Theses of doctoral (PhD) dissertation

QUALITY FACTORS OF BUSINESS RELATIONSHIPS FROM THE ASPECT OF SZABOLCS-SZATMÁR-BEREG COUNTY FRUIT PRODUCTION MICROENTERPRISES

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1. RESEARCH BACKGROUND

My thesis focuses on evaluating business cooperation between enterprises according to relationship quality and relationship performance. The examination of relationship quality is especially important as it makes the general evaluation of relationship strength between business partners possible and the degree to which the needs and expectations of parties are met to which the foundations are provided by successful or unsuccessful business events (CROSBY et al., 1990).

Performance – and its measurement – beyond relationship quality also play a key role in business cooperation. The true essence of performance measurement lies in the quantification of activity efficiency and effectiveness (NEELY et al., 1995), which assists creating the foundations for decisions and activities through enabling better understanding of processes, tracking achieved results, recognition of problems and identification of possibilities (GUNASEKAREN and KOBU, 2007).

A central issue of supply chain performance measurement is the relationship quality among parties (COUSINS and HAMPSON, 2000; MOLNÁR et al., 2007), which leads to increased operational and relationship performance (NARASIMHAN and JAYARAM, 1998). According to this, relationship between parties or relationship quality has a key role in the performance measurement of enterprises.

Although the quality of customer-supplier relationship is widely examined in research, it can still be identified as a clearly unexplored area. The primary reason for this is that no unified definition has been created to describe it as all researchers have some kind of intuitive idea regarding what relationship quality means and since everyone approaches it differently, there is no consensus about the term (HENNIG-THURAU, 2000). On the other hand, it is a problem that there is not a scale accepted by everyone which could be used for measurement and there is no agreement about its decisive factors, which originates from the distinct nature of the relationships (WOO and ENNEW, 2004).

There is no consensus in the measurement system of relationship performance and application of indicators either. The unjustifiably large number of indexes presents a problem, (COYLE et al., 2003) and that it is not clearly specified which indicators have to be used to achieve efficient performance measurement (BEAMON, 1999). Furthermore, the

measurement system is characterised by the excess of financial indicators and very little attention is devoted to the human aspect despite the fact that comprehensive evaluation not only requires individual performance but also complete performance and relationship between parties as well. Accordingly, a fundamental shift in approach is required, and one manifestation of this is to focus on the supply chain level instead of individual focus in performance measurement and the human factors must also be considered.

2. RESEARCH OBJECTIVES AND INTRODUCTION OF RESEARCH HYPOTHESES

Nowadays, relationships between businesses and their significance are more in the focus. This can be explained by the fact that the chains rather than individual organisations compete in the market (LAMBERT and COOPER, 2000; CHRISTOPHER, 1998; COX, 1999). Conscious supply chain management therefore is essential and requires such supply chain orientation, which rests on the recognition and acceptance that the entire chain – beyond its own efficiency – contributes to the effectiveness of the organisation of which it is a member of. However, this fact entails the need for a strong and long-term relationship among the parties of the chain, which can guarantee successful business relationships. Thus it is not surprising that a pursuit to elevate existing rigid, formal relationships to closer, also including fundamentally socio-cultural elements among parties is more and more observable in which mutual trust, commitment, conflict resolution with compromises, adaptation and acceptance of interdependence is typical. Parties in such cooperation can benefit more than they would be able to achieve by themselves (MAMAD – CHAHDI, 2013). As the quality of the relationship plays a key role in the effective operation of the parties of the supply chain it is significantly important to understand, which factors provide the basis for parties to consider and assess cooperation as good or bad relationships. That fact that the relationship between parties significantly influences the business performance is not negligible either, in other words successful cooperation has a positive effect on profitability and performance (FYNES et al., 2008; MOHAGHAR and GHASEMI, 2011).

Despite the abovementioned, it can be stated that both relationship quality and relationship performance can be identified as unexplored research areas. The primary objective of the thesis is the scientific assessment of relationship quality in business cooperations. I find it especially important to research the topic in one of the most significant fruit production region of our country, among the producers of Szabolcs-Szatmár-Bereg County where mostly verbal agreements are made between partners and where therefore such emotional ties such as trust and commitment have – and should have – great significance.

The comprehensive objective of the thesis is the evaluation of buyer-supplier relationships of producers farming for fresh market sales in the area of Szabolcs-Szatmár-Bereg County

based on relationship quality and relationship performance and to reveal relationships among them.

I defined the following aims within my comprehensive objetive to achieve this:

1. Processing, resynthesizing literature closely related to the topic with particular reference to relationship quality and relationship performance;
2. Identifying those relationship quality and performance factors, based on literature research and „brainstorming" with producers, which can provide the most comprehensive description of the relationship among parties in the direct supply chain;
3. Description of producers' buyer and sales relationships along the selected relationship quality and performance factors;
4. Evaluation of opinions formed about the producers' buyer and supplier relationships at didactic level and revealing differences and similarities among them;
5. Evaluation of opinions about producers' buyer and supplier relationships at triadic level and revealing differences and similarities between them;
6. Evaluation of relationship quality factors in producers' buyer and supplier cooperations;
7. Evaluation of correlation between relationship quality and relationship performance.

I defined the following hypotheses (H) along the objectives:

First hypothesis (H1): *Producers organize into clearly distinct and identifiable groups based on their sales relationships.*

Second hypothesis (H2): *Producers consider cooperation with trade intermediaries less favourably in the function of relationship quality and relationship performance dimensions than other sales directions.*

Third hypothesis (H3): *Particular opinion climate forms regarding relationship quality and relationship performance for the specific relationship.*

Fourth hypothesis (H4): *Friendship has a significant role in producer-buyer relationships in the development of performance related to the relationship.*

Fifth hypothesis (H5): *Friendship has a significant role in producer-supplier relationships in the development of performance related to the relationship.*

Sixth hypothesis (H6): *Assessment regarding producers' buyer and supplier relationships is shaped by a general attitude and no sharp conflict can be found between the perceptions of the two type of relationship.*

Seventh hypothesis (H7): *Factors of relationship quality have different roles and effects in producer-supplier cooperations.*

Eighth hypothesis (H8): *Relationship performance is determined by different factors in producer-buyer and producer-supplier cooperations.*

3. DESCRIPTION OF DATABASE AND APPLIED METHODS

3.1. Introduction of research work and demarcating the scope of research

The questionnaire survey was aimed at revealing buyer and supplier relationships of fruit producers according to relationship quality and relationship performance. I examined direct supply chains, which consist of a central enterprise (fruit producers in my thesis), a supplier and a buyer who join the in- and/or outflow of products, services, funds and/or information (MENTZER et al., 2000). I explored relationships at a dyadic level and examined the cooperation between producers and their most important buyers at a limited downwards and the cooperation between producers and suppliers at limited, upwards dyadic level (figure 1). At limited, downwards dyadic level the cooperation between the central enterprise and its buyer, while at limited upwards level the cooperation between the central enterprise and its supplier can be understood (FABBE-COSTES and JAHRE, 2008). I combined the two cooperations and examined it at limited triadic level. The limited triadic level means the cooperation between the central enterprise and its supplier, which disregards downwards or upwards considerations regarding the relationship (FABBE-COSTES and JAHRE, 2008).

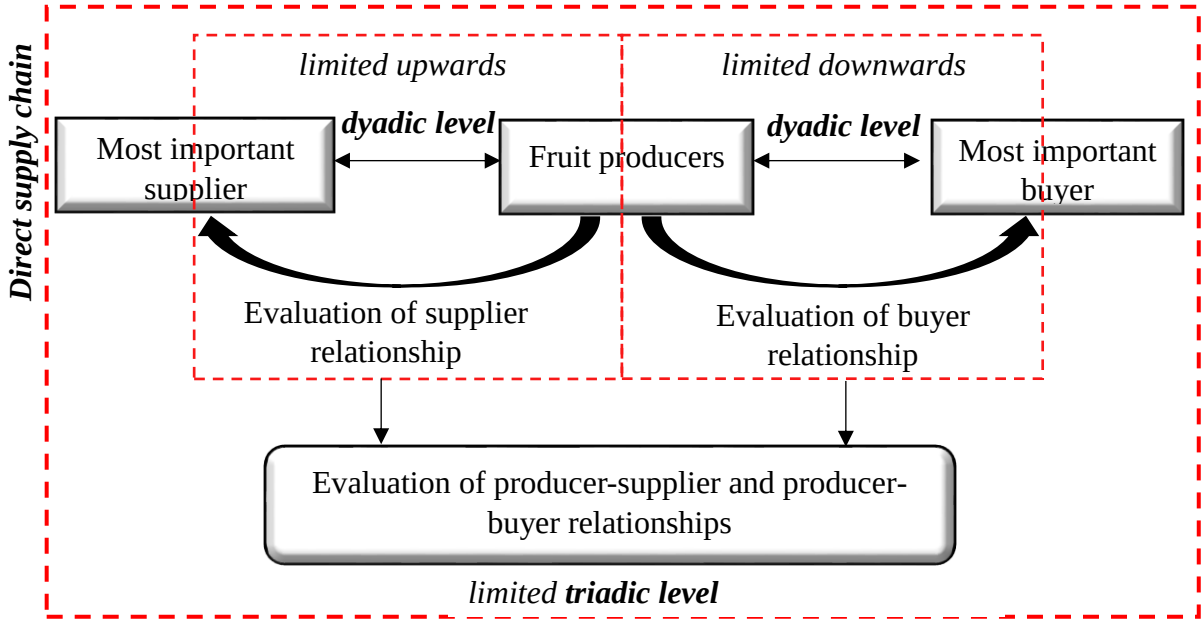

Figure 1: Levels of business relationships constituting the direct supply chain

Source: own compilation

Secondary information was primarily collected through processing mostly international and partly Hungarian literature during the literary research. The dominance of international literature is due to the fact that relationship quality and relationship performance are relatively unexplored in Hungarian literature and because the research aimed at this only deal with a certain subfield. Beyond traditional resources I also used internet sources to establish the theoretical foundation for my research, during which I turned to the Hungarian Central Statistical Office (HCSO), as well as the international Emerald Insight, Journal of Business Studies Quartely, Elsevier, ScienceDirect sites along with the bibliography found in the library of the University of Debrecen.

