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Contact “European Management Studies” Editorial Team
Szturmowa 1/3, 02-678 Warsaw
tel. +48 22 5534021
pz@wz.uw.edu.pl

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Computer-processed by:
Dom Wydawniczy ELIPSA
ul. Inflancka 15/198, 00-189 Warszawa
tel. 22 635 03 01
e-mail: elipsa@elipsa.pl, www.elipsa.pl

Table of contents

Nobody Knows – Towards Operationalization of Strategic Dilemmas of Coopetitors <i>Patrycja Klimas, Joanna Radomska</i>	4
The Concept of Chance Management in Coopetition Among Cultural Institutions <i>Patrycja Juszczyk, Dagmara Wójcik</i>	25
The Impact of Hybrid Work on the Quality of Interpersonal Relations in the HR Department of the Enterprise – A Case Study <i>Mirosław Wójcik, Magdalena Poroszevska</i>	51
Trust, Distrust and Control Interplay in Interorganizational Relations <i>Agnieszka Padzik-Wołos, Anna Pikos, Dominika Latusek</i>	75
Perception of Eco-innovation Based on Educational Attainment <i>Erika Loučanová, Vladislav Kaputa, Miriam Olšiaková</i>	103

Nobody Knows – Towards Operationalization of Strategic Dilemmas of Coopetitors

Patrycja Klimas

Department of Advanced Research in Management,
Wrocław University of Economics and Business, Poland
<https://orcid.org/0000-0002-3912-7389>

Joanna Radomska

Strategic Management Department,
Wrocław University of Economics and Business, Poland
<https://orcid.org/0000-0002-1597-8947>

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Abstract

Purpose: This paper presents an operationalization framework that merges the concepts of coopetition and open strategy through the lenses of managerial dilemmas. Although both merged concepts have gained recent and increasing attention, they need sound operationalization, including operationalization when being blended. Therefore, the paper focuses on operationalizing and measuring strategic dilemmas of coopetition implemented as an open strategy. By doing so, the paper addresses the needs for developing measures and scales to allow for more detailed investigation and verification of the conceptual foundations of open strategy dimensions and accompanying tensions and paradoxes of coopetition.

Design/methodology/approach: This paper is conceptual. Our proposition for operationalization builds on previously developed conceptualizations of strategic dilemmas and strategic choices considered.

Findings: As the main contribution, this paper offers comprehensive operationalizations for seven strategic dilemmas faced by coopetitors following an open approach to strategy implementation.

Research limitations/implications: The paper draws managers' attention to the multidimensional perception of strategic dilemmas faced when cooperating with competitors and provides a way to analyze the profile of openness, which can be used to evaluate a firm's openness as well as to predict coopetition longevity.

Originality/value: The contribution of our conceptual framework is twofold as we advance the concept of merging coopetition with an open strategy using the lenses of managerial dilemmas that are commonly faced in both conceptions.

Keywords: operationalization, measurement, coopetition, open strategy, scale development.

JEL: L21, L14, M2

Correspondence address: Wrocław University of Economics and Business, Komandorska 118/120, 53-345 Wrocław, Poland; e-mails: patrycja.klimas@ue.wroc.pl; Joanna.Radomska@ue.wroc.pl.

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Nierozpoznana perspektywa kooperacji – w kierunku operacjonalizacji strategicznych dylematów kooperatorów

Streszczenie

Cel: niniejszy artykuł przedstawia ramy operacjonalizacji, które łączą koncepcje kooperacji i otwartej strategii, wykorzystując pryzmat dylematów menedżerskich. Chociaż obie połączone koncepcje zyskują coraz większą uwagę badaczy, brakuje im operacjonalizacji, a zwłaszcza operacjonalizacji spójnej z założeniami zarówno koncepcji kooperacji, jak i otwartych strategii. Stąd też artykuł koncentruje się na operacjonalizacji i pomiarze strategicznych dylematów kooperacji wdrażanej jako strategia otwarta. W ten sposób odnosi się do eksponowanych w literaturze potrzeb opracowania miar i skal, które pozwolą na bardziej szczegółowe badanie, ale także weryfikację konceptualnych podstaw wymiarów otwartej strategii oraz towarzyszących im napięć i paradoksów kooperacji.

Metodologia: artykuł ma charakter koncepcyjny. Przedstawiona w nim propozycja operacjonalizacji opiera się na łącznym uwzględnieniu wcześniej opracowanych konceptualizacji dylematów strategicznych i rozważanych wyborów strategicznych.

Wyniki: artykuł oferuje kompleksowe operacjonalizacje siedmiu dylematów strategicznych, przed którymi stoją kooperatorzy stosujący otwarte podejście do wdrażania strategii.

Ograniczenia/implikacje badawcze: artykuł zwraca uwagę menedżerów na wielowymiarowe postrzeganie dylematów strategicznych napotykanych podczas współpracy z konkurentami i proponuje sposób analizy profilu otwartości, który może być wykorzystany do oceny otwartości firmy, a także do przewidywania trwałości kooperacji.

Originalność/wartość: zaproponowane ramy koncepcyjne przyczyniają się do rozwinięcia koncepcji połączenia kooperacji ze strategią otwartą, wykorzystując perspektywę dylematów menedżerskich powszechnie spotykanych w obu koncepcjach.

Słowa kluczowe: operacjonalizacja, pomiar, kooperacja, strategia otwarta, tworzenie skali.

1. Introduction

Several types of pressures that we witness today bring the growing interest in the development of open initiatives (Devece et al., 2019; Adobor, 2021; Belmondo & Sargis-Roussel, 2022; Splitter et al., 2021; Stadler et al., 2023) and even position openness as an organizing principle (Splitter et al., 2023). The organizational tensions that arise are rooted in growing trends of openness in the field of open data government (Gao et al., 2021), open (big) data management (Morton et al., 2019), open science (Vicente-Saez & Martinez-Fuentes, 2018), open economy (Geerken et al., 2019) but also in increasing megatrends favoring openness like social entrepreneurship and social innovation (Pittz et al., 2017), circular economy (Köhler et al., 2022), and a wide range of ecosystems (Rohrbeck et al., 2009). As a result, organizations are shifting towards open forms of strategy-making (Hautz et al., 2017; Goulart Heinzen & Lavarda, 2021; Stjerne et al., 2022). However, recently, scholars go even beyond those assumptions and argue that, in fact, many strategic processes may be favorable for injecting openness, and various contexts should be considered (Bellucci et al., 2022; Stadler et al., 2023).

One of the contexts in which strategic openness perfectly fits is coopetition (Bouncken et al., 2015), as some shared cognitive roots for these two may be identified (Klimas & Radomska, 2022). Nonetheless, although they share common conceptual roots and seem cognitively convergent, they still remain usually considered in other research streams (Le Roy & Chesbrough, 2018). Indeed, Klimas and Radomska (2022) show that open strategy has not been applied as a theoretical frame in the coopetition research.

Blending up coopetition and open strategy concepts creates valuable opportunities to develop both those concepts and a more comprehensive strategic approach adopting a relational view and exploiting syncretic relational rent (Dyer & Singh, 1998).

First, the adoption of an open strategy view on coopetition may strengthen its theoretical foundations shown as requiring conceptual deepening (Bouncken et al., 2015; Gnyawali & Song, 2016) but also may help to better handle tensions (Bouncken et al., 2018a; Jakobsen et al., 2020; Geurts et al., 2022) and paradoxes (Bouncken et al., 2015; Gernsheimer et al., 2021) being inseparable from coopetition strategies while so far being narrowed to managerial, knowledge-, and value-related choices.

Second, adopting a competitive view on open strategies may strengthen the arguments on the necessity to extend recent research on open strategy (Cai & Canales, 2022) previously being more focused on the internal perspective (Dobusch et al., 2017; Seidl & Werle, 2018).

Third, it may bring a broader view by mixing up managerial tensions (Bouncken et al., 2018b; Jakobsen, 2020) with strategic dilemmas (Hautz et al., 2017), thus allowing us to understand open strategizing processes – the competitive ones in particular – better (Le Roy & Chesbrough, 2018; Klimas & Radomska). Therefore, further discussion on joint concepts of open strategy and coopetition is essential, as it may reveal various research avenues. Given the above, we further explore the strategic dilemmas notion recognized as crucial in open strategizing (Hautz et al., 2017; Goulart Heinzen & Lavarda, 2021) and address the complexity and contradictory nature of coopetition (Bouncken et al., 2018a; Raza-Ullah, 2020).

Given the blended view on coopetition and open strategy, one may notice shared challenges or limitations. On the one hand, there is a need to consider completing theoretical assumptions, adopted operationalizations, and the measurement scales used (Gnyawali & Song, 2016; Gnyawali & Charleton, 2018; Crick & Crick, 2019; Garri, 2021; Köseoğlu et al., 2019) to make coopetition more compact and coopetition research more comparable. On the other hand, in the same vein, in open strategy literature, it is emphasized that as the conceptual ground is quite well refined, we should switch into consideration of operationalizations and measurements useful when investigating open strategies, the level of openness, and efficiency of strategizing processes (Cai & Canales, 2022; Splitter et al., 2023; Stadler et al., 2023).

Therefore, we extend the framework of common roots and shared strategic dilemmas (Klimas & Radomska, 2022) by bringing insights into operationalization and measurement of seven dilemmas faced by a coopetitor developing an open strategy: (1) dilemma of process, (2) dilemma of commitment, (3) dilemma of disclosure, (4) dilemma of scope, (5) dilemma of resources, (6) dilemma of value, and (7) dilemma of mutual investments.

2. Operationalization – Conceptual Framework

Open strategies are conceptualized through two dimensions (inclusiveness and transparency – Whittington et al., 2011) and five strategic dilemmas (dilemma of process, commitment, disclosure, empowerment, and escalation – Hautz et al., 2017). Regarding open strategies of coopetitors, the number and meaning of those strategic dilemmas are higher than in general open strategies, covering both internal and external inclusiveness and transparency. In that case, in which the perspective is limited to an external view and partners are limited to competitors, the list of paradoxical choices covers seven dilemmas (Klimas & Radomska, 2022): the dilemma of process, commitment, disclosure, scope, resources, value, and mutual investments. In general, those dilemmas may be understood in terms of strategic choices faced by coopetitors adopting an open approach to strategic management (see Table 1 in Klimas & Radomska, 2022, pp. 206–207). For instance, when considering the dilemma of disclosure, coopetitors should decide *‘to what extent (if at all) to disseminate strategic information’* among cooperating rivals but also *‘how to transparently communicate under coopetition agreements’* with them. The decisions made regarding particular strategic choices determine the real level of a coopetitor’s openness. The question is, however: *how to measure those reflections of openness under certain strategic dilemmas, thus how to transpose the decisions made under the specific strategic choices into the evaluation of a coopetitor’s real openness?*

Our proposition for operationalization builds on previously developed conceptualizations of strategic dilemmas and strategic choices considered.

Firstly, for all the strategic choices identifiable under particular dilemmas, it offers contradictory reference points referring to high openness and intense cooperation and low openness and non-intense cooperation. Those reference points, always two per strategic choice, present two opposite strategic options available under the open strategy approach. For instance, under the commitment dilemma, a coopetitor has to decide if the cooperation strategy will be based only on formal relationships. Here, the options are either only formal contracts, relationships, and contacts or combining both formal contracts, contacts, and social relationships. Moreover, we provide a more detailed description of those reference points regarding the dilemma they address and propose several questions that serve as hints to analyze and evaluate each dilemma separately.

Secondly, for all of the strategic choices identifiable under particular dilemmas, sets of measurement scales are offered that could be used to evaluate the level of tension and address strategic challenges. Following a cumulative approach to knowledge creation, the proposed scales are already in use and were tested and validated in previous studies (see the references used in Table 1). Therefore, we believe that they will allow researchers or managers to accurately measure the level of openness in a specific area – Table 1.

In the first *dilemma of process*, the general question covers the inquiry about the actors involved in strategizing (i.e., their role, number, skills) and how the process is designed and executed. Thus, two extremes answer the questions of how broad and differentiated audience (if any) is to invite and how to shape the process. In the first option, where high openness is desired, the engagement of heterogeneous partners and adjusted/advanced coordination mechanisms are proposed. On the contrary, there is a homogenous partner and a simple coordination mechanism. To address the inquiry described, several scales could be used: homogeneity and number of actors (Geurts et al., 2022), management practices while applying open innovation (Crema et al., 2014), as well as the use of contracts regulating behaviors of partners and defining their obligations (Kam & Lai, 2018).

