# Relationships' sustainability: the case of German wheat-to-bread chain

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*Abstract*— **In recent years there has been a shift in emphasis from transaction-based to more co-operative relationships, as chain members have recognised the need to invest in their supply chain relationships in order to protect their businesses. These non-arm's-length relationships are capable of generating relational rents for chain partners. The main aim of this paper is to investigate why, in spite of the advantages of the non-arm's-length relationships, some relationships do not continue. To enhance the understanding of the termination process, we identify and analyse the factors inducing relationship sustainability (continuation) as well as termination in the case of the German wheat-to-bread chain.**

**The study built on the findings of relationship marketing approach that stresses the importance of building longer-term relationships with customers rather than carrying out individual transactions. In addition, the findings of modern microeconomic theories including transaction costs theory and industrial theory are taken into consideration. The empirical analysis is based on two data sets: First, a quantitative questionnaire survey and second, interviews with stakeholders of the wheat-to-bread chain were conducted, aiming at identifying the role of economic and behavioral dimensions of relationships for their termination.**

**The questionnaire survey provides that businesses assess the relationships in the wheat-to-bread chain, being of high quality and long term duration. The results show that trust, satisfaction and commitment - the behavioural dimensions of relationships quality - are very high in the considered chain. Competitive price, competitive quality and supply continuity were identified as determinants mostly important for buyers' satisfaction as directly influencing relationships' performance. In addition, the results demonstrate that lack of trust is the reason why relationships do not develop or are terminated in the early phases of the relationship. In the long lasting relationships on the other hand, the reasons for termination are mostly of economic nature.**

**The paper shows why sustainable relationships may enhance business' competitiveness and analyses why in spite of it the relationships terminate. As the result of the research we understand the sustainable relationships as those relationships in that the costs for starting the relationship are exceeded by returns gained from the cooperation in time.**

*Keywords*— **economic relationships, sustainability, termination**

## I. INTRODUCTION

An Eurostat ad hoc survey on inter-enterprise relations conducted in 2003 in the five EU-countries shows that enterprises view the impact of inter-enterprise relationships on their competitiveness very favourably [1]. Between 60% and 70% of the enterprises perceived positive impact of inter-enterprise relations on the competitiveness of their business over the last three years. This is driven by private incentives to secure market growth, gain market share, improve margins and increase efficiency in an environment characterised by greater competitive pressures due to increased global competition, EU enlargement, World Trade agreements, reform of the CAP and retailer concentration.

Public pressure for transparency, traceability and due diligence throughout the food supply chain has also played a role. These developments influence the way in which inter-firm relations in agribusiness supply chains are managed and organised. Strategies ranging from complete vertical integration to collaborative alliances have been developed in attempts to establish a more competitive position for those involved and offer the alternative of creating a supply chain that moves away from the free market extreme of 'open commodity trading' that has been a feature of agricultural markets for so long.

The paper draws on information collected as part of an EU funded project FOODCOMM. In the project, among other things we investigated the coordination forms of transactions in the German wheat-to-bread

chain, the quality and strength of business relationships as well as the factors determining termination of relationships in the chain. The paper starts by reviewing the literature on relationship types, quality and development. Then the empirical study and its results are presented. Finally, we draw some conclusions.

## II. LITERATURE REVIEW

### *A. Benefits and costs of long-term relationships*

In the relationship marketing literature a number of studies have been published in recent years, studying the success factors of long-term relationships. This was the reaction to the research works expounding the benefits of long-term relationships for both the supplier and the buyer.

The research shows that the non-arm's-length relationships are capable of generating relational rents for chain partners. Relational rents are defined as profits jointly generated in an exchange relationship which cannot be generated by neither companies in isolation and can only be created through the joint idiosyncratic contributions of the specific alliance partners [2]. The economic aims of long-term cooperation are: to secure market growth, to gain market share, to improve margins and to increase efficiency in an environment characterised by great competitive pressure. Public pressure for transparency, traceability and due diligence throughout the food supply chain have also played a role.

Long-term business relations imply not only additional profit but entail also extra costs. The costs may be classified in two categories. First, costs for starting a relationship (cost for locating and contracting new business partners). Bursk [3], however, argued that these expenses should be treated as investments, not costs. The major part of the costs invested in starting and continuing relationships turns into sunk costs after the termination of the relationship. In the marketing literature, these costs are called "switching costs" (cost for terminating a relationship).