The first step of my primary data collection was the questionnaire preparation for the target group. The questionnaire survey was carried out between 2013 and 2014, typically at professional events or through personal contacts. The interviews were conducted in the form of PPI „Paper and Pencil Interview". Professional background for the questionnaire was based on literature research and a brainstorming on 12th January, 2013, where producers, experts and suppliers and buyers associated with the producers participated. We revealed those factors within the framework of the brainstorming which determine relationship quality and relationship performance according to participants. I identified the following to be the decisive factors determining relationship quality based on the literature research and the brainstorming: trust, commitment, lack of conflict, adaptation, and friendship and named profit, effectiveness of production process, sales increase, market advantage and complete performance as elements influencing relationship performance. It was the main consideration when selecting factors of relationship quality and relationship performance to enable comprehensive description of business cooperations along these components. The factors of relationship quality were included in the evaluation separately and I jointly examined the factors of relationship performance. The most important reason for this was that my thesis focused on relationship quality and further examination of performance would exceed the length constraints.

The first part of the questionnaire included questions related to the structure and size of the enterprise, business agreement habits and producers – their qualification and experience – typically open-ended questions aimed at revealing general information. The second part of the survey was aimed at the most important buyer relationships of producers selling at fresh

markets, more precisely at relationship quality and relationship performance. I found it important to obtain answers from the producers that were not general regarding their buyer relationships because there can be ones that work better and less smoothly during the cooperation with several business partners. If producers had assessed their business relationships for all their buyers, it could have resulted in ambivalence in the responses. On the other hand, it is a typical tendency today that stronger cooperation is established with the key partner instead of short-term and distant relationships (ULAGA and EGGERT, 2004).

Therefore the interviewees had to select which sales channel they find to be of key importance in their business relationships. I assigned statements to the relationship quality and relationship performance factors in this part of the questionnaire, the consistency of which were determined by reliability assessment for the given term. I performed item analysis to determine internal consistency in the questionnaire and found that the Cronbach alpha values are smaller in the case of all dimensions if we leave out an item belonging to scale. As all the statements assigned to main dimensions fit the reliability based on internal consistency satisfactory.

Producers had to assess the statements matched with factors from 1 to 5 on a Likert scale, which I calculated for *balance-index*, in order to obtain a better description and interpretation of the positive and negative direction and degree of changes. The value of the balance-index is a number between +100 and -100. The hundred value means that the respondent gave a maximum value of 5, so the given statement is typical to the full extent of the relationship with the buyer. A value below 0 refers to a negative opinion (for example lack of trust and commitment, conflict etc.). The -100 value means that the respondent assessed the statement with the lowest point, in other words, the given statement is not typical at all for the buyer relationship.

The third part of the questionnaire is identical in structure with the previous, but this part includes the questions aimed at revealing the relationships between producers and the most important suppliers with regard to the relationship quality and relationship performance.

I had 267 questionnaires at my disposal following the survey, which reduced to 246 during the data cleansing. As the first step during the evaluation of the questionnaire results the aim

was to classify enterprises according to size and the average number of employees annually and the net annual revenue of the previous year by considering Act XXXIV of 2004 which is aimed at defining micro-, small- and medium sized enterprises. It can be clearly stated, based on the distribution of the 246 questionnaires that the respondents are mostly micro-enterprises and to a small proportion, small sized enterprises. In order to avoid distortion by various size categories in the interpretion of the results, I filtered out small sized enterprises, so I used 223 questionnaires for my examination, all which included responses of micro-enterprise owners.

The survey was aimed at revealing the opinion of fruit producers, particularly at farmers of apple and plum varieties. Determination of the total fruit production area in Szabolcs-Szatmár-Bereg County was based on the unified direct aid applications for production submitted in 2015. Producers involved in the production of plum and apple varieties in the county farm on a total area of 60,491 hectares, and the farmers completing the questionnaires produce on a total area of 2,661 hectares. So the respondents in Szabolcs-Szatmár-Bereg County cultivate on 4.4% of the total production area of plum and apple varities.

The questionnaire survey was aimed at revealing the opinion of producers farming in the area of Szabolcs-Szatmár-Bereg County. The reason for the territorial demarcation was the consideration that the producers of Szabolcs-Szatmár-Bereg County can be identified as the main fruit suppliers in Hungary. The significance of agriculture is well reflected by the fact that agricultural contribution – based on GDP – is more than twice as much as the national average, and the orchard area occupies 5% compared to the national 1%, which makes up a third of the domestic crop culture (KSH, 2016). I found, based on the results that the 223 respondents produce in the area of Szabolcs-Szatmár-Bereg County.

3.2. Applied methods

The important methods applied in the thesis are illustrated in figure 2.

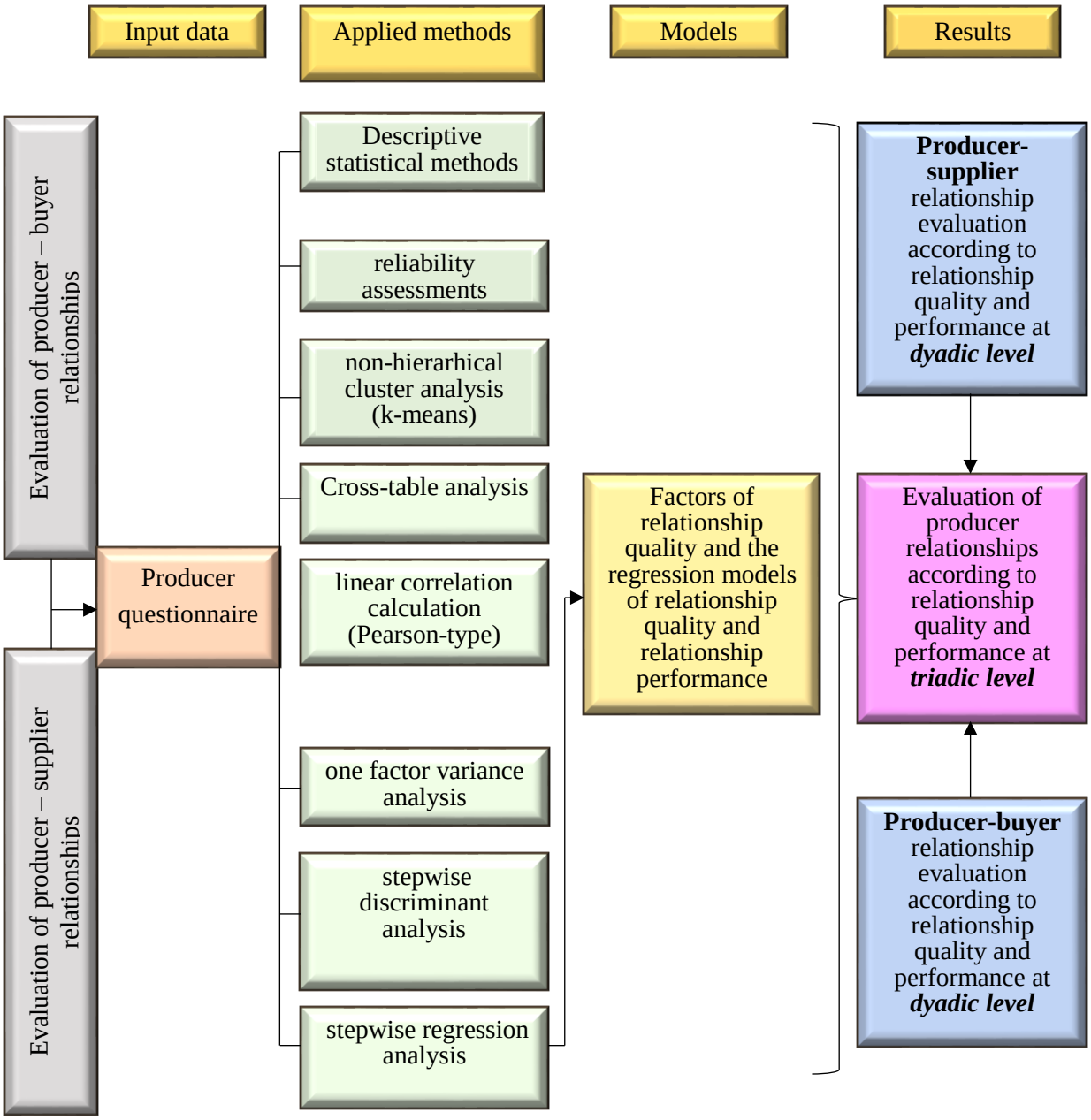

Figure 2: Summary figure of applied methods

Source: own compilation

I started my examinations by revealing the buyer relationships of producers, during which I took into consideration that a producer can have several buyer relationships, so the interviewees had the opportunity to mark multiple sales channels. I examined, based on the responses, whether such groups can be separated according to sales relationships of the producers which are similar to each other and sharply differ from other groups. The grouping was done by applying a non-hierarchical *clustering method*, K-mean method (KOVÁCS and BALOGH, 2007). After trying two and four cluster solutions, I decided to

choose the three cluster solution, as the number of optimalisation steps is minimal and the clusters can be the most clearly interpreted in this case.

