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QUALITY ASSURANCE IN THE AGROFOOD SECTOR: AN ORGANIZATIONAL-SOCIOLOGICAL PERSPECTIVE

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1 Quality Assurance Schemes under Discussion

In the aftermath of several food crises, quality management systems and quality assurance schemes have been widely introduced into the European agrofood sector. Currently this makes feelings run high. On the one hand quality is viewed as a main determinant of the future developments of food markets. The early introduction of food chain-wide quality assurance schemes, for instance, is considered one important reason for the competitive advantage of Dutch and Danish hog producers over their German competitors (TRAUPE, 2002). Furthermore, several food crises have increased the speed with which state-of-the-art quality management systems and new quality assurance schemes are making their way into the food sector. This development is strongly supported by the European Union. Former EU Commissioner David Byrne, e.g., wanted "... to see a quality-driven single market in food-stuffs" (VERHAEGEN and VAN HUYLENBROECK, 2002: preface) due to a growing interest of consumers in safe, wholesome and tasty food. Food and feed quality and safety, thus, have become one of the EU's preferred areas of regulation (e.g. Regulation (EC) 178/2002).

On the other hand there are also numerous critical assessments of the current trend towards intensified quality assurance in the agrofood sector. Many farmers feel incapacitated by the strict regulations imposed by quality assurance schemes. As a consequence, many German farmers still reject, for instance, the *Quality and Safety* (QS) system and do not participate in it at all or do not participate voluntarily but have been forced into the system by powerful customers, e.g. slaughterhouses. JAHN et al. (2003) empirically analyzed the attitudes of German farmers towards the QS system. The most common complaint about the QS system is that it results in a huge bureaucratic workload. In open-ended questions, 32 out of 65 farmers considered bureaucracy the main disadvantage of the QS system. This is not a surprise since bureaucratization is a common complaint about quality management systems, not only in the agrofood sector (SCHNAUBER, 1994; SCHRÖDER and REINHARDT, 2000). It, thus, seems worthwhile having a closer look at quality management systems and quality assurance schemes from an organizational-sociological perspective by referring to classical strands and recent developments in the theory of bureaucracy.

2 Quality Assurance as Bureaucratic Organization

The term "bureaucracy" can be traced back to the 18th century when absolutist monarchies developed their central administrations. WEBER (1986) introduced thinking about bureaucratic organization into modern sociology and organization theory. He was interested in the trend of rationalization, i.e. the practical application of knowledge to achieve better control over both the physical and the social environment. According to WEBER, bureaucracy is rationalization applied to the organization of human activities. Bureaucracy is based on impersonal rules which have been legally established (rational-legal authority). It has widely replaced premodern forms of authority which rely on a belief in the sanctity of tradition (traditional authority) or the extraordinary personalities and appeal of leaders (charismatic authority).

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Based on historical-comparative analysis, WEBER (1986) identified several characteristics of the bureaucratic organization. The most important features of bureaucracies are: goal-orientation, written rules of conduct and standardized procedures, highly specialized division of labor, hierarchy of authority with directives flowing down the chain of command and information flowing up, official business conducted in writing, operations guided by impersonal rules, promotion of employees based on achievement, and appointment to offices according to specialized qualifications. WEBER's theory of bureaucracy has heavily influenced the social sciences. He described the ideal-type bureaucracy – a conceptually pure type of organization. When comparing this analytically clear type to empirical reality, deviations can be observed. Nevertheless, the ideal type serves as a measuring rod which allows researchers to contrast real bureaucracies to the theoretically consistent model.

A quick glance at quality assurance schemes in the agrofood sector reveals that they are truly bureaucratic in nature. ISO 9001, for instance, “specifies requirements for a quality management system where an organization needs to demonstrate its ability to provide products that fulfill customer and applicable regulatory requirements” (ISO 9000: 2000: 6). In doing so, it applies many of the aforementioned bureaucratic principles (see Table 1).