According to Press [4], switching costs are influenced by trust, resource specificity and satisfaction. The higher the sum of these three factors, the higher the switching costs and the higher the commitment to a long-term relationship. Switching costs are "the forgone value of investments plus economic penalties and other expenses associated with findings, evaluating, and using a new supplier" [5].

In the long-term relationships the switching costs can be saved. Even though, they are not always the most efficient form of cooperation. Switching costs count to transaction costs. The transaction costs theory explains, under which conditions the transaction costs can be reduced through vertical cooperation and under which condition the coordination through the spot market is the most efficient one. From the theoretic point of view, the most efficient coordination forms will prevail in the market if there is competition between enterprises that are free to choose the coordination form. This form has the highest difference between relations' rents and costs. The states' interventions in the market as for example tax system or subventions, however, can influence the coordination form in a decisive way.

Kallfass [6] considers the option to achieve transaction costs savings through vertical cooperation between the agricultural producers and the buyers in Germany. He analysed, based on the transaction cost theory, the prevailing co-ordinations' forms of transactions between business partners, namely - no contracts, one year contracts and several years contracts. He adopts an analytical framework, specifying quality, transportation costs, the number of buyers and the specificity of buyers' investment as the determining factors of coordination form in agricultural products' marketing. The transactions without contracts, used by homogenous products such as bread wheat, are characterised by homogenous goods without special qualities; the transportation costs play an unimportant role, the number of ex post buyers is high and the use of specific assets is not relevant. The quality uncertainties, that would increase the cost of spot market transaction, are reduced by the state norms, standards and control through independent agencies. The spot market is the most efficient marketing alternative for product markets with these characteristics (e. g. wheat). The one year contracts are most efficient for marketing of a product with specific qualities where the transport costs are of low or middle importance. There is a low number of

buyers in the market and the asset specific investments plays intermediate role (e.g. malt barley). The more year contracts are efficient for transaction of products with standard quality where transportation costs are highly important. There is only one, always large scale buyer in the region (monopsonist). The buyers' investment in specific assets is very important. There exists relatively high mutual dependence between producer and buyer (e. g. sugar beets).

### *B. Quality, strength and termination of economic relationships*

The strain of literature of relational marketing paradigm focuses on studying the factors influencing the relationship quality [7] service quality and strength [8, 9] as well as exploring the phenomenon of customers' desired value [10]. These concepts are in some extent overlapping. They investigate the importance of different determinants of a relationship like trust, performance, structure, satisfaction, personal bonds, communication etc. for building cooperative relationships. Considerable theory already accounts for each element of a cooperative interorganizational relationship [11]. Roberts et al [12] retained as indicators of relationship quality the dimensions trust, satisfaction, commitment and conflict. Ganesan [13] suggests that long-term orientation in a buyer/seller relationship is a function of two main factors: mutual dependence and the extent to which they trust one another.

The termination of a relationship is a process contrarian to the one of cooperation. In the previous research diverse terms are used interchangeably to specify the phenomenon of relationship ending (ending, termination, dissolution, switching…).We utilize the term relationship termination in accordance with Tähtinen and Halinen [14] who use the concept of termination "to refer to an ending where one of the parties, or an outside actor, deliberately ends a relationship." The term thus accentuates the termination decision and the intentional actions to end the relationship.

The research identifying and analysing the factors strengthening the relationship by enhancing relationship quality, profitability and satisfaction provides significant inside also in the understanding of termination process as this being a reverse process. It is proved for example, that low level of trust influences the relationship quality in a negative way [12] and thus increases the probability of termination.

### *C. Development of exchange relationships*

The most studies measure the relationship's elements in a certain time point without regarding that relationships are evolving. Recent research, however, has recognised the importance of considering the whole relationship development in time, as the level of different elements varies in different phases of the relationships. The costs of a relationship for example are higher at the initial phase due to the starting investments that have to be provided than in the further phases. The consideration of development of exchange relationships was putting forward during the past decade [15, 16, 11]. Different models were developed which mostly share the view that a relationship has a beginning, a life between and an ending [14].

A most influential framework for developing a buyer-seller relationship was proposed by Dwyer at al. [15]. They treat the buyer-seller exchange as an ongoing relationship and show that relationships evolve over time and are temporary. They describe five typical phases of a business relationship:

(1) Awareness phase. In the awareness phase, the identification of a possible partner and the signalling of the perceived attractiveness of this partner occur. Moreover, a shared planning of first transactions takes place.

