THE RELIABILITY OF ORGANIC CERTIFICATION: AN APPROACH TO INVESTIGATE THE AUDIT QUALITY

Gabriele Jahn, Matthias Schramm, Achim Spiller
University of Goettingen, Institute of Agricultural Economics, Chair for Food Marketing,
Platz der Goettinger Sieben 5, 37073 Goettingen, Tel.: +49 551 39 9897,
E-mail: gjahn@gwdg.de, mschram1@uni-goettingen.de, a.spiller@agr.uni-goettingen.de

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Abstract
Increasing complexity and first scandals indicate that the current control structures for organic food is insufficient. The main challenges are different methods of implementation on the national level and the collaborative responsibility between the public and the private sector. Both often cause lacking clarity and disagreements. The following contribution focuses on instruments to enhance the quality of certification of organic food. Only a few of the suggested instruments have been included as necessary requirements yet. Given the risk of deficient quality assurance and at the same time increasing control costs, it seems urgent to trigger discussions on risk-oriented auditing and to improve the current certification system.

Introduction
Quality assurance is a crucial issue for the organic market. The information asymmetries related to the process-oriented attributes of organic production (credence quality) can not easily be bypassed by classical quality signals such as advertising, branding, and guarantees. Over the past years a certification system has been established to ensure organic quality. However, it is conjecturable that certification systems are susceptible to opportunistic behaviour (McCluskey, 2000). In a market in which the company to be supervised can choose its own auditor, misleading incentives may occur. From the viewpoint of the certification body, a cheap certification can be a decisive competitive advantage in certification markets. Low-cost strategies might significantly affect the quality of inspections. Hence, the underlying institutional structure can considerably influence the effectiveness and reliability of the whole certification system. Only if the label is recognized as a valid signal, customer's confidence will increase.
The following analysis deals with the control validity of the organic certification system. Thus, the relevant institutional framework is presented. The model based on a Principal Agent Approach provides the base for the discussion about the audit quality of organic certification. Additionally, results from the research on financial auditing complement the analysis.

Methodology

Basic Structure of Organic Certification
In most countries the organic certification system has a core structure as illustrated in figure 1. Key feature is that inspections are carried out by independent bodies (third party audit) conforming to standards laid down by external organisations. The starting point is the flow of goods between farmers, processors and consumers. The supplier provides the organic certificate serving as quality signal, which is issued by a neutral certifier based on the quality and certification standards laid down by the public sector (e.g., EU regulation 2092/91 or OFPA). Governmental certification systems are established to serve consumer protection purposes by providing quality labels to improve market transparency.

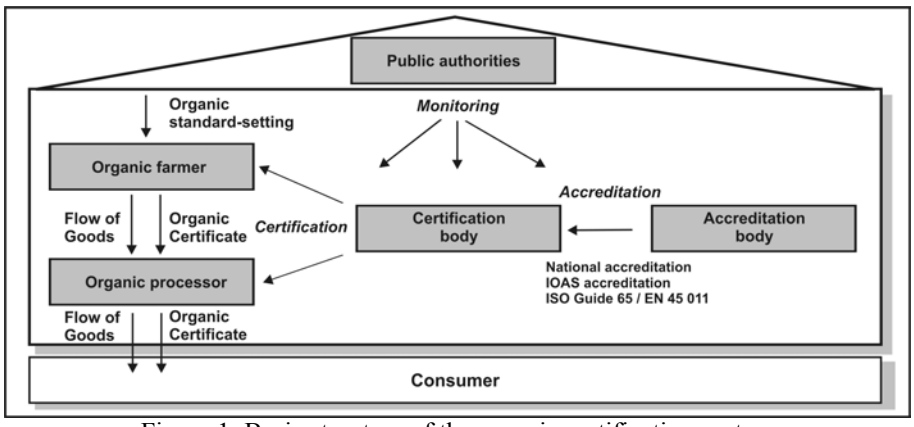

Figure 1: Basic structure of the organic certification system

According to the official guidelines, the basic structure of the organic certification system is the same. However, two main types of implementation can be differentiated:

Polypolistic structure: In the majority of the countries, the operative inspection tasks are delegated to private certifiers, which can be either domestic certification bodies or foreign ones (Wynen, 2004). An oligopolistic structure might occur as well, associated with strong national accreditation programmes and/or the public control of the organic certification market.

Monopolistic structure: Completely public driven systems as in Denmark or Finland are rather exceptional. In these countries, both monitoring and certification are carried out by public authorities. Thus, the realisation of organic control is part of a governmental bureaucratic process (Seppänen und Helenius, 2004). The working principle is similar in nations such as the Netherlands, where the public sector authorises one certification body to do the organic inspections (c.f., SKAL).

The Basic Research Model

The main focus of the following analysis will be on a certification market in which a supplier can choose between several certification bodies (*polypolistic type*). Our model refers to a variety of research approaches analysing the field of financial auditing. Since the seminal studies of Antle (1982) and DeAngelo (1981) many theoretical approaches to audit quality have been applied, generally based on decision theory, game theory, or agency approach.

