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IMPACT OF DISTURBING FACTORS ON COOPERATION IN LOGISTICS OUTSOURCING PERFORMANCE: THE EMPIRICAL MODEL

ABSTRACT

The purpose of this paper is to present the research results of a study conducted in the Slovene logistics market of conflicts and opportunism as disturbing factors while examining their impact on cooperation in logistics outsourcing performance. Relationship variables are proposed that directly or indirectly affect logistics performance and conceptualize the hypotheses based on causal linkages for the constructs.

On the basis of extant literature and new argumentations that are derived from in-depth interviews of logistics experts, including providers and customers, the measurement and structural models are empirically analyzed. Existing measurement scales for the constructs are slightly modified for this analysis. Purification testing and measurement for validity and reliability are performed. Multivariate statistical methods are utilized and hypotheses are tested. The results show that conflicts have a significantly negative impact on cooperation between customers and logistics service providers (LSPs), while opportunism does not play an important role in these relationships. The observed antecedents of logistics outsourcing performance in the model account for 58.4% of the variance of the goal achievement and 36.5% of the variance of the exceeded goal.

KEYWORDS

logistics outsourcing performance; logistics customer–provider relationships; conflicts and cooperation in logistics outsourcing; PLS path modelling

1. INTRODUCTION

Globalization, lead time reductions, and outsourcing are major changes that contribute to the increasing importance of transport and logistics today. In such an environment, the ever-changing and innovative customer–provider relationships gain increasing importance. As a result, supply chain management and logistics services outsourcing are critical weapons for industries to use when developing competitive advantages.

The development of successful provider-customer relationships, ranging from pure transactions to partnerships, is also significant for the logistics providers [e.g. 1, p.33, 2, p.377, 3, p.382]. Many different terms are used to describe long-term alliances between firms that cooperate under certain circumstances. All terms reflect the idea that cooperative actions are necessary in order to achieve the desired goals of specific customer–provider relationships that are established to increase benefits and decrease risks in logistics outsourcing, and to offer better customer service performance.

The term "partnership" is widely present in discussions of logistics relationships. According to Lambert et al. [4, p.166], definitions are incomplete if they address only some aspects of a partnership. The authors introduce a new definition wherein a partnership is said to mean "a tailored business relationship based upon mutual trust, openness, shared risk, and shared rewards, that yields a competitive advantage, resulting in business performance greater than would be achieved by the firms individually." Because this definition is comprehensive, the present research utilizes this understanding of partnerships.

In recent years, there is a growing body of research to explain the relationship dimensions of logistics outsourcing. Aside from trust and commitment, other variables must be chosen depending on their suitability for any given context. The variables of conflicts and opportunism have so far received relatively little attention in logistics outsourcing research, but are often used in other fields involving inter-organizational relatioships. We measure the impact of these two constructs on cooperation (as a

mediating variable) and on logistics outsourcing performance.

The article is structured as follows. First, we review the literature on conflicts, opportunism and cooperation, as well as the two dimensions of logistics outsourcing performance–goal achievement and exceeding the goal. Then, we formulate hypotheses on the causal linkages between variables.

Next, we test our conceptualization using data from a survey of the two largest Slovene LSPs and their main customers. Then, the scale development and the refinement process are presented. Finally, we discuss measurement assessments for validity and reliability, test and confirm the hypotheses, and suggest some implications for managers and researchers.

2. LITERATURE REVIEW

2.1 Conflicts

Several researchers have discussed the role of conflicts in firms relationships, among them Morgan and Hunt [5], Anderson and Narus [6], Dwyer et al. [7], Moore [8], and Deepen [1]. Conflict is a blocking behaviour by one party in a working relationship to deter the other from gaining resources or pursuing an activity for its advancement [6, p.45]. Conflicts can be defined as "divergence of goals and role preferences" according to Dwyer et al. [7, p. 249]. Many empirical studies have found that conflict adversely affects the satisfaction derived from a working relationship (e.g. [10], [11]). Due to the fact that conflicting behaviour may create the impression that the partner is preventing the achievement of goals, the cooperation may therefore be characterized with destructive consequences. While some authors suggest that conflicts can have benefits for a relationship [6], others (e.g. [7], [8]) believe that conflict can lead to relationship dissolution. In line with the latter argumentation in this study, conflict will be understood as a destructive variable that influences the outsourcing relationships.