Regarding the specific question on cooptation, two issues should be considered to determine the complexity and intensity of cooptation. First, cooptation intensity is considered as the simultaneous intensity of cooperation and competition under a cooptative arrangement as proposed in the scale developed and validated by Rai et al. (2022). Indeed, cooptation intensity is acknowledged as interlinked with tensions, thus making cooptation more challenging. Second, the complexity of cooptation may be measured using the reverse scale suggested by Petter et al. (2014) for managing conflicts, incompatibilities, and different expectations of cooptators. It is so, as the development of rules, principles, and governance mechanisms make the execution of cooptation smoother (Dorn et al., 2016; Devece et al., 2019). Regarding the dilemma of the process, it should be emphasized that the more cooptators engaged in a cooptation agreement (i.e., if it is dyadic, triadic, or network cooptation), the more difficult and prone for managerial tensions its execution is (Bengtsson et al., 2010; Dorn et al., 2016). Therefore, the evaluation of intensity and complexity using the above-mentioned scales should be weighed by the type of cooptation in terms of the number of cooptators engaged.

The second type of dilemma – the *dilemma of commitment* relates to resolving the issue of readiness and will to include the actors in the strategizing process by answering the question of how (if at all) to engage actors in strategy development. On the one hand, there is an option to focus on the collective goals through a committed attitude, and on the other hand, we may outline the focus on individual goals and neutrality. We propose that

Table 1
Conceptual Framework

High openness and intense cooperation	Cooperation as an open strategy	Low openness and non-intense cooperation
<p>Heterogenous partners and adjusted/advanced coordination mechanisms</p>	<p><i>Dilemma of process</i></p> <p>How wide and how differentiated audience (if any) to invite? How to shape the process? ←</p> <p>Scale: homogeneity and number of actors (Geurts et al., 2022) & management practices (Crema et. al., 2014) & use of contracts (Kam & Lai, 2018) →</p>	<p>Homogenous partner and simple coordination mechanism</p>
<p>Complex and intense cooperation</p>	<p>Cooperation in dyad, triad, or network? ←</p> <p>Scale: number of cooperitors; cooperation intensity (Rai et al., 2022) & managing conflicts and incompatibilities (Petter et al., 2014) →</p>	<p>Slightly absorbing and intense cooperation</p>
<p>Focus on collective goals through committed attitude</p>	<p><i>Dilemma of commitment</i></p> <p>How (if at all) to engage actors in strategy development? ←</p> <p>Scale: leader inclusiveness (Nemhard & Edmondson, 2006) & commitment (Raza-Ullach, 2020) →</p>	<p>Focus on individual goals and neutrality</p>
<p>Formal contract and informal social relationships</p>	<p>Cooperation based only on formal relationships? ←</p> <p>Scale: contracts and formality (Bouncken et al., 2020), cooperation governance formality (Petter et al., 2014) & social networks and social support (SNSS – Abbott, 2009) & social bonds (Kam & Lai, 2018) →</p>	<p>Formal contract</p>

Table 1 – continued

High openness and intense cooperation	Cooperation as an open strategy	Low openness and non-intense cooperation
Open access to all strategic decisions, projects, activities	<p style="text-align: center;"><i>Dilemma of disclosure</i></p> <p style="text-align: center;">To what extent (if at all) to disseminate strategic information?</p> <p style="text-align: center;">Scale: intellectual capital transparency (i.e., transparency of important business characteristics and transparency of relationship atmosphere – Su et al., 2013) & communication quality (Claycomb & Frankwick, 2010) & information quality (Kam & Lai, 2018)</p>	Limited and selective access to all strategic decisions, projects, activities
Full transparency in cooperative relationship	<p style="text-align: center;">How to transparently communicate under cooperation agreements?</p> <p style="text-align: center;">Scale: relationship transparency (Hanisch & Wald, 2014) & explicit contracts (Jap & Ganesan, 2000)</p>	Limited and selective transparency in cooperative relationship
Openness at all strategy levels (i.e. corporate, business, and functional)	<p style="text-align: center;"><i>Dilemma of scope</i></p> <p style="text-align: center;">Which strategic areas (if any) to open up and when?</p> <p style="text-align: center;">Scale: openness between partners in exchanging information of relevance for the relationship (Xie & Haugland, 2016) & relational norms (Jap & Ganesan, 2000) & cooperative norms (Kam & Lai, 2018)</p>	Openness at purposefully chosen strategy level (i.e., corporate, business, or functional)
Focus on inter-organizational cooperation	<p style="text-align: center;">Are we interested in inter-organizational cooperation only?</p> <p style="text-align: center;">Scale: multilevel cooperation (Crick & Crick, 2019) & vertical and horizontal cooperation (Le Roy et al., 2022)</p>	Focus on intra-firm cooperation

Table 1 – continued

High openness and intense competition	Cooperation as an open strategy	Low openness and non-intense competition
<p>Openness in sharing resources including strategic (i.e. VRIS) and core ones</p>	<p style="text-align: center;"><i>Dilemma of resources</i></p> <p>Which (if any) resources to make available under open strategy? Scale: resource complementarity (Zhiang et al., 2009) & relationship specific investments (Claycomb, Frankwick, 2010)</p>	<p>Sharing resources excluding strategic (i.e., VRIS) and core ones</p>
<p>Sharing resources over protecting resources</p>	<p>How to balance between sharing and protection of resources under cooperation? Scale: internal sharing mechanisms and formal protection mechanisms (Estrada et al., 2016)</p>	<p>Protecting resources over sharing resources</p>
<p>Fair distribution of co-created value</p>	<p style="text-align: center;"><i>Dilemma of value</i></p> <p>To what extent (if at all) to share the value co-created through open strategizing? Scale: fair value distribution (Provan, Sydow, 2008) & relational equality (Scheer et al., 2003)</p>	<p>Appropriation of co-created value</p>
<p>Focus on value creation without value appropriation</p>	<p>How to balance between value creation and appropriation under cooperation? Scale: tensions of value creation and appropriation (Bouncken et al., 2018b) & dynamics of value creation and appropriation (Volschenk et al., 2016)</p>	<p>Focus on value creation and (if possible) limited value appropriation</p>

Table 1 – continued

High openness and intense cooperation	Cooperation as an open strategy	Low openness and non-intense cooperation
Co-strategizing processes in the strategy development and execution	<p><i>Dilemma of mutual investments</i></p> <p>To what extent (if at all) is it worth for our partners to engage in strategy development and execution? ←</p> <p>Scale: mutuality (Klimas, Stańczyk et al., 2023) & long-term orientation (Kam, Lai, 2018) →</p> <p>Should we convince our cooperating competitors to intensify cooperation under the competition agreement? ←</p> <p>Scope: competition duration (Bouncken et al., 2018b) & cooperation intensity (Rai et al., 2022) & competition intensity (Rai et al., 2022) →</p>	<p>Closed strategizing processes in the strategy development and execution</p> <p>Focus on maintaining status quo or limiting cooperation</p>

such a dilemma could be tackled by measuring the leader's inclusiveness (Nembhard & Edmondson, 2006), defined as a focus on a specific strategy of openness and promoting diversity of opinions in the context of collective team goals (Mitchell et al., 2015) and commitment measured through the frequency of provided information (Raza-Ullah, 2020). It should be noted that the latter not only reflects the committed attitude of the coopetitor but also sheds light on the coopetitor's transparency, so crucial for an efficient open strategizing process (Hautz et al., 2017; Stadler et al., 2023).

Regarding coopetition formality and informality, three aspects should be considered. First, the level of formality of a coopetition strategy is dependent on clear contracts describing targets and cooperative activities, appropriate internal structures for managing coopetition, and fair distribution of knowledge about coopetition inside the firm (Bouncken et al., 2020). Second, the formality of coopetition governance includes formal management of external relationships (Petter et al., 2014). One should bear in mind that the first two scales should be measured in reverse as they originally took the perspective of factors protecting coopetitors rather than the propensity for openness. Third, the interpersonal and social facets should be considered using, for instance, the evaluation of individual social bonds (Kam & Lai, 2018) and social networks and support (Abbott, 2009).

Next, there is the *dilemma of disclosure* addressing the data protection issue. Here we have the main question on the extent (if at all) of disseminating strategic information. Open access to all strategic decisions, projects, and activities (full openness) or limited and selective access to such issues is possible. The possibilities of measurement are, in that case, very vast. We propose using the scales of intellectual capital transparency (i.e., transparency of important business characteristics and transparency of relationship atmosphere – Su et al., 2013), communication quality in terms of its timeliness, accuracy, and adequacy (Claycomb & Frankwick, 2010), but also information quality in terms of its completeness and reliability (Kam & Lai, 2018).

In the context of the disclosure dilemma faced by coopetitors, there is a need to evaluate the level of transparency within cooperative relationships. On the one hand, the transparency of the relationships, which can be seen – to some extent – as a substitute for formal arrangements, should be measured through a clear and objective (as much as possible) assessment of coopetition results, contributions made by cooperating competitors, and general perception of transparency under cooperative relationships (Hanisch & Wald, 2014). On the other hand, explicit contracts between or among coopetitors can be seen as a complement for relational norms considered under control mechanisms and refer to explicit and detailed communication, usually written, but not necessarily available outside cooperative relationships (Jap & Ganesan, 2000).

Further, we outlined the *dilemma of scope*, which relates to wondering which strategic areas (if any) are to be opened up and when such a decision

should be taken. It could include openness at all strategy levels (i.e., corporate, business, and functional) or purposefully chosen levels. As this dilemma is essential, the measures that could be used may combine openness between partners in frequent exchange of information of relevance for the relationship (Xie & Haugland, 2016), relational norms regarding informal information exchange, solidarity and participation (Jap & Ganesan, 2000) or cooperative norms covering wide and honest sharing of ideas, initiatives, and all relevant information (Kam & Lai, 2018).

The specific dilemma of the scope of an open cooperation strategy refers to the potential willingness of the firm to focus on developing multiple and multilevel inter-organizational cooperation or turning the attention to the exploitation of internal forms of cooperation. Openness in this area may be evaluated through the scope of cooperation as suggested by Crick and Crick (2019), and measured by the level of local and national cooperation as well as the organizational one (coded in a reverse manner). To make the measurement of the scope dilemma more comprehensive, it is suggested to consider also the willingness to combine both vertical and horizontal cooperation strategies (Le Roy et al., 2022).

Inevitably intertwined with the previous *dilemmas* is the one *concerning resources*. The decision on which (if any) resources are made available under open strategy may bring long-term and significant consequences. Thus, there is an alternative of openness in sharing resources, including strategic (i.e., VRIS) and core ones, or the alternative of sharing resources excluding those strategic and core. The potential limitations may cover measuring resource complementarity used in the context of cooperation with other partners (Zhiang et al., 2009) and relationship-specific investments related to substantial engagement of time, money, and other resources but also focusing on the particular needs of a cooperating competitor (Claycomb & Frankwick, 2010).

One of the characteristics of a cooperation strategy is that there is a continuous balance between sharing and protecting resources (Gast et al., 2019). It is so as cooperation links business rivals, thus, the partnership is highly vulnerable to the risk of opportunistic behaviors (Chai et al., 2019). Therefore, when considering the resource dilemma, the choice between sharing or protecting the resource becomes crucial. Given the perspective of openness, the focus may be given to internal and formal mechanisms regarding sharing and protecting resources under cooperation (Estrada et al., 2016).

Afterward, we delineate *the dilemma of value* where the main concerns arise regarding the extent (if at all) of sharing the value co-created through open strategizing. Fair distribution of co-created value or the appropriation of co-created value is possible. To resolve this dilemma, the measurement of fair value distribution (Provan & Sydow, 2008) and relational equality in terms of comparable inputs and outputs of engaged cooperators (Scheer et al., 2003) could be used.

