Ambidextrous governance impact on supply chain performance – buyer and supplier perspectives

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Abstract. The purpose of the paper is to investigate the impact of governance on supply chain performance. Two dimensions of governance: contractual and relational and its simultaneous interplay called ambidextrous governance were considered. The study presents alternatives models from buyer and supplier perspectives. The analysis is based on Computer Assisted Telephone Interviews among buyers and suppliers from manufacturing companies. For the model development structural equation modelling was applied. The obtained results confirmed that supply chain performance is impacted by relational governance from both buyer and supplier perspectives; contractual governance influences the supply chain performance in case of suppliers and there is a second-order construct called ambidextrous governance confirming interplay or relational and contractual governance when impacting supply chain performance from supplier's perspective.

1. INTRODUCTION

Functioning and the expansion of companies these days to hinge on the shaping of relations in supply chains. The efficiency and effectiveness or whole supply chain depends on the ability and scope of cooperation and the actions of one supply chain partner may affect the results achieved by all entities involved in the cooperation (Hendricks & Singhal, 2003). One of the extremely vital issues in today's supply chain management is to choose governance mechanisms that help to create relationship value through developing interfirm learning and increasing relationship quality (Yeh, 2016; Kot et al., 2020) and foster the obtainment of the highest possible supply chain performance (Cao & Lumineau, 2015; Ryciuk, 2020). Supply chain governance may be understood as all practices used to manage relationships in supply chain – its initiation, development and maintenance (Heide, 1994).

Supply chain governance comprise two main dimensions: contractual and relational (Zhang et al., 2020a; Raue & Wieland, 2015; Cao & Lumineau, 2015). The substitute perspective underlines that contractual and relational governance mechanisms are substitutes, so one mechanism weakens the effectiveness of another (Dyer & Singh, 1998). However, in literature, the dominant perspective is that supply chain governance mechanisms function rather as complements (Crisan, 2021; Zhang & Aramyan, 2009; Poppo & Zenger, 2002). The interaction of governance mechanisms is called ambidextrous governance (Chi et al., 2017; Blome et al., 2013). Ambidexterity means the pursuit of seemingly contradictory goals or opportunities instead of the traditional idea of a "trade-off" (improving one element of the system may involve the deterioration of another). Rothaermel and Alexandre (2009) describe ambidexterity as the ability of an individual to use both hands equally. Zhang et al. (2020a) distinguish balanced and combined ambidexterity. The first one refers to the degree of using relational and contractual mechanism and the second – to the reinforcing process between them.

Supply chain governance issues get increasing interest (Zhang et al., 2020a; Zhang et al., 2020b; Luu et al., 2018; Dolci et al., 2017; Wacker et al., 2016; Blome et al., 2013; Carey & Lawson, 2011). However, there is still lack of research showing how different supply chain governance mechanisms effect supply chain performance. Firstly, the evidence for the relational and contractual governance influence on performance is sometimes contradictory. The research results show different effect of governance on collaboration and influence on performance for buyers and suppliers (Um & Oh, 2020). Secondly, ambidextrous governance impact on supply chain performance is not recognized.

Therefore, the paper aims to analyze the impact on supply chain performance of contractual and relational governance and its interplay (ambidexterity). Second, the study analyzes buyer and supplier perspectives. The study examines the following research questions: Does supply chain performance, from buyer and supplier perspectives, is affected by contractual and relational governance and is there any interaction between governance mechanisms?

The paper is organized as follows. In the first section, the theoretical framework along with hypotheses is presented. Next, research process design, sample and the process of data collection are described. Then the empirical model is described. Last part offers discussion and conclusions.

2. LITERATURE REVIEW

2.1. Supply chain performance

Simatupang and Sridharan (2008) characterize supply chain performance (SCP) as the development and implementation of indicators for the overall supply chain assessment as well as the assessment of the single members of the supply chain. Gunasekaran et al. (2004) points that supply chain performance may be deliberated at the strategic, tactical or operational level. Operational performance measurement may be based on such measures as: satisfaction, delivery time, quality, efficiency, inventory turnover, flexibility, predictability, information flow, increased production capacity, reduction of lead time or reliability (Astawa et al., 2021; Bonatto et al., 2020). According to Hult et al. (2006) such elements as delivery on time and according to the schedule, quality of products/services, flexibility and costs are the most important.