2.2 Opportunism

Opportunistic behaviour is the overarching concept of transaction cost theory [1]. According to Williamson [11, p.47] it is defined as "self-interest seeking with guile". In recent studies, much of the attention is focused on strategies for controlling opportunism. The occurrence of opportunistic behaviour has practical implications and may produce substantial opportunity costs. Opportunism should be understood as an independent variable with its direct negative effects on trust in relationships. Knemeyer and Murphy [13] have empirically tested opportunism in logistics outsourcing relationships and its negative effects on trust. Deepen [1] has enlarged the impact of opportunism on trust and cooperation. In our research, opportunism is identified as having a critical influence on cooperation, and on the outcome of the logistics outsourcing performance.

2.3 Cooperation

Cooperation plays a very important role in relationships between partners. It refers to situations in which parties work together to achieve mutual goals. In the late 1970s, the authors referred to cooperation as "endeavours to achieve individual and mutual goals" ([13, p.847], [14, p.57], [15, p.7]. Benefits can be achieved with the cooperation of both parties. Knemeyer and Murphy [16], instead of cooperation use the term "attachment" which can be enhanced if customers and providers have similar corporate cultures. According to their statements, the long term relationship is established when corporate cultures are similar enough to eliminate the risk of outsourcing performance failure.

Forming cooperative norms is an essential step in guiding the cooperation-oriented outsourcing practices. Cooperative norms are the shared belief and expectation of two parties that they must work together to achieve mutual goals [17]. Cai and Yang [18] stated that cooperative norms positively influence the suppliers' performance, which subsequently affects the buyers' satisfaction. Ties are stronger when the cooperation is long-term. Cooperation in this study is defined according to the Anderson and Narus [6, p.45] definition.

2.4 Logistics outsourcing performance

Logistics outsourcing performance is usually defined as the mutual logistics activities of both partners involved in the long term relationships. It is influenced by the performance of logistics processes performed in-house and those affected by the performance of outsourcing arrangements provided by LSPs. By joining forces, both partners will improve efficiency, profitability, and customer service. The performance of logistics outsourcing projects cannot be explained by the extent of outsourced services, since other performance drivers have been relevant, such as the implementation process, the design of the outsourcing relationship, logistics costs, market characteristics, etc.

A large number of logistics researchers have defined and measured logistics service performance in many different ways. Logistics outsourcing performance has to be measured in a multi-dimensional way, reflecting multiple stakeholders and interests. Stank et al. [19] proposed the construct of three dimensions as antecedents of customer satisfaction

with outsourcing arrangements: operational, cost, and relational performance. Knemeyer and Murphy [12] suggest the construct consisting of operations, channel, and asset reduction performance. Engelbrecht [20] and Deepen [1] agree that achieving the goals of outsourcing contracts is relevant for measuring performance. It is not the achievement of previously set goals alone that matters, but also the quality of the provided services. The LSP can deliver better services and added value by exceeding the expectations of the customer. The second dimension, exceeding the goal, is included to address the LSP exceeding the expectations of the customers. The goals are usually agreed upon in contracts between partners, but exceeding the goals requires much different efforts. In order to reach higher levels of outsourcing, exceeding the goal in terms of service improvements and cost reductions, should be realized (Deepen [1], for more details about this topic see [21]).

In this study, Deepen's [1] arguments were assumed and the logistics outsourcing performance construct is measured in two dimensions: goal achievement and exceeding the goal.

3. DEVELOPMENT OF HYPOTHESES

Based on literature review, the variables proposed to directly or indirectly affect logistics performance were conceptualized and the hypotheses on the causal linkages for the construct model were generated. The conceptualization is depicted in *Figure 1*.

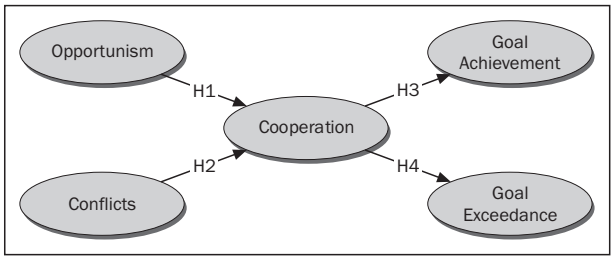

Figure 1 - Conceptual model

For both variables of conflicts and opportunism, the negative effect to cooperation is hypothesized. While opportunistic behaviour has negative influence on the relationship between two parties, cooperation is important for the functioning of long-term relationships. The process of the two parties working together will be impeded if opportunism is suspected. It can be presumed that higher levels of opportunism will have negative effects on the cooperation between parties, therefore hypothesis 1 is generated.