In further part of the evaluation I examined relationship quality and relationship performance between producers and their most important buyers. Firstly, I evaluated the six quality factors and relationship performance for the most important buyer relationships then for the sales clusters. I primarily applied *mean value and minimum and maximum values representing dispersion* from the statistical description methods to describe the cooperation. I performed *one-way analysis of variance* to reveal differences among the scale averages according to buyer relationship.

Since producers assessed relationship quality and relationship performance dimensions differently in various cooperation, I performed *cluster analysis* again to reveal buyer opinion climates. I applied *stepwise discriminant analysis* to differentiate variables determining clusters. This was followed by cross-table analysis in oerder to reveal the typical opinion climates of individual sales clusters.

Cluster analysis was applied, similarly to the buyer side, to reveal opinion climates in producer-supplier relationships. I used *stepwise discriminant analysis* here as well to differentiate variables determining clusters. Correlations among producer-buyer and producer-supplier relationships were revealed by *cross-table analysis* in order to identify whether there is a link between the opinions of producers about buyers or suppliers and they had similar opinions about both relationships.

I performed *correlation analysis* to discover the tightness and direction of linear relationship between factors of relationship quality and relationship performance for both buyer and supplier sides. *Stepwise linear regression* was applied in order to reveal the nature of correlations. I performed the operations for all variables during my examination to reveal which independent variables influence the selected dependent variable. I developed *path models* to clarify correlations by using the results of regression analysis.

4. MAIN FINDINGS OF THE THESIS

Producers involved in the examination all perform their activities in the area of Szabolcs-Szatmár-Bereg County, and are owners of micro-enterprises and the majority's main profile fruit production. They are more qualified from an educational point of view than the national average and farm on larger areas. Contract based cooperation is less typical regarding their contractual habits in producer-supplier relationships, seasonal relationship is the most common in both their buyer and supplier cooperations, however. Those producers who enter into contracts do so obviously in an effort to achieve security, which clearly signals that uncertainty is fundamentally present in their lives.

4.1. Revealing buyer relationships of producers

When creating the questions aimed at revealing sales relationships of producers I took into consideration that a producer can have multiple buyer relationships so the respondents had the possibility to select several sales channels. It can be stated, based on the sales relationships, that *the majority of the respondents (56%) sell their products through an intermediary*, 26% sell via Agricultural Producers' Sales Organizations and Producer Groups (APSO/PG hereinafter). 8% of the producers are in contact with a wholesaler and 4% are in contact with local markets. 2% of participants in the interview selected retail units, vegetable-fruit wholesale markets and other sales channels as their buyers.

Furtehremore, I examined based on responses given regarding sales channels whether such groups can be separated which are similar to each other or significantly differ from other groups based on their sales contacts. The grouping was performed by applying a non-hierarchical clustering, K-mean method. The categorization is important because we can gain a comprehensive picture during subsequent evaluations about the opinions of producers forming the clusters, the similarities and differences regarding relationship quality and relationship performance. The result of the evaluation shows that producers can be grouped into 3 typical, distinct, more or less homogeneous groups based on the typical sales relationships. The clusters were named based on the typical sales relationships of the producers.

The algorithm placed 42% of the respondents into the 1st cluster. The majority of the producers in this group are in direct relationship with a wholesale unit and intermediary trader. Since the members of the group sell their products via several channels, and none of them are significantly important, the cluster was named *„multiple channels"* sales. The algorithm placed 42% of the producers into the 2nd cluster, the members of which typically sell to intermediary traders, therefore the cluster was named *intermediary trader*. The smallest group (16%) is the 3rd cluster where producers are typically in a relationship with APSO/PG; therefore I named the cluster APSO/PG.

4.1.1. Evaluation according to commercial clusters

In the next stage of the evaluation I examined the relationship among producers and the three sales clusters. The evaluation was based on the factors of relationship quality and the averages of responses for relationship performance (table 1).

Table 1: Relationship quality factors according to sales clusters and relationship performance values (based on balance-index values)

Relationship quality factors and relationship performance	Most important buyer relationships			
	APSO/PG	wholesale unit	intermediary trader	other contact
lack of conflict	47.04	-7.07	46.33	39.22
trust	28.66	-14.25	35.25	29.89
relationship performance	14.41	-9.42	7.60	10.34
dependence	5.26	-16.96	-1.43	6.90
commitment	8.95	-19.13	-1.20	1.72
friendship	11.49	-23.37	-8.93	7.32
adaptation	-19.74	-25.00	-29.42	-24.56

Source: own compilation

Those in contact with *multiple channels* do not adapt, their cooperation is limited to business and no commitment develops towards the partner. Only those who sell through multiple channels do not feel that their partner would contribute to their enhanced performance. However, they do trust their partners, their partnership lacks conflict and they do not feel that they depend on them. The assessment of factors is more complex in the case of „multiple channels" sales clusters, as the values here result from several independent and separate

relationships. An unfavourable factor can be counterbalanced by a more favourable assessment originating from another relationship.

The respondents gave the most favourable assessment for the lack of conflict and trust factors and the least favourable for the commitment and friendship factors in the cooperation with the *intermediary trader*. Despite the fact that the level of trust is highest and conflicts are the fewest in these cooperations, adaptation has the lowest value in this relationship. So in spite of the trust and lack of conflicts producers can have reservations with the relationship which prevents them from adaptation. The negative assessment of commitment also reflects this uncertainty well, which means that although interviewees trust their partners, no commitment develops towards their partners. In this group respondents feel that they depend on their buyers and no informal friendship develops among them. Producers feel that their relationship significantly contributes to their enhanced performance.

Only adaptation received negative assessment in the *APSO/PG* cluster, the other 5 relationship quality factors were positively assessed by the respondents. It is important to highlight that the feeling of commitment only developed among producers who are in contact with APSO/PG and we can only speak of friendship between partners in this cooperation. Collaborators with APSO/PG feel the most that their relationship with their buyers plays a role in their enhanced performance. The results reveal that producers cooperating with the various sales clusters assess factors determining relationship quality and relationship performance differently. *Based on the responses by producers of the three clusters, those in the APSO/PG cluster assessed relationship factors and relationship performance the most favourably.*

4.1.2. Evaluation according to opinion clusters

Examinations show that producers in various cooperations assess the relationship quality and relationship performance dimensions differently. Therefore, I performed cluster analysis in order to reveal opinion climates. As a result of clustering I found that by looking at the relationship factors overall, producers can be arranged into three distinct more or less homogeneous groups based on their opinions. The cluster centres differ significantly along the entire cluster forming variables.

The fewest respondents (12%) belong to the 1st cluster, where factors of relationship quality and performance are unambiguously regarded negatively. Consequently, this cluster was named *negative opinion*. Most respondents (49%) belong to the 2nd cluster, where respondents gave negative and positive assessment about the factors. According to this the group was named *„nuanced" opinion*. These cooperations are based on trust and conflict is not typical among parties. However, the other factors received unfavourable assessment making it rather negative overall. 39% of the respondents belong to the 3rd cluster who gave positive assessment according to all factors, so this cluster was named *positive opinion* (figure 3).