Table 1: Bureaucratic features of ISO 9001

Bureaucratic principles	ISO 9001 : 2000 Standard (examples)
Goal-orientation	“Top management shall ensure that quality objectives ... are established at relevant functions and levels within the organization.” (5.4.1 Quality objectives)
Written rules	“The organization shall establish and maintain a quality manual that includes ... the documented procedures established for the quality management system ...” (4.2.2 Quality manual)
Specialization	“Top management shall appoint a member of management who ... shall have responsibility and authority that includes a) ensuring that processes needed for the quality management system are established, implemented and maintained, b) reporting to top management on the performance of the quality management system ..., and c) ensuring the promotion of awareness of customer requirements ...” (5.5.2 Management representative)
Hierarchy of authority	“Top management shall ensure that the responsibilities and authorities are defined ...” (5.5.1 Responsibility and authority)
Written communication & documentation	“Records shall be established and maintained to provide evidence of conformity to requirements ...” (4.2.4 Control of records)
Impersonal rules	“A documented procedure shall be established to define requirements for a) reviewing nonconformities ..., b) determining the causes of nonconformities, c) evaluating the need for action ..., d) determining and implementing action needed, e) ..., f) reviewing corrective action taken.” (8.5.2 Corrective action)
Specialized qualifications	“Personnel performing work affecting product quality shall be competent on the basis of appropriate education, training, skills and experience.” (6.2.1 Human resources – General)

Bureaucratic features can also be identified in the QS system which views itself as an alliance in the food chain for active consumer protection. Bureaucratic features of QS include:

- Goal-orientation: QS officially aims at recovering and strengthening consumers' trust in the correct and quality-conscious production of food, securing food quality and guaranteeing animal-friendly and environmentally safe production processes.
- Written rules: The standards are laid down in detail in the QS System Manual, which specifies production and handling requirements for each part of the food chain.
- Specialization/hierarchy of authority: QS clearly defines the responsibility of each system participant for the correct and complete documentation of production processes, the deployment of self-assessment procedures and the observance of rules laid down in the QS System Manual. These personal responsibilities are symbolically strengthened by the obligation to prefer written contracts (for example, between farmers and veterinary surgeons) and to personally sign important documents (such as delivery notes).
- Written communication and documentation: Participants are obliged to document their production processes and identify, describe and document critical control points.
- Impersonal rules: Infringements of the QS System Manual are punished by a neutral sanction committee. The auditors are strictly obliged to neutrally audit the participants in the QS system.
- Specialized qualifications: In the QS system, auditors, veterinary surgeons and salmonella laboratories have to prove they have certain qualifications and work experience. Furthermore, several human resource development activities are compulsory.

Taking the aforementioned aspects into account, it is not surprising that JAHN et al. (2003) found that farmers consider bureaucracy a major characteristic of the QS system. The farmers' complaints suggest that they view bureaucracy as something negative. But is this popular notion accurate, or do bureaucratic organizations deserve a more balanced assessment?

3 Bureaucracies: Good or Bad?

For WEBER (1986: 227) the "decisive reason for the advance of bureaucratic organization has always been its purely technical superiority over any former organization." In bureaucratic organizations, "precision, speed, unambiguity, knowledge of the files, continuity, discretion, unity, strict subordination, reduction of friction and of material and personal costs" are raised to the optimum. This distinguishes bureaucratic organizations from premodern forms of authority. Traditional authority and charismatic authority are, for instance, less continuous since obedience is owed to persons instead of impersonal rules.

It is important to keep in mind that WEBER's positive assessment of bureaucratic organization only holds in comparison to premodern forms of authority. Furthermore, technical superiority is a rather narrow efficiency criterion which only takes into account the formal rationality of decisions. Thus there is room left for the dark sides of bureaucracy. WEBER (1986) also mentions power asymmetries based on differences in formal qualifications and the autocratic nature of bureaucratic organization. Those who control the large bureaucracies control the lives of their fellow human beings as self-appointed leaders. In WEBER's theory, bureaucracy and oligarchy are two closely related conceptual cornerstones. In addition, WEBER considers bureaucratic actions unjust in individual cases due to the strict employment of impersonal rules and objective considerations without regard to personal fates. The impersonality of bureaucracy results in dehumanization.

All in all, WEBER's assessment of bureaucratic organization is much more mixed than usually recognized. This mixed assessment is confirmed by modern organization theory. On the one hand, we still find positive assessments and empirical findings stressing the importance of well-designed procedures for facilitating task performance, avoiding role conflicts and role stress, and triggering positive effects on commitment. There are even empirical studies which find a positive influence of bureaucracy on job satisfaction and innovativeness (ADLER and

BORYS, 1996). But more in line with everyday opinions about bureaucratic organizations are those studies which emphasize the inefficiencies of bureaucracies (DERLIEN, 1992):

