# REVEALING THE OPINION CLIMATES OF FRUIT PRODUCERS AND THEIR SALES CONNECTION

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#### **ABSTRACT**

Although researches on the subject of business relationships indicate that the quality of the relationship between the partners is a central element of effective cooperation, it can still be considered an unexplored territory. This paper aims to reveal the relationship of fruit producers and customers, based on relationship quality, as well as determining what customer cooperation is regarded by fruit producers as the most favourable. The survey was conducted between 2013 and 2014, involving 223 producers from Szabolcs-Szatmár-Bereg County, to evaluate their customer cooperation. The results of the evaluation concluded that producers value factors of relationship quality in their cooperation with sales channels differently. Their opinions reflect that overall the most favourable relationship exists between producers and agricultural cooperatives. The main reason is that this cooperation is primarily based on trust, commitment and friendship, where there is typically no conflict among parties and they mutually accept dependence. Since the results of the evaluation clearly reflected that producers value cooperation differently regarding the factors of relationship quality with respect to the various sales channels, further research is justified to reveal correlations between various relationship evaluations (opinion climates) and performance as well as devoting more attention to relationships among the various factors.

Keywords: supply chain, relationship quality, trust, commitment, adaptation

# INTRODUCTION

Currently the significance of the business relationships has become more relevant, so for its evaluation, scientists created the definition of "relationship quality", which is widely used. The relationship quality reflects the behaviour and emotions within a customersupplier relationship, which can be seen as a higher construction with factors that indicate the relationship between them (HENNIG-THURAU ET AL., 2002). In this sense the quality of the relationship can be determined from the behaviour of the parties, how they behave with each other and the types of emotional interactions, which essentially provide the foundation for maintaining and developing the relationship. The factors determining the relationship quality are usually indicated differently by various authors, but in some research results overlaps and combinations can be detected as well. CROSBY ET AL. (1990) identified trust and satisfaction as the main elements of relationship quality. SMITH (1998) during the investigation of the quality of customer-supplier relationships, clearly stated that trust, satisfaction and commitment are the key elements, which was reinforced by ULAGA AND EGGERT (2004). It is clear that trust, commitment and satisfaction are the most commonly mentioned and widely accepted among all the factors used to determine relationship quality. Apart from the three main factors, conflict, adaptation (KUMAR ET AL., 1995), loyalty (HETESI AND VILMÁNYI, 2013), and the quality of service (RAUYRUEN ET AL., 2007) were mentioned in the works of several authors. It is obvious that there is no generally accepted consensus concerning which factors would describe accurately the relationship quality of cooperation between businesses, still based on previous studies, the factors that enable us to gain a comprehensive understanding can be determined as well as those that can help us to make evaluations. In my research, I marked factors determining

the relationship quality of those widely accepted elements, also supported by empirical results that give a broad description of the relationship quality and with their application, the relationship between the parties becomes measurable. These are trust, commitment, dependence, adaptation, lack of conflict and friendship. The significance of business relationships is clearly unquestionable. On the other hand, it is still unclear why some business relationships can work effectively, while others cannot, and what factors qualify cooperation either good or bad. The focus of my paper is the evaluation of cooperation between businesses from the aspect of relationship quality of relationship. Evaluating the quality of their relationship is crucial as it enables general assessment of the strength of the relationship between the business partners as well as the degree to which the expectations and hopes of the parties were fulfilled, based on successful or unsuccessful business events (CROSBY ET AL., 1990). The main purpose of this paper is the evaluation of the quality of the fruit-producer customer cooperation along the defining factors.