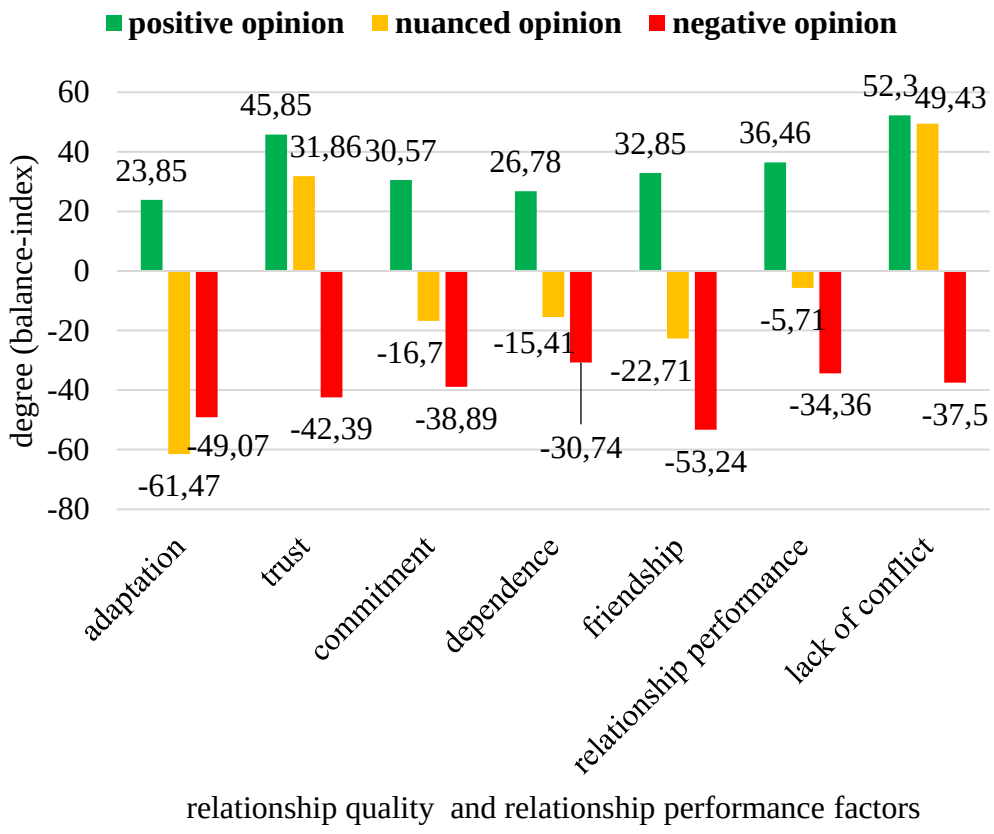

Figure 3: Relationship clusters according to buyer

Source: own compilation

The names of the clusters also reflect that fundamentally a general attitude shapes assessments and the factors of the assessment by themselves are less relevant.

4.1.3. Revealing relationship between sales and opinion cluster

Correlation between the sales and opinion cluster were analysed with cross-table analysis (table 2). As a result of the analysis I dismissed the null hypothesis and it can be stated that there is significant correlation between the sales and opinion clusters as the Pearson's chi-squared =18.27 and p<0.0001.

Table 2: Cross-table based on clusters

Opinion cluster	Sales cluster			Total
	„multiple channel"	intermediary trader	APSO/PG	
„nuanced" opinion	40.9%	62.8%	33.3%	48.9%
negative opinion	19.4%	4.3%	13.9%	12.1%
positive opinion	39.8%	33.0%	52.8%	39.0%
Total	100.0%	100.0%	100.0%	100.0%

Source: own compilation

52.8% of the respondents gave positive assessment regarding their cooperation with the *APSO/PG* cluster, while 13.9% negatively assessed and 33.3% gave nuanced opinions. Producers – compared to the results of the other clusters – assessed their relationships the most favourably in this group. 62.8% of the respondents gave a nuanced opinion about their relationships with *intermediary traders* and 33% assessed it positively. Only 4.3% of the respondents gave a negative opinion in this group. 40.9% of sellers through *„multiple channels"* gave a nuanced opinion about their relationship with their buyers and a similar proportion (39.8%) assessed it positively. 19.4% assessed their cooperation with partners negatively, so the ratio of negative assessment is the highest here compared to the other two clusters. *Overall, positive opinion climate was most likely in the APSO/PG sales channel cluster*. The „nuanced" opinion climate is typical in the intermediary trader cluster, and finally the negative opinion climate is slightly more common in the „multiple channels" cluster than the average.

4.2. Revealing correlation between relationship quality and relationship performance in dyadic level producer-buyer cooperations

Further aim of my evaluation was to reveal correlations of relationship quality factors and to determine links between relationship quality and relationship performance. In order to identify these, I performed correlation calculations including factors of relationship quality

and relationship performance in the analysis. I found no significant relationship between lack of conflict and adaptation (r=.101, /p<0.137). It can be stated, based on the results, that lack of conflict-trust (r=0.758), friendship-commitment (r=0.761), and the -commitment (r=0.745) factors show function-like, strong relationship. Medium-strength, significant relationship can be detected among the other factors. It can be observed that relationship performance is in a medium-tight, highly-significant relationship with all the other relationship quality factors.

4.2.1. Factors determining quality in producer-buyer relationships

I performed linear regression analysis in order to reveal the nature of correlations. I analysed all variables in order to identify which indepemdemt variables influence the selected dependent variable. The likelihood of F-test is lower than 0.05, which proves that relationship exists among the variables. I present the results comprehensively in table 3, where I illustrate the effect of independent variables on the selected dependent variables.

Firstly, I examined *adaptation*, as a dependent variable while I included all other variables and relationship performance as independent variables in the evaluation. Commitment, relationship performance and lack of conflict variables explain 45% (R^2=0.455) of the variance of adaptation in total. The results in practice can be interpreted as the commitment by producers towards their partners is aimed at such a future oriented relationship which strengthens adaptation tendency. Since these investments can be diifcult to transfer to other relationships, the feeling of commitment towards the other party can mean the foundation of adaptation. Furthermore, if producers feel that their partner contributes to enhancing their performance, it increases investment tendency as they are more likely to invest into an effectively working relationship in order to maintain the relationship. The beta weight value of lack of conflict is negative, which presupposes that if producers avoid conflict, it slightly weakens adaptation although its effect is weak. However, the most important result to be highlighted is that the adaptation scale depeneds much less from other factors than other scales depend on other factors.

Table 3: Summary of linear regression models explaining relationship quality factors in producer-buyer relationships

Model	R	R^2	Standard error of estimate	Variable statistics				
				R^2 change	F change	df1	df2	Sign. F change
Adaptation								
1. commitment	0.642[a]	0.412	39.89805	0.412	152.963	1	219	0.000
2. commitment, performance	0.664[b]	0.441	38.94784	0.029	11.816	1	218	0.001
3. commitment, performance lack of conflict	0.675[c]	0.455	38.54637	0.015	5.565	1	217	0.017
Beta value: commitment 0.532; performance 0.259; lack of conflict -0.133								
Trust								
1. lack of conflict	0.759[a]	0.576	26.77450	0.574	295.545	1	219	0.000
2. lack of conflict, performance	0.778[b]	0.605	25.89683	0.029	16.096	1	218	0.000
3. lack of conflict, performance, dependence	0.785[c]	0.616	25.58570	0.011	6.334	1	217	0.013
4. lack of conflict, performance, , commitment	0.798[d]	0.637	24.96369	0.020	11.948	1	216	0.001
Beta value: lack of conflict 0.669; performance 0.215; dependence -0.265; commitment 0.220								
Commitment								
1. friendship	0.762[a]	0.581	27.55845	0.581	301.090	1	219	0.000
2. friendship, dependence	0.824[b]	0.679	24.16459	0.098	67.937	1	218	0.000
3. friendship, dependence, adaptation	0.844[c]	0.713	22.91678	0.034	25.860	1	217	0.000
Beta value: friendship 0.408; dependence 0.342; adaptation 0.229								
Dependence								
1. commitment	0.745[a]	0.555	28.75016	0.555	272.874	1	219	0.000
2. commitment, friendship	0.762[b]	0.581	27.95013	0.026	13.717	1	218	0.000
3. commitment, friendship, trust	0.770[c]	0.594	27.59720	0.012	6.611	1	217	0.011
4. commitment, friendship, trust, performance	0.784[d]	0.614	26.94823	0.021	11.578	1	216	0.001
Beta value: commitment 0.542; friendship 0.192; trust -0.176; performance 0.200								
Friendship								
1. commitment	0.762[a]	0.581	30.61327	0.581	303.709	1	219	0.000
2. commitment, performance	0.807[b]	0.651	27.99458	0.070	43.888	1	218	0.000
3. commitment, performance, dependence	0.813[c]	0.661	27.65878	0.010	6.326	1	217	0.010
4. commitment, performance, dependence, lack of conflict	0.817[d]	0.668	27.45517	0.007	4.230	1	216	0.007
Beta value: commitment 0.489; performance 0.248; dependence 0.160; lack of conflict 0.089								
Lack of conflict								
1. trust	0.759[a]	0.576	27.22316	0.576	297.636	1	219	0.000
Beta value: trust 0.759								

Source: own compilation

I examined *trust* as a dependable variable as the next step and included all other factors and relationship performance as independent variables. Lack of conflict, relationship performance, dependence and commitment explain 64% (R^2=0.637) in total of the variance of trust. It can be stated based on the results that the level trust is determined by the degree to which producers' relationships lack conflict. The less conflict there is among partners, the more producers trust their buyers. Furthermore, the more producers feel that their

cooperation with partners contributes to enhancing their performance, the higher their level of trust becomes. I identified commitment as the sign of trust based on the results. The dependence dimension received beta-weight, which means that in the relationship where parties trust each other less, dependence is more likely to be present.