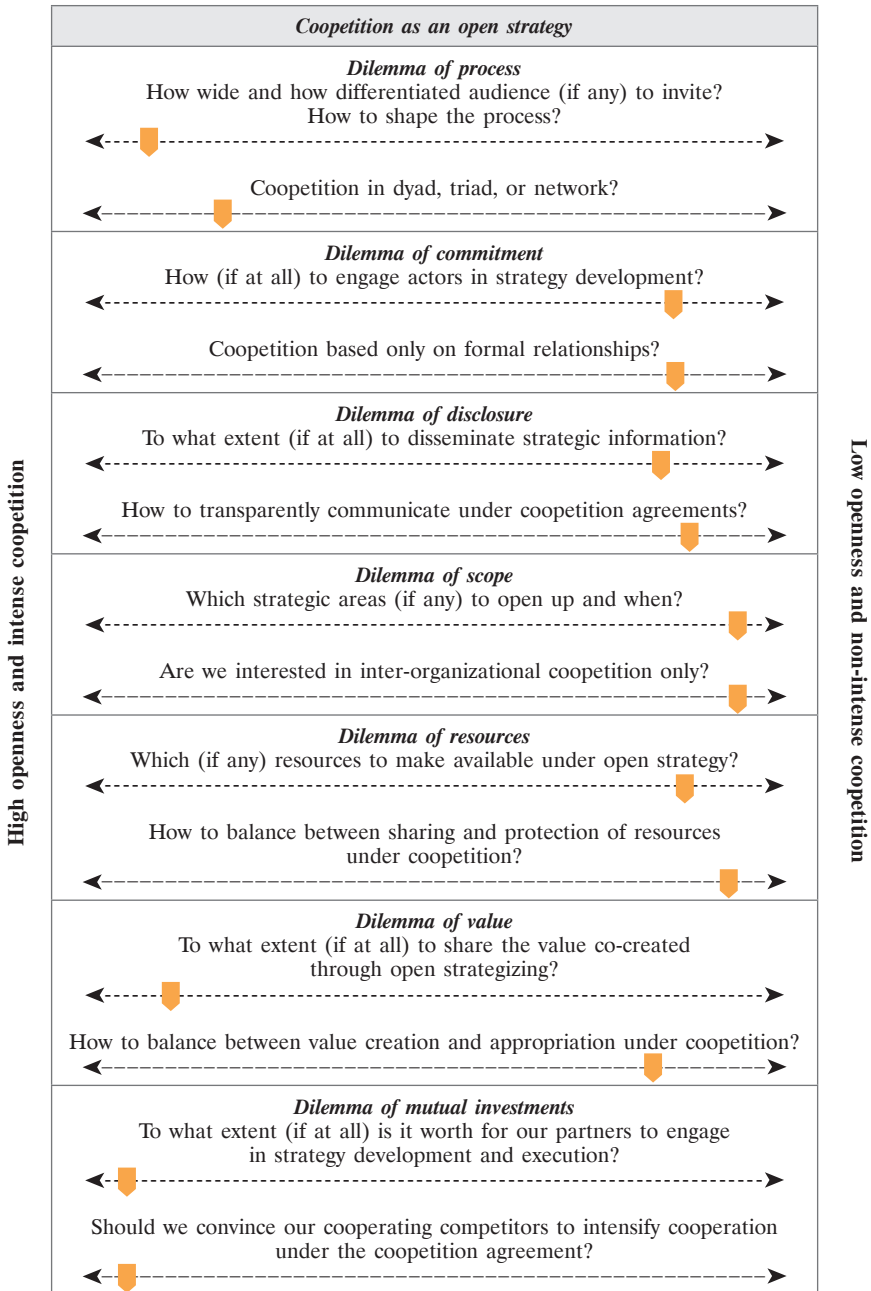
The value dilemma is next to the dilemma of resources, particularly specific for competition strategies. Coopetition, acknowledged as a paradoxical phenomenon (Bouncken et al., 2015; Devece et al., 2019; Gernsheimer et al., 2021), refers to the continuous balancing between value creation and capture (Bouncken et al., 2020), but also the possible choice of focusing on value appropriation (Volschenk et al., 2016; Bouncken et al., 2018b; Garri et al., 2021; Rai et al., 2022). Given the perspective of openness, it is assumed that coopetitors are focused on value creation and fair capturing but are not interested in value appropriation as it can disrupt the use of competition strategy. To take a comprehensive picture of the approach adopted by a coopetitor under the dilemma of value, it is recommended to evaluate the tensions of value creation and mitigation of tensions related to value appropriation (Bouncken et al., 2018b) but also the dynamic between different contexts of value created and types of value appropriated (Volschenk et al., 2016). It should be highlighted that, as proven by Bouncken et al. (2018b), the tension level and force are linked with the complexity of competition. It suggests that the value dilemma may be specifically linked to the dilemma of process, considering the intensity and complexity of competition.

Finally, the last dilemma in our conceptual framework is the *dilemma of mutual investments*, where the issue of the extent (if at all) to which it is worth for our partners to engage in strategy development and execution. In this regard, co-strategizing or closed processes may be applied and measured by mutuality (Klimas, Stańczyk et al., 2023) or long-term orientation (Kam & Lai, 2018).

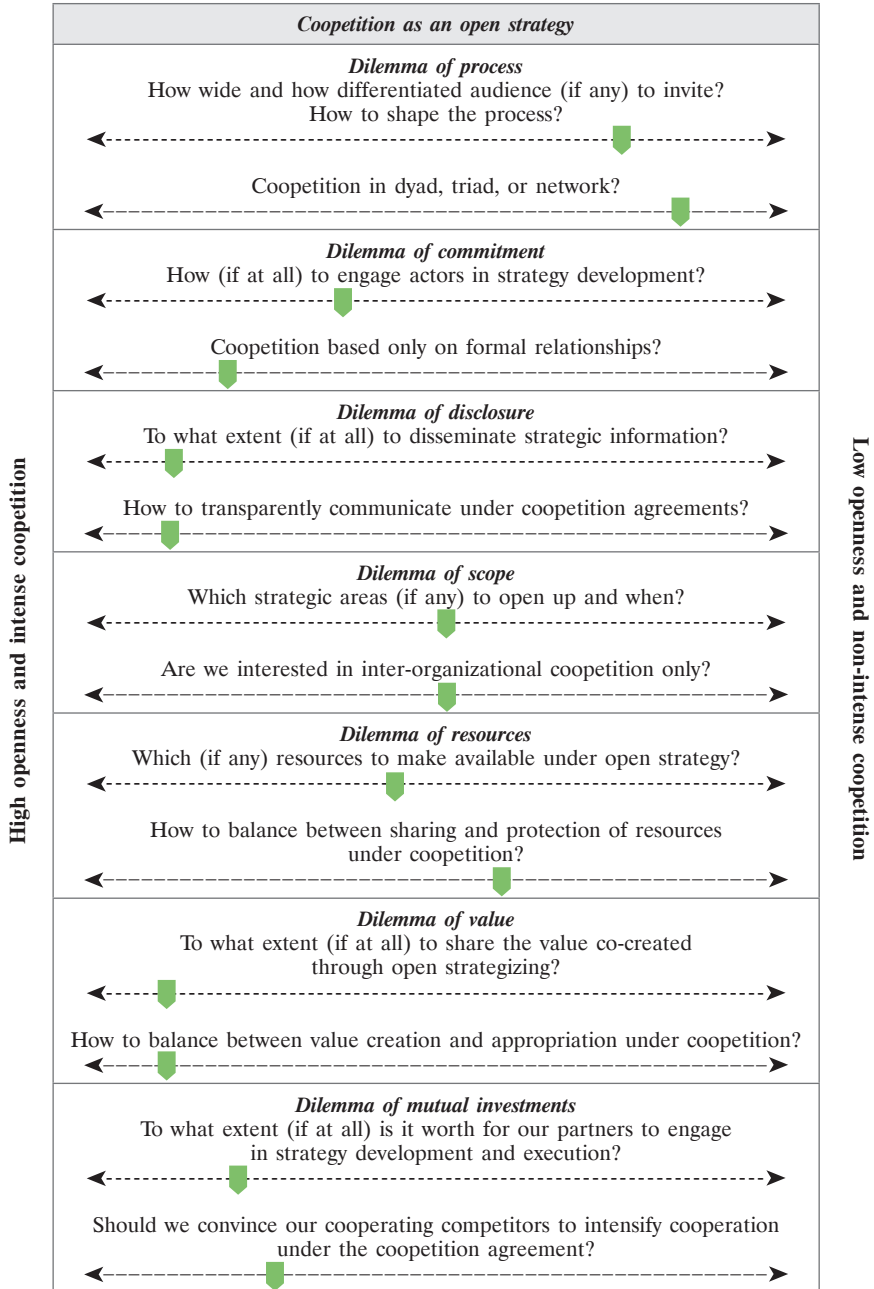
Concerning the dilemma of mutual investments, evaluating willingness to make competitive relationships even stronger in the future is essential. The willingness may depend on the duration of competition, as the longer competition is, the higher the willingness to maintain it (Bouncken et al., 2018b). Additionally, it would be recommended to consider both subscales evaluating competition intensity, namely cooperation intensity and competition intensity (Rai et al., 2020). However, intensity should be concerned with regard to the future and potential strategies for competition as the present perspective is evaluated within the dilemma of process.

Importantly, as strategic choices are not dichotomic, but there is a continuum between the identified extremes (reference points, opposite strategic options), the measurement scales proposed to address strategic choices, not particular (opposite) options of those choices. Depending on the measurement results, the researcher or manager can see “*where*” the firm is “*in its openness*” in a particular strategic dilemma of open strategy. To make it more transparent and convincing, adding sliders to enable the comparison and positioning of the tension observed for a specific case would be recommended. In our conceptual framework, one more general slider addresses the tensions recognized for an open strategy, and one more specific slider concerns the competition concept – Figure 1.

Figure 1
Exemplary Profiles of Openness of Competitors
Coopetition A: asymmetric-in-openness profile may suggest opportunistic behaviors



Coopetition B: promising newcomer in openness



3. Discussion and Conclusions

The contribution of our conceptual framework is twofold as we advance the concept of merging cooptation with an open strategy using the lenses of the managerial dilemmas that are commonly faced in both conceptions (Klimas & Radomska, 2022).

First, we shed some light on measuring the open strategy. In fact, although that concept has recently gained much attention (Adobor, 2020; Stjerne et al., 2022), research on open strategy measurement is still scarce (Cai & Canales, 2022). Scholars have widely discussed it using two formative dimensions – transparency and inclusiveness (Appleyard & Chesbrough, 2017; Baptista et al., 2017; Dobusch et al., 2019; Gegenhuber & Dobusch, 2017), but their integrated measurement has not been proposed so far. We may find research addressing transparency constructs (ter Hoeven et al., 2021) or the inclusiveness domain (Chung et al., 2020) in various perspectives, such as supply chain (Awaysheh & Klassen, 2010; Caridi et al., 2010; Morgan et al., 2018; Wang & Wei, 2007; Williams et al., 2013), user involvement (Ramani & Kumar, 2008; Tacer et al., 2018) or stakeholder orientation (Dapko, 2012; Feng et al., 2010; Yau et al., 2007). However, previous research is more contextual and has not used open strategy lenses. Thus, there is a need to advance the open strategy theory by developing the measures and scales that would allow for more detailed investigation and verification of the conceptual foundations of both open strategy dimensions and accompanying dilemmas. That is the gap that we address with our conceptual framework.

Second, this conceptual paper addresses the need for focusing on detailing and clarifying the theoretical face of cooptation (Köseoğlu et al., 2019; Garri, 2021), hence not through recognition of the theoretical underpinning of cooptation as it has been done quite well (e.g. Bouncken et al., 2015; Dorn et al., 2016; Devece et al., 2019; Gernsheimer et al., 2021; Klimas, Ahmadian et al., 2023) but through consideration of applicable operationalizations and measurement scales for strategic dilemmas faced by cooptators implementing a cooptation strategy in accordance with an open approach (Morton et al., 2019; Stjerne et al., 2022; Splitter et al., 2023; Stadler et al., 2023). In general, this paper addresses the pools of works, arguing that if we want the knowledge about cooptation to be complete, comprehensive and also robust, we need to focus on operationalization and measurement of its specific reflections (Gnyawali & Song, 2016; Gnyawali & Charleton, 2018; Crick & Crick, 2019). In particular, it contributes to the methodological debate in cooptation literature as it develops comprehensive operationalizations for seven strategic dilemmas faced by cooptators following an open approach to strategy implementation. So far, the literature does not provide measurement scales either for all of the dilemmas or for their particular types (there are two exceptions, however: value creation

vs. value appropriation – Volschenk et al., 2016; Bouncken et al., 2018b; resource sharing vs. resource protection – Estrada et al., 2026; Gast et al., 2019). Therefore, it was reasoned to review previous coopetition research and identify the scales and sub-scales which, when combined, will likely provide proxies for assessing the openness in particular dilemmas. In the next step, testing and validating the measurement propositions is recommended.