Supply chain performance may depend on governance structure. The positive influence of contractual and relational governance on operational and financial supply chain performance was proofed by Dolci et al. (2017). The research shows also influence of governance on relationship performance (Chi et al., 2017). Jean et al. (2020), who studied the impact of supply chain governance on relationship performance, measured relationship performance by such metrics as sales growth, market share or profitability.

2.2. Supply chain governance

Supply chain governance (SCG) refers to all actions in supply chains steer to handle relationships between supply chain members. It signifies the activities created with to attain "lasting and profit bearing balance of business and authority" (Nooteboom, 1999). Dolci et al. (2017, p. 424) describe supply chain governance as "the balance between long-term self-interest decisions and inter dependency that exists among firms within a supply chain". Governance structure constitutes how different resources are distributed and how its flow is organized in the chain (Gellynck & Molnár, 2009). It refers to the rules, instructions, procedures, planned and conscious activities and elements not planned earlier but resulting from cooperation (Varoutsa & Scapens, 2015). Governance mechanisms may differ because of its formality, duration or way of monitoring (Martins et al., 2017). Typology of supply chain governance mechanisms one could find in Ryciuk (2020). The author distinguishes market, hierarchical and relational, formal and informal, dyadic and network, imposed and self-forcing, and single and plural governance.

Nonetheless, governance relationships are understood mainly as consisted of contractual and relational dimensions. The contractual governance exemplifies the "hard, explicit and formal side of the relationships", while relational – "soft, normative and informal" (Zhang & Aramyan, 2009). Both are derived from two dominant theorical perspectives – the transactional cost economics (Williamson, 1985) and the relational exchange theory (Macneil, 1980) respectively.

2.3. Contractual supply chain governance

Contractual governance (CG) refers to written and oral agreements of parties (Zhang & Aramyan, 2009). It emphasizes legally binding, formal arrangements, specifying policies, outlined processes, schedules, tasks, mutual obligations, responsibilities and outcomes (Um & Oh, 2020; Carey & Lawson, 2011). The contract "provides formal governance of the interactions between the buyer and the supplier, with regard to their responsibilities and behaviors" (Wacker et al., 2016). Formalized governance is usual rather in case of bigger and having competitive advantage companies (Ryciuk, 2017).

However, drafting complete contract even in simple exchange arrangement is highly impossible because of bounded rationality (Wacker et al., 2016; Roehrich & Lewis, 2014; Williamson, 1979) and the more complicated contract means the higher cost of its monitoring (Carey & Lawson, 2011). Among the contractual governance constraints high cost and low flexibility should also be pointed (Luu et al., 2018). Flexibility means willingness to make some adjustments during cooperation (Yang et al., 2015).

On the other hand, the main benefit of contractual governance is limitation of opportunism in supply chain relations. Reducing possibility of opportunistic behavior appearance in turn may increase relationship performance (Jean et al., 2020). Therefore, the following hypothesis are proposed:

H1a. Supply chain performance, from buyer's perspective, is directly and positively influenced by contractual governance.

H1b. Supply chain performance, from supplier's perspective, is directly and positively influenced by contractual governance.

2.4. Relational supply chain governance

While contractual governance refers to written and oral agreements of parties, relational governance (RG) means relationships associated with trust and cooperative norms (Zhang & Aramyan, 2009). It emphasizes the meaning of informal agreements. Relational governance is linked with social processes and past behaviors in relationship (Carey & Lawson, 2011). This type of governance is considered more mature and characteristic for partnership relationships (Varoutsa & Scapens, 2015).

The use of relational governance depends on contextual factors such as: relationship history, environmental uncertainty, risk, interdependence or culture (Bonatto et al., 2020) and is based on shared values, loyalty, trust, common goals, information exchange, restraint of power, and social embeddedness, (Poppo & Zenger, 2002; Pilbeam et al., 2012; Jean et al., 2010; Carey & Lawson, 2011; Yang et al., 2015; Wacker et al., 2016; Um et al., 2020). Trust among is considered as the most important mechanism (Jean et al., 2020; Álvarez et al., 2010). If trust is present, the supply chain partners share inventory data, production, delivery, sale and forecasts data but also collaboratively define performance metrics and sharing them at the operational and strategic levels (Szymczak et al., 2018; Delibasic, 2021). As social norms are mainly pointed mutuality, flexibility, solidarity (Yang et al., 2015; Bonatto et al., 2020; Poppo & Zenger, 2002). Other authors mention also mutual understanding and commitment (Sharma, 1998). Notwithstanding, hazard of abuse of trust and risk of opportunistic behavior is always present (Luu et al., 2018).