While adaptation is primarily determined by commitment, *commitment* is primarily determined friendship, which explains 58% (R^2=0.581) of its significance. So an asymmetrical relationship can be identified between adaptation and commitment. The dependence variable completes it with 10% explanatory power (R^2=0.679), and the adaptation variable with and additional 3% (R^2=0.713) as the second step. So friendship, dependence and adaptation explain 71% in total of the variance of commitment which can be regarded as a significantly high value. It can be stated based on the results that friendship plays the biggest role in the development of commitment between partners. In essence, parties approach each other with goodwill in a friendship, which can be interpreted as the foundation of commitment. According to further results, if parties feel that they depend on their partners, it further increases the feeling of commitment since the tendencies of opportunism decreasea in interdependence, which increases commitment. Adaptation alos arises as the factor determining commitment, since parties in a relationship-specific investment can feel that their partner also takes their interests into account and they intend to maintain a long-term relationship, which can strengthen the feeling of commitment.

Based on the results of the table summarising the variables influencing *dependence* it can be stated that commitment, friendship, trust and relationship performance explain 61% (R^2=0.614) in total of variance of dependence. The result can be interpreted as in relationships where parties have commitment towards each other and friendship develops between them, it further increases interpedendence between parties. In this case, the feeling of dependence can be interpreted for the given relationship. Furthermore, if partners feel that their cooperation contributes enhancing their performance, it further increases the feeling of dependence. Trust is represented with a negative beta value in the regression equation of dependence. This means that dependence is somewhat more typical in those relationships where partners trust each other less.

I found a symmetrical relationship between *friendship* and commitment, since I found that both variables explain 58% (R^2=0.581) of the variance of the other variable in the first step.

The relationship performance variable completes it with 7% explanatory power (R^2=0.651) in the second step, then the dependence variable adds another 1% (R^2=0.661) and lack of conflict also with 1% (R^2=0.668). So commitment, relationship performance, dependence and lack of conflict explain 67% of the variance of friendship. The results can be interpreted as the commitment of producers greatly contributes to the development of friendship between partners and can be identified as mutually amplifying factors. Moreover, if they feel that the other party contributes to enhancing their performance, it promotes the development of a stronger friendship. Interdependence and lack of conflict alos supports the development of friendship between parties.

It can be stated, based on the results of the examination of variables influencing lack of conflict that the trust variable can explain 58% (R^2=0.576) of the variance of lack of conflict. In practice it means that the more partners trust each other, the more likely it is that a relationship without conflicts will develop between them.

4.2.2. Factors determining performance in producer-buyer relationships

I revealed the nature of correlation between relationship performance and relationship quality with linear regression analysis. I included relationship performance as a dependant variable and the factors of relationship quality as independent variables in the analysis. The level of significance belonging to the F-test is lower than 0.05 in the case of all factors, which proves the presence of relationships.

The friendship variable explains 40% (R^2=0.401) of the variance of relationship performance in the first step. The trust variable completes this with an additional 8% (R^2=0.479) explanatory power in the second step, then the dependence variable with 3% more (R^2=0.503) and adaptation with 2% (R^2=0.525). So primarily friendship and trust play a role in the development of relationship performance, these are complemented by dependence and adaptation.

The result can be interpreted in practice as more the relationship is based on friendship between partners; the more they approach each other with goodwill, which presupposes that they do not act in opportunistic manner, thus enhancing performance. So producers in a friendly cooperation feel that the other party has an important role in promoting their enterprise to achieve their economic objectives. Furthermore, trust among parties,

interdependence and investments in the interest of the relationship also increase contribution to relationship performance based on the results. The effects of the four influencing variables prevail differently and these ways result in different strength of effects.

I prepared a way-model to further clarify correlations. The model is aimed at numerically expressing the linear correlation coefficient between friendship and performance according to direct and indirect effects. The value of the Pearson-type correlation value – existing between friendship and relationship performance – is r=0.634, to be split into direct and indirect effects. This causal model illustrates the schema, which expresses that friendship is the foundation that explains performance in buyer relationships. Friendship is the exogenous variable in the model or the independent variable, which is not influenced by other variables. Relationship and three intermediate variables – trust, adaptation and dependence – are included in the model as dependent variables (figure 4).

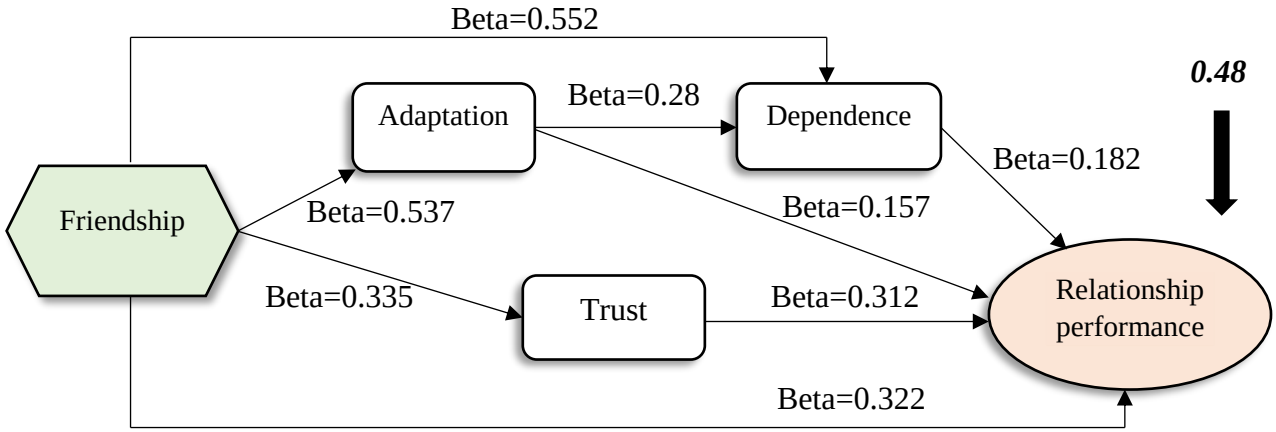

Figure 4: Way-model of friendship and relationship performance in a buyer relationship

Source: own compilation

The model explains 52% (R^2=0.525) of the variance of relationship performance, which is also significant. The 0.48 value also illustrated in the model represents the effect of non-specified variables (48%) on performance outside the model. All the Betas above the arrows mean standardised regression betas. It is clear from the model that the effect of the direct way on performance is close to 51%, since the standardised beta (0.322) and the Pearson-type correlation (0.634) quotient is 0.51. Therefore the effect of indirect ways in the relationship of the two factors is 49% overall, which represents almost the same degree of effect. Regarding the relationship of factors constituting the indirect ways it can be stated

that trust and adaptation are independent from each other, as well as trust and dependence, there can be obvious relationship identified among the other factors, however. The strength of the multiple compound ways is given by the product of regression betas representing the strength of the ways. Therefore, if we wish to achieve improvement in performance with friendship by strengthening trust, then the effect of this two-way compound is 0.335*0.312=0.105, which is almost identical with the effect achieved through dependence, which is 0.552*0.182=0.100. Furthermore, an almost identical strength 0.537*0.157=0.084 effect prevails through adaptation. These doubly compound ways mean ways of about 0.1 times in strength. The effect of the threefold compound ways, comprised of friendship, adaptation and dependence, is also rather weak (0.537*0.28*0.182=0.027) on performance. The direct effect of friendship is 3.2 times that of each doubly compound way, as the beta values (0.322/0.1=3.22) illustrating the strength of the ways also proves this.

It can be stated that it is worth establishing and strengthening friendship in producer-buyer business relationships, since multiple effects can be achieved this way directly regarding the improvement of relationship performance. However, performance should not be strengthened through trust amplified via friendship, because this has weaker effect on performance than if we wish to improve it directly through friendship.

4.3. Revealing supply relationships of producers

Since the majority (78.9%) respondents chose the partner selling pesticides as their most important supply relationship, I chose not to perform grouping on the supplier side. Therefore I jointly processed supplier relationship during the analysis of producer-supplier relationships.

I performed cluster analysis in order to reveal the opinion climates of supplier relationships. Grouping was again performed by K-means procedure. As a result of clustering it can be stated that by looking at the relationship dimensions at the same time, producers are arranged into 3 typical, distinct and more or less homogeneous groups based on their opinions (figure 5). The cluster centres differ significantly along the entire cluster forming variables.

