

## ***Strategies for medium-sized values-based food chains during growth processes***

Muenchhausen, S.v., Schulz, K., Haering, A.M. and Llamas Vacas, R.

*University of Applied Sciences, Eberswalde, Germany*

**Abstract:** Growth of values-based food chains (VBFC) holds particular challenges. The disconnection between food producers and consumers require strategies that maintain and communicate values throughout the food chain. The objective of this paper is to analyze strategies organic food businesses have chosen to deal with growth, and in particular, strategies that focus on consumers' expectations and producers' business strategies. A literature review on the challenges of growing organic food chains provided the conceptual framework. Three case studies of organic food businesses were analyzed accordingly, highlighting strategies for maintaining values along the chain. The analysis shows that the values of food chains and the related business strategies aiming to maintain and transmit these values differ significantly. The first case study business is - based on contracts - closely linked to the primary producers. This chain is characterized by the quality aspects of its products and process and the story behind its production system. The second one focuses on reliability within the partnership of chain partners such as farmers, processors, and the shop or market stall owners. The third case study is based on good cooperation and communication aiming to secure income and employment for the involved women in a remote rural area.

**Keywords:** value food chains, supply chains, mid-scale chains

### **Introduction**

Values-based food chains (VBFC) connect businesses to maximize value for all partners, addressing consumers demand for memorable, high-quality food, produced with a farming story they can support (e.g. environmentally respectful production systems that contribute to the local economy and community), and brought to them through supply chains they can trust (Stevenson et al., 2011; Viitaharju et al., 2005). In particular, VBFC address the problems of distrust and disconnection between food producers and consumers (Padel et al., 2010). Thus VBFC depend on an excellent cooperation and information flow between chain members during growth, aiming to provide transparency. VBFC which grow from niche to a mid-scale market volume face some particular challenges.

One of the sectors characterized by significant growth in the last decade is the organic food and farming sector. In the past, mainly small farm or retail businesses offered organic food products which the consumers valued as high-value goods. The direct contact between consumer and producer or processor and the regional embeddedness of the chain partners secured the transmission of the particular values of the quality product and the production and marketing processes. Since the 1970s, German farms and processing businesses such as dairies or mills and trading merchants grew in quantities and qualities. Consequently, the physical and the organizational "distance" between primary producer and consumer increased. For example, as raw material is increasingly sourced internationally, consumers are concerned about seeking trustworthy products (see Browne et al., 2000; Carrigan et al., 2004; IGD, 2008) for which they are willing to pay a price premium, while producers might mainly be concerned about competition from countries with lower production costs.

The objective of this paper is to analyze strategies organic food businesses have chosen to deal with growth, and in particular, on business strategies that focus on consumers' expectations.

A literature review on the challenges and business strategies of growing VBFC provided the conceptual framework. The conceptual framework is tested for applicability to organic food businesses by three case studies. The first and the second case study businesses are medium-size organic enterprises with a strong engagement in additional values that are beyond the economic success of organic food processing and marketing. The third case study is a small organic producer cooperative aiming to secure income and employment for a group of women in a remote rural area by the production and marketing of organic health products.

### **Theoretical background**

Food businesses of a significant size have left the stage of being a small food producers or processors and have realized a significant **growth process** and have grown to a medium-size business. These **medium-size VBFC** tend to develop strategic business alliances among small and medium sized farms and other agri-food enterprises (Stevenson et al., 2011). Ideal midscale value chain alliances (a) handle significant volumes of high-quality, differentiated food products; (b) operate effectively at regional levels, and (c) distribute profits equitably among the strategic partners. Compared with very small or very large chains, medium-size food chains have particular advantages (Stevenson et al., 2011):

- They are big enough to find appropriate value chain partners and develop mechanisms for value chain decision-making, transparency and trust.
- They can determine effective strategies for product differentiation, branding, and regional identity and appropriate strategies for product pricing based on understanding true cost structures.
- They are able to successfully compete individually in national or international markets by developing economic power for value chain negotiations.
- They acquire adequate capitalization and competent management and can develop effective quality control and logistical systems.
- They can establish a good market position for direct marketing to local consumers which is often impossible for large enterprises.