Relational governance influence relationship value through developing interfirm learning and increasing relationship quality (Yeh, 2016). It supports development of supply chain relationships, is critical in competitive advantage gaining (Cheng et al., 2014; Hammervoll, 2011) and improving buyer-supplier dyads performance (Liu et al., 2009). Hence, the hypothesis will be tested:

H2a. Supply chain performance, from buyer's perspective, is directly and positively influenced by relational governance.

H2b. Supply chain performance, from supplier's perspective, is directly and positively influenced by relational governance.

2.5. Ambidextrous supply chain governance

Ambidextrous governance (AG) is an interplay of different governance mechanisms (Blome et al., 2013). It assumes harmonious (balanced) use of contractual and relational governance, focusing on creating synergy (Chi et al., 2017). The concept of ambidexterity in organization originally focused on exploitation and exploration (Turner et al., 2013). Accordingly, ambidextrous supply chain "should exploit the existing resources while continue to explore the new opportunities and ideas" and only such supply chain could achieve success (Mehdi & Ahmed, 2017). The same can be assumed for interaction of relational and contractual governance – it may affect supply chain success. The influence of ambidextrous governance on innovation and performance was proofed by Blome et al. (2013). Roehrich and Lewis (2014) research investigated the constraints when contractual and relational governance are used separately and showed that using both mechanisms is more effective (Roehrich & Lewis, 2014). The positive influence of the trust and contracts on innovativeness was demonstrated by Wang et al. (2011), whereas the positive influence of supply chain governance on operational and financial supply chain performance was proofed by Dolci et al. (2017). In turn Chi et al (2017), evinced that relational performance is greater when governance strategies are used in balanced and complementing way.

Some research pointing predominant mechanism (contractual or relational) influencing supply chain performance. According to Wacker et al. (2016), contractual governance is complementary to relational governance but relational governance influence firm performance more than contractual governance. Ferguson et al. (2005) proofed that both mechanisms influence exchange but the relational governance is prevalent mechanism.

The influence of trust, relational norms and contract on the relationship and results of cooperation (increase in sales, market share, etc.) was broadly analyzed by Liu et al. (2009). Researchers demonstrated a significant positive effect on collaboration both mechanisms, demonstrating that contract is more important in reducing opportunism and relational governance in achieving greater benefits from collaboration. In turn, Eckerd and Sweeney (2018) studied the use of governance in conflict resolution and found that dependence

asymmetry is accompanying more with the use of contractual mechanisms while joint information sharing is associated more with the use of relational mechanisms. The positive influence of supply chain governance (contractual and relational mechanisms) on operational and financial supply chain performance was proofed by Dolci et al. (2017). Jean at al. (2020) showed the higher relation between contractual governance and performance than between relational governance and performance in case of international customer-supplier relationships.

The moderating effect of relational mechanisms on supply chain knowledge exchange was proved by Zhang et al. (2012). The authors assumed that relational mechanisms are better in reduction of social barriers but cognitive and coordination disorder are better diminished by formal mechanisms. Carey and Lawson (2011) showed that contractual and relational governance relate to social capital building, but relational mechanism should be used in higher supply uncertainty, while contractual – in higher demand uncertainty. According to Luu et al. (2018) relational and contractual governance have curvilinear (U-shaped) effect on relationship value – the moderate (not very low and not very high) level of both mechanisms is needed because if one mechanism is dominant it will decrease relationship value creation. Um and Oh (2020) state that governance affects supply chain outcomes but the interaction of governance mechanisms is complementary for buyers and substitutive for suppliers.

In opinion of Yoon and Hyun (2010) "social and non-contractual mechanisms reinforce, substitute, or undermine contractual mechanisms, but the degree to which this occurs is contingent on institutional environments in which transaction occurs". According to Álvarez et al. (2010) the governance does not refer to a single mechanism but to set of mechanisms and indicated that at the begging governance is based rather on informal governance while relational instruments are essential during all steps of cooperation. Thus, it is hypothesized that:

H3a. Supply chain performance, from buyer's perspective, is influenced by ambidextrous governance.

H3b. Supply chain performance, from supplier's perspective, is influenced by ambidextrous governance.

3. METHODOLOGY

3.1. Research process design

The research concerns issue of supply chain governance influence on supply chain performance. In the study the academic journal articles available in the full text databases – Elsevier and Emerald at the end of 2020 were used. At the first stage papers with "relational governance" or/and "contractual governance" or/and "ambidextrous governance" in title, abstract and keywords were chosen. Then titles, keywords, abstract were checked. This stage enabled to remove the literature unrelated to theme and duplicates and reduced the number of articles to 96. After further reading 57 papers left.