Besides contributions resulting from recognizing and developing possible operationalizations for particular strategic dilemmas of coopetitors, this paper offers some managerial implications.

First, it draws managers' attention to the multidimensional perception of strategic dilemmas faced when cooperating with competitors. We see it as essential as, so far, the coopetition literature has paid attention to some of the tensions and paradoxes (mainly those related to information exchange, resource sharing, and value creation).

Second, as shown in Figure 1, the results of measurement may be used to analyze the profile of openness and see in which areas – depending on the dominant logic of the firm (Vargo & Lusch, 2014) – the firm should work on its higher openness and cooperate more intensively (ref. to organizations willing to be fully opened – Hautz et al., 2017; Stadler et al., 2023) or become more conservative and protective to be less open and cooperate less intensively (e.g., due to a high risk of opportunistic behaviors of competitor/s – Chai et al., 2019).

Moreover, the evaluation of the openness profile may be conducted for the firm's competitor/s to recognize its/their approach to a mutually executed coopetition strategy, thus predicting coopetition longevity.

As a conceptual paper, it may be claimed to provide only propositions based on the literature hence not tested in any field research. Therefore, future research should have an explorative nature to investigate our proposed dilemma operationalization concept deeper. First, it is necessary to understand whether we comprehensively addressed all relevant tensions for coopetition as an open strategy. Second, further analysis should concern the scales proposed and qualitatively verify their readability and adequacy to provide the potential refinement of the initial items. Finally, it would be necessary to check the usefulness of the proposed constructs and the relevance of their theoretical underpinnings for operationalizing coopetition as an open strategy using a full-scale validation procedure (Crick & Crick, 2019). Besides research focused on verification and testing of the proposed operationalization framework, we see some valuable options for a more in-depth study of the possible interlinks between the considered strategic dilemmas of coopetitors.

On the one hand, it would be interesting to find out, using sufficiency logic, if openness in a particular area impacts the remaining fields. The results of such investigation, when confronted with the profile of openness of a specific competitor, will reveal where to allocate resources to achieve

the desired level and structure of openness when cooperating with business rivals. On the other hand, it would be interesting to identify, using necessity logic (Dul, 2016), whether there are dilemmas necessary for boosting firm performance by a cooperator. The results of such an investigation would show managers possible bottlenecks in the firm's openness.

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References

- Abbott, S. (2009). Social capital and health: The problematic roles of social networks and social surveys. *Health Sociology Review, 18*(3), 297–306.
- Adobor, H. (2020). Open strategy: Role of organizational democracy. *Journal of Strategy and Management, 13*(2), 310–331. <https://doi.org/10.1108/JSMA-07-2019-0125>
- Adobor, H. (2021). Open strategy: what is the impact of national culture? *Management Research Review, 44*(9), 1277–1297. <https://doi.org/10.1108/MRR-06-2020-0334>
- Appleyard, M. M., & Chesbrough, H. W. (2017). The dynamics of open strategy: From adoption to reversion. *Long Range Planning, 50*(3), 310–321. <https://doi.org/10.1016/j.lrp.2016.07.004>
- Awaysheh, A., & Klassen, R. D. (2010). The impact of supply chain structure on the use of supplier socially responsible practices. *International Journal of Operations and Production Management, 30*(12), 1246–1268. <https://doi.org/10.1108/01443571011094253>
- Baptista, J., Wilson, A. D., Galliers, R. D., & Bynghall, S. (2017). Social media and the emergence of reflexivity as a new capability for open strategy. *Long Range Planning, 50*(3), 322–336. <https://doi.org/10.1016/j.lrp.2016.07.005>
- Bellucci, C., Lavarda, R.A.B., & Floriani, D.E. (2022). Open strategizing and accelerated internationalization process in different contexts. *Journal of Strategy and Management* (in press). <https://doi.org/10.1108/JSMA-10-2021-0207>
- Belmondo, C., & Sargis-Roussel, C. (2022). The political dynamics of opening participation in strategy: The role of strategy specialists' legitimacy and disposition to openness. *Organization Studies, 44*(4), 613–635. <https://doi.org/10.1177/01708406221080123>
- Bengtsson, M., Eriksson, J., & Wincent, J. (2010). Coopetition: new ideas for a new paradigm. In *Coopetition*. Edward Elgar Publishing.
- Bouncken, R. B., Fredrich, V., & Kraus, S. (2020). Configurations of firm-level value capture in coopetition. *Long Range Planning, 53*(1), Article 101869.
- Bouncken, R. B., Fredrich, V., Ritala, P., & Kraus, S. (2018a). Coopetition in new product development alliances: Advantages and tensions for incremental and radical innovation. *British Journal of Management, 29*(3), 391–410. <https://doi.org/10.1111/1467-8551.12213>
- Bouncken, R. B., Gast, J., Kraus, S., & Bogers, M. (2015). Coopetition: A systematic review, synthesis, and future research directions. *Review of Managerial Science, 9*, 577–601.
- Bouncken, R. B., Laudien, S. M., Fredrich, V., & Görmar, L. (2018b). Coopetition in coworking-spaces: Value creation and appropriation tensions in an entrepreneurial space. *Review of Managerial Science, 12*(2), 385–410.
- Cai, J., & Canales, I. (2022). Dual strategy process in open strategizing. *Long Range Planning, 55*(6), 1–22. <https://doi.org/10.1016/j.lrp.2021.102177>

- Caridi, M., Crippa, L., Perego, A., Sianesi, A., & Tumino, A. (2010). Do virtuality and complexity affect supply chain visibility? *International Journal of Production Economics*, 127(2), 372–383.
- Chai, L., Li, J., Clauss, T., & Tangpong, C. (2019). The influences of interdependence, opportunism and technology uncertainty on interfirm coopetition. *Journal of Business & Industrial Marketing*, 34(5), 948–964. <https://doi.org/10.1108/JBIM-07-2018-0208>
- Chung, B. G., Ehrhart, K. H., Shore, L. M., Randel, A. E., Dean, M. A., & Kedharnath, U. (2020). Work group inclusion: Test of a scale and model. *Group & Organization Management*, 45(1), 75–102. <https://doi.org/10.1177/1059601119839858>
- Claycomb, C., & Frankwick, G. L. (2010). Buyers' perspectives of buyer–seller relationship development. *Industrial Marketing Management*, 39(2), 252–263.
- Crema, M., Verbano, C., & Venturini, K. (2014). Linking strategy with open innovation and performance in SMEs. *Measuring Business Excellence*, 18(2), 14–27. <https://doi.org/10.1108/MBE-07-2013-0042>
- Crick, J.M. and Crick, D. (2019). Developing and validating a multi-dimensional measure of coopetition. *Journal of Business & Industrial Marketing*, 34(4), 665–689.
- Dapko, J. (2012). *Perceived firm transparency: Scale and model development* [Doctoral dissertation]. <https://scholarcommons.usf.edu/etd/4025>
- Devece, C., Ribeiro-Soriano, D. E., & Palacios-Marqués, D. (2019). Coopetition as the new trend in inter-firm alliances: Literature review and research patterns. *Review of Managerial Science*, 13, 207–226.
- Dobusch, L., Dobusch, L., & Müller-Seitz, G. (2019). Closing for the benefit of openness? The case of Wikimedia's open strategy process. *Organization Studies*, 40(3), 343–370. <https://doi.org/10.1177/0170840617736930>
- Dorn, S., Schweiger, B., & Albers, S. (2016). Levels, phases and themes of coopetition: A systematic literature review and research agenda. *European Management Journal*, 34(5), 484–500.
- Dul, J. (2016). Necessary condition analysis (NCA) logic and methodology of “necessary but not sufficient” causality. *Organizational Research Methods*, 19(1), 10–52.
- Dyer, J. H., & Singh, H. (1998). The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review*, 23(4), 660–679.
- Ellegaard, C., Geersbro, J., & Medlin, C. (2010). *Value appropriation within a business network* [Conference presentation]. The 4th IMP Conference in Asia, Kuala Lumpur, Malaysia.
- Estrada, I., Faems, D., & de Faria, P. (2016). Coopetition and product innovation performance: The role of internal knowledge sharing mechanisms and formal knowledge protection mechanisms. *Industrial Marketing Management*, 53, 56–65.
- Feng, T., Sun, L., & Zhang, Y. (2010). The effects of customer and supplier involvement on competitive advantage: An empirical study in China. *Industrial Marketing Management*, 39(8), 1384–1394. <https://doi.org/10.1016/j.indmarman.2010.04.006>
- Gao, Y., Janssen, M., & Zhang, C. (2021). Understanding the evolution of open government data research: Towards open data sustainability and smartness. *International Review of Administrative Sciences*, 89(1), 59–75. <https://doi.org/10.1177/00208523211009955>
- Garri, M. (2021). Coopetition, value co-creation, and knowledge-enhancement in the UK alpaca industry: A multi-level mechanism. *European Management Journal*, 39(5), 545–557.
- Gast, J., Gundolf, K., Harms, R., & Collado, E. M. (2019). Knowledge management and coopetition: How do cooperating competitors balance the needs to share and protect their knowledge? *Industrial Marketing Management*, 77, 65–74. <https://doi.org/10.1016/j.indmarman.2018.12.007>

- Geerken, T., Schmidt, J., Boonen, K., Christis, M., & Merciai, S. (2019). Assessment of the potential of a circular economy in open economies—Case of Belgium. *Journal of Cleaner Production*, 227, 683–699.
- Gegenhuber, T., & Dobusch, L. (2017). Making an impression through openness: How open strategy-making practices change in the evolution of new ventures. *Long Range Planning*, 50(3), 337–354. <https://doi.org/10.1016/j.lrp.2016.09.001>
- Gernsheimer, O., Kanbach, D. K., & Gast, J. (2021). Coopetition research – A systematic literature review on recent accomplishments and trajectories. *Industrial Marketing Management*, 96, 113–134.
- Geurts, A., Broekhuizen, T., Dolfsma, W., & Cepa, K. (2022). Tensions in multilateral coopetition: Findings from the disrupted music industry. *Industrial Marketing Management*, 105, 532–547.
- Gnyawali, D. R., & Ryan Charleton, T. (2018). Nuances in the interplay of competition and cooperation: Towards a theory of coopetition. *Journal of Management*, 44(7), 2511–2534.
- Gnyawali, D. R., & Song, Y. (2016). Pursuit of rigor in research: Illustration from coopetition literature. *Industrial Marketing Management*, 57, 12–22.
- Goulart Heinzen, C., & Lavarda, R. A. B. (2021). Open strategizing activities & practices: The openness and closure paradox control by digital tools. *Academy of Management Proceedings*, 1, Article 13981. <https://doi.org/10.5465/AMBPP.2021.13981abstract>
- Hanisch, B., & Wald, A. (2014). Effects of complexity on the success of temporary organizations: Relationship quality and transparency as substitutes for formal coordination mechanisms. *Scandinavian Journal of Management*, 30(2), 197–213.
- Hautz, J., Seidl, D., & Whittington, R. (2017). Open strategy: Dimensions, dilemmas, dynamics. *Long Range Planning*, 50(3), 298–309. <https://doi.org/10.1016/j.lrp.2016.12.001>
- Jakobsen, S. (2020). Managing tension in coopetition through mutual dependence and asymmetries: A longitudinal study of a Norwegian R&D alliance. *Industrial Marketing Management*, 84, 251–260. <https://doi.org/10.1016/j.indmarman.2019.07.006>
- Jap, S. D., & Ganesan, S. (2000). Control mechanisms and the relationship life cycle: Implications for safeguarding specific investments and developing commitment. *Journal of Marketing Research*, 37(2), 227–245.
- Kam, B. H., & Lai, M. K. K. (2018). Buyer-supplier exchange relationship: How do exchange partners behave across the relationship life-cycle? *Transportation Research Part E: Logistics and Transportation Review*, 113, 239–257.
- Klimas, P., & Radomska, J. (2022). Coopetition and open strategy – Common roots and shared strategic dilemmas. *Problemy Zarządzania (Management Issues)*, 20(2), 197–214. <https://doi.org/10.7172/1644-9584.96.10>
- Klimas, P., Ahmadian, A. A., Soltani, M., Shahbazi, M., & Hamidzadeh, A. (2023). Coopetition, Where Do You Come From? Identification, Categorization, and Configuration of Theoretical Roots of Coopetition. *SAGE Open*, 13(1), <https://doi.org/10.1177/21582440221085003>
- Klimas, P., Stańczyk, S., Sachpazidu, K., Stanimir, A., & Kuźmiński, Ł. (2023). The attributes of inter-organizational relationships: Which fifteen of them really matter to software developers?. *Industrial Marketing Management*, 110, 1–16.
- Köhler, J., Sönnichsen, S. D., & Beske-Jansen, P. (2022). Towards a collaboration framework for circular economy: The role of dynamic capabilities and open innovation. *Business Strategy and the Environment*, 31(6), 2700–2713.
- Köseoğlu, M.A., Yildiz, M., Okumus, F., & Barca, M. (2019). The intellectual structure of coopetition: past, present and future. *Journal of Strategy and Management*, 12(1), 2–29.
- Le Roy, F., & Chesbrough, H. (2018). Open coopetition. In *The Routledge Companion to Competition Strategies* (pp. 398–408). Routledge.