### MATERIAL AND METHOD

This research aims to reveal the customer relationship of fruit producers from the aspect of the relationship quality. The survey was taken between 2013 and 2014, involving 223 farmers from Szabolcs-Szatmár-Bereg County to evaluate their customer cooperation from the aspect of relationship quality. The reason for the territorial limitation is justified by the significance of the producers of Szabolcs-Szatmár-Bereg County, as they are key fruit suppliers of the entire country. The importance of agriculture in the county is - as reflected in their contribution to the GDP - more than double than the national average, as well as the ratio fruit-production areas of the county are 5%, while the nation-wide average is 1%, representing one-third of the domestic crops (KSH, 2016). The survey aimed to reveal the opinion of fruit-producers, especially the ones producing apple and plum varieties. The total amount of fruit-bearing cropland was in Szabolcs-Szatmár-Bereg County was determined on the basis of the integrated applications submitted for direct financial funds. In the county, producers of apple and plum varieties farm on 60,491 acres, the farmers who filled out the survey produce on 2,661 acres in total. In total, 4.4% of farmland in Szabolcs-Szatmár-Bereg County was evaluated in this survey. Based on the results of the secondary research, I identified those factors which can be used to comprehensively describe the business cooperation. Thus, I identified trust, commitment, lack of conflict, dependence, companionship and adaptation as the key factors of relationship quality (*Figure 1*).

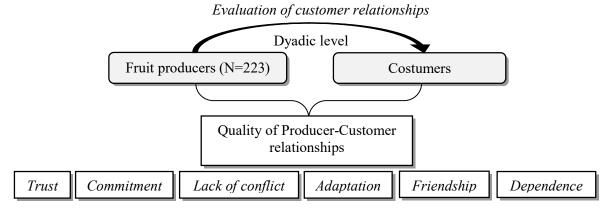


Figure 1. Specifying the area of research Source: Noémi Ványi – own compilation

The primary collection of data aimed to reveal the relationships of fruit producers and their customers; that is the quality of relationship between the parties. In the survey I linked statements to the selected relationship quality factors, which then had to be evaluated on a Likert scale from 1 to 5. The smallest value (1) represents absolute opposite, while the highest value represents complete agreement, and the respondents could mark the value that represented their opinion on the different statements the most. The evaluation of the producers was transferred to an index scale in order to have interpretable and expressive table where the changes in positive or negative direction can be clearly identified. The value of the index scale is a number between +100 and -100. The value of 100 means that the respondents indicated the highest value (5) so the statement is completely representative of their relationship with the customer. The value below 0 represents negative opinion (e.g. lack of trust, lack of commitment, conflict, etc.). The value of -100 this way means that the respondents indicated the lowest value considering the relevance of the statement, meaning that it is not at all relevant to their relationship with the customers. The evaluation of data was done with SPSS mathematical-statistical software.

# **RESULTS**

When charting the producer - customer relationships, the respondents indicated - based on the most significant coordination channels of the vegetable-fruit sector - what percentage of their products are sold via merchandising, on PSO/PG (Producer Sales Cooperative, Producer Groups), through retail, via intermediary trader, processing plant or other commercial channels. Through the questions connected to these commercial channels I investigated whether based on the sales networks of the farmers we can separate those groups that are significantly similar, and can clearly be differentiated from other groups. The classification based on the 8 criteria variable was not done with hierarchical clustering methods, K-centre method. After testing solutions of two and four clusters, I chose the three-cluster solution, because in that case, the number of the required optimization steps is minimal, and this way the clusters can be understood the most clearly. The obtained clusters can be understood based on cluster centres. As a result of cluster analysis I determined that taking all 8 options, the farmers are aligned in 3 typical, well separated, more or less solid groups. So each member of the N=223 sized sample can be taken as a member of a cluster. The cluster centres differ significantly along all the cluster making variables. The labelling of the clusters was made on the basis of the farmer's typical marketing connections. The result of the evaluation shows that when taking the typical commercial g channels, we can distinguish 3 clusters: 1. "Multiple channel commercial" cluster, 2. Intermediary trader cluster, 3. PSO/PG cluster. The "multiple-channel commercial" cluster includes 42 % of the respondents. Members of this cluster sell their products through multiple channels, and there is not one channel with higher importance. Most of the farmers in this cluster are connected to processing plants, wholesale units and intermediary traders. Since there is not one well separable commercial channel, this cluster was labelled as the "multiple channels". Members of the 2nd cluster typically sell their products to intermediary traders, who make up 42% of all traders. Members of the PSO/PG cluster make up the smallest group (16%), where producers are typically connected to PSO/PG.