(2) Exploration phase. In the exploration phase, first transactions are carried out. A critical assessment of the involved benefits, costs, opportunities and risks follows.

(3) Expansion phase. In the expansion phase, further transactions are carried out. In general, this results in an increase in mutual dependency.

(4) Commitment phase. In the commitment phase there is a high degree of mutual dependency. At the same time, processes are institutionalised.

(5) Dissolution phase. In the dissolution phase, business relationships are terminated. This is often a one-sided process.

Rousseau et al. [17 cited in 18] simplify the development of trusting relationships to only three stages: building (forming or re-forming), stability, and dissolution.

## III. THE STUDY

The data for this paper was collected as part of the EU funded project FOODCOMM. The data set was gathered in two steps.

First, quantitative questionnaire survey of chain participants was conducted. The questionnaire was developed based on information from in-depth phone or face-to-face interviews with representatives of business associations. A web-based online survey was the initial approach in data collection which however failed. Although remarkable publicity work was made, only few stakeholders in Germany filled the questionnaire via the internet. Therefore, 384 questionnaires (28 farmers, 129 mills, 229 bakeries) were mailed to respondents along with a cover letter and a postage-paid return envelope. The businesses include different firm sizes and different relationship types. We received the respondents' addresses from the involved associations and additionally through internet search. The responds rate was very low. Only in case of farmers the rate was higher as farmers which cooperate with our institute also in other projects were contacted. The final sample size for the analysis comprises 49 responses, subdivided into 15 wheat farmers, 15 mills and 19 bakeries (Table 1).

Second, interviews with the wheat-to-bread chain stakeholders were carried out (see Table 2 for participant details). In these interviews we asked the actors, which coordination form do they prefer and why they terminated their exchange relationships to their business partners in the past and in which relationships' phase. The businesses included in the qualitative interviews were chosen to represent a diversity of firm sizes and economic relationships. They are located in Saxony, Saxony-Anhalt and Thuringia, in the new federal states where the structure of agricultural businesses is completely different comparing to the old states. The vertical coordination is more supported by agricultural businesses in the NFS as they do not strive for independence that much as the family farms in the OFS do [22].

Table 1 German wheat-to-bread chain, sample and population

| Business | Sample | Whole Population |
|---|---|---|
| Total Farms | **15** | **245,000** |
| Small [(1)] | 9 | <239,000 |
| Large [(2)] | 6 | >6,000 |
| Total processors | **34** | **18,722** |
| Mills | 15 | 1,315 |
| Bakeries | 19 | 17,407 |

[(1)] 5-99 ha; [(2)] 100 and more ha
*Source*: BVL [19]; AgriMA [20], BMELV [21]

Table 2 Participant details

| Business | Business type | Employees | Method |
|---|---|---|---|
| Producer association | cooperative | | phone |
| Agri-trader | large trader | | phone |
| Mill 1 | trade | 20 | face-to-face |
| Mill 2 | trade | 3,5 | face-to-face |
| Mill 3 | industry | 84 | face-to-face |
| Mill 4 | industry | 70 | written |
| Bakery 1 | trade | 4 | face-to-face |
| Bakery 2 | trade | 4 | face-to-face |
| Bakery 3 | trade | 10 | face-to-face |
| BÄKO* | Purchasing co-op | 40 | phone |
| Bakery 4 | industry | 300 | phone |

* BÄKO is a very important bakery purchasing cooperative

## IV. RESULTS AND DISSCUSION

### *A. Relationship types and freedom to choose them*

In the questionnaire, responding businesses indicated the types of relationships (choosing from spot markets, market transactions with same buyer/supplier, formal contracts and financial participation) they currently have with suppliers and buyers in the domestic market. The most typical relationship type (RT) in the wheat-to-bread chain is market transaction with the same business partner (= repeated market transactions - RMT) (Table 3).