In the next stage, the theoretical framework with hypotheses and the questionnaire comprising of total of three theoretical construct and fourteen items was compiled.

The research was conducted using the Computer Assisted Telephone Interviews (CATI) technique. Then statistical methods – first confirmatory factor analysis (CFA) and then structural equation modelling (SEM) was used. The research was preceded by a pilot research, with the aim to check the clarity of the questions and the duration of the interview. Thanks to the respondents' remarks the statements considered ambiguous were clarified.

For data analysis IBM SPSS Statistics 21.0 with an additional module (AMOS) was used.

3.2. Sample and data collection

The research was conducted among company representatives in Poland. The research sample was designated in a quota-random way. Respondents were selected randomly, until the appropriate number of each type of company was found. In the sample selection, criteria of the enterprise size and the industry were used. The sampling frame consisted of 150 000 companies. Companies employing more than 9 employees and classified to section C (manufacturing), according to the PKD (Polish Classification of Activities) code were selected. An additional selection criterion was to obtain in the research sample buyers and suppliers, so that the representatives of each group accounted for at least 40% of the sample (qualification to a specific group was based on the respondents' declarations).

Ultimately, 290 enterprises were included in the study (Table 1). After verification and eliminating the questionnaires with missing data, 276 questionaries were left.

Table 1

Structure of respondents

Position		**Buyer**	**Supplier**
		46.9%	53.1%
Size	10-49 employees	29.7%	26.2%
	50-249 employees	26.6%	29.0%
	More than employees	43.8%	44.8%
The time company has been operating on the market	Less than 5 years	7.0%	9.7%
	From 5 to 10 years	23.4%	26.2%
	From 11 to 20 years	30.5%	24.1%
	Over 20 years	39.1%	40.0%
Industry type	Food products, beverages and tobacco	10.2%	15.9%
	Textile and wearing apparel	10.2%	5.5%
	Chemistry and pharmaceuticals	7.0%	7.6%
	Plastics	10.3%	13.4%
	Computers and electronics	7.8%	10.3%
	Machinery and equipment	14.8%	13.8%
	Electrical equipment	10.9%	10.3%
	Furniture	10.9%	5.5%
	Automobile	11.7%	5.5%
	Other	4.7%	12.4%

Source: Authors' elaboration

Organizing the interviews was entrusted to a specialized research institute, after training of the interviewers and under the supervision of author. The interviews were organized with the management representatives responsible for supply chain management. The interviews were based on a structured interview questionnaire. The respondents were guaranteed confidentiality and anonymity of their answers.

4. MEASUREMENT MODEL

The measurement model consisted of three research constructs. Contractual governance was tailored from proposition of Blome et al. (2013) relating to formal written agreements outlining rights and obligations of parties, legal remedies for failure to perform and how to handle complaints and disputes. Relational governance was based on Um and Oh (2020), Blome et al. (2013) and Zhang et al. (2012) – items assessing promises keeping, partner's sincerity, its support and assistance and personal interactions in supply chain. Author developed scale adding direct statement about level of trust in relation and sharing knowledge and information with partners. Supply chain performance was measured with use of operational performance metrics (relationship performance): product quality, service level, order fill rate (% complete,

on-time delivery), increase profitability and market share based on Fosso-Wamba et al. (2020), Jean et al. (2020) and Huo et al. (2014).

Likert's seven-level scale was used to evaluate each item in the questionnaire. For items of relational governance and contractual governance from "strongly disagree" (1) to "strongly agree" (7) and for supply chain performance items from "result much worse than 3 years ago" (1) to "result much better than 3 years ago" (7).

Main statistics and correlations of variables for buyers and suppliers are presented in the table 2. As expected, supply chain performance is correlated with relational and contractual governance in both samples – buyers and suppliers.