The premise of the model is based on rational and risk-neutral agents tending to act opportunistically. Assuming the existence of a given inspection technology, the probability of discovering shortcomings grows with increased inspection intensity, as do investigation costs. Certification fees are fixed exogenously. Under these conditions, the certification body acts to minimize costs

The certifier's optimisation calculus can be represented as follows: The certifier's marginal cost (MC_C) arise from the marginal cost of the inspection (MC_I) together with the marginal opportunity cost of the loss of the client (MC_O). The latter pertain to the contingency that a company will replace a certifier it views as too strict with a more lenient one. Against a unilateral minimization of these costs weigh the increasing costs of a deficient inspection being discovered (MC_D), which in turn are composed of the marginal cost of a potential loss of reputation resulting from inadequate inspections becoming generally known (MC_R) and the marginal cost of liability (MC_L). MC_D, as well as MC_L, will increase with decreasing audit quality (q). The costs of liability for example are composed of the probability of being held liable and the amount of the potential sanction. With a higher level of audit quality, the probability of being sanctioned decreases leading to an above average decline of the marginal cost of liability MC_L. Thus, the relevant cost functions to be minimized are as follows:

$$MC_C = MC_I + MC_O \quad (1)$$
$$MC_D = MC_R + MC_L \quad (2)$$

From the certifier's point of view, a cost minimum appears at the intersection of the two curves that determines the inspection quality to be estimated by the auditor (cf. Figure 2). From these considerations, we can derive four basic starting points for improving inspection quality: (1) extending the certifier's liability (increasing the marginal cost of potential liability), (2) intensifying the effects on reputation in the certification market (increasing the marginal cost of loss of reputation), (3) decreasing the certifier's dependence on the firm being inspected (reducing the opportunity cost of losing the client) and (4) reducing the inspection costs by improving certification technology (reducing the marginal cost of the audit).

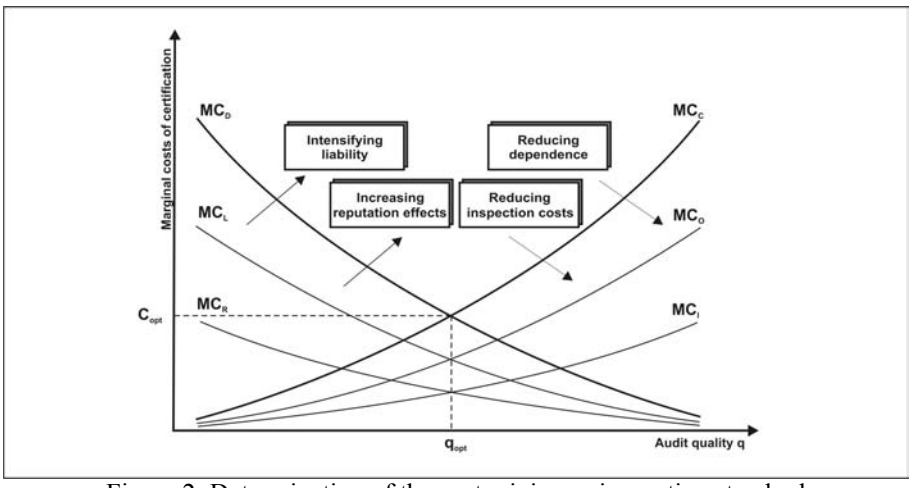

Figure 2: Determination of the cost minimum inspection standard

The Empirical Illustration and Discussion

Besides the more formal research, empirical studies on the quality of financial auditing are also widespread. However, an analysis of these empirical findings makes apparent that they are often debatable. The following section aims to outline initial starting points for how the audit quality of organic certification could be improved. It is based on the described model as well as on a qualitative expert survey conducted in 2004.

Intensifying Liability: Intensifying the inspector's liability raises the marginal cost of the liability and thus induces the certifier to increase the quality of the inspection. The certifier's probability of liability is qualified by the effective claims of negligence and the apportionment of the burden of proof. In auditing, there is no absolute liability, thus, in each case the certifier's guilt must be proven by the injured party. For outsiders, this is naturally difficult. For this reason, there is currently an intense debate on the preventative effects of absolute liability (Sunder, 2003).

In addition to costs arising from liability, penalties for non-compliance raise the costs for opportunistic certifiers: They might be ordered to pay penalties or even be excluded from system participation. In contrast to private certification approaches, the public responsibility in organic certification allows to enforce criminal prosecution for fraud.

Increasing Reputation Effects: An intensification of the effects on reputation would have an impact similar to that of the threat of liability discussed above. If there are no effects on reputation, supplier and certifier have a clear interest in superficial certification. The resulting adverse selection will be encountered only if marketing advantages are triggered by an accepted label and/or an inspection through a certifier known to be thorough.