- New external threats are not recognized or digested due to a high degree of specialization and inflexible work assignments. The communication between the organization and its environment is underdeveloped.
- Departments create their own goals and pursue them even at the expense of the organization's overall goal.
- Rules are followed for their own sake due to the high degree of formalization of all work processes. This results in a strong preference for the status-quo.
- The tendency towards creating more and more rules favors rigidity, inflexibility and program and process conservatism. A fundamental redesign of rule systems and bureaucratic organizations often requires major crises.
- The hierarchy of authority creates control and implementation problems. Information flowing up the hierarchy is filtered and distorted. Top management risks losing a clear picture of the environment and the situation of the organization.
- Bureaucracies abrogate individual autonomy and create social distance. This results in low job satisfaction, absenteeism, role stress, low work morale, feelings of powerlessness and self-estrangement and high fluctuation in staff.

Due to these negative assertions of the effectiveness and efficiency of bureaucracies, developing alternatives to bureaucratic organization has a long history in management theory. Nevertheless, the prevalence of bureaucratic elements in most organizations can be assumed to be a sign of something positive or even indispensable in the bureaucratic organization. In this context it is interesting to see that positive assessments of bureaucracy often pour out of the literature on quality management. This literature emphasizes the important role of well-designed procedures, regular statistical process controls, intensive documentation, clear specifications of responsibilities and the like (DEMING, 2000; PFEIFER, 2001). As Table 1 offers by way of example, this philosophy prevails in such highly influential regulations as ISO 9001. Not surprisingly, WEBER's theory of bureaucracy is considered one of the historical foundations of modern quality management (LUNING et al., 2002).

The assessment of quality standards is as mixed as the attitude towards bureaucracies in general. ISO 9000 standards, for instance, are often regarded as additional control mechanisms. The increased formalization of processes and the ability to control through audits are viewed as vital for attaining quality objectives. But it is also argued that ISO certifications reduce organizational flexibility and lead to an undesirable standardization of the management of organizations (BECK and WALGENBACH, 2003). So the assessment of bureaucracy in general and quality assurance in particular reveals a dilemma. On the one hand, bureaucratization seems technically necessary when implementing advanced quality management systems. As a result we see strong trends towards increased bureaucratization in organizations (ISO 9000, Total Quality Management). On the other hand, bureaucratic organization has many undesirable side-effects, e.g. reduced flexibility and adaptability. As a consequence many organizations pursue bureaucratization and debureaucratization strategies at the same time. In order to suggest a solution to this dilemma and the obviously contradictory developments in organization design, this paper will take a closer look at some recent advances in the theory of bureaucracy. These developments root in the opinion that the traditional Weberian theory of bureaucracy cannot explain the aforementioned contradictory empirical results, assessments and organizational developments due to certain theoretical shortcomings.

4 Coercive and Enabling Bureaucracies

Based on empirical work in the automotive industry (ADLER, 1993; ADLER and COLE, 1993), PAUL ADLER (1999; ADLER and BORYS, 1996) argues that generally attributing good or bad characteristics to bureaucracies is a misconception. According to ADLER, neither the negative nor the positive consequences are inherent in bureaucracies. In working out this idea in more detail, he focuses on formalization as a fundamental aspect of bureaucracy and distinguishes two dimensions of organizational design: the technical and the social structure (see Table 2). The technical structure is determined by the degree of formalization or level of bureaucracy. The efficiency of a high or low level of bureaucracy depends mainly on the degree of routineness of tasks. The social structure describes the way an organization structure functions, that is, the type of formalization. A coercive structure is designed “to assure that potentially recalcitrant, incompetent, or irresponsible employees do the right thing” (ADLER, 1999: 38). An enabling structure, on the other hand, functions “to support the work of the doers rather than to bolster the authority of the higher-ups. ... When bureaucracy takes this form rather than the more traditional, coercive form, even a highly bureaucratic structure will be experienced by employees as a tool with which they can better perform their tasks, rather than a weapon used by their superiors against them” (ibid.).

Table 2: Typology of organizational designs (Adler and Borys, 1996: 78; Adler, 1999: 39)

		Social structure	
		Enabling	Coercive
Technical structure	Low level of bureaucracy	Organic organization	Autocratic organization
	High level of bureaucracy	Enabling bureaucracy	Coercive bureaucracy

The distinction between coercive and enabling bureaucracies depicts a continuum. This continuum can be described by referring to structural features (autonomy, internal and global transparency, and flexibility), design processes and implementation contexts (ADLER and BORYS, 1996; ADLER, 1999).