Table 2

Main statistics and correlations of variables

Buyer	Mean	SD	(1)	(2)	(3)
(1) Supply chain performance	5.34	1.03	1.00*		
(2) Contractual governance	5.23	1.22	0.31*	1.00*	
(3) Relational governance	6.07	1.03	0.52*	0.54*	1.00
Supplier	Mean	SD	(1)	(2)	(3)
(1) Supply chain performance	5.41	1.02	1.00*		
(2) Contractual governance	5.38	1.21	0.45*	1.00*	
(3) Relational governance	6.26	1.02	0.43*	0.42*	1.00

Source: Authors' results. SD – standard deviations; * indicates significance level at 0.001 level

Then Average Variance Extracted (AVE) and Composite Reliability (CR) was used to test validity. AVE is determined based on the values of standardised factor loadings and its acceptable minimum level is 0.5 (Fornell & Larcker, 1981). Obtained AVE value is slightly smaller than 0.5 in case of relational governance construct, but close to this criterion. For all constructs Composite Reliability (CR) reached acceptable level 0f 0.7. The reliability analysis was also made using the Cronbach's alpha (α) All constructs achieved acceptable threshold of 0.6÷0.7 (Nunnally & Bernstein, 1994). Additionally, Cronbach's alpha is evidence of reliability (Table 3).

Finally, the discriminant validity of measurement model was tested. For that propose one variable was created in place of two variables and the statistical significance of the change was checked. Single variables were created sequentially by controlling the correlation equal to one for each pair of variables (Xiao et al., 2010). In all cases, performed tests of the χ2 showed significant differences in Δχ2 statistics, confirming the discriminant validity of the model.

Table 3

Factor loadings and reliability analysis results

Construct/Item	Standardised loading (λ)*	
	Buyers	**Suppliers**
Contractual governance *Buyers: a =0.76, AVE=0.52, CR=0.76; Suppliers: a =0.80, AVE=0.57, CR=0.80*		
CG1. We have formal agreements that detail the obligations and rights of both parties	0.772	0.753
CG2. We have formal written agreements outlining how to handle complaints and disputes	0.695	0.787
CG3. We have formal written agreements that precisely state the legal remedies for failure to perform	0.685	0.729
Relational governance *Buyers: a =0.77, AVE=0.41, CR=0.78; Suppliers: a =0.81, AVE=0.46, CR=0.81*		
RG1. When it comes to things that are important to us, we can depend on the partner's support	0.702	0.664
RG2. Our relationship is characterized by a high level of trust	0.672	0.739
RG3. Our partner keeps promises it makes to our firm	0.655	0.754
RG4. We believe in our partner because it is sincere	0.513	0.663
RG5. We share knowledge and information with our partner to plan and make decisions that affect the supply chain	0.643	0.564
Supply chain performance *Buyers: a =0.85, AVE=0.54, CR=0.85; Suppliers: a =0.86, AVE=0.55, CR=0.86*		
SCP1. Profit level	0.775	0.799
SCP2. Quality of delivered products	0.730	0.799
SCP3. Order fill rate (% complete, on-time delivery)	0.725	0.708
SCP4. Service level	0.737	0.678
SCP5. Market share	0.696	0.723

Source: Authors' results. SD – standard deviations; * indicates significance level at 0.001 level

5. RESULTS

The study uses structural equation modelling that combine the regression analysis with the confirmatory factor analysis and allows testing dependencies between exogenous and endogenous variables and include both the observable and the latent variables into the same analysis.

In the first step, structural models for testing the impact of governance on performance is supply chain were estimated for the total sample (buyers and suppliers). In general, Model 1 (Figure 1) represent an acceptable model fit: CMIN/df is 2.24, RMSEA=0.07, GFI=0.93, AGFI=0.90 and CFI=0.94. However, Figure 2 present Model 2 indicating the existence of ambiguous supply chain governance (AG). Model 2 represent better model fit: CMIN/df is 1.29, RMSEA=0.033, GFI=0.96, the AGFI=0.94 and CFI=0.97, proofing importance of usage of relational as well as contractual governance in improving supply chain performance.
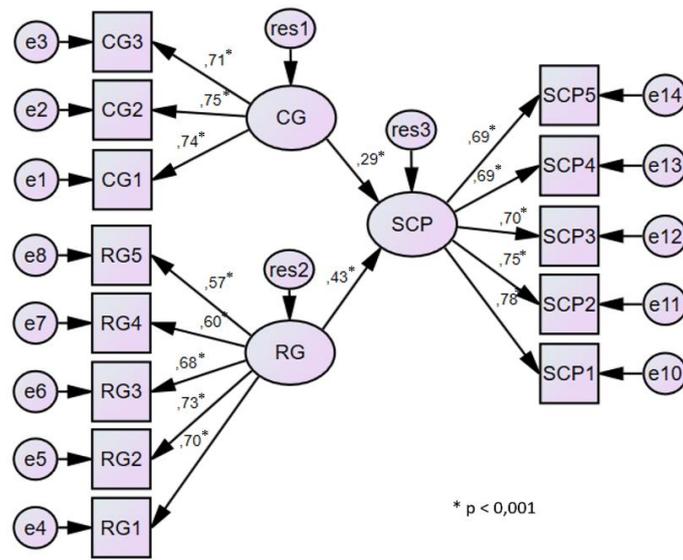
Figure 1. Model 1 – the impact of CG and RG on SCP – total sample