Table 3 Use of different relationship types (% of column total)

| | *Stakeholder* | | |
|---|---|---|---|
| | Farmers –> | <– Processors | Processor –> |
| Spot markets* | 6.7% | 0% | 0% |
| Market transactions with same buyer/supplier | 80.0% | 88.5% | 87.5% |
| Formal (written) bilateral contracts | 13.3% | 7.7% | 12.5% |
| Financial participation arrangements | 0% | 3.8% | 0% |
| Total | 100.0% | 100.0% | 100.0% |

* Significant difference in means, ANOVA, α=0.058

Table 4 Freedom to choose relationship type (% of column total)

| | *Stakeholder* | | |
|---|---|---|---|
| | Farmers –> | <– Processors | Processors –> |
| Yes | 90.9% | 100.0% | 50.0% |
| No | | | |
| No – member of cooperative | 0% | 0% | 0% |
| No – not sufficient bargaining power | 9.1% | 0% | 25.0% |
| No – because customers' buying/suppliers' selling practices | 0% | 0% | 25.0% |
| No – because of legal requirements/regulations | 0% | 0% | 0% |
| Total *n* | 11 | 5 | 8 |

Besides RMT farmers use in their downstream relationship also formal written bilateral contracts. Pure spot markets, transaction in which the identities of the business partners are largely irrelevant, are significantly more often used by farmers in their downstream business relationships than by other actors in the wheat-to-bread chain (F-test, α = 0.058).

The large majority of farmers and processors in their upstream relationships claimed to be free to decide which relationship type they use (Table 4). Comparing to farmers, only 50% of processors in their relationship downstream feel free to choose the relationship type. As the main reasons for the lack of freedom they stated are insufficient bargaining power and customers' buying practices.

The approximate share of the total annual turnover/purchasing value generated through the relationship with the most important partner decreases while moving downstream the chain (Table 5) amounting to 63% at the farm level and 39% at the processors in their downstream relationship. The main economic relationship between farmers and purchasers lasts in average 160 months, the one between processors and the main supplier - 255 months and the relationship between processors and purchasers 237 months

All main buyers of wheat are located in the same region as the purchasing farmers as well as 73.1% of main processors' suppliers. In comparison, significantly lower number of main processors' buyers (57.1%) are located in the same region (F-test, α=0.044).

Table 5 Characterisation of relationship with most important buyer/supplier

| | *Stakeholder* | | |
|---|---|---|---|
| | Farmers –> | <– Processors | Processors –> |
| Approximate share in % of total annual turnover/ purchasing value | 63% [15] | 45% [26] | 39% [8] |
| Average length of relationship in months | 160 [15] | 255 [26] | 237 [8] |
| Buyer/supplier in same region (% saying yes)* | 100% [15] | 73.1% [26] | 57.1% [7] |

* Significant difference in means, ANOVA α=0.044
Note: in square brackets, no. of valid responses [*n*].

### *B. Relationship quality and strength*

All respondents assess the overall quality of the relationship to the main business partner as good, only the processors regarding their downstream relationship were comparatively less satisfied (Table 6). Relationships at all levels of the wheat-to-bread chain are characterised by high level of trust and commitment.

Table 6 Quality of relationship with main buyer/supplier (assessment expressed on a 7-point rating scale (1=very poor, …, 7=very good))

| | *Stakeholder* | | |
|---|---|---|---|
| | Farmers –> | <– Processors | Processors –> |
| Overall quality of relationship | 6.0 (0.8) [15] | 6.1 (0.8) [26] | 5.6 (0.9) [8] |
| Our trust in this buyer/supplier | 5.9 (0.9) [15] | 6.0 (1.0) [26] | 6.1 (0.6) [8] |
| Our commitment towards this buyer/supplier | 5.6 (0.7) [15] | 5.7 (1.1) [26] | 6.0 (0.9) [8] |
| Our satisfaction with this buyer/supplier | 5.9 (0.7) [15] | 6.0 (0.9) [26] | 5.4 (1.1) [8] |

Note: in parentheses, standard deviation (std dev); in square brackets, no. of valid responses [*n*].

Farmers are satisfied with the relationship to the main buyer and so are the processors to the main supplier. Processors are just somewhat satisfied with the relationship to the buyer. An F-Test reveals no significant differences between the means of the statements from farmers, processors and retailers.

The strength of the relationship with the most important business partner is analysed based on three statements (past collaboration experience, dependence and ability to endure conflicts) using again a 7-point Likert scale (Table 7). Actors at all stages see the past collaboration experience as good. The processors assess their dependency on the main buyer significantly higher than the farmers (F-Test, $\alpha$=0.013). The respondents assess their ability to endure relationship conflicts with the buyer or supplier as very high.