- Le Roy, F., Robert, F., & Hamouti, R. (2022). Vertical vs horizontal coopetition and the market performance of product innovation: An empirical study of the video game industry. *Technovation*, 112. <https://doi.org/10.1016/j.technovation.2021.102411>
- Lin, Z. (John), Yang, H., & Arya, B. (2009). Alliance partners and firm performance: resource complementarity and status association. *Strategic Management Journal*, 30(9), 921–940. <http://www.jstor.org/stable/27735465>
- Mitchell, R., Boyle, B., Parker, V., Giles, M., Chiang, V., & Joyce, P. (2015). Managing inclusiveness and diversity in teams: How leader inclusiveness affects performance through status and team identity. *Human Resource Management*, 54, 217–239. <https://doi.org/10.1002/hrm.21658>
- Mitrega, M., Forkmann, S., Ramos, C., & Henneberg, S. C. (2012). Networking capability in business relationships—Concept and scale development. *Industrial Marketing Management*, 41(5), 739–751.
- Morgan, T. R., Richey, R. G., & Ellinger, A. E. (2018). Supplier transparency: Scale development and validation. *International Journal of Logistics Management*, 29(3), 959–984. <https://doi.org/10.1108/IJLM-01-2017-0018>
- Morton, J., Wilson, A., Galliers, R. D., & Marabelli, M. (2019). Open strategy and IT: A review and research agenda. In G. Seidl, D. Whittington, & R. von Krogh (Eds.), *Cambridge handbook of open strategy* (pp. 169–185). Cambridge University Press. <https://doi.org/10.1017/9781108347921.011>
- Nembhard, I. M., & Edmondson, A. (2006). Making it safe: The effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams. *Journal of Organizational Behavior*, 27, 941–966.
- Petter, R. R. H., Resende, L. M., de Andrade Júnior, P. P., & Horst, D. J. (2014). Systematic review: An analysis model for measuring the cooperative performance in horizontal cooperation networks mapping the critical success factors and their variables. *The Annals of Regional Science*, 53(1), 157–178.
- Pittz, T. G., Madden, L. T., & Mayo, D. (2017). Catalyzing social innovation: Leveraging compassion and open strategy in social entrepreneurship. *New England Journal of Entrepreneurship*, 20(2), 37–52. <https://doi.org/10.1108/NEJE-20-02-2017-B003>
- Provan, K. G., & Sydow, J. (2008). Evaluating inter-organizational relationships. In *The Oxford handbook of inter-organizational relations* (pp. 691–716).
- Rai, R., Gnyawali, D. R., & Bhatt, H. (2022). Walking the tightrope: Coopetition capability construct and its role in value creation. *Journal of Management*, Article 01492063221107873.
- Ramani, G., & Kumar, V. (2008). Interaction orientation and firm performance. *Journal of Marketing*, 72(1), 27–45. <https://doi.org/10.1509/jmkg.72.1.027>
- Raza-Ullah, T. (2020). Experiencing the paradox of coopetition: A moderated mediation framework explaining the paradoxical tension–performance relationship. *Long Range Planning*, 53(1). <https://doi.org/10.1016/j.lrp.2018.12.003>
- Raza-Ullah, T. (2021). When does (not) a cooperative relationship matter to performance? An empirical investigation of the role of multidimensional trust and distrust. *Industrial Marketing Management*, 96, 86–99.
- Rohrbeck, R., Hölzle, K., & Gemünden, H. G. (2009). Opening up for competitive advantage—How Deutsche Telekom creates an open innovation ecosystem. *R&D Management*, 39(4), 420–430.
- Scheer, L. K., Kumar, N., & Steenkamp, J. B. E. (2003). Reactions to perceived inequity in US and Dutch interorganizational relationships. *Academy of Management Journal*, 46(3), 303–316.
- Seidl, D., & Werle, F. (2018). Inter-organizational sensemaking in the face of strategic meta-problems: Requisite variety and dynamics of participation. *Strategic Management Journal*, 39(3), 830–858. <https://doi.org/10.1002/smj.2723>

- Splitter, V., Dobusch, L., von Krogh, G., Whittington, R., & Walgenbach, P. (2023). Openness as organizing principle: Introduction to the special issue. *Organization Studies*, 44(1), 7–27. <https://doi.org/10.1177/01708406221145595/FORMAT/EPU>
- Splitter, V., Jarzabkowski, P., & Seidl, D. (2021). Middle managers' struggle over their subject position in open strategy processes. *Journal of Management Studies*, 1–40. <https://doi.org/10.1111/joms.12776>
- Stadler, C., Hautz, J., Matzler, K., & von den Eichen, S. (2023). *Open strategy: Mastering disruption from outside the C-suite*. The MIT Press.
- Stjerne, I., Geraldi, J., & Wenzel, M. (2022). *Strategic practice drift: How open strategy infiltrates the strategy process*. <https://doi.org/10.1111/joms.12895>
- Su, H., Fang, S., & Young, C. (2013). Influences of relationship transparency from intellectual capital reporting on supply chain partnerships with suppliers: A field experiment. *Supply Chain Management: An International Journal*, 18(2), 178–193. <https://doi.org/10.1108/13598541311318818>
- Tacer, B., Ruzzier, M., & Nagy, T. (2018). User-driven innovation: Scale development and validation. *Economic Research-Ekonomska Istraživanja*, 31(1), 1472–1487. <https://doi.org/10.1080/1331677X.2018.1484784>
- ter Hoeven, C. L., Stohl, C., Leonardi, P., & Stohl, M. (2021). Assessing organizational information visibility: development and validation of the information visibility scale. *Communication Research*, 48(6), 895–927. <https://doi.org/10.1177/0093650219877093>
- Vargo, S. L., & Lusch, R. F. (2014). Service-dominant logic: What it is, what it is not, what it might be. In *The service-dominant logic of marketing* (pp. 61–74). Routledge.
- Vicente-Saez, R., & Martinez-Fuentes, C. (2018). Open science now: A systematic literature review for an integrated definition. *Journal of Business Research*, 88, 428–436. <https://doi.org/10.1016/j.jbusres.2017.12.043>
- Volschenk, J., Ungerer, M., & Smit, E. (2016). Creation and appropriation of socio-environmental value in coepetition. *Industrial Marketing Management*, 57, 109–118.
- Wang, E. T. G., & Wei, H. L. (2007). Interorganizational governance value creation: Coordinating for information visibility and flexibility in supply chains. *Decision Sciences*, 38(4), 647–674. <https://doi.org/10.1111/j.1540-5915.2007.00173.x>
- Williams, B. D., Roh, J., Tokar, T., & Swink, M. (2013). Leveraging supply chain visibility for responsiveness: The moderating role of internal integration. *Journal of Operations Management*, 31(7–8), 543–554. <https://doi.org/10.1016/j.jom.2013.09.003>
- Xie, C., & Haugland, S. (2016). Formation of reputation in business markets. *Journal of Business-to-Business Marketing*, 23(1), 25–45.
- Xu, T., Yang, J., Zhang, F., & Guo, W. (2021). Interfirm coepetition, interfirm knowledge creation, and collaborative innovation performance: The moderating roles of environmental competitiveness and dysfunctional competition. *Industrial Marketing Management*, 99, 123–135.
- Yau, O. H. M., Chow, R. P. M., Sin, L. Y. M., Tse, A. C. B., Luk, C. L., & Lee, J. S. Y. (2007). Developing a scale for stakeholder orientation. *European Journal of Marketing*, 41(11–12), 1306–1327. <https://doi.org/10.1108/03090560710821198>

The Concept of Chance Management in Coopetition Among Cultural Institutions

Patrycja Juszczyk

University of Economics in Katowice, Poland
<https://orcid.org/0000-0003-2231-5719>

Dagmara Wójcik

University of Economics in Katowice, Poland
<https://orcid.org/0000-0002-9082-8471>

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Abstract

Purpose: The aim of the article is to exemplify the chance management concept in coopetition among cultural institutions and determine specific chance attributes.

Design/methodology/approach: The empirical research was exploratory, and the research process used a qualitative, interpretative approach. The study used semi-structured, in-depth individual face-to-face interviews. A total of 42 interviews were conducted with public and private museums.

Findings: Our research revealed that cultural entities take advantage of opportunities so as to achieve not only a competitive advantage, but also a cooperative, or even – as has been shown – a cooperative one. Coopetition, in turn, can be analyzed through the lens of the chance management concept, and especially the relational perspective of chance, which views chance as an important element within an organization's environment. Moreover, the specificity of coopetition in cultural institutions has shown the importance of social factors, emphasizing that coopetition is the effect of social construction, individual actions and the motivations of managers. Therefore, the social embeddedness of coopetition should be emphasized in this approach, determining not only the intentional, but also the emergent, nature of coopetition. At the same time, it reveals that the individual cognitive perspective of managers who are able to notice, use or create chance is significant.

Originality/value: In strategic management, coopetition has been considered so far to be a planned, long-term phenomenon and a purposefully, deliberately created relationship. The findings of our research in the cultural sector have revealed that coopetition can also be a temporal, ad hoc relationship that is short-term in nature, as well as being incremental and undertaken spontaneously depending on emerging opportunities.

Correspondence address: University of Economics in Katowice, 1 Maja 50, 40-287 Katowice, Poland;
e-mails: patrycja.juszczyk@uekat.pl, dagmara.wojcik@uekat.pl.

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Keywords: coopetition, chance management concept, cultural institutions, museums, qualitative research.

JEL: Z190, L320, L890, P130

Koncepcja Chance Management w kooperacji instytucji kultury

Streszczenie

Cel: celem artykułu jest egzemplifikacja koncepcji chance management w kooperacji instytucji kultury wraz z określeniem specyficznych atrybutów okazji.

Metodologia: badania empiryczne mają charakter eksploracyjny, a proces badawczy opiera się na podejściu jakościowym interpretatywnym. W badaniu wykorzystano półstrukturyzowane, pogłębione indywidualne wywiady bezpośrednie. Przeprowadzono łącznie 42 wywiady wśród muzeów publicznych i prywatnych.

Wyniki: przeprowadzone badania ujawniły, że instytucje kultury wykorzystują okazje, by osiągnąć przewagę nie tylko konkurencyjną, lecz także kooperacyjną, a nawet – jak wykazano – kooperacyjną. Z kolei kooperację można rozpatrywać przez pryzmat koncepcji chance management, w szczególności relacyjnej perspektywy okazji, która ujmuje okazję jako ważny element otoczenia organizacji. Ponadto, specyfika kooperacji w instytucjach kultury ukazała znaczenie czynników społecznych, wskazując, że kooperacja jest efektem konstrukcji społecznej, indywidualnych działań oraz motywacji menedżerów. Dlatego też podkreślić należy zakorzenienie społeczne kooperacji, determinujące zarówno jej intencjonalny, jak i emergentny charakter. Jednocześnie, badania ujawniły jak ważna jest indywidualna perspektywa poznawcza menedżerów potrafiących dostrzec, wykorzystać lub stworzyć okazję.