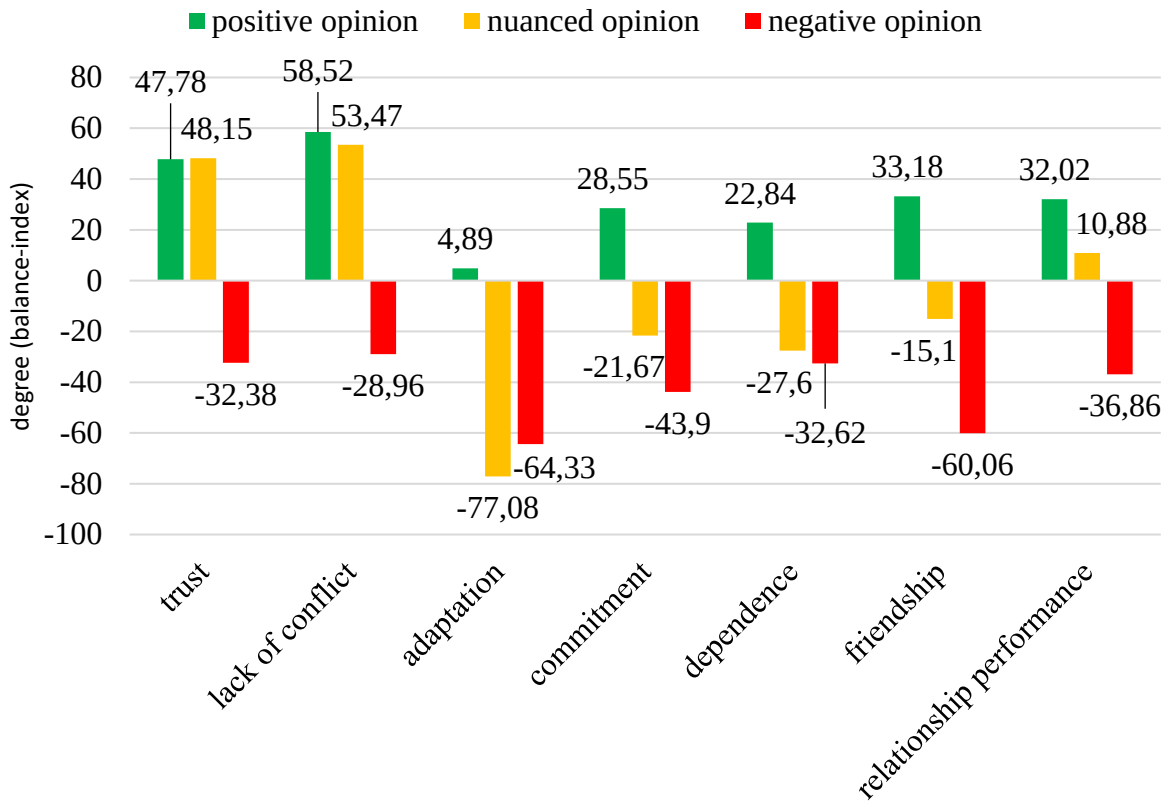

Figure 5: Relationship evaluation with regard to supplier

Source: own compilation

The fewest number of respondents (18%) belong to the 1st cluster, where both relationship quality and relationship performance were regarded negatively therefore it was named *negative opinion*. Most respondents (33%) belonging to the 2nd cluster where both negative and positive assessments were given for factors, so it was named *„nuanced" opinion.* These cooperations are based on trust, where conflicts are not typical. Unlike in buyer relationships, producers belonging to the „nuanced" opinion group believe that their partner contributes to enhancing their performance in supplier relationships. However, the other factors also received unfavourable assessment here, so the assessment is also rather negative in this group overall. 49% of the respondents belong to the 3rd cluster that assessed positively according to all factors, so the cluster was named *positive cluster* based on this. The names of the clusters also reflect that *fundamentally a general attitude shapes assessments and factors of the assessments in themselves are less relevant*.

4.4. Revealing relationship between relationship quality and relationship performance in dyadic level producer-supplier cooperations

I performed correlation calculation in order to reveal relationships among factors, where I included factors of relationship quality and relationship performance. The results show that there is no significant relationship between adaptation-trust variables ($p>0.15$ and $p>0.52$). However, strong positive relationship can be detected among lack of conflict scales ($r=0.757$) similarly to the producer-buyer relationship. Medium-strength, significant relationship can be detected among all the other variables. It can be identified that relationship performance is in correlation with all relationship performance factors, and medium-strength significant relationship can be detected among them.

4.4.1. Factors determining quality in producer-supplier relationships

In the next step of the assessment – similarly to the assessment of the producer-buyer relationship – I performed step-by-step regression analyses. Likelihood of the F-test is lower than 0.05, which proves the existence of relationship among variables (table 4).

Firstly, I examined *trust* as a dependant variable, while I included the other factors and relationship performance as dependant variable in the analysis. Lack of conflict, relationship performance, friendship, commitment and adaptation scales explain 67% ($R^2=0.674$) of the variance of trust in total. The results can be interpreted in practice as the trust of producers is on the one hand determined by how conflict free a business relationship is. The fewer conflicts there are among parties, the more they trust their partners. On the other hand, if producers feel that their partners contribute to enhancing their performance, it strengthens their feeling of trust. In addition, commitment among parties also has an effect on trust, the existence of which increases trust. Relationship between trust and adaptation can be interpreted according to negative-beta weight as relationship-specific investments can trigger anxiety and doubt in the investor, which reduce trust. At the same time, results show that the level of trust does not necessarily increase according to negative beta-weight in cooperations based on friendship.

Table 4: Summary of linear regression models in producer-supplier relationships

Model	R	R^2	Standard error of estimate	Variable statistics				
				R^2 change	F change	df1	df2	Sign. F change
Trust								
1. lack of conflict	0.757[a]	.573	28.19048	0.573	296.344	1	221	0.000
2. lack of conflict, performance	0.795[b]	.632	26.20779	0.060	35.703	1	220	0.000
3. lack of conflict, performance, friendship	0.804[c]	.647	25.73898	0.015	9.087	1	219	0.003
4. lack of conflict, performance, friednship, commitment	0.813[d]	.661	25.27921	0.014	9.039	1	218	0.003
5. lack of conflict, performance, friendship, commitment, adaptation	0.821[e]	.674	24.85882	0.013	8.436	1	217	0.004
Beta value: lack of conflict 0.550; performance 0.398; friendship 0-.224; commitment 0.240; adaptation -0.151								
Lack of conflict								
1. trust	0.757[a]	0.573	28.98352	0.573	296.344	1	221	0.000
2. trust, friendship	0.784[b]	0.615	27.57643	0.042	24.129	1	220	0.000
Beta value: trust 0.682; friendship 0.21								
Adaptation								
1. commitment	0.607[a]	0.369	39.89522	0.369	129.020	1	221	0.000
2. commitment, performance	0.669[d]	0.448	36.87642	0.079	10.941	1	218	0.001
3. commitment, performance, trust	0.677[g]	0.458	35.43678	0.010	2.077	1	218	0.151
4. commitment, performance, trust, dependence	0.690[h]	0.477	34.48522	0.019	7.863	1	218	0.006
Beta value: commitment 0.437; performance 0.363; trust 0-.330; dependence 0.192								
Commitment								
1. friendship	0.697[a]	0.486	30.79968	0.486	209.080	1	221	0.000
2. friendship, dependence	0.762[b]	0.581	27.88636	0.095	49.588	1	220	0.000
3. friendship, dependence, adaptation	0.788[c]	0.620	26.59888	0.040	22.813	1	219	0.000
4. friendship, dependence, adaptation, trust	0.815[d]	0.664	25.07239	0.044	28.479	1	218	0.000
Beta value: friendship 0.254; dependence 0.334; adaptation 0.265; trust 0.224								
Dependence								
1. commitment	0.694[a]	0.482	31.36321	0.482	205.354	1	221	0.000
2. commitment, friendship	0.739[b]	0.547	29.39535	0.065	31.580	1	220	0.000
3.commitment, friendship, performance	0.757[c]	0.573	28.58117	0.027	13.713	1	219	0.000
4. commitment, friendship, performance, adaptation	0.764[d]	0.583	28.31511	0.010	5.135	1	218	0.024
Beta value: commitment 0.421; friendship 0.432; performance -0.218; adaptation 0.128								
Friendship								
1. commitment	0.697[a]	0.486	36.70187	0.486	209.080	1	221	0.000
2. commitment, performance	0.753[b]	0.567	33.76236	0.081	41.158	1	220	0.000
3. commitment, performance, dependence	0.801[c]	0.642	30.76840	0.075	45.898	1	219	0.000
4. commitment, performance, dependence, trust	0.808[d]	0.652	30.40371	0.010	6.285	1	218	0.013
5. commitment, performance, dependence, trust, lack of conflict	0.815[e]	0.664	29.93428	0.012	7.891	1	217	0.005
Beta value: commitment 0.287; performance 0.399; dependence 0.352; trust -0.245; lack of conflict 0.175								

Source: own compilation

I detected symmetrical relationship between *lack of conflict* and trust based on the results, as I during the examinations I found that both variables can explain 57% (R^2=0.573) from the variance of the other in the first step. The friendship variable completes this value with 4% explanatory power (R^2=0.615) in the second step. So trust and friendship explain 61% (R^2=0.615) from the variance of the lack of conflict.

According to the results, lack of conflict is fundamentally determined by trust, since even if there are conflicts in cooperations, solutions with compromises are encouraged by partners in relationships based on trust. Furthermore, disagreements can decrease or positive outcomes are achieved for both parties if they happen to exist in relationships based on strong friendship.

It can be stated based on the table summarising the results of the examinations of variables influencing *adaptation* that commitment, relationship performance, trust and dependence explain 47% (R^2=0.477) overall from the variance of adaptation. The degree of relationship-specific investment is mostly determined by the degree of commitment between partners, which can be interpreted as an important sign of the investment.

Furthermore, the tendency to adaptation increases if parties feel that their cooperation contributes to enhancing relationship performance. However, the same way as it had been observed with the trust factor previously, reverse correlation can be detected between adaptation and trust. However, it can be stated in the case of dependence that the more parties depend on each other, the more it encourages them towards adaptation.