Table 7 Strength of relationship with main buyer/supplier (assessment expressed on a 7-point rating scale (1=very low, …, 7=very high))

| | *Stakeholder* | | |
|---|---|---|---|
| | Farmers –> | <– Processors | Processors –> |
| Our past collaboration experience | 6.0 (0.8) [15] | 5.9 (0.7) [26] | 5.8 (0.9) [8] |
| Our dependence on this buyer/supplier* | 2.4 (1.5) [14] | 2.8 (1.4) [24] | 4.3 (1.3) [8] |
| Our ability to endure relationship conflicts with this buyer/supplier | 5.2 (1.7) [14] | 5.5 (1.4) [28] | 5.0 (1.0) [8] |

Significant difference in means, ANOVA $\alpha$=0.013
Note: in parentheses, standard deviation (std dev); in square brackets, no. of valid responses [*n*].

### *C. Trust in different phases of relationships*

To structure the results of qualitative interviews on trust, we distinguish two types of trust influencing relationships in the wheat-to-bread chain. We called the first one "personal trust". This type of trust arises when the business partners like each other personally. The existence of this type of trust depends especially on quality of interpersonal communication between the businesses representatives. Personal trust plays the most important role at the beginning of a relationship in the awareness phase as it allows trusting the partner even though there is no past cooperation experience. Moreover, personal trust plays an important role for choosing a new supplier when more suppliers are offering equal price-performance ratio. Especially farmers and small trade bakers said that they will not cooperate with the business in case they do not like the representative personally. On the other hand, personal antipathy (the opposite of personal trust) seems to be seldom the reason for termination of sustainable, long lasting business relationships in the wheat-to-bread chain in Germany.

In the case study, the respondent of BÄKO (bakery purchasing cooperative) described this circumstance on an example of a situation when the representative of the long term business partner changed. The BÄKO

representative did not like personally the new representative of the business partners. Even though the personal trust was low to this person, due to successful past collaboration, BÄKO have continued the exchange relationship.

The reason for continuation was the second type of trust, trust based on the positive past collaboration experience. This type of trust enhances if partners objectives were satisfied in the past. To achieve the objectives, the inter-organisational communication plays an important role especially in the relationships between mills and industrial bakeries.

To be able to produce high quality bread according to end-consumer demand, bakeries require various types and qualities of flour. Therefore, the need of co-operation and communication between mills and bakeries concerning technical questions and innovations gains in importance. The enhanced co-operation requires more investment in the relationship (more investment in ICT, asset specificity) and strengthens the relationship as the switching costs increase and thus the termination is more costly.

To satisfy bakeries demand for special wheat qualities, the mills have to produce flour from homogenous and high quality wheat. For this reason, some mills in Germany which purchase wheat directly from farmers determine wheat production technology such as choice of varieties, fertilizer use or pest management. The joint cultivation technology used by individual farmers or farmers gathered in producers' cooperatives allows achieving desired and homogenous wheat qualities. The control of food quality and traceability seems to be less costly in vertically cooperating food chains than by using spot market. The increasing demand for quality thus may push the development of closer long-term cooperation between business partners.

### *D. Relationship termination*

In this section, the results of qualitative interviews are presented regarding relationship termination.

The mills terminated the relationships to farmers mostly because of differences in price or because of not sufficient wheat quality (

Table **8**). The mill that buys wheat from the agri-traders terminates in the past the relationships because of price or restructuring of the trader.

Three of four interviewed mills prefer to buy wheat directly from the farmers in the region than from agri-traders. They differentiate thus the otherwise homogenous product wheat flour by the special characteristic "regional origin". The consumers perceive the regional products as being safer and are willing to pay higher price for them. Agri-traders' downstream relationships to the mills are mostly long-term in the form of repeated transactions with the same seller. Written contracts are very often replaced by trust. The relationships mostly break down because of concentration process taking place in the sector. Processors and thus business partners disappear from the market when bought out by others or in the case of insolvency. Price can also be the reason for business termination when there is a better option to sell on the market. So for example, due to price agreement between traders, the price in the region can be lower than in other regions in Germany. Therefore, some farmers sell cereals to external traders who offer higher prices.

Relationships between mills and flour's buyers were terminated mostly because of price, whereas the quality also played a role, also the distance did.