Oryginalność/wartość: kooperacja rozpatrywana była dotychczas w zarządzaniu strategicznym jako zaplanowane i długoterminowe zjawisko o świadomym i celowym charakterze. Badania w sektorze kultury ujawniły natomiast, iż relacja kooperacji może mieć także charakter czasowy, doraźny, krótkoterminowy, będący działaniem inkrementalnym, podejmowanym spontanicznie, zależnie od pojawiających się okazji.

Słowa kluczowe: kooperacja, koncepcja chance management, instytucje kultury, muzea, badania jakościowe.

1. Introduction

Over recent decades, it has been noticed that organizations can gain benefits by creating relationships with other entities. It can be said that “the great importance of inter-organizational relations in today’s world, their building and development is a challenge for strategic management” (Zakrzewska-Bielawska, 2016, p. 610), and this therefore shapes the need and directions of future research (Clegg et al., 2002). Scholars claim that the overriding paradigm of contemporary management are dynamic relationships that connect the organization with entities in the environment (Cravens et al., 1996). On the basis of the relational approach, the attention of researchers focuses on broadly understood relationships (Klimas et al., 2023), and within them – depending on the choice of partner (competitive or non-competitive) – on cooperation or coopetition as inter-organizational behaviors falling within collaboration as a broader category (Zacharia et al., 2019).

Cooperation takes place today through the building of both long-term and short-term relationships in order to maximize the value of a given

relationship configuration (Reinartz et al., 2004), hence shaping them appropriately becomes important. At the same time, it should be pointed out that in the context of the phenomena analyzed within the framework of collaboration, the relatively rapid development of research has specifically concerned cooperation. However, the high complexity and multidimensionality of this phenomenon have resulted in fragmented research findings that have not been integrated, compared or contrasted, which limits the unified and integrated state of knowledge on this phenomenon (Gernsheimer et al., 2021). As a consequence, there is an observable heterogeneity of theories and research concepts underlying the way of explaining and implementing so-called cooperation strategy (Dorn et al., 2016), emphasizing its planned, intended and long-term nature (Brandenburger & Nalebuff, 1996; Dagnino, 2009). In this approach, entities involved in cooperation relationships are assigned with deliberate strategic intentions, such as learning, supplementing capabilities and strategic resources, or achieving a better market position (Bouncken et al., 2020; Czakon et al., 2020). Meanwhile, it can be seen that in many areas of the operation of entities, cooperation can also be incremental in the case of ad hoc activities, improvisation and spontaneous joint initiatives, or in the use of emerging market opportunities (Czakon, 2010; Monticelli et al., 2023).

An area that has undergone a fundamental transformation in recent years is the arts and culture sector (Ginsburgh & Throsby, 2006), and due to their specificity, cultural institutions seem to be interesting research entities with regard to many phenomena analyzed from the perspective of strategic management (Najda-Janoszka & Sawczuk, 2018), including cooperation (Juszczak & Wójcik, 2021). Based on research conducted in the commercial sector, it can be expected that cooperation will ensure success for organizations from the cultural sector, provided that it is properly prepared and implemented (Zineldin, 2004). However, it should be pointed out that the specificity of entities operating in the field of culture makes it impossible to transpose results from the study of the cooperation phenomenon to business organizations, hence this area needs separate research and analysis. Simultaneously, taking advantage of or even creating opportunities seems to be crucial for many cultural institutions, which may also see chances in establishing and shaping temporary, spontaneous inter-organizational relationships that are beneficial for all parties, including with competitors.

Nowadays, in an extremely dynamic and changeable environment, emerging relationships characterized by greater freedom, dynamics and flexibility of actions are gaining in importance (Mandják et al., 2015). This approach draws from the evolutionary school in strategic management (Mintzberg, 1973), which shows certain dynamics in shaping relationships over time, while emphasizing the importance of strategies and more short-term, time-based activities (Jing & Van de Ven, 2018). The growing uncertainty and turbulence of the environment make long-term plans and

strategies lose importance as determinants of an organization's development. Therefore, the actions taken are a combination of rational intentions and accidental factors. In practice, this means adjusting the previously adopted plans and strategies of the organization's operation due to significant unforeseen events taking place primarily in the environment. Therefore, it can be assumed that the basis for the development of modern organizations are, for example, events in the environment interpreted as opportunities (Krupski, 2008).

The growing unpredictability and turbulence in the environment, which makes it impossible to build reliable forecasts, significantly shortens the planning and strategic action horizon of many organizations. It seems intuitive, therefore, that emerging strategies and incremental relationships are becoming increasingly important in strategic management (Mariani, 2007; Czakon, 2010; Zacharia et al., 2019; Monticelli et al., 2023). Economic practice shows that chance, i.e., various events or a combination of circumstances, creates the possibility of achieving additional benefits (Krupski, 2008), hence the concept of chance management is gaining in importance in the field of management. Contemporary organizations increasingly focus on taking and creating chances to establish mutually beneficial relationships with other entities (Mischkowski & Glöckner, 2016; Opp & Gern, 1993), also characterized by the phenomenon of incremental cooptation (Juszczuk, 2021). At the same time, it should be emphasized that there are no good theoretical proposals for taking advantage of chance in cooptation – especially in cultural institutions – not to mention research in this regard. Hence the aim of the article is to exemplify the concept of chance management in cooptation among cultural institutions, and to determine the specific attributes of chance. Thus we focused on the following research questions: (RQ1): What are the manifestations of the usage of the chance management concept in cooptation among cultural institutions?; (RQ2): What specific attributes of chance can we identify in cooptation of cultural institutions?

The theoretical contribution is focused on the conceptualization and exemplifying the concept of chance in management sciences, in particular with regard to cultural institutions. The paper also draws managers' attention to take advantage of chance in cooptation relationships. The research contribution is based on the results of qualitative research conducted within Polish museums.

2. The Concept of Chance Management in Strategic Management

Although in the field of strategic management chance can be a cognitively valuable construct, there is an open discussion in the academic community on the interpretation of the category of chance and understanding the role it plays in the activities of entities. This state of affairs may result firstly from the coexistence of various concepts, but also from their ambiguity, and thus it is futile to look for a single, coherent definition of chance.

2.1. Conceptualization of the Term “Chance”

With regard to the concept of chance management, several key concepts can be identified, i.e.: *occasion*, *fortune*, *possibility*, *chance*, *opportunity* (PONS, 2023). *Fortune* is connected with good luck. *Occasion* means a particular time when something happens. *Possibility* is a situation where something may or may not happen. *Chance* is defined as an occasion which allows something to be done, but is also an opportunity. *Opportunity* refers to a situation in which it is possible to do something we want to do. Meanwhile, in the literature on management, the following three terms can be found most often: *possibility*, *chance*, *opportunity*. “Chance” comes from the concept of “to fall” in the sense of something unexpected falling upon someone. It was another way to talk of fate; something unpredictable. To take a chance implies being prepared for a positive or a negative result. “Possibility” weighs on the possible; that which can be achieved. It simply states that something can be done or acquired. A fine-tuned definition makes a possibility dependent on how we act ourselves, whereas a chance depends on other people and unpredictable circumstances. Opportunity harbors the word *port*. Originally opportune meant a good time to sail for port; when favorable winds could be expected. Opportunity is a chance or possibility with good odds. To sum up, a chance is something that unpredictably falls upon us, a possibility is something which is possible to be done or acquired in the future, and an opportunity implies that there are good odds for something. What is more, chances offer a possibility, which is an option, a choice, a way to do something (Sandström, 2005). For this reason, it would seem that the main focus should be on the terms chance and possibility. In the literature, some authors distinguish between them, even emphasizing that they should not be used interchangeably and should not be treated as semantically identical concepts (Krupski, 2013). Chance is connected with risk, a piece of luck, a turn of good fortune and also an opportunity, which in turn refers to a favorable option, a good way, moment or point in time (Sandström, 2005). Chance has a wider range of meanings than opportunity, also including opportunity. Chance tends to involve the “possibility” of something, while opportunity involves creating and making an opportunity certain to happen. Moreover, opportunity has

positive connotations (Sebt et al., 2009) while chance has mixed ones – positive and negative – so it seems to involve both negative and positive situations as part of “possibility” (Jarunwaraphan & Mallikamas, 2020).

2.2. Chance in the Scientific Literature

In the scientific literature, in the case of chance, the probability of success is more emphasized, with assessment and evaluation of its level (Hilbert, 2012; Levy, 2003). In the case of opportunity, attention is focused on the events conducive to success, usually without gradation of the potential benefit. In this approach, attention is drawn to the statistical provenance of the category of chance (Denrell et al., 2015). This is understood as expected value in the form of the product of the expected extraordinary effect associated with its use, and the probability of the occurrence of an event to which we attribute a sense of chance (Link & Marxt, 2004). This means that an opportunity – in contrast to chance – is not a chance incident. Chance can be a pleasant or unpleasant situation/effect of taking action, while an opportunity tends to be positive. Therefore, when talking about chance, the circumstances or conditions conducive to success are often emphasized, underlying that the source of opportunity is not only within the organization itself, but also in its environment (Krupski, 2013). Based on perceived chance, people try to match their actions to the rhythm of environmental change (Bandura, 2005). Thus, “chances can determine the directions of the organization’s development” (Krupski, 2013, p. 7), even being an “alternative to the adopted strategic plan” (Krupski, 2011, p. 5). They supplement or update it, or correct it due to significant unforeseen events taking place in the environment (Krupski, 2008), and complexity of the environment drives organizations to changes in strategic orientation (Zakrzewska-Bielawska & Piotrowska, 2021). As a result of the above analyses, it can be indicated that opportunity management is a narrower stream within the concept of chance management.

2.3. Probabilistic and Relational Approaches Towards Chance

In the subject literature, it is possible to find two different perspectives on the concept of chance, that is the probabilistic and relational approaches.

The first perspective – probabilistic – is more popular and based on the paradigm which is especially visible in the Western societies and literature. In this context, Jing and Van de Ven (2018) indicate that the English word “*chance*” comes from its French substitute “*chéance*”, which means “the way the dice fall”. In this perspective, chance means the possibility of a specific outcome in an uncertain situation. Here, the uncertainty of an event occurring at a certain time is indicated. This perspective is derived from the philosophy of positivism, where chance is a random element, inherently unpredictable and impossible to manage (Alvarez & Barney, 2010). The probability of the occurrence of a given phenomenon

is estimated, which is closer to the quantitative approach in management (Krupski, 2013), expressed in determining the impact of random events on the behavior and performance of the organization (Denrell et al., 2015). It is also found in risk management – where chance is perceived as a risk of a positive nature (Massaad, 2021).

The second perspective – which is definitely less well studied, but is also a promising research area – is the relational approach towards chance which is more popular in Eastern countries and literature, e.g. in China (Jullien, 2004; Van de Ven & Jing, 2012). The term for chance in Chinese means “a favourable moment to take a specific action”, indicating taking action in relation to forces in the environment (Tsang, 2004). The relational approach is derived from the philosophy of interpretivism (Zhang et al., 2012), where the emphasis is on adapting the type and moment of action to dynamic forces that are not only internal, but also external.

In the relational approach, the term *chance* – equated here with an opportunity – can be understood as a favorable moment for the organization to take action, bringing benefits to each of the parties involved in the relationship. In addition, it is worth emphasizing that a chance cannot only be used, but also created by the organizations themselves, by entrepreneurs (Sarasvathy, 2001; Venkataraman, 2003), thanks to the competence, knowledge and practice of combining moments from the past, present and future, and building timing strategies (Jing & Van de Ven, 2018). To conclude, in the probabilistic view (positivism), chance is objective and is dependent on uncontrollable contingencies determining the proper actions we should take (what to do), while in the relational view (interpretivism), chance is subjective and dependent on one’s understanding of situational momentum, and so we are responsible for doing the right thing at the right time (what to do and when) (Jing & Van de Ven, 2018). In the article, chance will be understood on the basis of the relational approach.

2.4. Chance in Strategic Management

Although analyzing phenomena in the light of the chance management concept seems to be a relatively new approach, the use of the category of chance in strategic management can be found in its various schools (Eisenhardt & Sull, 2001; Mintzberg et al., 2005; Denrell et al., 2007; Lee et al., 2007; Foss & Foss, 2008), including: (1) the planning school, where chances are an element of assessing the environment and the basis for building an organization’s strategy in relation to the competitive environment; (2) the positional school, where the environment is a reference point in formulating the organization’s strategy, hence emerging events and external conditions are taken into account; (3) the evolutionary school, which indicates that the organization’s strategy includes intentional and emergent strategies, resulting from various adaptive current decisions, including those related to the use of chance; (4) the simple rules school, in which the

achievement of a competitive advantage results from the appropriate use of short-term chances, and therefore also consists of identifying and taking chances; (5) the resource-based view, where access to resources is a condition for taking advantage of chances, including creating relationships with entities from the environment; and (6) the relational view, where attention is focused on creating and shaping relationships, as well as managing their portfolio (long-term strategic relationships and short-term timing relationships) in order to achieve benefits for each of the parties in the relationship.