Growth processes of VBFC typically result in significant changes within the single businesses and along the food chain, e.g. in the modes of management and coordination, in marketing and communication, in handling increasing numbers of sales partners, in financial and liquidity issues, legal restrictions, etc. Moreover, they face, as any other business, external events like economic crises, food scandals, market disturbances etc., while trying to maintain shared values alongside with the up-scaling or growth process. During this process business partners in VBFC may either grow together or only single businesses expand with a particular orientation (e.g. organic, regional, health) and specialization (e.g. bakery products, convenience products).

**VBFC emphasize the values** associated with the food and the values associated with the business relationships within the food supply chain (Stevenson et al., 2011). They handle goods with values that are often classified as "credence goods", as consumers do neither have the skills nor the information to evaluate the quality of the goods (Wieland et al., 2012). For that reason, the additional value of goods such as securing the organic productions standards needs to be implemented into business strategies when these values are to be maintained along the chain. Efficient supply-chain management and logistics are important (Stevenson et al., 2011) and all chain actors, e.g. farmers, need to be included as strategic partners instead of interchangeable input suppliers (Stevenson et al., 2011).

Although organic values are communicated for a long time, different people associate various meanings with these values. Producers may act on the basis of specific values that exceed the European standard requirements but have difficulties communicating these extra activities, the longer the supply chains grow (Padel et al., 2010). For that reason, organic VBFC depend on an excellent information flow and coordination between chain members aiming to provide transparency. O’Doherty Jensen et al. (2011) found that different values and motivations may hamper the development of well-working and efficient VBFC in this process. The authors highlight **common problems** that medium-sized VBFC, here organic, tend to face:

- **Trust:** partial distrust of farmers and growers related to the reliability and the ‘safety’ of organic principles; distrust extended to certification procedures and major retail chains; distrust also extended to consumers of organic food, who were sometimes seen as constituting a strange or deviant group, or as having been duped into paying premium prices by a fad of the food industry.
- Relationship with other stakeholders such as **fairness:** Lack of trust of organic market stakeholders; lack of interest in the development goals of the values-based chain.
- Limited demand: Quality, price, availability and assortment constitute barriers to demand at the household level; and market factors constitute the main barriers to increasing future demand.
- ‘Weak’ certification labels: organic consumers appear to want strong product–consumer relationships based on **reliability** and **good cooperation**. In the organic market, however, only few national logos such as the Swiss or the Danish logo, few private certification labels (e.g. Demeter) and few private brands (e.g. Rapunzel) currently provide enough equity to foster loyalty. (O’Doherty Jensen et al., 2011)

Medium-size VBFCs aim to overcome problems like the mentioned above by **modern business development strategies** that support the establishment of efficient and flat organizational structures and simultaneously delight costumers (Van der Merwe, 2002). Other strategies focus on the market position, pricing policy, marketing instruments, the cooperation with chain partners, external communication, and may involve various forms of quality management (incl. environmental and sustainability assessment). According to Van der Merwe (2002) good business strategies are based on

- sound investigations of current and future positions,
- effective and efficient internal organization (involving training and development for personnel),
- the capacity to adapt to rapidly changing market conditions (changing corporation and growth in response to market needs),
- learning & improvement resulting from documentation and examination of linkages between input and output,
- definition of clear business objectives,
- incremental improvement during the development process by involving stakeholders,
- a project management bringing people together from diverse levels of education, social backgrounds, experiences.

The business strategy drives the general orientation of the enterprise or an initiative and provides the foundation for a successful management and marketing concept. Business strategies not only support growth process or the establishment of VBFC but are essential in times of challenges or crises.

**‘Direct-to-wholesale’ and ‘direct-to-consumer’** are the two distinct marketing strategies that medium-sized VBFCs employ. Both strategies are based on organizational structures that achieve the necessary volumes of high-quality and differentiated food by aggregating product from several farmers who are treated as strategic partners in a fair and reliable cooperation.