H1: *Opportunism negatively influences cooperation between parties.*

The research conducted by Skinner et al. [22] empirically supports argumentation that the level of conflict has negative impact on cooperation and the customer's satisfaction with the relationship. According to the definition mentioned above and its destructive role in relationships, hypothesis 2 is proposed.

H2: *Conflicts negatively influence cooperation between parties.*

As argued in the existing literature, the cooperative relationships are more rewarding than adversarial relationships. Therefore, the closer the cooperation between the two parties, the more benefits will be available for the partners. The definition of cooperation refers to situations in which parties work together to achieve mutual goals [6], hypothesis 3 is proposed.

H3: *Cooperation positively influences goal achievement.*

In situations of very good cooperation, the benefits may well exceed the expectations the customer had before outsourcing. The relationship is more successful if the expectations are not only fulfilled, but also exceeded, thus hypothesis 4 is proposed.

H4: *Cooperation positively influences exceeding the goal.*

3.1 Operationalization of the variables

The measurement of opportunistic behaviour was developed in accordance with Morgan and Hunt [5] model, and suggestions made from the in-depth interviews. Slight adaptation and selection was made to suit the research focus of our study. Indicators for measurement of the construct are shown in *Table 1*.

Table 1 - Indicators for the Measurement of the Construct of Opportunism

	Please indicate the level of agreement with the following statements on your relationships with this particular LSP.
OPP 1	To accomplish our own objectives, sometimes we alter the facts slightly.
OPP 2	To accomplish our own objectives, sometimes we break our promises.
OPP 3	Our LSP sometimes exaggerates its requirements in order to get what it really needs.
OPP 4	Our partner is always provided with a completely truthful picture of our activities.

Conflicts in this study are understood as a destructive variable that negatively influences the cooperation in outsourcing relationships. The scale developed by Kumar et al. [23], Leonidou et al. [24] and Deepen [1] was selected, with slight modifications after the in-depth interviews (*Table 2*).

Cooperation has been defined as the main variable of successful relationships. In spite of that, no established reflective scales exist for the logistics outsourcing relationships [1]. Since the Frazier [25], and Larson and Kulchitsky [26] studies were appropriate for our needs, we modified the indicators after the in-

Table 2 - Indicators for the Measurement of the Construct of Conflicts

	Please indicate the level of agreement with the following statements on your relationships with this particular LSP.
CON 1	When requirements between partners are poorly defined, conflicts can arise.
CON 2	There are often disagreements between partners in the relationship that leads to conflicts
CON 3	When problems occur, the communications between partners decreases.
CON 4	Conflicts between partners do not impact the productivity in logistics outsourcing performance.
CON 5	Conflicts are solved without difficulties, with tolerance, and with success.

Table 3 - Indicators for the Measurement of the Construct of Cooperation

	Please indicate the level of agreement with the following statements on your relationships with this particular LSP.
COOP 1	The goals of our relationships were jointly set by us and our LSP.
COOP 2	The approach to doing business in logistics services is very similar for both partners.
COOP 3	When problems in relationship occur, we solve them together.
COOP 4	In our relationship, both parties fully respect each other.
COOP 5	Long-term cooperation between parties has a positive impact on logistics outsourcing performance.
COOP 6	We are cooperating with our LSP very well.

depth interviews, and put six of them into our scale (*Table 3*).

For measuring operational research outsourcing performance, the scale developed by Engelbrecht [20, pp. 212–218] was selected. The reason for this selection was that the scale was successfully used in logistics outsourcing studies with German and American companies. The operationalization was aggregated to a more basic level of the construct of goal achievement, where it covers two aspects: achievement of the actual goals agreed upon in the contract, and the quality of the relationship. Goal achievement is the minimum condition that must be obtained in order to satisfy the customer. The LSPs have to be engaged in activities that significantly exceed the set goals such as customer orientation, innovation, and cooperation.

Our interviews showed strong evidence supporting the importance of exceeding the goals in order to maintain the satisfaction in relationships. The measurement scale is rather new (see [1]), therefore only slight modifications have been made (*Table 4*).