# 4.1. The quality of the commercial relationships of farmers

In the next phase of the evaluation I researched the relationship between farmers and the three commercial clusters. The evaluation was based on the general responses of the farmers on the relationship quality (*Table 1*).

Table 1. Evaluation of commercial clusters based on the quality of relationships

Relationship quality factors	Commercial clusters			
	"multi-channel" commerce	Intermediary trader	PSO/PG	
Lack of conflicts	30.91	48.14	42.36	
Trust	19.65	37.41	27.01	
Dependence	1.08	-7.02	10.56	
Commitment	-1.29	-6.60	14.72	
Friendship	-8.33	-10.64	19.64	
Adaptation	-18.95	-38.96	-14.58	

<sup>\*</sup>based on balance index

Source: Noémi Ványi – own compilation

We can see from the results in the table above, that the factors of trust and lack of conflict were considered steadily positive among the respondents of all three commercial clusters. Adaptation on the other hand was regarded negative in all clusters among the farmers, meaning that relation-specific investments are not being made despite trust and lack of conflict being the foundation of their cooperation. Those connected to multiple channels do not perform adaptation, their cooperation is limited to business and they do not establish commitment towards their partner. On the other hand, they trust their partner, their relationship is not characterised by conflicts and they do not feel dependent on each other. The respondents who cooperate with intermediary traders indicated the most positive evaluations on the factors of lack of conflict and trust, but the least positive ratings on commitment, dependence and friendship. Despite of the fact that in the cooperation the level of trust is the highest and the amount of conflicts is the lowest, adaptation still represented the lowest rating. Consequently, despite trust and lack of conflict, the producer might still have reservations about the relationship, resulting in the lack of adaptation. The negative rating of commitment reflects the same uncertainty, that even though the respondents trust their partners, they are still not committed to them. In this cluster, the respondents feel independent from their customers and they do not form common friendship with their partners. In the PSO/PG cluster, only adaptation received a negative rating, the other 5 factors of relationship quality were considered positive. It is important to mention that only among the farmers connected to PSO/PG felt committed to their partners and only in this cooperation can we detect friendship among them. From the results it is apparent that the producers who cooperate with certain commercial clusters evaluate the factors of the relationship quality differently. I concluded from the evaluations of the members of the three clusters, that the members of the PSO/PG clusters evaluate the relationship quality factors most positively.

# 4.2. Classifying the evaluation of customer cooperation

Researches show that producers in different cooperation evaluate differently the relationship quality factors. For this reason, in order to reveal the opinion climate, I did cluster evaluation. The classification was done once again with K-centre method. As a result of cluster analysis, I allocated that taking all 6 relational factors, based on their responses, the farmers are aligned in 3 typical, well separated, more or less solid groups.

The cluster centres are significantly different besides all cluster making variables. Based on the results, I came to the conclusion that producers are aligned to three well separated groups: 1, respondents with "nuanced views" 2. Negative respondents and 3. Positive respondents (*Figure 2*).