Reputation increases with higher market transparency. At present, consumers as well as professional buyers have only very little information about the performance of different organic certifying agencies. They cannot judge their work and because of the process attributes, they are unable to evaluate their activities after purchasing the product. Only few customers actually prefer products from specific certification bodies. Therefore, the disclosure of erroneous certifications by the standard owner would be a conceivable and efficient variation. Public authorities should enforce their monitoring and failed companies and inspectors should be named.

In most countries the organic certification market is very heterogeneous: Small agencies compete against big international agencies. However, the size of the certification body and the consequent strengthening of the effects on reputation is an option much debated in the literature on auditing. According to the findings of empirical studies in auditing, internationally renowned CPA groups can command higher auditing fees than lesser-known equivalent auditors (Niemi, 2004). This can be seen as a reputation bonus which would be lost if a scandal occurred. Therefore, in case of doubt, the shareholder should call upon the company to contract with a highly reputable certifier.

Reducing Dependence: Traditionally, driven by the organic association, organic controls and advisory services were carried out together. However, today separation is mandatory due to ISO Guide 65 (EN 45011). Separating consulting from certification could contribute to a further mitigation of the distinctly dependent relationship that develops if certifiers are also allowed to function as consultants. If the certification market functions as an entry into the lucrative consultancy market, the opportunity cost of losing a client increases significantly. Knowledge spill-over effects lead to a higher audit

quality with the same input of resources. In addition, increased reputation effects can be a result of consultancy business combined with auditing.[1] Whether the total impact of a separation will be positive or negative is a matter of debate in financial auditing as well (Frankel et al., 2002, Windmöller, 2000). Further dependencies might be discussed regarding the dependencies between a certification body and organic farming associations or other huge producer associations.
Another issue is the danger of losing clients in the following period (so-called "low balling"-effect in financial auditing) which can have a decisive effect on the auditing report. Thus, it should not be allowed for producers to go "opinion shopping" and change from one certifier to another without any restrictions. Nowadays, the organic certification guidelines still allow changing the certification body at any time even during the ongoing certification process.
Improvement of Inspection Technology: In the preceding sections, we assumed perfect inspection technology. In practice, with the same costs certifiers can have varying levels of success due to different levels of know-how or different software support. Improved inspection technology lowers certification costs and, at the same time, contributes to enhanced certification quality. In addition to vocational training and better technical support, appropriate instruments include risk-oriented inspection approaches and an improved exchange of data and information among the regulatory bodies. First projects are implemented considering these issues (cf., European Action Plan for organic food and farming or the EISfOM project).
In financial auditing the adoption of "risk-oriented auditing" is a popular method to enhance inspection technology. "Risk-oriented auditing" is associated with a specific classification of clients due to the likelihood of fraud. Higher audit frequencies and deeper audit intensities are necessary in settings with high audit risks. Additional spot checks increase the discovery of errors whereas long audit intervals are only appropriate for companies characterised by a low risk of fraud.
It becomes apparent that referring to former audit results can only be a starting point to integrate risk factors (GfRS, 2003). In addition to specific risk factors for the firms, a standard owner should consider the potential risk of damage (e.g., loss of reputation or health risk) and the amount of public attention in the case of a crisis in determining and weighting risk factors as well. The identification of risk leads to different audit intervals, additional spot checks, and suitable inspection methods. The key objective should be the optimization of the cost-benefit ratio associated with the controls by means of an assessment of fraud risks and a particular focus on "dangerous" clients.

Conclusions

The conducted study highlights a variety of starting points, which must be considered when discussing a valid control quality of the organic certification system. It appears, however, quite difficult to evaluate the costs related to the above-mentioned procedures on a firm's level as well as on a macroeconomic level. An instrument which could have a cost reducing effect, would be an increasing implementation of the risk-oriented auditing. Similar positive impacts would also be associated with an increasing harmonisation of the national systems. Bureaucratic tendencies might have an opposite effect.
An issue often discussed is whether the monopolistic approach is more effective than the polypolistic one. A definite answer cannot be given. The suitability of a purely state-driven approach might primarily depend on the expertise of public agencies, but as well on the reputation of the public sector. Difficulties arise if the competencies between the public and the private sector are not clearly defined.

Altogether it becomes apparent that all changes of audit quality can just as easily have undesirable side-effects (e.g., restraint on competition, higher costs and prices). Such trade-offs are inevitable and recommend cautious progress. The overall quality will not necessarily rise. Nevertheless, preventing cheap talk is finally the *conditio sine qua non* for successful organic labelling.

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[1] Seppänen and Helenius support a combined approach for the organic certification in Finland: "*When organized systematically and consciously developed, advice in inspections could reinforce the dialogue between the formal, closed regulation, and the informal, more open "self-regulation" that is going on in local farming practices.* (Seppänen and Helenius, 2004: 11)*"*

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