Source: Authors' results. *Note*: CMIN=141.20, df=63, CMIN/df =2.24, RMSEA=0.07, GFI=0.93, AGFI=0.90, CFI=0.94, NFI=0.89
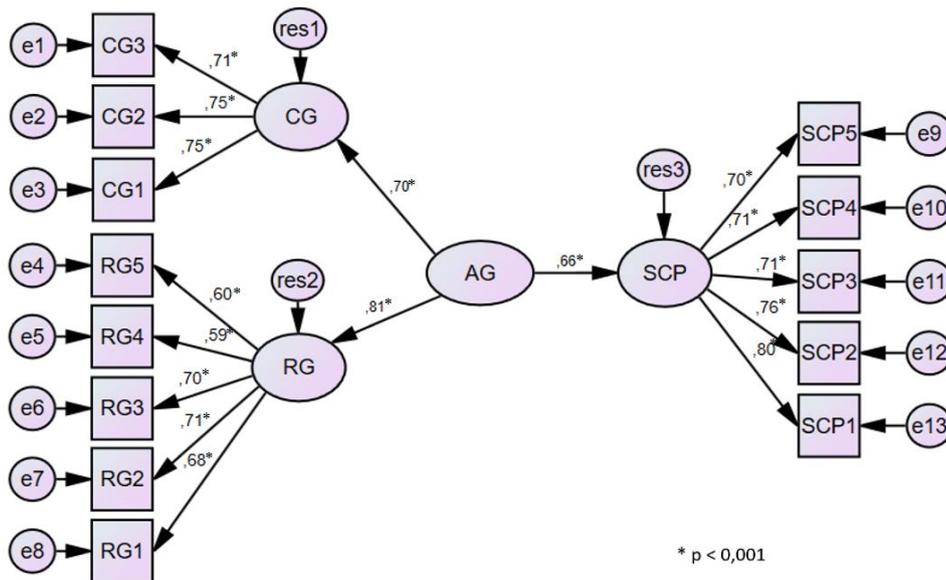

Figure 2. Model 2 – the impact of CG and RG on SCP – total sample
Source: Authors' results. *Note*: CMIN=80.21, df=62, CMIN/df=1.29, RMSEA=0.03, GFI=0.96, AGFI=0.94, CFI=0.99, NFI=0.94

In the next step, it was checked whether the truth is assumption regarding the equality of the model parameters in the group of buyers and suppliers or there are differences in model when estimated separately. Comparison of the model fit with all parameters equal and all different in groups are shown in Table 4. Statistical difference in models within groups is proofed ($\Delta\chi2$=122.15, df=91; p<0.05). Additionally, in buyer group negative residual variance was found. The differences justify building separate models for the buyers and suppliers.

Comparison of the model fit with parameters equal and different in the group of buyers and suppliers

Parameters	CMIN*	df	ECV	NFI	RFI	PNFI	CFI	PCFI
Equal	202.36	153	0.96	0.86	0.86	0.84	0.96	0.94
Different	80.21	62	0.88	0.91	0.89	0.72	0.99	0.79

Source: Authors' results. *Note*: *CMIN – the chi-square value in AMOS

Model 3 (Figure 3) presents the impact of contractual and relational mechanisms on supply chain performance for buyers and Model 4 (Figure 4) for suppliers. In both structural models path coefficients between RG and SCP are statistically significant (buyers: β=0.56; p<0.001 and suppliers: β=0.32; p<0.001). Though, in buyers group contractual governance does not influence performance (β =0.10; p=0.36).
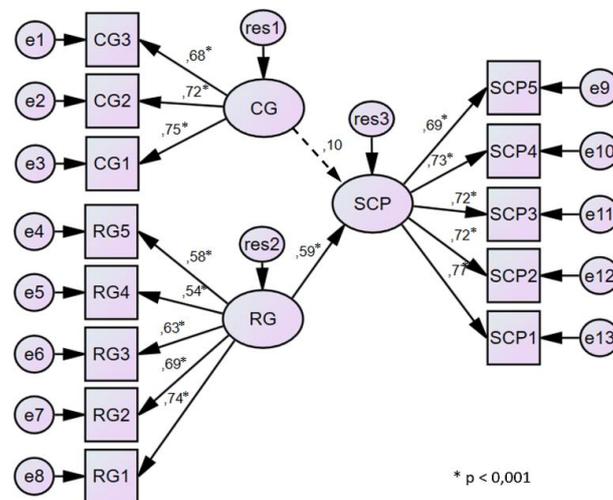