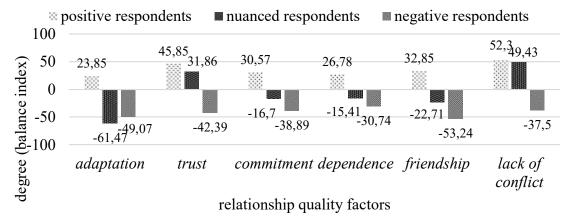


Figure 2. Relationship evaluation clusters related to customers Source: Noémi Ványi – own compilation

The labels of the clusters represent that fundamentally, a general attitude is shapes the rating, and the factors of the ratings in themselves are not that relevant. The negative respondents cluster represent the least of all respondents (12%). They rated all 6 factors of relational quality negative. Respondents belonging to this cluster do not feel that they depend on their customers and that there are frequent conflicts between them. Cooperation is limited to transactions and the lack of trust and commitment characterises their relationship. They do not make investments in the interest of their relationships. Most respondents belong to the cluster of respondents with nuanced views. Respondents in this group also trust their customers however, there is no commitment among them and there is no adaptation in order to maintain cooperation. The producers do not feel that they depend on their partners and conflict is not present in their relationships. Their relationship is only limited to transactions. 39% of the respondents belong to the cluster of positive respondents. The foundation of the relationship among the respondents belonging to this group is trust and commitment and they feel that they depend on their customers. Cooperation goes beyond business relationships and can almost be called a friendship. Their relationship with customers is characterised by lack of conflict and they make investments in the interest of their relationships. The correlation between sales and the opinion cluster was evaluated in across table. Because of the result of the evaluation, I dismissed my null hypothesis, and found that among the sales and opinion clusters there is a significant correlation. The results of the evaluation on the interval table can be seen in Table 2.

Table 2. Cross table based on the clusters

	Sales Clusters					
Opinion clusters	"multiple	intermediary	PSO/PG	Total		
	channels"	trader	F30/F0			
"nuanced" opinion	40.90%	62.80%	33.30%	48.90%		
negative opinion	19.40%	4.30%	13.90%	12.10%		
positive opinion	39.80%	33.00%	52.80%	39.00%		
Total	100.00%	100.00%	100.00%	100.00%		

Source: Noémi Ványi – own compilation

Based on the results I came to the conclusion that the respondents regarded the cooperation with PSO/PG 52.8% positively, 13.9% negatively and 33.3% nuanced. The producers in this cluster – compared to the results of other clusters – considered their relationship the most favourably. 62% of the respondents considered their cooperation with intermediary trader as nuanced, and 33% positively. In this cluster, only 4.3% of the responders gave a negative rating. The ones trading via "multiple channels" rated their relationship with customers nuanced in 40.9% and almost to the same extent (39.8%) positively. 19.4% of the respondents rated their relationship with partners negatively, so in comparison to the other two clusters, here is the highest ratio for negative ratings. Based on these results, I came to the conclusion that the overall positive climate of opinion is most likely to form in the PSO/PG sales cluster. In the intermediary trader cluster the nuanced climate of opinion is typical, and finally in the "multiple channels" cluster, the ratio of negative climate of opinion is slightly above average.

### CONCLUSIONS

Although the research done on the subject of business relationships indicate that the quality of the relationship between the partners is the central element of effective cooperation, that the parties in the supply chain can still be considered as an unexplored territory. This current paper is aimed at revealing relationship among fruit producers in the function of relationship quality to identify the most favourable form of customer cooperation. Over the course of the evaluation of producer – customer relationship I found that producers can be classified into three distinct groups based on their typical sales relationships. These are the "multiple channels" sales cluster, intermediary trader cluster and agricultural cooperative cluster, and one where the producers evaluate factors determining relationship quality with a nuanced opinion. Producers in all three clusters feel that their relationship is based in trust and the cooperation lacks conflict, however adaptation among parties is not typical in either cooperation. The most favourable evaluation can be observed among producers belonging to the agricultural cooperative cluster based on the factors. Results of further evaluation support that producers can be classified into three distinct groups according to their opinions: respondents with "nuanced" views, negative respondents, and positive respondents. Overall it can be stated that positive opinion climate was most likely in the agricultural cooperative cluster. Cooperation here is primarily based on trust, commitment and friendship, where there is a lack of conflict among parties and they mutually accept dependence.

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