe and Germany. "Therefore, Europe will play a minor role because growth, population size increases in other parts of the world, no longer in Europe (Importer 13). The availability of fresh fruit all year long can no longer be taken for granted and it is very likely that a shortage of supply will occur in the future.

Exporters and Producers

The majority of the interviewed producers and exporters describe themselves as in principle open to all markets and constantly searching for new sales opportunities for their fruits. They confirm that Europe is one of their traditional main target markets, although it has become increasingly less important. Most of the respondents state, that they have reduced the quantities delivered to the European market during the last years. "5 years ago our company sold 70% of its fruit to the European market; today it is around 40%" (Exporter 15). The exporters do not expect Europe to be a growing market for their business. "In future, the focus will be less on Europe (...). There already exist other markets that pay the same or higher prices with less risk. Therefore, I think that Europe (...) for us as exporters of fresh fruits will lose its importance" (Exporter 11).

Lower prices, stagnating consumption and demand are considered to minimize advantages of the European market for exporters. "In Western Europe consumption level has already reached its limit and demand is not increasing any further" (Exporter 1). Concurrently, it was highlighted in the interviews, that strictness of product requirements have increased constantly on European markets for fresh fruit: "Quality certificates are already a precondition to deliver to our target markets" (Exporter 3).

The experts see Western Europe as one of the most challenging markets that require a lot of quality certificates. They particularly expect Germany to be "a market that is not willing to pay but has a high demand of various certificates" (Exporter 11). Especially private standards such as the GlobalGap certification are key factors to enter the European market and sometimes placed higher by customers than the "real quality of the fruit" (Exporter 7). This certification is widespread among producers and exporters in the exporting countries due to their long experience and adaptation of the production processes to market requirements. One of the exporters even claims that "If there is an important certification in the world, it is the

GlobalGap certification" (Exporter 1). The GlobalGap certification is mainly positively evaluated by the interviewees since it provides compliance with the minimum standards and helps the exporting companies to organize their business processes.

Standards are more considered as trade facilitation also on other, non-European markets and as the basis for the adoption of further standards. Therefore, most private food standards and the European legislation are no longer impairing factors concerning exporters' business on the European market. In contrast, it is the low maximum residue levels fixed by retailing companies which have become increasingly stringent and a real challenge. Especially the German market is characterized by the experts as price driven, sophisticated "(...) and focused on the topic of application of pesticides" (Exporter 11). The minimum residue levels are more restrictive and the experts observe a rising (...) pressure on reducing pesticides in food" (Exporter 4) because most of German supermarkets "(...) accept only a third of the official minimum level" (Exporter 4). Thus, the requirements on the German market exceed the level of GlobalGap so that this certification no longer the safeguards the entrance to and success on the European market. "The German supermarkets have their own rules and they are very hard to comply and they do not have a solid scientific basis for this" (Exporter 19). "Already slight derivations of the measured values lead to the return of goods. This makes the export to Europe more difficult" (Exporter 12). In this regard, these maximum residue levels are recognized with incomprehension by producers and exporters in exporting countries.

Private Standards set by supermarkets lower suppliers' preferences for the European market. Concerning quality standards the respondents expect that the requirements will continue to increase in Europe, as well as on other international markets. "Standards concerning social and environmental aspects are increasingly important in the developed markets" (Exporter 16) and all participants similarly expect a further international dissemination of these standards in the future. Some of them explain that on the one hand there is a shortage of resources needed, for instance skilled labour, and on the other hand the monetary compensation as well as technical support for meeting the requirements of various standards is lacking. These circumstances make certification according to various standards difficult, especially for small producers: "If every market sets its own and different standards it will be more expensive and difficult for us" (Exporter 11). Furthermore, the experts see "very few opportunities" (Exporter 1) for improving fruit characteristics and production processes.

A market specific production is diminished by low customers' willingness to pay as it is the case in Germany at the moment; thus, producers and exporters suffer from a lack of profitability. The very "specific requirements" (Exporter 8) of this market are sometimes perceived as trade barriers by the exporters which is not the case with regard to other international growth markets yet. "In case of strongly rising requirements the quantities that will be send to Europe will drop down" (Exporter 20); "(...) this would be a reason to refrain from shipping goods to Europe" (Exporter 16).

Therefore, the European market increasingly loses its attractiveness for producers and exporters. They increasingly try to diversify their destination markets and become more and more independent from one single market or region or even Europe. Thus "(...) producers try to find alternative target markets" (Exporter 12) which accept "(...) fruits with lower standards to the same price level" (Exporter 18). The findings suggest that the quality requirements on emerging markets are different from those on the developed markets. They are less stringent with regard to maximum residue levels but not lower with regard to aesthetics of the fresh fruits and phytosanitary aspects. For example "Asia is an attractive market, but (...) there are trade barriers as well" (Exporter 5). Many interviewees state that

Asian markets pay higher prices but the demand on fruit with a perfect external appearance on these markets potentially increases the complaint rate and is perceived as a high risk by exporters. Moreover entering and delivering new markets is still connected with "economic and political risks" (Exporter 1), for instance due to unreliable payment practices.