Results during the analysis of variables influencing *commitment* show that the friendship, dependence, adaptation and trust variables explain 66% (R^2=0.664) overall from the variance of commitment. It can be stated that friendship has the greatest role in the development of commitment between partners. If strong friendship develops between parties, then it contributes to commitment, which means that producers would not even change their business partners even if they had the opportunity to do so.

In case of interdependence, tendency towards opportunism decreases between partners, which also increase commitment. Investments between parties increase commitment between partners due to its relationship specificity. Moreover, the existence of trust contributes to increasing the feeling of commitment.

It can be stated, based on the table summarising the results of analysis on variables influencing *dependence*, that commitment, friendship, relationship performance and adaptation explain 58% (R^2=0.583) in total from the variance of dependence. The results can be interpreted as the more committed producers are towards their suppliers, the more their relationship resembles friendship and make relationship-specific investments, the stronger interpedence becomes and the feeling of dependence.

While dependence can be interpreted for a given business relationship (business partner) in the case of friendship and commitment, in case of adaptation the investment itself can be the reason for dependence. The relationship performance has a negative beta value in the regression equation of the dependence scale. This means that dependence is somewhat more typical in relationships with lower performance than in well performing ones.

Symmetrical relationship can be found between *friendship* and commitment based on the results, as during the examinations I found that both variables explain 49% (R^2=0.486) from the variance of the other in the first step. The relationship performance completes this with 8% (R^2=0.567) explanatory power in the second step, dependence with 7% (R^2=0.642), and trust and lack of conflict with 1%.

So commitment, relationship performance, dependence, trust and lack of conflict explain 66% (R^2=0.664) from the variance of friendship. It can be stated according to the results that if parties are committed towards the other perty, it can be the foundation of friendship, in which parties feel that they would not change their supplier even if they had the opportunity to do so.

Commitment therefore indicates a more direct and stronger relationship. Moreover, if the other party contributes to enhancing performance along with interdependence between the parties, it also strengthens friendship. A relationship without conflict – even if only to small degree – supports the development of a stronger relationship between cooperating parties. The trust and friendship correlation can be interpreted according to the negative beta-weight that trust is somewhat more typical in relationships purely based on business.

4.4.2. Factors determining performance in producer-buyer relationships

I revealed the nature of correlation between relationship performance and relationship quality by regression analysis. I included relationship performance as dependent variable during the regression analysis and the factors of relationship quality as independent variables. The significance level of F-test is lower than 0.05 for all factors, which proves the existence of correlations. The trust variable explains 40% (R^2=0.404) of the relationship performance scale in the first step. Friendship completes it with and additional 15% explanatory power (R^2=0.558) in the second step, then adaptation with 2% (R^2=0.583) and dependence with 3% (R^2=0.615). So trust, friendship, adaptation and dependence explain 61% of the variance of relationship performance.

The results can be interpreted in practice as the more producers trust their suppliers, the more they feel that the other party has greater contribution to their relationship performance. Furthermore, the stronger and more friendship based the relationship is between partners, the more they believe that their partner has an important role in supporting their enterprise to achieve their economic objectives. In addition, the results show that relationship-specific investment of producers also increases relationship performance. However, in case of dependence it can be stated that producers feel a greater contribution to their performance in those relationships where parties are independent from each other, at least at the level of subjective assessment.

I prepared a way-model to provide further clarification of the correlations. The way-model this time addresses the numerical division according to direct and indirect effects of the linear correlation coefficient between trust and performance. The value of the Pearson-type correlation – to be split into direct and indirect effects – is r=0.636 between trust and relationsip performance. This time, trust is an exogeneous variable in the model, in other words the dependent variable that is not influenced by another variable. Relationship performance and other three intermediate variables are also included in the model; friendship, adaptation and dependence (figure 6).

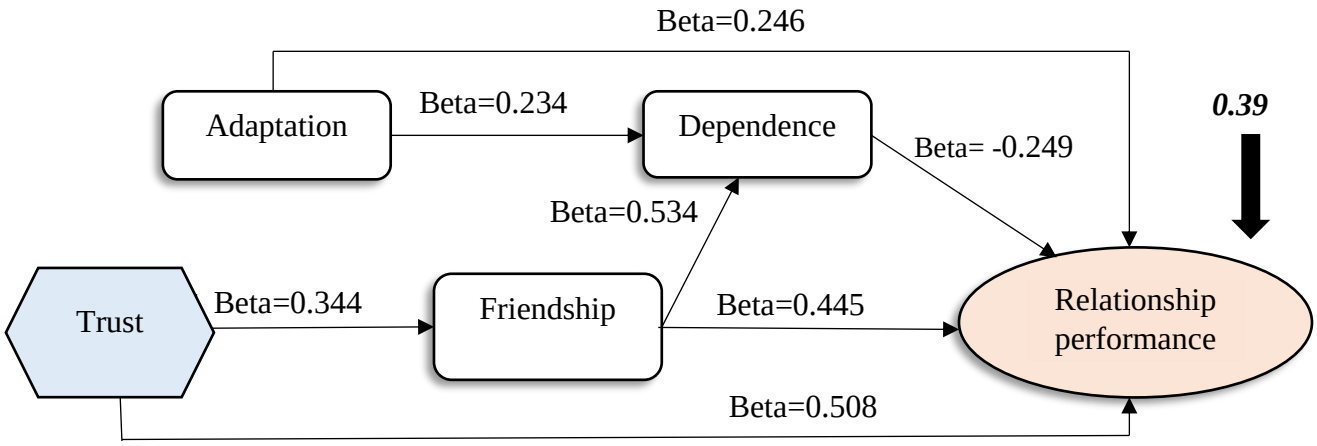

Figure 6: Way-model of trust and relationship performance in supplier relationship

Source: own compilation

The model explains 61% (R^2=0.615) of the variance of relationship performance and it is significant at the same time. The 0.39 value marked on the model means the effect (39%) of non-specified variables outside the model on performance. The model also displays that the effect of the direct way is nearly 80% in the correlation between trust and performance, since the quotient of the standardised beta (0.508) and Pearson-type correlation (0.636) is 0.8. Therefore the overall effect of indirect ways is only 20%, which at the same time cannot be considered insignificant.

Regarding the relationship among factors constituting the indirect ways it can be said that trust and adaptation are independent from each other, just like trust and dependence, obvious relationship can be detected among the other factors, however. The strength of the multiple compound ways is given by the product of the regression betas. If trust is completed by friendship, then the strength of this two-way compound based on the product of betas is 0.344*0.445=0.153 or weak. If trust is completed with friendship and coupled with dependence, the effect of this threefold compound way (0.344*0.534*-0.249= -0.045) is very weak and negative. The indirect effect of the other threefold compound way – composed of trust, friendship and adaptation – on the relationship between trust and performance is also very weak (0.344*0.564*0.246=0.048). The direct effect of trust on the relationship with performance is 3.3 times that of the two-way compound way, since the beta-values (0.508/0.153=3.3) indicating the strength of the ways also reveals this.

It can be stated that it is worth strengthening trust in producer-supplier business relationships since multiple effects can be achieved with this in its direct relationship with

relationship performance. The developed trust can strengthen friendship between parties, but if this strengthens dependence then it does so at the expense of the assessment of performance.

4.5. Revealing producer-buyer and producer-supplier cooperations at triadic level

Following this I examined producer-buyer and producer-supplier relationships at triadic level. It can be stated that the trust, lack of conflict and friendship factors have a more favourable assessment in supplier relationships while the adaptation, commitment, relationship performance and dependence factors have a more favourable assessment in buyer relationships. During the comparison of buyer and supplier clusters I found that the negative and nuanced opinions are somewhat more typical in supplier relationships and positive opinion climate develops more in buyer relationships. It is important to note that the difference between the assessments of the two relationships, as it can be seen in figure 7, is not significant since based on its balance-index values this only means a few points difference. Therefore, the assessment of producer-buyer and producer-supplier cooperations fundamentally show similarities based on relationship dimensions.