For both strategies, sound knowledge about the **structure of consumer groups**, their expectations towards values-based food production and their willingness to pay a price premium on high quality food is a precondition. O’Doherty Jensen et al. (2011) distinguish ‘regular’ and ‘occasional’ users of values-based food products such as organic products. Their analyses show that for the most part, ‘regular’ users do not have extensive knowledge about food production or processing. However, they tend to be information seekers, in particular regarding product quality, origins and processing, as well as ethical, social and environmental impacts of production. ‘Regular’ users which tend to monitor the market purposefully choose or avoid particular shopping venues. They associate healthy eating habits, food quality and taste, food origins, environmental sustainability, animal welfare and other value-based benefits with organic production. Within limits, ‘occasional’ users are also willing to pay a price premium for particular organic products, as they become more involved with health issues and tend to seek a reconnection with food as a source of health and a ‘slow’ and happier quality of life. Their analysis shows that ‘regular’ users tend to increase their spending because they perceive organic foods not as ‘luxury’ goods, but simply as ordinary food of a good and ‘safe’ kind. However, substitution also occurs. Attributes such as ‘local’, ‘free range’, ‘ethical’, ‘slow’, ‘regional’, ‘animal welfare’, ‘fair trade’, or ‘careful processing’ products were perceived as being acceptable substitutes for the organic value and often merged with the organic concept.

One way to reach the different user groups and thus, achieve market development of products is to enhance the ‘value’ content of organic by adding such extra ‘meanings’ to the organic concept. The reconciliation of organic values with other potentially relevant values will tend to reduce product substitution and increase consumers’ loyalty and trust (Padel et al., 2010). An adequate internal and external communication can transmit ‘additional’ values such as organic along the food chain. By developing innovative communication strategies, consumers can gain awareness of the conditions of the specific food production and food culture. For values-based food marketing, personal and competent consumer communication is vital, e.g. “storytelling” (Stockebrand et al., 2009).

### **Testing the theoretical background**

The strategies of maintaining particular values from the primary producer to the consumer differ between food chains. The analysis of three German case study businesses - embedded in the particular VBFC - highlights these strategies that aim at securing the core values related to product and processes along and beyond the VBFC.

#### **Three German case studies**

The **first case study** business is characterized by the quality aspects of its products and process and the story behind the production focusing on all dimensions of sustainability.

##### **Bohlsener Mühle GmbH**

- is an organic mill and bakery business in the rural center of Lower Saxony producing flour and products for organic bakeries as well as bread, cake, biscuit and cereal products for organic whole- and retail-businesses, health shops etc.,
- has grown significantly since the 1990s with increasing production and storage capacities, a wide range of products, and a significant “territorial” enlargement in northern Germany (more than 100 arable farms associated) and around 180 employees,
- has clearly defined values beyond the production of high-quality products and the economic sustainability of the business; protection of the environment based on high organic

standards (mainly Bioland), social responsibility towards contract farms, as well as fostering the regional economy and the natural and cultural heritage of the rural area around the Bohlsener Mühle (Bohlsener Mühle, 2014).

The business logic of Bohlsener Mühle encompasses strategies that focus on internal management and the organization of the value chain on the one side, and the regional embeddedness and the overall image of the enterprise on the other side. Internally, the management of Bohlsener Mühle aims at practicing a culture of ‘openness’. The business strategy fosters this term aiming to express not only transparency but as well an open minded attitude towards internal criticism as well as novelties and technical innovations. The 180 employees are expected to contribute to the steady improvement of the expanding enterprise and the development of new products and processes. The contract farmers are members of an association.