In coercive bureaucracies the **autonomy** of employees is low. Rules are designed to prevent shirking; deviations from rules are suspect and mistrusted. Rules, thus, mainly serve as a device for controllers or superiors to assess whether the employees’ actions are in accordance with the regulations. Rules neither give employees the opportunity to react to the peculiarities of the particular case, nor do they help to identify improvement opportunities. The coercive bureaucracy is in the spirit of TAYLOR’s (1911) time-and-motion studies, which were invented to identify the single most efficient way of performing tasks. In enabling bureaucracies rules are designed and implemented as an aid for users. They leave room for reactions to work contingencies. In this logic interruptions of work processes and employees’ deviations from rules signal weaknesses of work processes and methods, a need for further employee training and as yet unidentified improvement opportunities. Not only methods engineering departments or industrial engineers but all members of an organization are engaged in ongoing improvements in methods and procedures. ADLER and COLE (1993) identify the Japanese “lean production” model as an example of an enabling bureaucracy that promotes individual and organizational learning processes through joint problem-solving by engineers and workers in quality circles.

Internal transparency describes to what extent employees have insight into the internal functioning of their work system and the rationale of the rules in force. The internal transparency of coercive bureaucracies is low since they only provide lists of flat assertions of duties. Employees are only expected to implement work instructions. Introducing a product development handbook which writes procedures down nicely and neatly without giving any reason for these procedures is an example of coercive formalization. In contrast, enabling bureaucra-

cies provide employees with knowledge about the key components of the processes and improve their understanding of the internal logic of the work system so that they can deal more effectively with unexpected problems. Furthermore, examples of best practice routines are provided. If, for instance, a handbook contains examples of best practices and ideas on how to do jobs more effectively and efficiently, it becomes a much more helpful working tool.

“**Global transparency** ... refers to the intelligibility for employees of the broader system within which they are working” (ADLER and BORYS, 1996: 72-3). In coercive bureaucracies, only supervisors have knowledge about the broader work system. Information given to employees is strictly restricted to the knowledge they need for performing their individual tasks. Thus, global transparency for subordinates is low. Some suggestion systems, for instance, are very opaque to employees since suggestions are only rated as accepted or not accepted. In this case, management completely controls the suggestion system without sharing its knowledge about the functioning of the overall system with employees. In enabling bureaucracies employees are provided with information about the broader system in order to improve their interactions with other parts of the organization and the external environment. In this logic, a suggestion system should also comprise intensive employee training and group discussions with employees in which engineers explain their assessment of suggestions.

In coercive bureaucracies deviations from rules require the superiors' approval. **Flexibility**, thus, is low in order to minimize the organization's reliance on employees' skill and discretion. In such a structure it is impossible, for example, to skip a step in the product development process just because it is viewed as unnecessary in the individual case. Such a deviation from the rules has to be authorized by a superior. In contrast, enabling bureaucracies allow deviations from written procedures and view them as learning opportunities. If, for instance, time pressure is high, an enabling product development handbook may allow to skip certain steps in the codified procedure.

The **design processes** of coercive and enabling bureaucracies are different. In coercive organizational environments employees are not involved in the design of procedures at all. Instead, the task of designing the system is allocated to system designers in order to use their specialized knowledge, avoid politics and save the costs of broad participation. The design team starts with clear up-front goals and comes up with a clean final system design which is expected to need no revisions after implementation. In contrast, employee participation is viewed as necessary in the enabling logic. Participation encourages employees' support and improves the results of the design process. Participation is enabled through employee training and the investment of resources. Improvement suggestions by employees on all levels are welcome. The prototyping approach with several successive versions of organizational structures and procedures is used in the design process.

The coercive approach to **implementation** is based on a command and control culture that emphasizes positional authority and top-down control in the implementation process. Employee training focuses on narrow and specialized operational know-how since training is viewed as costly and, thus, should be minimized. The implementation process is autocratic. Enabling bureaucracies are implemented in a more participative way. Training is broader and deeper and embraces know-how as well as know-why. The organization relies on a hierarchy of expertise and shared control instead of positional power and top-down control.

To sum up, we can say that ADLER's theory of bureaucracy offers a somewhat stylized but nevertheless useful way of distinguishing different kinds of bureaucracies. Although enabling bureaucracies need considerable investments in training and socialization, ADLER (1999; ADLER and COLE, 1993) quotes empirical evidence that this form of high-involvement organization can be preferable even in mass-production industries with a dominance of cost-based strategies since it fosters usability of procedures, flexible reactions to unexpected work contingencies, employee motivation and satisfaction, and individual and organizational learning.