Table 4 - Indicators for the Measurement of the Construct of Goal Achievement and Goal Exceedance

	Please indicate the level of agreement with the following statements on how satisfied you are with the relationship between this LSP and your company.
GAC 1	The goals between partners in logistics outsourcing relationships are completely fulfilled.
GAC 2	Our LSP always delivers its services within the range of agreed costs.
GAC 3	Our LSP always delivers its services within the range of agreement quality.
GAC 4	Through this cooperation, our logistics outsourcing costs have been reduced to the level we expected.
GAC 5	We are very satisfied with the relationship with our LSP.
GEX 1	The goals and expectations we jointly set in the agreement have been mainly exceeded.
GEX 2	Our expectations concerning the quality of performance have been mainly exceeded.
GEX 3	Our expectations concerning the reduction of costs in service performance have been mainly exceeded.
GEX 4	In comparison with the price for providing the services, the overall service quality performance is better than expected.

3.2 Questionnaire design and pre-test

The development of the questionnaire was based on the conceptualization of the variable theorized to affect the outsourcing relationship and performance. To measure the constructs, the seven point Likert-scale was utilized. In the second part of the questionnaire, participants were invited to respond to a set of questions describing themselves, their company, and the activities that are outsourced to LSPs. Since the empirical study relied completely on the perceptions of key informants, it was important that the respondents be competent. The questionnaire was tested by 18 marketing experts and logistics managers. The results from the pre-test indicated that the respondents had no difficulty in comprehending the instructions or questionnaire items.

3.3 Sampling and data collection

In order to assure relevant indicators for the constructs, in-depth interviews were conducted in the March–April 2008 period. Fifteen managers of two companies from the list of the largest Slovene LSPs and their main customers participated. The partici-

pants represented two different levels of managers (operational and top management) and had several years of experience with logistics outsourcing relationships. Each individual was questioned about the relationship variables with their partner in logistics outsourcing.

The empirical data were gathered in the survey among logistics managers of manufacturing and retail companies. The study was conducted in cooperation with the chosen LSPs. Based on the LSPs customer lists, we contacted by e-mail 67 customers with whom the LSPs had built long-term relationships, and 58 useable responses got back after the two follow-ups, representing a response rate of 86.5%.

3.4 Measurement assessment

Several steps were taken to assess the reliability and validity of the construct scales. A two-step covariance structure analysis approach (see Anderson and Gerbing [27]) was used to analyze the data.

For the measurement of the constructs, empirically observable indicators were utilized that reflect the characteristics of the latent variables. They create the measurement model. On the basis of empirical data, the measurement model is tested for validity and reliability in order to become a part of the structural model. Constructs were conceptualized as one-factor items on which all the measured indicators directly load. All constructs are represented by reflective indicators, since they better capture the variable.

For the assessment of reliability and validity, exploratory factor analysis and the Cronbach alpha coefficient were used. Due to the relatively small sample size, the threshold values for factor loadings and communalities were increased. Small sample size is the reason that Partial Least Squares Regression (PLS) was employed to assess the measurement model. The test of the structural model then constitutes a confirmatory assessment of nomological validity (i.e., the structural model tests the significance of the hypothesized causal relationships among the constructs).

4. DATA ANALYSIS AND RESULTS

The unit of analysis for the research was the specific logistics service customer–provider relationship. The present sample consisted of retailers (70.4%), manufacturers (22.2%) and others (7.4%). More than one third of the selected customer-LSP relationships (39.6%) existed for more than 10 years, 28.3% for 6 to 10 years, 13.2% for 4 to 5 years, and only 18.9% for less than 4 years.

Correlation coefficients for the indicators of all constructs were calculated and the results show predictable correlation between indicators.

On the average, the respondents rated the variables measuring opportunism slightly higher than the variable of conflicts. They expressed the lowest agreement with the statement "*to accomplish our own objectives, sometimes we break our promises*". The statement shows that the customers are not opportunistic. For all the measured variables of opportunism, the mean scores are between 2.34 and 3.55. This indicates that the respondents have, on average, a more negative attitude to the statements, which mean that opportunistic behaviour is not common in relationships.

Customers, in measuring conflicts, expressed the greatest agreement with the statement "*when requirements between partners are poorly defined, conflicts can arise*". They agree that when there is a lack of communication and cooperation between them and the LSP (mean 3.93, standard deviation 1.83), conflicts arise. They are neutral with the statement that conflicts between partners do not impact the productivity in logistics outsourcing performance.

The respondents, on the average, rated the variables measuring cooperation around 6, which expresses high agreement with the indicators of cooperation. The lowest score on the average was to the statement that "*the approach to doing business in logistics services is very similar to both partners*". There are still differences in organizing activities that both partners perform.