	Type of business	Main values	Strategies
<b>Bohlsener Mühle GmbH &amp; Co. KG</b> ( <a href="http://www.bohlsenermuehle.de">www.bohlsenermuehle.de</a> )	Organic mill; bakery products: different types of flour, mixtures, seeds etc.; wholesale and retail goods: cereals, biscuits, cracker, bread, pastries etc., around 180 employees; >100 contract farmers	“We are a lively part of the society. Our core values are responsibility, trust and openness.”	<ol style="list-style-type: none"> <li>1. Sustainability concept based on organic principles, excellent products qualities and the wish for constant improvement of performances and processes.</li> <li>2. Support of peasant farm businesses: fair pricing and contract based cooperation with crop farmers in the region (Öko-Korn-Nord association)</li> <li>3. Social engagement in the area supporting organic groups/ associations, cultural projects etc.</li> <li>4. Appreciative attitude towards staff, “culture of openness”, salary payments on the sector’s average level</li> </ol>
<b>Rinklin Naturkost GmbH</b> ( <a href="http://www.rinklin-naturkost.de">www.rinklin-naturkost.de</a> )	Organic wholesaler for fresh foods, groceries, drinks, chemist’s products, natural cosmetics; >200 employees; around 600 customers	<ol style="list-style-type: none"> <li>1. “To be a reliable partner for our 600 customers: health shops, market stalls, restaurants and caterers!”</li> <li>2. “Regional organic food is our first choice!”</li> <li>3. „Our logistic systems are up to date” (cooling, transport)</li> <li>4. “Providing income and employment for our commune”</li> </ol>	<ol style="list-style-type: none"> <li>1. Fostering trust: open and fair internal and external communication, participation of employees in decision making, reliable partnerships with farmers, customers, trade partners etc.</li> <li>2. Informing chefs: “Gastro-Events” on organic food and cooking for restaurants and canteens</li> <li>3. Positive image in the area: local vegetables/fruits, bakery and meat products, sponsoring of local sports team etc.</li> </ol>
<b>Kräutergarten Pommerland eG</b> ( <a href="http://www.kraeutergarten-pommerland.de">www.kraeutergarten-pommerland.de</a> )	Agricultural cooperative (76 members); production and marketing of herbal tea mixtures	“Growing together!” Cooperation and trust for job creation (team of 10 women)	<ol style="list-style-type: none"> <li>1. Production of organic health/wellness products from local agriculture and well known partners</li> <li>2. Cooperative spirit between within the team based on fairness and good communication</li> </ol>

The farmers’ association organizes the procurement which is based on a fair contract for pricing and delivery. The farmers’ association, founded in the beginning of the growth process of the mill, is responsible for the coordination and communication between primary producers and the organic mill. High quality of products and processes, as well as ‘fairness’ and ‘openness’ are core values of the partnership. Externally, the Bohlsener Mühle aims at fostering the image of a business with a strong ecological and social engagement. The engagement for the environment is based on the utilization of modern, energy efficient, flexible technology e.g. by water energy and other renewable energy with the aim of a CO<sub>2</sub> neutral production. The social engagement focuses

on the support of local projects such as a heritage museum and a nature conservation center, educational projects with schools and cultural or sports events. (Bohlsener Mühle, 2013).

The **second case study** focuses on the reliability within the partnership of chain members such as farmers, processors, and shop or market stall owners. **Rinklin Naturkost GmbH**

- is an organic wholesaler in the south-west of Germany who sells fresh organic food and all types of grocery products, drugstore goods and nature cosmetics;
- has grown significantly from an organic farm in the 1950s to a small organic sales business in the 1980s; today Rinklin is a wholesaler with 5500 sq space for logistic operations and cooling, around 200 employees and 600 customers;
- is based on more values than just the economic success and ‘organic’, i.e. reliability and regionality (Rinklin Naturkost GmbH, 2014).

The business strategy of Rinklin Naturkost aims at fostering trust. The management follows the principle of an open and fair internal and external communication. With Rinklin, participation of employees in decision making is part of the management concept, as well (Rinklin Naturkost GmbH, 2014). Rinklin has very few partnerships on a fixed-contract basis. The enterprise aims to constantly prove its reliability as a sales partner. The partnership with the farmers and processors on the one side and the retail business and the gastronomy on the other side is based on trust. For that reason, the transmission of organic values in combination with reliability and regional embeddedness is very important for Rinklin. Rinklin purchases fresh products (fruit, vegetable, bakery, meat and dairy products) within the area which is known for its favorable climate for agricultural production and manufacturing SMEs. This engagement drives an organic values-based food chain within the region. For restaurants, caterer and canteens, Rinklin offers so called “Gastro-Events” aiming to inform chefs about organic products and alternative recipes. Since the protection of the environment is core part of the business strategy due to its organic orientation, the cooling and transport systems are on a high technical and environmental standard. Similar to Bohlsener Mühle, Rinklin fosters its image of an enterprise with social and regional responsibility providing income and employment for the neighboring communes.

The **third case study** is much smaller than the two VBFC mentioned above. The cooperative **Kräutergarten Pommernland e.G.** follows a business strategy that is – apart from the organic principles - mainly based on good cooperation and communication aiming to secure income and employment for the involved team of 10 women in a remote rural area in the north-eastern part of Germany. The cooperative grows herbs organically for the production of infusions. Production and processing is integrated in the cooperative. Different teams are responsible for the production processes such as packing and marketing. In cooperation with health and wellness experts, the team develops new products. The cooperative has an online shop for individual orders. Moreover, the marketing addresses organic shops and selected retail partners. “Growing together” is the motto that highlights the core value of a good cooperation based on trust.