Figure 3. Model 3 – the impact of CG and RG on SCP (buyer's perspective)

Source: Authors' results. *Note:* CMIN=142.46, df=63, CMIN/df=1.29, RMSEA=0.10, GFI=0.86, AGFI=0.81, CFI=0.86, NFI=0.79

Figure 5 presents Model 5 for suppliers, indicating introducing second-order variable called SCG.

All models were assessed using the most frequently presented model fit measures RMSEA, CFI, GFI, NFI (McDonald and Ho, 2002) and AGFI. The Model 5 for suppliers represent very good fit to the data. The assessment of the structural model 3 (for buyers) after removing insignificant path fit the data as well: CMIN=50.01, df=34, CMIN/df=1.47, RMSEA=0.06, GFI=0.91, AGFI=0.89, CFI=0.96 and NFI=0.90.
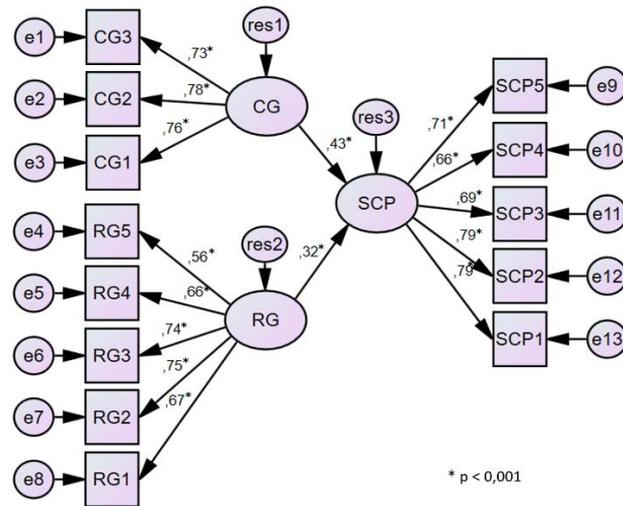
Figure 4. Model 4 – the impact of CG and RG on SCP (supplier's perspective)

Source: Authors' results. *Note*: CMIN=91.80, df=63, CMIN/df=1.29, RMSEA=0.06, GFI=0.91, AGFI=0.87, CFI=0.96, NFI=0.88
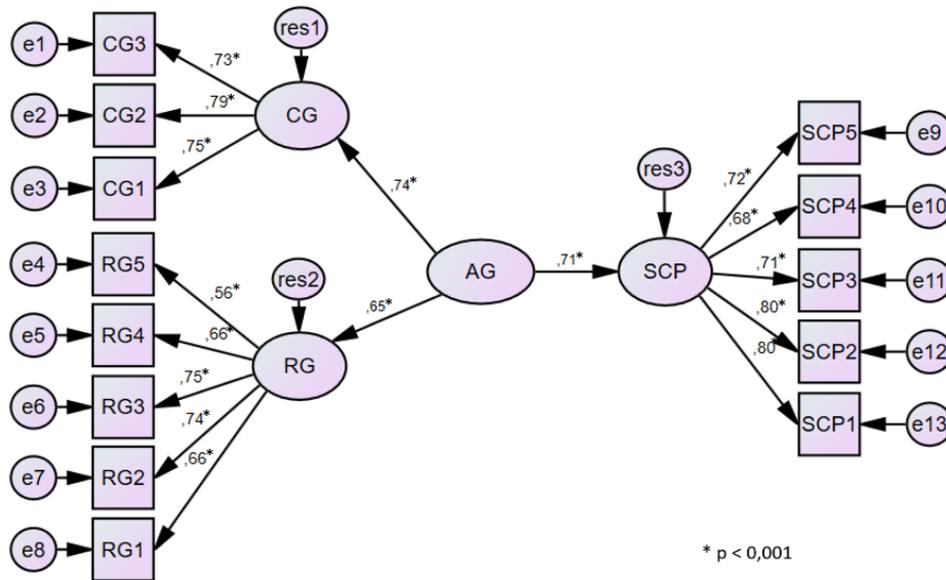

Figure 5. Model 5 – the impact of AG on SCP (supplier's perspective)

Source: Authors' results. *Note*: CMIN=68.12, df=62 CMIN/df=1.27, RMSEA=0.03, GFI=0.91, AGFI=0.90, CFI=0.99, NFI=0.91

6. DISCUSSION

The study analyses the impact of governance on supply chain performance. Two dimensions of SCG: contractual and relational and its simultaneous interplay called ambidextrous governance was considered. The study presents alternative models.