The variables measuring goal achievement are on the average rated slightly higher than the variable of exceeding the goal. The means for all indicators are around 5. The respondents expressed the lowest agreement with the statement "*through this cooperation, our logistics outsourcing costs have been reduced to the level we expected*" (mean: 4.53; std. dev.: 1.42). But the statement that customers are "*very satisfied with the relationship with the LSP*" (mean: 5.34; std. dev.:1.09) shows that the respondents on the average rate give this statement the greatest agreement and express their satisfaction with the goal achievement. The findings are in accordance with the statements made during the in-depth interviews.

4.1 Exploratory factor analysis

The set of indicators for the construct was initially examined using exploratory factor analysis (PCA – Principal Components Analysis) to identify items not belonging to the specified domain. Only in cases where a single factor is extracted can convergent validity be assumed, and that factor must explain at least 50% of the variance of its indicators.

In our sample items with a loading of less than 0.75 and communality less than 0.40 were discarded. To examine the appropriateness of factor analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling ad-

equacy was employed (*Table 5*). Three items for construct opportunism and three for construct conflicts remain. For the construct of cooperation, four of them remain, as well as for the construct of goal achievement. And finally, five items remain after the purification for the construct of exceeding the goal.

Table 5 - EFA for Indicators of Constructs

Constructs	Factor loading	Communality
Opportunism: KMO_{OPP} = 0.705; Total variance explained (cumulative): 75.7%; α = 0.819		
OPP 1	0.895	0.802
OPP 2	0.889	0.791
OPP 4	0.823	0.678
Conflicts: KMO_{CON} = 0.649; Total variance explained (cumulative): 65.3%; α = 0.709		
CON 2	0.863	0.745
CON 3	0.811	0.658
CON 5	0.746	0.557
Cooperation: KMO_{COOP} = 0.784; Total variance explained (cumulative): 70.1%; α = 0.857		
COOP 3	0.895	0.801
COOP 4	0.839	0.705
COOP 5	0.812	0.660
COOP 6	0.798	0.636
Goal Achievement: KMO_{GAC} = 0.846 Total variance explained (cumulative): 79.6%; α = 0.866		
GAC 3	0.898	0.753
GAC 5	0.873	0.558
GAC 1	0.868	0.806
GAC 2	0.747	0.762
Goal exceedance: KMO_{GEX} = 0.846 Total variance explained (cumulative): 79.6%; α = 0.853		
GEX 2	0.864	0.710
GEX 1	0.843	0.746
GEX 4	0.834	0.634
GEX 3	0.796	0.696

Cronbach's Alpha coefficient (internal consistency reliability) for four latent variables indicates good, and for one sufficient internal consistency reliability (*Table 5*).

Following the basic descriptive analysis and exploratory factor analysis (EFA), the data were subjected to CFA by means of PLS. The analysis was carried out using the SmartPLS 2.0 statistical package [28].

4.2 Convergent validity and reliability measures

The reliable and valid measurement of a construct is the main goal of measurement model development. We assessed the adequacy of the measurement model through examination of individual item reliabilities, convergent, and discriminant validity.

Composite reliability for all latent variables is greater than the prerequisites (*Table 6*), so the constructs are reliable. Convergent validity is the extent to which the scale correlates positively with other measures in the same construct. T-tests for path coefficients have been calculated after computing a bootstrap method in order to validate all the model items for convergent validity [27]. T-values greater than |1.96| determine a significant path at $p \leq 0.05$. A single indicator in the model was strongly correlated with the latent variable.

Table 6 - Convergent Validity and Reliability Measures

Latent variable	Composite reliability	AVE	Communality	Cross-validated communality (H^2)
CON	0.842	0.643	0.643	0.315
COOP	0.903	0.700	0.700	0.490
GAC	0.909	0.716	0.716	0.527
GEX	0.900	0.696	0.695	0.487
OPP	0.902	0.756	0.756	0.480

The convergent validity measure represents the common variance between the indicators and their construct. Fornell and Larcker [29] suggest the use of the Average Variance Extracted (AVE) to assess discriminant validity. They propose that sufficiently high discriminant validity exists if the AVE of factors in pairs exceeds the squared correlation between them: the acceptable threshold should be superior to 50% [29]. All indicators comply with this prerequisite (*Table 6*). The communality index measures the quality of the measurement model for each block of indicators. It is calculated by a blindfolding procedure available in Smart PLS. *Table 6* represents overall results for convergent validity and reliability for latent variables in the measurement model of logistics outsourcing performance.