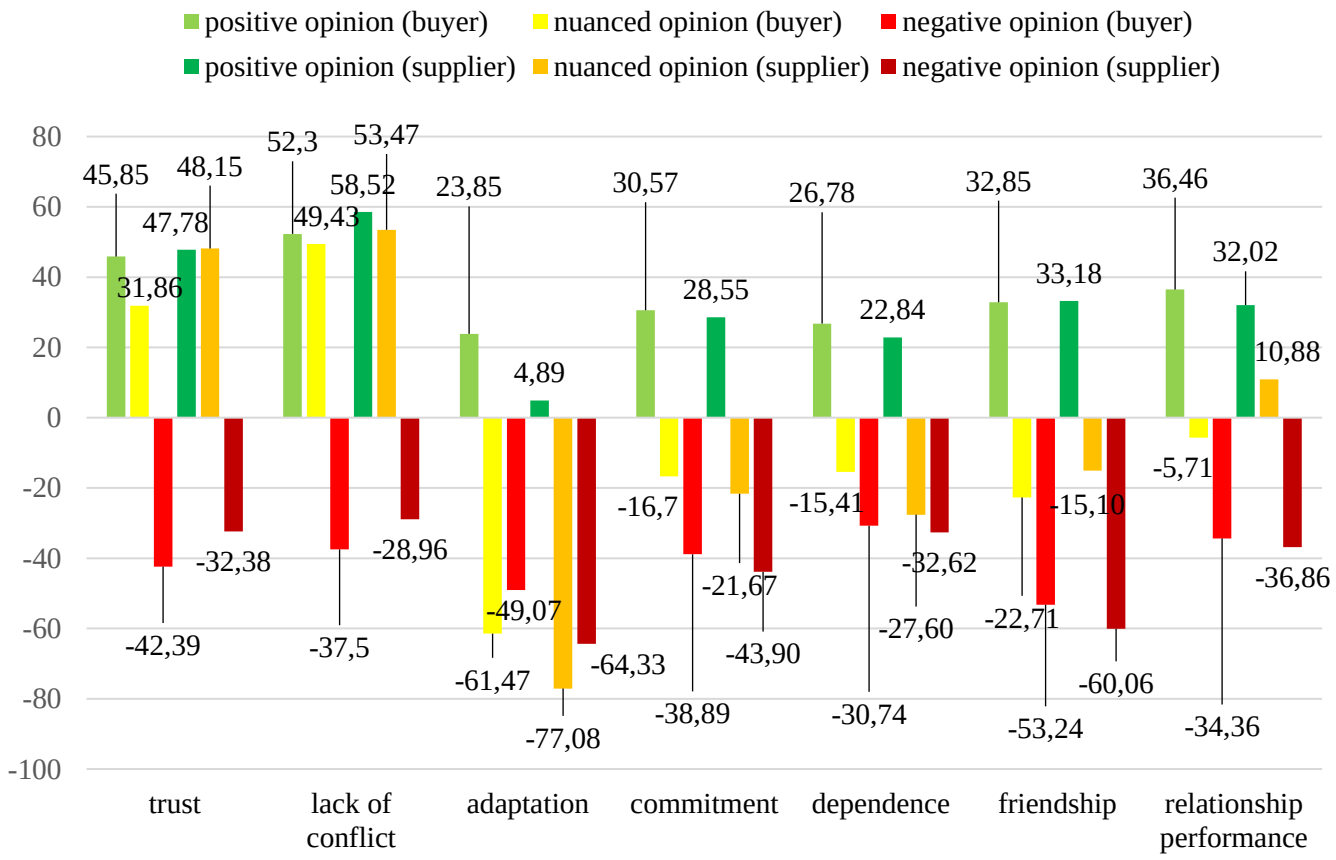

Figure 7: Relationship assessment clusters according to buyer and supplier

Source: own compilation

I performed cross-table analysis to reveal correlations between producer-buyer and producer-supplier relationships in order detect whether there is correlation between opinions of producers about buyers or suppliers, so whether they had similar opinions about both relationships (table 5).

Table 5: Relationships between opinion clusters

Buyer cluster	Supplier cluster			Total
	positive opinion	nuanced opinion	negative opinion	
positive opinion	32.3%	5.8%	0.9%	39.0%
nuanced opinion	13.5%	26.5%	9.0%	48.9%
negative opinion	3.6%		8.5%	12.1%
Total	49.3%	32.3%	18.4%	100.0%

Source: own compilation

During the analysis I found that 49.3% of the producers had positive opinions about their suppliers, 32.3% had nuanced and 18.4% had negative opinions. 48.9% on the buyer side had nuanced, 12.1% had negative and 39% had positive opinions. So the relationship of producers with suppliers and buyers reflects rather positive and nuanced opinions. When I examine the correlation of buyer-supplier relationship assessment, it can be seen that 26.5% had nuanced opinions about their relationships with their suppliers and buyers and 32.3% had positive opinions about their cooperations with both sides. 8.5% of the respondents had negative opinions about their relationships with both suppliers and buyers. There were no producers who had nuanced opinions about their suppliers and negative opinions about their buyers. 3.6% of the producers in total positively assessed their relationship with the supplier and negatively with the buyer. 0.9% of the interviewees assessed their relationship with the buyer positively and negatively with the supplier while 9% had nuanced opinion about their relationship with the buyer and negatively about the supplier.

It is clearly observable based on the results that there is no sharp conflict in the evaluation of producers' buyer and supplier relationships, so producers similarly assessed their relationships with their buyers and their cooperations with their suppliers. This in practice means that if producers have a favourable and effective relationship with their buyer, then it is highly likely that their relationship with the suppliers will be similar.

5. NEW AND RECENT FINDINGS OF THE THESIS

The comprehensive objective of the thesis was to assess buyer-supplier relationships of producers producing fruit for fresh market sales in Szabolcs-Szatmár-Bereg County based on relationship quality and relationship performance and to reveal correlations among them. By achieving the main and partial objectives I defined the following new and recent findings:

1. I revealed and resynthesized the terminology system of relationship quality and performance as well as its most important factors, and at the same time I identified those complex relationship quality and performance factors, which can provide a comprehensive description of cooperation among business parties.
2. I found that producers can be classified into three clearly distinct groups based on the typical sales channels, which are the „multiple channels" sales cluster, the „intermediary trader" cluster and the „APSO/PG" cluster. The three sales clusters primarily differ in whether strong friendship evolves between parties, degree of trust, there is investment into the given relationship or not and finally the extent to which the relationship contributes to enhancing the performance of the producer.
3. I found, based on the comparison of opinion climates, that there is no sharp conflict in the assessment of producers' buyer and supplier relationships, so they assessed their relationship with buyers and suppliers similarly. It can be clearly stated based on this that there is no sharp conflict in the assessment of producers' buyer and supplier relationships, so producers assessed their relationship with buyers and suppliers similarly. It is obvious that the assessment regarding the buyer and supplier relationships of producers is shaped by a general attitude, which shows no sharp conflict.
4. I found that the factors of relationship quality determine relationship quality in correlation with each other rather than independently therefore, examining just one factor to reveal relationship quality cannot provide a complete picture but it requires a complex approach. Measuring performance from a relationship aspect is justified and deserves special attention based on the proven correlation between relationship quality and relationship performance.

5. Based on the results I found that relationship performance depends on the same factors in the buyer and supplier relationships of producers. However, while relationship performance is primarily determined by whether friendship evolves between parties, this is primarily influenced by trust between parties in producer-supplier relationships.
6. Despite the fact that friendship is not included independently among the relationship quality factors in research so far, results still show that it has a central role in the development of relationship performance. It was clearly identified that friendship contributes most to enhancing relationship performance in producer-buyer relationships and its significance is not negligible in producer-supplier relationships either. It can be stated that there is strong correlation between friendship and relationship performance and it justifiably included among the decisive factors of relationship quality. Therefore this factor requires special attention in further research.
7. I developed a visual surface based on the evaluation of direct supply chain relationship results, which calls the attention of managers to those relationship and performance factors and areas, which arise in direct supply chain relationships.

6. PRACTICAL APPLICABILITY OF THE RESULTS

The objective of my thesis was to reveal buyer and supplier relationships of producers according to relationship quality and relationship performance. I defined the following recommendations based on my results, which could promote improvement of relationship quality and performance between business partners when applied:

1. Producers have to pay attention to quality influencing factors both in their buyer and supplier relationships, which can be identified in both types of business relationships to the almost the same extent and have similar roles and effects. These also need to be applied in production beyond the traditionally applied factors and indicators.
2. It must be highlighted that the more a relationship between partners is based on friendship, the more goodwill there is when they approach each other, during which they do not behave in an opportunistic manner, thus increasing performance. Producers in a friendly cooperation feel that the other party has an important role in supporting their enterprise to achieve their economic objectives. Furthermore, based on the results, trust between parties, interdependence and investments in the interest of the relationship also enhance contribution to relationship performance.
3. The effects of the abovementioned four influencing variables prevail in different ways and these ways result in effects with different strengths. I recommend and based on the results it can be stated that it is worth reinforcing friendship even in business relationships since multiple effects can be achieved this way in the improvement of relationship performance.
4. If producers are committed towards the other party – meaning that they would not change their suppliers even if they had the opportunity to do so – it promotes a more informal and stronger relationship and could provide the foundation for a friendship. Moreover, if the other party contributes to enhancing their performance and there is dependence between partners also strengthens a closer relationship. A relationship without conflicts – even if only to a small degree – but promotes the development of friendship between collaborators.
5. According to the correlation between trust and friendship, trust is somewhat more typical in purely business cooperation based relationships. The development of

friendship is not enabled purely through a transactional approach; a closer supply-chain relationship is required.

7. PUBLICATIONS RELATED TO THE THESIS

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Candidate: Noémi Szénásné Ványi
Neptun ID: JEYBQQ
Doctoral School: Károly Ihrig Doctoral School of Management and Business
MTMT ID: 10028546

List of publications related to the dissertation

Articles, studies (15)

1. **Szénásné Ványi, N.**: A gyümölcstermelők és vevői kapcsolatainak minősége.
   A falu *"közlésre e*lfogadva", [11], 2018. ISSN: 0237-4323.
2. **Szénásné Ványi, N.**: A gyümölcstermelők üzleti kapcsolatainak értékelése a minőségi tényezők alapján.
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