Thus, the coercive-enabling framework promises to solve the dilemma in quality management between a need for formalized procedures, on the one hand, and participants' complaints about bureaucratic workload on the other.

5 Two Types of Quality Assurance Schemes: Coercive and Enabling

As mentioned above, quality assurance schemes show many features of bureaucratic systems. ADLER's theory of bureaucracy teaches that the effectiveness and efficiency of these systems depends on their features, design processes and implementation contexts. Quality assurance, therefore, can be designed in a coercive or in an enabling way, too.

In a **coercive quality assurance system** the autonomy of participants (for instance farmers, slaughterhouses, food processors and retailers) is low. The participants have to follow strict and very detailed rules in order to prevent shirking and to enable controls by external auditors or the central agency that has organized the system. The participants are strictly kept out of control routines. A coercive quality assurance scheme does not leave, for instance, the organization of production processes and documentation systems to system participants' discretion.

Internal transparency is low in coercive systems. Participants receive only a list of duties, bans, guidelines and other regulations without any explanations. If the reasons for these regulations are not obvious, the reasons remain somewhat unclear to system participants. In the QS system, for instance, the necessity for an improved salmonella monitoring system is obvious and the necessary measures remained widely unquestioned. The ban on feeding left-overs in hog production obviously is less compelling and, thus, caused a vivid discussion among farmers.

In a coercive quality assurance scheme global transparency is low for system participants unless the reasons for certain regulations are obvious. In all other cases, the relevance of regulations concerning one part of the food chain for quality assurance in other parts of the chain is not explained in detail. Only system designers have a deeper understanding of the chain-wide interplay of regulations.

All quality assurance schemes relying on the definition of standards, regular third-party audits and certifications are rather inflexible. This is exceedingly valid for coercive schemes which insist on the strict application of regulations. Each deviation from rules has to be approved by the system designer, that is, the central agency, for example, the standardization organization.

Participants are excluded from the design process of a coercive system. Instead, the design task is allotted to a group of experts. The system is designed in one step and guided by clear up-front goals. After implementation of the system, design changes are rejected in order to avoid costly revisions. If at all, only very powerful stakeholders, that is, retailers, are able to influence the further development of the system. Training of participants is minimized and restricted to operational know-how in order to save costs.

Implementation of coercive quality management systems is characterized by a lack of voluntarism. Instead, institutional pressures (BECK and WALGENBACH, 2003) or pressures from external stakeholders, such as powerful retailers, force participants into the system. In the latter case, power replaces information, persuasion and intrinsic motivation to participate.

Enabling quality assurance schemes are designed in a different way. They allow flexible customization to different levels of skill, experience and organizational size. The rules help participants to improve their way of doing business and are viewed as templates to be challenged and improved. Performance standards are accompanied by best practice examples for achieving them but leave room for a firm-specific organization of production processes and documentation systems. Or put differently: Enabling systems grant participants autonomy by defining a quality goal and suggesting ways of reaching this goal, but accept different ways of goal accomplishment. These systems pursue output instead of process control.

Internal transparency is high in enabling systems. Participants receive information as to why certain duties are obligatory and what the key elements of the processes are. The goal is to provide participants with knowledge about the internal logic of work processes and reasons for quality standards. The situation is similar concerning global transparency. All participants are informed about the broader system they are part of, the interplay between the different parts of the food chain and the overall relevance of specific regulations. The goal is to improve interactions in the system by providing insights into the complete work environment.

An enabling system is more flexible. Participants have the opportunity of changing the procedures when this seems reasonable. Therefore, the quality assurance scheme distinguishes, for instance, between “must-“ and “should-“regulations. Participants can deviate from the latter when the deviations and the reasons for doing business in a different way are comprehensively documented.

The design process is characterized by broader participation of (future) participants. Although lively discussions about the system design and system goals in general and certain regulations in particular take time, participation is considered necessary for guaranteeing better solutions and support by many participants. Furthermore, the design process is characterized by step-by-step improvements. The prototyping approach starts with a rough design proposal which allows testing prior to future improvements.

The enabling implementation is characterized by processes in which system designers and participants collaborate. Expertise and knowledge are more important for each participant’s role than his or her position in the food chain. Participants voluntarily join the system; they are not forced into it. The implementation process includes broad training in know-how and know-why.