Once the validities and the composite reliability were stated, the structural model could be tested with the analysis of regression coefficients (γ, β) and with the explained variance (R^2) of each endogen construct.

4.3 Hypotheses testing

From the measurement concern, nomological validity shows the degree to which the constructs fit within the logical network of theory. The structural equation model includes the exogenous latent variable of opportunism and conflicts, the endogenous latent variables of cooperation, goal achievement, and exceeding the goal.

In the structural model, three of proposed hypotheses find support. Hypothesis H1 did not find support due to weak convergent validity (the regression coeffi-

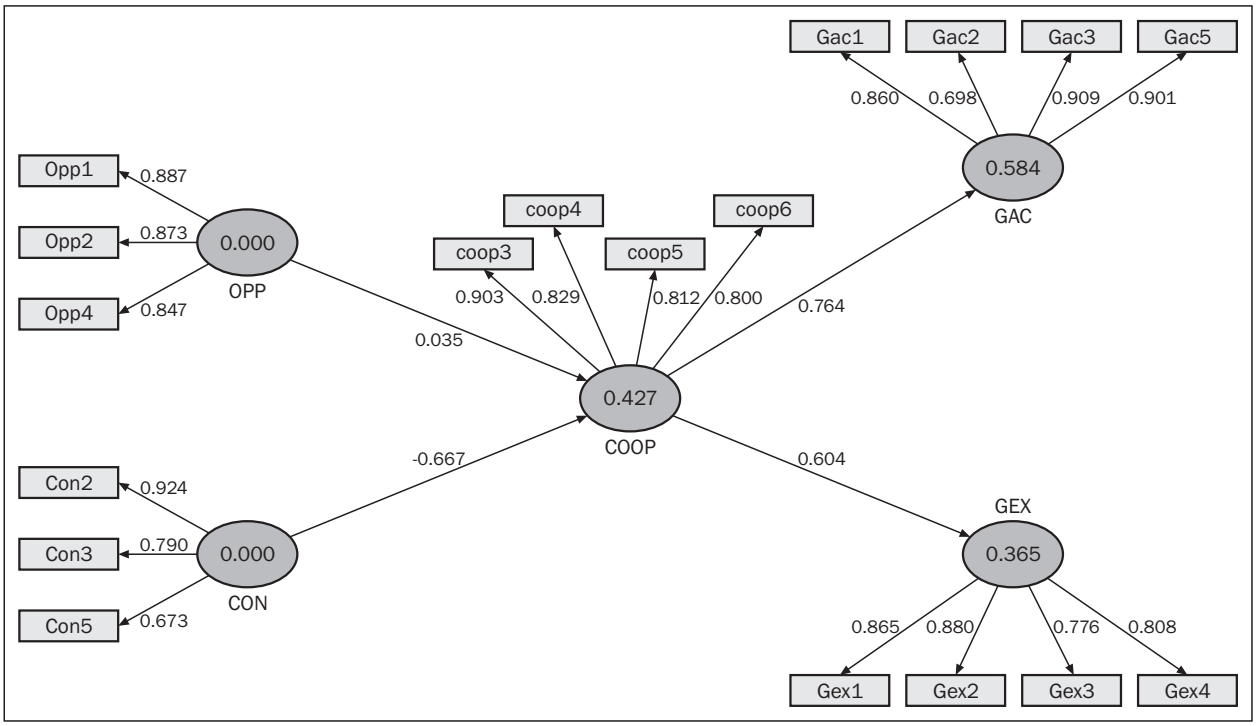

Figure 2 - Structural Model for Outsourcing Performance

cient was not significant). The variable conflict explains 42.7% of the variance of cooperation. Cooperation is therefore relatively well explained by the independent variable. The antecedents of logistics outsourcing performance (CON and COOP) in the model account for 58.4% of the variance of goal achievement. Cooperation has a strong effect and direct influence on both dimensions of logistics outsourcing performance. The effect of cooperation is stronger on goal achievement than it is on exceeding the goal. The variable of exceeding the goal is explained by cooperation. The variable explains 36.5% of the variance of exceeding the goal. Results are shown in *Figure 2*.

The quality of each structural equation is measured by the cross-validated (cv) redundancy index (i.e. Stone–Geisser's Q^2) [30]. In our model all blocks of indicators have an acceptable cv-redundancy index F^2 (*Table 7*).