First, from supplier's perspective there is a positive and direct influence of contractual governance on supply chain performance, providing support for H1b. There is also positive link between relational governance and supply chain performance what makes support for H2b. Additionally, the use of both CG and RG affects SCP positively and the interaction between CG and RG is noticeable. According to definitions of Blome et al. (2013) and Chi et al. (2017) it is proof for ambidexterity. It is support for H3b.

From buyer's perspective there is a significant and direct path between relational governance and supply chain performance. It is support for H2a. However, in case of CG the direct influence on SCP is not significant, so H1a is not supported. The result is similar with Kataike et al. (2019) research, who proved relation between contractual governance and SCP for second supplier downstream but not for buyers. As CG and RG are not influencing SCP simultaneously so H3a is also not supported. It is much the same to the finding by Kataike et al. (2019) suggesting that the solely influence of RG on SCP may suggest weak legal enforcement in the chain.

Relational governance is very important in supply chain performance improving as the significant and positive influence of RG on SCP, from buyers' and suppliers' perspective, is observed. It is in accordance with Singh and Teng (2016) and Dolci et al. (2017). If supply chain members share knowledge and information to plan and make decisions in supply chain, keep promises, are sincere and trustful it increases supply chain operational performance. Trust seems as one of the most important factors reducing the risk of occurring opportunistic behaviour and an element affecting the success of cooperation (Ryciuk & Nazarko, 2020; Kot at el., 2018).

Models clearly demonstrate that for buyer RG is dominant. For suppliers CG influence SCP more but both mechanism are needed for SCP. The research is contrary to Um and Oh (2020) findings who proved that although contractual and relational governance influence collaboration (impact proofed for both buyers and suppliers), governance mechanisms complement each other in case of buyers and substitute each other in case of suppliers.

This research yielded some implications for practitioners. First, they should be conscious of supply chain governance influence on product quality, service level, order fill rate and increase profitability and market share in supply chain. Secondly, to achieve higher performance supply chain members should consider ambidextrous governance impact on financial and innovative performance. Managers need to engage at the same time formal written agreements outlining obligations and rights, legal remedies for failure, how to handle complaints and disputes as well as trust, knowledge sharing, join planning and mutual support. Thirdly, suppliers and buyer's perspective may be differed. In buyer's perspective relational mechanisms are more important in SCP. It makes hazard of emphasizing one mechanism over the second one and increase risk of substitution and harmful effects (Chi et al., 2017). Moreover, depending only on RG increases the risk of abuse of trust and appearance of opportunistic behavior (Luu et al., 2018).

Some limitations are noted. Data were collected in Poland, so findings may be limited to national context. Another limitation is that the study does not consider any contextual factors like supply chain members interdependence or relationship history. The model should be extended in future. Future research may also concern influence of relationship life-cycle phase on collaborative performance as suggest Huang and Chiu (2018). Future research may also concern the design of a long-term vision for the development of supply chains governance using the foresight method, widely used in the creation of long-term visions for the development of countries, technologies, cities and organisational units (Ejdys et al., 2019; Szpilko, 2020).

7. CONCLUSION

The study was performed to examine the impact of governance on supply chain performance. Two dimensions of SCG: contractual and relational and its simultaneous interplay called ambidextrous governance was considered. Models from buyer and supplier perspectives were developed. The article provided definitions of major theoretical constructs associated with governance and supply chain performance. Then, it introduced the theoretical framework with hypotheses between constructs and described outcomes of empirical investigation.

Form the theoretical perspective, this study makes contribution to supply chain management literature. The study examines the effects supply chain governance on performance and indicates that interaction of governance mechanisms on SCP differs for buyers and suppliers. This research contributes to knowledge providing that both – relational and contractual governance positively influences supply chain performance and confirming the existence and effect of ambidexterity on supply chain performance. The obtained results in detail confirmed that (1) supply chain performance is impacted by relational governance from both buyer and supplier perspectives, (2) contractual governance influences the supply chain performance in case of suppliers and (3) there is a second-order construct called ambidextrous governance confirming interplay or relational and contractual governance when impacting supply chain performance from supplier's perspective.

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