Nevertheless "developing countries are less oriented to certificates" (Exporter 11) which is still an advantage for exporters. The experts intend to adapt their sales and strategies used for the distribution of risk. "Today the supply for certain fruits is lower than the demand" (Exporter 21), therefore it is easy to find new customers and the European market loses its attractiveness for producers and exporters and its advantages stemming from high payment security, stable networks of trade relationships and efficient infrastructure in favor of the newly emerging growth markets in the developing and transition countries such as China and India. Even if the participants expect that it will take some time to create a new successful market position in these growing markets, they observe that the economic and political situation is becoming more stable. In this context the experts see further potential for extending their business to these new growth markets due to lower quality standards, rising demand and a higher willingness to pay for fresh fruits.

According to the experts' opinion, Europe will nonetheless stay a major pillar as a target market for fresh fruits in the short term; "Europe receives a wide range of different fruits (...) (Exporter 16), therefore "(...) we would definitely not stop delivering the European market because we have been in this market for a long time and we need to maintain it" (Exporter 7) at least "(...) for certain varieties and sizes" (Exporter 16). But with the increasing complexity of the European market requirements concerning fruit quality, it will lose its importance in the long term. The experts indicate efforts of producers and exporters to become more independent from the European market by moving their business into a different direction.

Discussion and Conclusions

This study shows that companies in the international fruit trade are currently challenged by changing conditions in their external market environment. The assumption based on the contingency approach that a misfit between the changed market situation (emergence of new growth markets) and the strict and complex private standards prevailing on the German fruit market (formal structure) leads in consequence to procurement issues of importers in the European Union (decreasing performance) (Lawrence and Lorsch 1967) can be confirmed by the results of the expert interviews conducted in this study. Thus, this study very much parallels earlier findings on changing international trade patterns (USDA 2014).

Most experts on the import-side as well as on the export-side agree that the reason for procurement issues is not the problem to comply with specific private standards such as GlobalGap, but the growing flood of private standards and too low maximum residue levels required by German retailers. This "private food standard jungle" in combination with stagnating prices and demand on the German market leads to its decreasing attractiveness as well as an increasing attractiveness of alternative export markets in the Southern hemisphere. In so far, this study underpins earlier studies on the peculiarities stemming from a lack of harmonization of food safety standards (Müller et al. 2013; Mergenthaler et al. 2009). In consequence, shifts of trade flows and procurement issues in Germany, as an example for other industrialized importing countries, are expected. Standards, thus, do not necessarily impede trade (Masood 2014; Maertens and Swinnen 2009; Jaffee and Henson 2005) but

contribute to changing trade patterns, including the emergence of a growing relevance of South-South trade relationships (Diop and Jaffee 2005).

Due to the qualitative nature of the study, the influences of strict quality requirements on changes in international trade flows cannot be quantified. Thus, results have to be considered as tendencies and interpreted tentatively. However, the complexity of context-based details resulting from the qualitative data sampling will provide a basis for rethinking the actual role of private standards in international fruit trade (Harrison and Ng 2011). Furthermore, the findings provide insights into the processes underlying the emergence of stricter food safety standards and the role of nongovernmental organizations in this context. Although retailers are often considered the "new masters of the food chain" (Flynn and Marsden 1992: 90), in fact NGOs also play a decisive role in determining the organization of food supply chains. In the end the organization of food supply chains can be conceptualized as the outcome of a dense nexus of private and public action on various levels, both national and international (Harrison et al. 1997).

The results of this study give reason for manifold managerial, political and research implications. Management implications can be addressed to the companies in the industrialized importing countries. For those countries it will be necessary to not further fall short of maximum residual levels stated by the European Union and to liberalize their purchasing and price negotiations to avoid procurement problems in the middle and long run. At the same time politics in countries such as Germany should more thoroughly try to harmonize food safety standards. It should also actively support the whole food chain, but especially the fresh fruit sector in regaining credibility by educating consumers regarding an adequate evaluation of food safety in order to increase consumer acceptance of natural product characteristics and certain maximum residue levels. Furthermore, import and trade regulations should regularly be evaluated with regard to their appropriateness and effectivity based on latest research findings. To provide this base, researchers should rethink their common beliefs about private standards functioning as barriers to trade for developing and transition exporting countries. Instead they should focus on the new role of standards excluding demanding industrialized markets from international trade flows with NTAE. Further research on the impact of private standards and retailer requirements on trade flows from an importing country's perspective and large-scale quantitative analyses of import level changes are needed. Therefore, improvements of databases are required to obtain complete, comparable and reliable data for such studies. However, to realize these implications all actors in the food sectors in industrialized countries have to descend from their high horse of 'market power' against the background of growing international competition.

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