Table 7 - Redundancy and Cv-redundancy Index for Structural Model

Latent variable	Redundancy	Cross-validated redundancy index (F^2)
CON	0.000	0.000
COOP	0.293	0.250
GAC	0.401	0.390
GEX	0.249	0.240
OPP	0.000	0.000

PLS path modelling, different from other SEM (e.g. LISREL), does not optimize any global scalar function [30, p.173], so they propose a global criterion of goodness-of-fit (GoF). The GoF represents an operational solution to the problem as it may be meant as an index for validating the PLS model globally. GoF for our model is 0.568, meaning that the model is able to take into account 56.8% of the achievable fit. The obtained results are shown to be statistically significant.

Results revealed:

- negative correlation between conflicts and cooperation ($\gamma = -0.667$; $p \leq 0.01$),
- positive correlation between cooperation and goal achievement ($\beta = 0.764$; $p \leq 0.01$),
- positive correlation between cooperation and exceeding the goal ($\beta = 0.604$, $p \leq 0.01$).

All correlations were statistically significant, except for opportunism therefore, three out of four hypotheses were supported.

5. IMPLICATIONS FOR RESEARCHERS AND MANAGERS IN LOGISTICS OUTSOURCING

The results of the study provide new opportunities for understanding the design and management of provider–customer relationships. The research addresses the relationship between providers of logistic services and customers in terms of conflicts, opportunism and cooperation.

First and foremost, opportunistic behaviour is not present in outsourcing relationships when the long-term cooperation between partners exists. Indicators in the variable of opportunism which were not con-

firmed (e.g. "*To accomplish our own objectives, sometimes we alter the facts slightly*" and "*To accomplish our own objectives, sometimes we break our promises*"), and the recoded indicator "*Our partner is always provided with a completely truthful picture of our activities*" are closely connected with honesty and trust. These two relationship variables are significant for the partnerships. On the other hand, in-depth interviews conducted with managers in provider companies in this research showed evidence supporting the fear that some of their actions might be labelled as opportunism in customers' eyes.

Conflicts, on the other hand, can ruin the provider–customer relationships. Customers agree that "*there are often disagreements between partners in the relationship that lead to conflicts*" and "*when problems occur, the communication between partners decreases*" which indicates that the existence of high levels of conflicts will reduce satisfaction in customer–provider relationships. Nevertheless, if partners encourage good communication, conflicts are solved without difficulties, with tolerance, and with success. The relational factors that help to create a healthy climate, in which to expand and deepen the relationship, as well as minimize the chances of taking opportunistic actions and causing conflicts, must be put into the first plan.

Cooperation is very important in logistics outsourcing performance. In our findings, cooperation apparently does play an adequate role in the partner effort to consolidate the relationships that will last and contribute to their profitability. The effect of cooperation is stronger in goal achievement than it is in exceeding the goal.

Finally, some further research using this framework could be tested in other developed, as well as transitional economies, to see if differences in impact of logistics outsourcing variables exist as compared to our findings.

Besides theoretical implications, the key findings will also have some managerial implications for the Slovene firms, which develop their logistics outsourcing relationships.

Before entering a long-term relationship within the logistics outsourcing both partners need to decide what objectives they are going to pursue with a particular relationship. Setting-up the necessary collaborative processes, the following items are to be considered:

- Setting the objectives of a particular relationship;
- Allowing for complex trade-offs of relationships;
- Selecting the type of provider–customer relationships;
- Customer's selection of providers;
- Matching the buyer's core competences;
- Establishing safeguard mechanisms.

Only when the objectives are clear and the relationships' complex trade-offs are considered, the partners should move forward. By viewing resistance to change in different layers, the partners need to mutually understand the proposed solutions, positive and negative impacts of partnerships, obstacles, and fears.

Cooperation between customer and provider needs to be embedded in a wider set of governance mechanisms. Safeguard relationships should include relationship controlling, trust building and dependence monitoring. Relationship controlling should employ a balanced approach taking into consideration financial performance, purchasing and logistics costs. A balanced-score carding approach to supplier collaboration may help achieve collaborative success.

Finally, collaborative logistics outsourcing network offers mutual efforts to resolve the managerial inertia. Therefore, the partners should periodically evaluate the need for changing the relationships.