The analysis of the organic VBFC shows that business strategies and management concepts differ aiming to secure additional values that go beyond economic performance and efficiency.

### **Reflection on the strategies of the case study businesses**

Securing the supply volumes of high-quality organic primary products is a major challenge for growing processors. In an early stage of the growth process, Bohlsener Mühle developed the strategy of linking farmers closely to the mill. The foundation of the farmers’ association secured a well-organized supply chain and high-quality crops based on high organic standards (mainly Bioland certification). Securing the **organic principles** throughout the chain is a particular challenge for a processor during the growth process. Bohlsener Mühle managed it successfully

(Bohlsener Mühle 2013). Since Rinklin Naturkost is not a producer or processor, the business strategy needs to foster this value particularly. Rinklin focuses on the realization of organic principles by a) the procurement of high-quality organic goods (closely related with the value of reliability) and b) the investment in environmentally friendly cooling and transport systems. The Kräutergarten cooperative puts the main emphasis on the provision of a good work environment encouraging a constant improvement of the production and the development of marketing channels.

In discussions about future perspectives of organic farming, the term 'fair' has become popular. Bohlsener Mühle claims this value. 'Fairness' makes people feel good because it implies not only well-being for farmers but also for customers, but fairness is not a properly defined term. Farmers and consumers often understand it differently (Padel et al., 2010). However, the Bohlsener Mühle takes this value serious and realizes its implementation. The farmers' association is the 'price negotiator' representing the primary producer with the contracting mill. The foundation of the association was an early strategic decision securing not only the supply but the value of fairness, too (Bohlsener Mühle). One of Rinklin's core values is 'reliability'. The success of the wholesale business is based on a trustful relationship with supply chain partners and with retail, organic shop and gastronomy businesses aiming to avoid formal contracting for simplification and flexibility.

The Kräutergarten strategy is based on good **cooperation**. Farming is not just a business but a 'way of life' (Morgan et al., 2000). Kräutergarten can communicate this value very clearly (Sasse 2014). With Bohlsener Mühle and Rinklin, the value of good cooperation focuses on internal management. Participation and good internal communication are strategies fostering the constant improvement of processes and the engagement of staff.

Local and **regional** supply chain structures are seen as one way to rectify the problems of distrust and the disconnection between food producers and consumers in developed economies in contrast to improved consumer information through certification (Eden et al., 2008). Local food is seen as improving well-being of and fairness for producers and consumers and to future generations in terms of having equal access to scarce resources (Padel et al., 2010).

For that reason, high expectations rest on local or regional organic food as way to reconnect producers and consumers (Padel et al., 2010). German consumers tend to relate organic with regional (BMELV, 2013). This is a challenge for the organic sector. The three case study businesses are good examples because they support the value 'regional' in particular. However, the orientation needs to be different:

The Bohlsener Mühle is referring to 'regional' only in the context of the social and economic engagement in the surrounding communes, not particularity in relation with the origin of the grain. Due to the expansion, the crop farming based value chain had to grow out of the region where the mill itself is situated. The business strategy seems to manage this issue successfully by fostering the regional embeddedness of the mill as a medium-sized business and important employer and sponsor in the area.

In contrast, Rinklin highlights the regional procurement of the goods. The implementation and transmission of the value 'regional' is a strategy that gives Rinklin a clear advantage to the numerous competitors. Farmers who cooperate with Rinklin practice the strategy direct-to-wholesale marketing to regional supermarkets and food service companies. This strategy is based on business models and organizational structures that achieve the necessary volumes of high-quality, differentiated food by aggregating product from multiple farms. Scale is achieved through collective action rather than through increasing the size of individual farms (Stevenson et al., 2011). Apart from small producers, even medium-sized commodity producers such as vegeta-

ble processors or dairies profit from the direct-to-wholesale strategy due to the differentiation, aggregation, and the collective marketing through the wholesaler and wholesale network (Stevenson et al., 2011).

For the Kräutergarten cooperative, regional production is taken for granted due to the small size of the initiative and thus is reflected in the business strategy. However, infusions are dry products which are easy to store and trade over long distances. For that reason, Kräutergarten has many competitors and therefore, depends on the marketing strategy of shops and retailers in the wider area of north-eastern Germany. Only if they want to communicate this value, the Kräutergarten's products will reach the consumer as a regional product.