Mill 4 "long distances reduce flexibility"

In general, the trade persons are interested in long term relationships. When a supplier offers competitive price and quality products and is able to assure supply continuity, which are factors influencing profitability, then the trade enterprises will not change the supplier. The reasons for the termination of relationships are mostly the not competitive price or product quality.

Baker (3) "we have cooperated for 18 years, but we broke up for some time in the meantime which was caused by not satisfying flour quality".

Baker (4) "12 years ago, we had to cancel cooperation with a mill as the flour quality was not constant"

Baker (1): "There were some businesses relationships terminated in the past, once a small company got into economic troubles and could not deliver to the agreed volume, so we terminated the cooperation and ordered the products by BÄKO…."

Table 8 Reasons for suppliers' relationships termination in the past / downstream relationships

| Supplier | | after long cooperation | | | | | after short cooperation |
|---|---|---|---|---|---|---|---|
| | | Duration (years) | Price | Quality | Supply continuity | Structural changes | Trust |
| Agri-trader | | Spot market | | | | | |
| Mill 1 | 80,0% farmers | 20 | | | Termination never happened | | |
| Mill 2 | 100% farmers | | | x | | | |
| Mill 3 | 99,8% agritrader | up to 15 | x | | | x | |
| Mill 4 | 100% farmers | | x | x | | | |
| Bakery 1 | private supplier | | | | x | | x |
| Bakery 2 | private supplier | | | x | | | |
| Bakery 3 | private supplier | | | | | | x |
| BÄKO | various suppliers | | | | | x | |
| Bakery (chain) 4 | various suppliers | | | x | | | |

Table 9 Reasons for buyers' relationships termination in the past / upstream relationships

| | Buyer | Duration | Price | Quality | Supply continuity | Structural changes | Trust |
|---|---|---|---|---|---|---|---|
| Mill 1 | 45% BÄKO 55% bakeries | 10-15 years with trade 4-5 years with industry | x | | | | |
| Mill 2 | 95% trade bakeries | | x + payment difficulties | | | | |
| Mill 3 | 70% industry bakeries | long term | x | | | | |
| Mill 4 | 10-15% industry bakeries | large consumers since ca. 5 – 10 years | x | x | | long distances make inflexible | |

The previous length of the relationship does not seem to have an impact on the decision to change if the relationship is not profitable any more.

Relationships between large scale purchasers and suppliers are long term and based on trust. This means that when co-operation between large scale businesses and their suppliers lasts for long, the contracts are not written any more as they can be substituted with trust. The relationships are terminated rarely. The reason for this is seldom personal antipathy. If relationships are terminated,

then this is mostly because the supplier is not able to supply at a competitive price and quality anymore or cannot assure supply continuity. Another reason is acquisition of the partner's company by other enterprises or its insolvency.

BÄKO terminates the relationships with suppliers rarely. The most common reason for loosing business partners is insolvency or giving up of the business. Another reason is that the supplier cannot offer a competitive price anymore. That means that commercial reward is lower than it could be in an alternative relationship.

Even in the relationships between large scale purchasers and suppliers, the previous length of the relationship does not seem to have an impact on the decision to change if the relationship is not profitable anymore.

It is for sure, that every relationship will be terminated either in near or far future nevertheless the reason. When can we, then, define a relationship as a sustainable one? Next, we make an effort to answer this question using the results of this research.

When the economic outcome is lower in the relationship compared to market alternatives (alternative partner or market transaction), the relationship causes opportunity costs. These are the "costs of relationship" (switching costs + cost of lower service quality comparing to market alternatives).

When the outcome of exchange through a relationship is higher than it would be by using market alternatives, the partners gain benefits from the exchange relationship. In Figure 1, the performance of the observed relationship in the single phases is depicted by the continuous curve, the possible performance of exchange with market alternatives by the dashed line. The one-side idiosyncratic time and adaptation investments peak early in the relationship, but are consistently lower in every stage thereafter [11] as at the first two phases of the relationship the starting cost has to be invested. The relationships that are terminated in the awareness or exploration phases cause opportunity costs for the business partners. The reason for termination in these phases of relationships is usually lack of trust. It can be expected, thus, that through such relationships the partners could not gain benefits in future. Also in the next phases of relationships the relationship may cause costs. These are mostly the cost of low service quality comparing to market alternatives. To asses the economic output of relationship (economic output = gains – costs), the relationships' outcome has to be considered in the whole duration time.