6. CONCLUSIONS

The purpose of this paper is to contribute to the theoretical and methodological findings in logistics outsourcing discussions by analyzing the relationship variables of conflicts, opportunism and cooperation as antecedents of logistics outsourcing performance, measured in two dimensions: goal achievement and exceeding the goal.

In-depth interviews were conducted with 15 logistics managers of manufacturing and retail companies who built long-term relationships in logistics outsourcing with two of the largest logistics firms in Slovenia. All construct measurement scales were developed and tested for validity and reliability. Once the validities and reliabilities were stated, the structural model was tested with the analysis of regression coefficients and with the explained variance of each endogenous construct. The structural model is reliable and the obtained goodness-of-fit criterion shows that the model is able to take into account 56.8 per cent of the achievable fit.

First, the results show that conflicts have a negative and rather strong influence on the cooperation between the parties. Customers believe that there is no space for opportunism in long-term partnerships. Long-term cooperation influences the logistics performance on both dimensions. All correlations, except for opportunism versus cooperation, are statistically significant, therefore three of four hypotheses were supported.

Second, the conductive role of cooperation in business relationships could be the outcome of a desire to maintain mutual collaboration, improve performance, and achieve a balanced exchange between customers and logistics providers in the future. Since the cooperation has a strong effect and direct influence on both dimensions of logistics outsourcing performance, and

the effect of cooperation is stronger in goal achievement than it is in exceeding the goal, the managers could choose which relational factors are also influencing performance excellence by closely monitoring the parameters synthesizing the relationship atmosphere.

Third, findings concerning the antecedents and their influence on the logistics outsourcing performance are mostly in line with the results in other research work (e.g. [1], [20]). The study shows only one part of the whole, disturbing factors that may impact the cooperation, and thus many opportunities exist for future investigation of factors that strongly influence the development of relationships and improved logistics outsourcing performance (e.g. trust, commitment, proactive improvements, organizational learning).

Finally, the managerial contributions of this research are significant. They provide an initial definitional base for purchasing, marketing, and logistics managers to discuss partnership parameters in logistics outsourcing. Therefore, our suggestions for managers in outsourcing relationships are to start building long-term cooperation and thus reducing the opportunistic behaviour between parties.

The results of this study must be interpreted in view of certain limitations. The sample was restricted to logistic service providers in Slovenia and their customers, building the long-term relationships and the providers had to be able to offer a complete logistics service. The analysis was undertaken with data collected from the customer side, so the future researcher may seek to collect data by adopting a dyadic approach.

The results provide a critical starting point for future theory development of logistics outsourcing by academic researchers. Since this research is exploratory, further research should be pursued to confirm the relationships evolving greater specification of provider – customer relationships.

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POVZETEK

VPLIV MOTEČIH DEJAVNIKOV NA SODELOVANJE V IZVEDBI LOGISTIČNEGA OUTSOURCINGA: EMPIRIČNI MODEL

Namen članka je predstaviti rezultate raziskave, izvedene na slovenskem logističnem trgu, o vplivu konfliktov in oportunističnega obnašanja kot motečih dejavnikov na sodelovanje v izvedbi outsourcinga. Predlagali smo spremenljivke, ki imajo neposredni ali posredni vpliv na njegovo izvedbo, in postavili hipoteze o njihovem medsebojnem vplivu.

Po temeljitem pregledu obstoječe literature in novimi spoznanji, pridobljenimi z analizo poglobljenih pogovorov z logističnimi strokovnjaki pri logističnih ponudnikih in njihovih odjemalcih, smo oblikovali merski in strukturni model. Obstoječe merske lestvice za konstrukte smo za potrebe raziskave nekoliko modificirali. Analizo zanesljivosti in veljavnosti merskih lestvic ter merskega in strukturnega modela smo izvedli z multivariatnimi statističnimi metodami. S testiranjem postavljenih domnev smo potrdili močan negativen vpliv konfliktov na sodelovanje med odjemalcem in logističnim ponudnikom, medtem ko oportunistično obnašanje v njunem odnosu nima vidnega mesta. Obravnavani predhodniki izvedbe outsourcinga v modelu pojasnjujejo 58,4 % delež skupne variance v spremenljivki doseganja ciljev in njen 36,5 % delež v spremenljivki preseganja ciljev outsourcinga.

KLJUČNE BESEDE

izvedba logistične zunanje oskrbe (outsourcinga), razmerje odjemalec–ponudnik v logistiki, konflikti in sodelovanje v logističnem outsourcingu, modeliranje strukturnih enačb (metoda PLS)

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