## **Conclusions**

The three case studies represent successful organic food chains that have gone through a development process. Two of the cases have grown out of a local niche production up to a business handling significant volumes. The development was successful due to business strategies which aim at the realization and the securing of distinct values adapted to the chain and the type of products. The analysis shows that successful mid-scale values-based food chains are built on the processing of appropriate volumes of high-quality, differentiated, market-engaging food products; coupled with value-adding stories of the region and practices. Moreover, strategic business partnerships are drivers of the chains development based on trust, transparency and win-win relationships. Furthermore, successful food value chains exhibit effective supply chain management and environmentally friendly production and logistic systems. Finally, values-based food chains relate to social and regional economic engagement aiming to claim the regional embeddedness of businesses and initiatives and the produced food.

## References

- BMELV (Ed. (2013) Ökobarometer 2013. Repräsentative Bevölkerungsbefragung der TNS Emnid Bielefeld im Auftrag des Bundesministeriums für Ernährung, Landwirtschaft und Verbraucherschutz (BMELV).
- Bohlsener Mühle (2013) Herzlich Willkommen in der Bohlsener Mühle. Business presentation provided by Bohlsener Mühle.
- Bohlsener Mühle GmbH (2014) Bohlsener Mühle homepage. <http://www.bohlsener-muehle.de/> downloaded on the 14/01/2014.
- Eden, S.; Bear, Ch.; Walker, G.P. (2008) Understanding and (dis)trusting food assurance schemes : Consumer confidence and the ‘knowledge fix’ .. / In: Journal of Rural Studies, Vol. 24, No. 1, 01.2008, p. 1-14.
- Merwe, van der A.P. (2002) Project management and business development: integrating strategy, structure, processes and projects. International Journal of Project Management 20 (2002), pp. 401-411.
- Morgan, K. and J. Murdoch (2000) Organic vs. conventional agriculture: knowledge, power and innovation in the food chain. Geoforum 31 (2000), pp. 159-173.
- O’Doherty Jensen, K., S. Denver, R. Zanolini (2011) Actual and potential development of consumer demand on the organic food market in Europe. NJAS – Wageningen Journal of Life Sciences 58 (2011), pp. 79-84.
- Padel, S., K. Zander, K. Gössinger (2010) Regional production’ and ‘Fairness’ in organic farming: Evidence from a CORE Organic project. 9th European IFSA Symposium, 4-7 July 2010, Vienna (Austria), pp. 1793-1802.
- Rinklin Naturkost GmbH (2014) Rinklin homepage. <http://www.rinklin-naturkost.de>, downloaded on the 14/01/2014.
- Sasse, J. (2014) Kräutergarten homepage. <http://www.kraeutergarten-pommerland.de>, downloaded on the 14/01/2014.
- Stevenson, G. W., Clancy, K., King, R., Lev, L., Ostrom, M., & Smith, S. (2011). Midscale food value chains: An introduction. Journal of Agriculture, Food Systems, and Community Development, 1(4), pp. 27-34.
- Stöckeband, N.; Spiller, A. (2009) Verknüpfung regionaler Beschaffungskonzepte mit innovativen regionalen Marketingsansätzen (Kooperatives Erzeuger-Handels-Konzept/KEHK). Projektabschlussbericht, Georg-August-Universität Göttingen, Department für Agrarökonomie und Rurale Entwicklung, [http://orgprints.org/16111/9/16111-06OE235-uni\\_goettingen-spiller-2009-beschaffungskonzept\\_KEHK.pdf](http://orgprints.org/16111/9/16111-06OE235-uni_goettingen-spiller-2009-beschaffungskonzept_KEHK.pdf)
- Viitaharju, L.; Lähdesmäki, M.; Kurki, S.; Valkosalo, P. (2005) Food Supply Chains in Lagging Rural Regions of Finland: an SME Perspective. University of Helsinki. <http://hdl.handle.net/10138/17733>.
- Wieland, J.; Fuerst, M. (2005) Moralische Güter und Wertemanagementsysteme in der Naturkostbranche. <http://orgprints.org/5211/1/5211-04OE024-uni-oldenburg-2005-ethikmanagement.pdf>