In the sustainable relationships the costs for starting the relationship will be exceed by returns gained from the cooperation in time. In the relationships where the switching costs are low (farmers, bakery trade), this condition can be usually achieved faster than in the relationships with high switching costs (e. g. large industrial enterprises like mills or industrial bakeries).

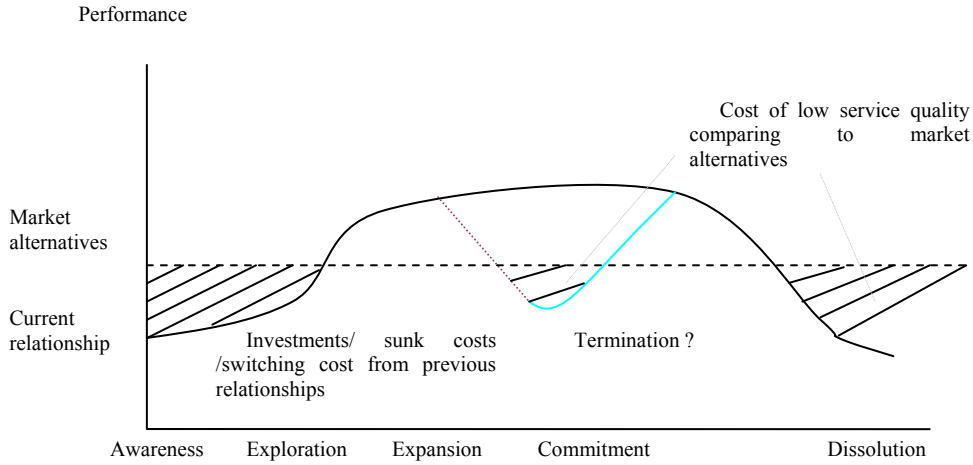


Figure 1: Relationship's development, performance and termination.

## V. CONCLUSIONS

The results both of the survey and the qualitative case study revealed that the majority of the actors in the German wheat-to-bread chain are satisfied with the quality of their business relationships. This shows that actors in the chain are flexible. They have the possibility to choose the relationship type which enables them to maximize profit under given structural conditions.

On the one hand, the results illustrate that a significant majority of businesses prefer long-term business relationships. This attitude supports the strengthening of the business relationships in the chain. On the other hand, striving for independence is a key driver for non-contracting coordination of transactions. Independent businesses prefer to transact without being formally bound to their exchange partner. In the German wheat-to-bread chain the farmers are the players seeking for independency the most. Even small craft bakeries usually do not utilize contracts and value their independence. However, they usually do not use spot market with various partners. They mostly use repeated transactions with the same supplier for their purchasing activities. Transactions with the same supplier are long-term relationships without any contract obligations. The partners, thus, stay independent. In the same time, they use the advantages of the long term cooperation that contribute to transaction costs reduction.

The reasons for termination of long term relationships (both with and without contracts) are mostly the price, quality, supply continuity and structural changes. The low trust was stated as being the reason for termination of only relationships in their awareness and exploration phase.

Two types of trust influencing relationships in the wheat-to-bread chain could be distinguished. The first one is "personal trust". This type of trust arises when the business partners like each other personally. The existence of this type of trust depends especially on quality of interpersonal communication between the business representatives. Personal trust plays the most important role at the beginning of a relationship as it allows trusting the partner even though there is no past cooperation experience. Moreover, personal trust plays an important role for choosing a new supplier when more suppliers are offering equal price-performance ratio. Especially farmers and small trade bakers stated that they will not cooperate with the business in case they do not like the representative personally. On the other hand, personal antipathy (the opposite of personal trust) is seldom the reason for termination of sustainable, long lasting business relationships in the wheat-to-bread chain in Germany. The reason for continuation in such a case is the second type of trust, trust based on the positive past collaboration

experience. This type of trust increases if partners' objectives were satisfied in the past. By achieving the objectives, the inter-organisational communication plays an important role especially in the relationships between mills and industrial bakeries. In these relationships, the required flour quality has to be consulted, product information assuring traceability has to be exchanged and price and supply conditions have to be negotiated.

As the result of the research, we understand sustainable relationships as those relationships in which the costs for starting the relationship are exceeded by returns gained from the cooperation in time. In the relationships where the switching costs are low (farmers, bakery trade), this condition can be usually achieved faster that in the relationships with high switching costs (e. g. large industrial enterprises like mills of industrial bakeries).

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