6 Summary and Conclusion

Referring to the work of WEBER, it can be shown that quality management systems are nearly ideal bureaucratic organizations. An efficiency assessment of bureaucratic systems comes up with a somewhat mixed result. On the one hand, the literature on quality management and quality assurance strongly emphasizes the positive aspects of bureaucracies for producing superior quality. On the other hand, critics stress the bureaucratic workload, the loss of flexibility and the undesired standardization in the management of organizations. Organizations, therefore, face a dilemma between increasing bureaucratization in order to attain quality goals and a need for debureaucratization in order to become more competitive.

Recent developments in the theory of bureaucracy point a way out of this dilemma. Taking different types of formalization into account, ADLER distinguishes between coercive and enabling bureaucracies. The latter is a high-involvement organization design which avoids the disadvantages of bureaucracies without sacrificing their strengths.

Without doubt, ADLER presents a very stylized distinction which needs further operationalization in order to show a feasible way towards implementation. Furthermore, his ideas are silent on conflicts of interests in food chains. What if, for instance, broad participation brings out contrary opinions about future developments of quality assurance schemes? Nevertheless, ADLER’s approach offers a fresh way of thinking about the design of quality management systems. It clarifies that complaints about the bureaucratic workload of quality assurance schemes are not inevitable. Strengthening their enabling elements is suggested as a way for countering criticism and fostering the attractiveness and acceptance of these systems.

JAHN et al. (2003) found that about one-third of German farmers have voluntarily joined the QS system, but the vast majority have been forced into the system by powerful customers, such as slaughterhouses. It can be hypothesized that in the long run this lack of enthusiasm and voluntarism will have devastating effects on the effectiveness and the future of the QS system. Assuming that other schemes have similar problems, this should be sufficient motiva-

tion to continue research on a better and more enthusiastically accepted design of quality assurance schemes in the agrofood sector. Recent developments in the theory of bureaucracy provide a good starting point for manifold future research activities.

References

- ADLER, P. S. (1993): The 'Learning Bureaucracy': New United Motor Manufacturing, Inc. *Research in Organizational Behavior* 15: 111-194.
- ADLER, P. S. (1999): Building Better Bureaucracies. *Academy of Management Executive* 13, No. 4: 36-47.
- ADLER, P. S. and B. BORYS (1996): Two Types of Bureaucracy: Enabling and Coercive. *Administrative Science Quarterly* 41: 61-89.
- ADLER, P. S. and R. E. COLE (1993): Designed for Learning: A Tale of Two Auto Plants. *Sloan Management Review* 34, Spring: 85-94.
- BECK, N. and P. WALGENBACH (2003): ISO 9000 and Formalization - How Organizational Contingencies Affect Organizational Responses to Institutional Forces. *Schmalenbach Business Review* 55: 294-320.
- DEMING, W. E. (2000): *Out of the Crisis*. 2nd ed., Cambridge, MA.
- DERLIEN, H.-U. (1992): Bürokratie. In: Frese, E. (ed.), *Handwörterbuch der Organisation*. 3. ed., Stuttgart: 391-400.
- JAHN, G., M. PEUPERT and A. SPILLER. (2003): Einstellungen deutscher Landwirte zum QS-System: Ergebnisse einer ersten Sondierungsstudie. Working Paper University of Göttingen.
- LUNING, P. A., W. J. MARCELIS and W. M. F. JONGEN (2002): *Food Quality Management: A Techno-Managerial Approach*. Wageningen.
- PFEIFER, T. (2001): *Qualitätsmanagement: Strategien, Methoden, Techniken*. 3. ed., München, Wien.
- SCHNAUBER, H. (1994): Zertifizierung und Total Quality Management oder 'Wie erreicht man mehr Qualität ohne mehr Bürokratie?' Tagungsband Bochumer Qualitätstage 1993. Berlin.
- SCHRÖDER, A. and M. REINHARDT (2000): Die Einführung eines neuen Qualitätsmanagement-Systems aus Sicht der MitarbeiterInnen. *Arbeitsweltreport* No. 2/2000: 4-5.
- TAYLOR, F. W. (1911): *The Principles of Scientific Management*. New York.
- TRAUPE, C. (2002): *Schlachtschweinevermarktung in Niedersachsen*. Göttingen.
- VERHAEGEN, I. and G. VAN HUYLENBROECK (2002): Hybrid Governance Structures for Quality Farm Products: A Transaction Cost Perspective. Aachen.
- WEBER, M. (1986): *Economy and Society: An Outline of Interpretive Sociology*. Berkeley.