Simultaneously, research has shown that inter-organizational relationships are the most important resource in the context of organizational flexibility and taking advantage of chances, regardless of the size of the organization (Krupski, 2006). Many researchers have noted that ideally, chance is a fundamental and critical aspect of the activities of entities (Alvarez & Barney, 2007; Buenstorf, 2007), and the importance of chance in the development of organizations is constantly growing (Skat-Rørdam et al., 2003). For example, Collins and Porras (2008) proved that some of the largest American corporations base their development strategies simply on chance. In turn, the conclusions drawn from research carried out on Polish enterprises have shown that in half of all small or medium-sized companies, development is determined by chance, and organizations take advantage of various chances that arise in the environment (Krupski, 2013). In addition, the literature indicates that chance management also plays an important role in cooperation between organizations (Link and Marxt, 2004). At the same time, on the basis of the relational approach in strategic management, research attention is focused on collaboration, and within it on the phenomenon of cooperation between non-competitive or competitive organizations. After all, in gaining a competitive advantage, or when survival or development is at stake, joining forces and cooperating with competitors is an attractive solution for many entities. In economic reality, both types of relationships and behaviors displayed by entities interpenetrate or even dynamically very often replace one another, revealing themselves in cooperation between competing entities, i.e., cooptation.

3. Cooptation Among Cultural Institutions in the Light of the Chance Management Concept

For more than three decades, researchers have been trying to explore the strategic capabilities of organizations to cooperate and compete simultaneously (Hamel et al., 1989; Lado et al., 1997). Cooptation, as a synergistic phenomenon that combines both cooperative and competitive relations between organizations (Brandenburger & Nalebuff, 1996), has been studied mainly from the perspective of enterprises in recent decades (Gernsheimer et al., 2021). It should be pointed out, however, that the concept of cooptation may also have significant implications in other sectors

of the economy. One of them, which is particularly interesting and is also developing dynamically, is the cultural sector.

The cultural sector, especially in recent years, as a result of the development of information technologies, contributes significantly to economic growth due to increasing demand for and supply of cultural products and services (Ghazinoory et al., 2021). It should be noted that since the 1990s, the subject of management in the cultural sector has been attracting more and more interest from researchers and practitioners working in this field. Research interest shown so far in the cultural sector has been, among others, in the so-called cultural industries concept, emphasizing the economic links between popular culture and high culture (mainly associated with the world of art) (Galloway & Dunlop, 2007), and the concept of creative industries, emphasizing in particular such elements as creativity, entrepreneurship and productivity in the management of culture (Ghazinoory et al., 2021).

Organizations providing cultural activities, such as cultural institutions, are responsible for the provision of services in the field of culture and art (Lin et al., 2016). Among the legal forms of activities, the following can be distinguished in particular: theatres, operas, operettas, philharmonics, orchestras, film institutions, cinemas, museums, libraries, community centers, art centers and art galleries, as well as research and documentation centers in various fields of culture (Carr et al., 2004). Cultural institutions, which include entities operating in all three sectors – public, private and non-profit, operate in an environment characterized by high uncertainty caused by changing funding priorities, frequently amended legislation, elections and budget cycles within their industry (Bagdadli & Arrigoni, 2005). The institutions create networks, explained by isomorphism, while an inherent feature of the networks between individual entities is the existence of both cooperation and competition (Hasitschka et al., 2005).

Research has revealed that due to the dynamic development of the cultural sector and the resulting changes, such as the way action programs are managed, created and implemented (also within cultural institutions themselves), and because of limited financial resources and thus development chances, cultural institutions are somehow forced to look for partnerships also among competitors (Towse & Hernández, 2020). So far the rare and fragmentary research on coopetition among cultural institutions has revealed that involvement in coopetition allows cultural institutions to achieve a competitive advantage by creating a complementary and diversified cultural offer (Qizi, 2021). Coopetition is also a way to exchange knowledge, experience, skills and abilities, and allows the use of limited resources to be maximized, increasing the dynamics of action in the implementation of missions and social goals. It thus gives cultural institutions the chance to overcome organizational shortcomings, positively affecting the reduction of operating costs, achieving a synergy effect in the area of competences, experience and knowledge, and increasing social legitimacy (Ver Steeg Jr., 2022).

It is worth noting that recent research on co-competition – also conducted among cultural institutions – draws attention to the social embeddedness of co-competition, determining not only its intentional, but also its emerging character (Zacharia et al., 2019; Garri, 2021; Juszczuk & Wójcik, 2021; Darbi & Knott, 2022; Monticelli et al., 2023). Researchers point to elements of spontaneity in rivals' cooperation agreements (Amata et al., 2022), whose effects are conditioned by influences on many levels, in particular the individual actions of the entities directly involved in it and their context. Therefore, when considering co-competition in cultural institutions, it should be emphasized that the research findings so far indicate that co-competition relationships analyzed at the inter-organizational level are dependent on and specific to the industry or the area in which the entities operate (Czakon, 2010), hence they are contextual in nature (Bengtsson & Raza-Ullah, 2016). Therefore, taking into account the different ways in which cultural institutions function, including their different types of activity, it should be assumed that existing theories in the field of management, including those related to co-competition, should be verified and tested, and consequently supplemented, modified or extended.

One interesting example illustrating co-competition among cultural institutions are museums, which among these institutions appear as a social and relational phenomenon. Museums operate in a relatively small, quite hermetic environment, creating numerous connections with various entities from their environment, in which social relations play a key role (Juszczuk, 2021). The activities of museums concern not only the direct recipients of services – visitors, but also broadly understood stakeholders, including public authorities at various levels, the local community, tourists, tourism enterprises, scientists, local entrepreneurs, associating organizations, history lovers and the media (Frey & Meier, 2006). Museums are responsible for the promotion and development of culture, as well as for meeting a wide range of different social needs in the use of cultural goods. As a result, on the one hand they engage in a competitive struggle for limited resources, including financial resources (e.g., funds from donors or budgetary subsidies), while on the other hand, they also cooperate, e.g., in the field of expanding their offer (exchange of exhibitions and collections), through mutual marketing activities, etc. (Giannini & Bowen, 2019). As a consequence, in order for museums to successfully function on the market and create an attractive and comprehensive cultural offer, they must actually enter into co-competition relationships. Moreover, the institutional environment as well as political and legal conditions – that is relationships rooted in power (government, legal regulations) – may not only create various incentives, but often even force entities from the cultural sector to adapt to policies imposed on them (Mariani, 2007; Towse & Hernández, 2020) in order to achieve the expected benefits. From such a perspective, establishing and developing co-competition, which brings numerous benefits to the entities involved, arises as a chance

that not only spontaneously appears to entities seeking it (chance discovery/recognition), but is also created by these entities (chance creation) (Alvarez & Barney, 2007; Ramoglou & Tsang, 2016). In this approach, coopetition is therefore established and developed in a gradual, often spontaneous way, related to emerging opportunities (Juszczak & Wójcik, 2021) that create the opportunity to achieve additional benefits.

As a consequence, researchers more and more often point to the incremental nature of the coopetition carried out by contemporary organizations – including cultural and art institutions. This is in contrast to the formulation of actions in a typically strategic way thus enabling better and more effective adaptation to phenomena occurring in the turbulent environment (Juszczak & Wójcik, 2021; Darbi & Knott, 2022).

4. Research Method

This article presents selected results of the field research conducted¹. The empirical research was exploratory, and the research process used a qualitative, interpretative approach (Silverman, 2016). Exploratory qualitative research enabled a more complete and comprehensive understanding of the phenomenon under study, as well as its description. This made it possible to focus on its features, characteristics, processes and meanings (Denzin & Lincoln, 2018), as they were to be used to identify specific aspects of the problem under study – the importance of the use of the chance management concept among cultural institutions. The methodology used included qualitative research techniques with the use of qualitative research tools (Bouncken et al., 2021).

The study used semi-structured, in-depth individual face-to-face interviews. A total of 42 interviews were conducted – 22 with representatives of public museums and 20 interviews with representatives of private museums (one interview per organization). This number enabled the so-called saturation effect to be achieved (Suddaby, 2006). Due to the adopted research goals, the interviewees were selected deliberately, taking into account such criteria as: (1) legal form of activity, (2) simultaneous occurrence of cooperation and competition relationships in the activity of the museum, (3) importance of the museum in Poland, (4) range of activity, (5) size of entity, and (6) its activity. The snowball technique was used as well. In the case of public museums, the interviewees were mainly directors, their deputies or proxies, and other senior and middle-level managers. In the case of non-public museums, they were the founders, i.e., owners, or presidents of associations or foundations, when the founder of the museum was an association or foundation. Therefore, it should be recognized that in the context of the studied phenomena, the interlocutors were key informants (Kumar et al., 1993).

The field research was iterative and lasted from January to July 2020. However, due to the announcement by the World Health Organization

of the COVID-19 pandemic, and the numerous government restrictions introduced as a result, some of the interviews in March-June 2020 were conducted via online tools (Google Meet, Zoom), each time using audio and video. The total duration of all interviews was approximately 47 hours, and the average interview duration was approximately 1 hour and 15 minutes.

The interviews were recorded and after collecting the data, the research material was written down and transcripts of the interviews were made. The text after transcription had a total of 909 pages. The content of the interviews was then encoded (Atkinson & Delamont, 2010) using NVivo computer software. The coding of the empirical data was made using deductive-inductive logic, so-called abduction (Auerbach & Silverstein, 2003). We started with deduction, using the assumptions of the chance management concept taken from the literature to create initial, more general codes. Next, these codes were particularized inductively based on our research results. To increase the level of research trustworthiness (Guba, 1981), all procedures in the research were documented and a detailed protocol was set up. Also, full transcripts, definitions of codes and their applications were created and checked (Saldaña, 2009).

The research used so-called focused coding of categories, expanding the structure of codes and ultimately creating a hierarchy. In the context of the selectively presented research results, this article uses codes related to the following aspects: (1) the importance of identifying, discovering and creating chances in the activities of museums; (2) manifestations of the use of the chance management concept in the activities of museums – in particular in inter-organizational relationships; (3) exemplification of the chance management concept in the activities of museums – in particular in cooperation; and (4) the effects of using the chance management concept for the current activity and development of museums. The findings of the research are presented along with chosen quotations from the interviews so as to give a voice to the interviewees themselves, and at the same time increase the credibility of the qualitative research and allow for a better understanding of the research findings (Czernek-Marszałek & McCabe, 2022).

5. Research Findings

The results of the research revealed that chances are an important component of a flexible way of acting and making decisions on the basis of inter-organizational relationships. As a specific strategy based on trust and the creation and appropriation of value in the long-term perspective (e.g., Chen & Miller, 2015; Devece et al., 2019), cooperation – so far considered on the basis of strategic management – turned out among cultural institutions to be spontaneous, unplanned and also often a relationship based on the use of chances coming from the environment. Among the

researched cultural institutions, involvement in a cooperation relationship often occurred suddenly. Museums established cooperation with competitors in order to take advantage of an emerging chance in favorable conditions, allowing them to achieve specific goals or development benefits:

I think that we choose competitors for cooperation first of all according to our needs, sometimes those that appear suddenly. [5P]

Moderator: *How do you choose your partners for cooperation? How do you rate your competitors? Do you do some kind of interview?*

Interlocutor: *Often by chance. This is always the case with museum workers. [18NP]*

It should be emphasized that due to the specificity of the way cultural institutions function, their dependence on election cycles and external financing, and also due to their creative approach and the nature of the activities they carry out, the importance of the phenomenon of projectization in culture is significant. This involves focusing on one-time activities, as well as on speed and programmatic freedom (Lin & Wan-hua, 2006), which is also typical in cooperation relationships among museums, as evidenced by the following statement by one of the interlocutors:

You know, it's not like we're planning to get married. We have projects to do and then we cooperate, but these projects sometimes end after a month, sometimes after a year, and sometimes it's just a one-time cooperation with a competitor because there is such a need and we need each other just then. And sometimes they and we just have the money to do it, and then we just happen to dive into it together. [7NP]

In culture, actions often take place in an unforeseen way, which results from the influence of the environment. The aforementioned projectization is therefore a phenomenon based on the currently adopted model of cultural policy, promoting one-off events with a strictly defined beginning and end. This design is a natural response to the current way of financing culture and is based primarily on one-off events and temporary activities with a task dimension (Kosińska, 2018). Such aspects were also emphasized by museum representatives:

Our most important cooperations with competitors involve funding activities. These are formal contracts. There are parts of this cooperation that are based on ad hoc contracts, for example the rental of exhibits, the exchange of our collections, creating, in a sense, complementary offers for the public. [14P]

The interlocutors claimed that various events or a combination of circumstances, also related to a specific social context, created the possibility of achieving additional benefits. These were, for example, culture industry events such as conferences for museum professionals and accompanying social meetings. Existing social relationships constituted the *spiritus movens* of establishing cooperation, and thus creating chances to achieve museums'

goals. The actions taken were therefore a combination of both rational intentions and accidental factors, and therefore an example of seizing chances in the implementation of new activities:

During these conferences, many people, including me, have the chance to meet friends, friends of friends, etc. They are used for this, maybe this phrase “are used” sounds bad, but somewhere during these meetings, some idea is thrown out, and a light comes on that this could be another chance to cooperate with someone and achieve some benefits for my museum. [8P]

Economic practice shows that, based on the relational approach among cultural institutions, chances arise as a result of social construction (Baker & Nelson, 2005), and the individual actions and motivation of managers (Wood & McKinley, 2010). Coopetition implemented in this way takes the form of an incremental relationship based on the contextual approach (Bengtsson et al., 2010).

5.1. Attributes of Chance in Museum Coopetition

Prior fragmentary research on the broadly understood concept of chance management has revealed a certain range of attributes² ascribed to chance. Researchers adopt certain division criteria; hence different attributes of chance can be identified (Krupski, 2013; Chang et al., 2019; Lachiewicz et al., 2021). Due to the origin of chance in relation to the boundaries of the organization, internal and external chances can be distinguished, as the organization’s approach to seizing chances can be either active or passive. In turn, taking as a criterion the perception of decision-makers in the decision-making process, conscious and unconscious chances can be distinguished. However, depending the organization’s attitude to exploration and the use of chances in its activities, chances can be discovered, created, brought to fruition or can simply arise.

Interestingly, it is worth emphasizing that although chance has been identified on the basis of research conducted on enterprises – business organizations, they are also relevant in the case of the activities of cultural institutions.

When considering the criterion of origin or source of chances within the organization (Lachiewicz et al., 2021), it should be noted that due to the nature of coopetition, which as an inter-organizational relationship goes beyond the boundaries of one entity, chances will be only external. In museum coopetition, chances considered in terms of the chance management concept take the form of promising situations in museums’ external environment:

I’m just thinking about this institutional cooperation with other museums from the voivodship [...], maybe also a bit utopian, that at this moment we had the chance to exhibit our artist. Sometimes it was even unimportant whether it would be as beneficial

for us as for them, whether we would pay more or not, but it was a reminder of the Watach figure himself. You understand, you have to take advantage of this chance, because we don't know if there will be such a possibility later. [13P]

This also shows that chances are fleeting and transient, hence unused chances may pass forever, which is why it is so important for business entities to notice them in the environment.

In turn, in terms of the organization's attitude to seizing chances, museums show both active and passive approaches to taking a chance in establishing coopetitive relationships (Link & Marxt, 2004; Dimov, 2007).

The active approach includes the desire to establish cooperation with competitors within the hermetic environment represented by museums and with the motive of complementary fulfilment of the needs of the entities involved in coopetition. Importantly, as the interlocutors indicate, coopetition that is the result of taking advantage of emerging chances appears as an unformed relationship that evolves and develops over time:

The beginning of our relationship with rivals, it probably comes from the willingness to cooperate, just like that. I have the impression and probably some experience that people who have similar expectations or similar needs meet somewhere. That is, if there are such mutual needs. Well, this is the beginning of a relationship, and then when there is a common interest, these relationships deepen. [14P]

It should be pointed out that the limited budgets at the disposal of cultural institutions, in particular private museums, naturally push museums into coopetition, considered in the category of chance. An active, but also immediate search for partners is related to the desire to obtain external funds. In the vast majority of cases, the regulations of tenders are structured in such a way that a single entity cannot receive a subsidy. This means that all kinds of partnerships and joint initiatives serving the implementation of a given project receive additional points. These regulations also dominate in various types of EU programs under which subsidies are awarded for cultural activities. It is often the case that museums first find out about a contest under which funds can be obtained, then they become acquainted with its requirements, and in order to meet them, they start an active search for a suitable partner or, in order to meet the contest requirements, establish associations or foundations, even though they had not planned on doing so:

Because most often the funds that could be obtained were transferred to associations, and not to institutions, we had to have an association, and this association was created because of this need [...], but this is only on the basis that the programs are designed in such a way that we, for example, as an association, generally can only act as us. And as part of this association, we support, I don't know, ten museums that precisely meet the conditions of this program, so then a competitor or not a competitor must cooperate and carry out this program in order to settle the accounts. [1NP]

In turn, a passive approach to taking the chances arising from cooptation is manifested mainly among museums when such cooptation is initiated top-down by the organizers who finance their activities. Cooptation relationships are then imposed by local government, provincial or state authorities due to certain political circumstances or social goals guiding the organizers. Museums take into account certain benefits related to access to resources, and treat cooptation as a chance to achieve, for example, an economic goal, such as reducing costs. However, this is a chance that appears in a reactive manner (Link & Marxt, 2004), as evidenced by the following statement:

Sometimes these relationships with competitors, as I observe it for example in our own institution, were born from the fact that someone at the top, i.e., the mayor and the director, came to an agreement, so this cooperation began as one imposed on us by our superiors, and I, in turn, as a superior, imposed this cooperation on our colleagues from the museum. The goal is achieved, and then most often we separate. [8P]

As mentioned earlier, chances can also be of a conscious or unconscious nature (Jackson & Dutton, 1988; Thomas et al., 1993; Gartner et al., 2008). Importantly, the identification of chances results from the perception of decision-makers, and so is related to the use of one's own cognitive framework to explain the decisions made. In the case of museums, it should be emphasized that they often do not treat themselves as competitors, which determines their lack of awareness of participating in a competitive struggle (Klimas et al., 2021), and thus results in engaging in unconscious cooptation. According to one of the interlocutors representing a museum that consciously enters into cooptation relationships, seeing it as a chance to achieve the expected goals or benefits, cooptation may be a chance, for example, to stimulate creative development, inspire each other, exchange information or collections, or create joint exhibitions:

We are people [private museologists] who stimulate each other. When I can see my colleague is on some cool track, I'm attracted to it too, it's just a healthy rivalry, maybe there is a bit of light jealousy in it, some kind of rivalry, but it is healthy so we don't do the dirty on one another, but rather we inspire each other, we stimulate each other. Then we create joint exhibitions, exchange information and it's cool. [5NP]

The last of the criteria identified so far that enables certain attributes to be assigned to chance is the organization's attitude to exploring and taking chances in its activities. In this approach, chances can be discovered, created and brought to fruition or may simply arise (Alvarez & Barney, 2007; Ramoglou & Tsang, 2016). As research results have shown, discovered chances have their sources in various types of changes in the environment, e.g., market or social conditions. At the stage of their identification, decision-makers demonstrate recognition of chances and then proceed to their potential use. When a chance is taken, it becomes a created chance. The use of the chances is related to individual perceptions, when changes in

the environment regarding the attractiveness or feasibility of a given project are perceived as favorable circumstances conducive to the actions taken. As one of the interviewees pointed out, noticing the trend of educational games appearing in museums, and then seizing the chance to obtain a grant for the organization of a game in their own museum, resulted not only in reaching new audiences, but also in expanding the existing cultural offer, which constitutes a created chance:

We have heard that various kinds of educational games are in fashion, but we've never played such a typical educational game, we haven't run workshops for kids or anything like that. Well, some time passed and there was a chance to obtain a special grant to organize an outdoor game in our museum. It wasn't an amazing amount, but why not? And you know, I did it! I figured since there's a demand for it, it's worth trying. Schools came and they continue to come, even from another voivodeship, the kids are engaged, and everyone is happy. Since then, we have offered various such workshops and educational meetings. [16P]

Materialized chances refine the decision maker's existing, intuitive ideas for ventures (Dimov, 2011). Decision-makers take advantage of circumstances appearing in the environment, and follow emerging chances in order to make their aspirations and plans real. This is how one of the interlocutors spoke about a materialized chance, which turned into an additional educational, training and lobbying activity for the museum:

The idea of developing some ecological standards in the activities of museums in Poland has been on my mind for a long time. This topic seems to be completely ignored by museums, and there is much to be done in this area. Three years ago, we cooperated with the [name of the museum] on such a publication, which, among other things, addressed pro-ecological issues in museums. And that's how it all started. Recently, we have jointly developed a manifesto of pro-ecological activities that museums can implement, but for 2 years we have also been doing so-called workshops, training sessions for museologists: the 'Museum think-tank' [...]. In these workshops, we learn a lot about ecology [...]. We are even at the stage of formulating legal provisions for the ministry that could be implemented to realize this ecological path in museums in Poland. [3P]

In turn, arising chances exist regardless of the actions taken by the managers of a given entity, e.g., in the form of unsatisfied or potential increased demand for a given good or service. In contrast to chances that are discovered and created, chances that arise are previously unrecognized by decision-makers and are not used in a purposeful way, i.e., previously planned. Sometimes, however, they are realized in the form of profits (Davidsson et al., 2017) without any active action on the part of the organization. Importantly, due to the non-profit nature of museums' activity, profit is interpreted in non-economic, qualitative terms. An example of an arising chance for one museum was the emergence of another large, widely promoted and competitive museum in a nearby location. As one of the interlocutors pointed out, the emergence of competition, which in

his first assessment would lead to the collapse of the museum, ultimately turned out to be a chance for the development of the institution and the gaining of a new group of recipients of the museum's offer:

Because it's like this, the Museum of the Second World War was built, I heard voices that maybe when the new museum is built, then people will only go to the new museum and stop going to the old one, but it's just the opposite. They go to the new museum and more people also come to us, so this is one more attraction that has made more people come, there is a synergy effect. [12P]

It should be noted that the attributes of chance presented within the concept of chance management relating to the specificity of coepetition in cultural institutions – museums in particular – are not separable, hence individual attributes of chance may occur simultaneously and even dynamically replace one another. For example, an active approach to taking advantage of chances from the environment may also be connected (or change over time to a different type) with creating chances, materializing them and using them in a fully conscious way.

6. Discussion and Conclusion

Our analyses contribute to exemplify the chance management concept in coepetition among cultural institutions and determine specific chance attributes in the context of coepetition phenomenon. The study contributes to contributes to the development of the theory in several ways.

Firstly, considerations presented in the theoretical part of the paper allowed us to systematize and clarify the existing way of understanding the chance in the literature. As a result of the conducted analyses, based on the relational approach, it was assumed that chance can be understood as a favorable moment for the organization to take action, bringing benefits to each of the parties involved in the relationship and what is worth emphasizing – chance cannot only be used, but also created by the organizations themselves (by entrepreneurs). Our results showed chances as promising phenomena or situations occurring dynamically in an organization's environment, and the use of which enables the achievement of specific development benefits. What is more, chances are a component of many theoretical concepts in the field of management sciences.

Secondly, the research in the cultural sector allowed us to identify the attributes of chance according to certain division criteria which are in line with attributes identified so far in the literature – but only fragmentarily so far. Thus the research let us identified indicated few attributes of chance among non-business organizations (public and non-profit museums). They are internal or external due to the origin of chance in relation to the boundaries of the organization, due to the organization's approach to seizing chances can be either active or passive; conscious and unconscious chances

can be distinguished taking as a criterion the perception of decision-makers in the decision-making process and depending the organization's attitude to exploration and the use of chances in its activities, chances can be discovered, created, brought to fruition or can simply arise. Although there is theoretical output regarding the attributes of chances, as well as the effects of their use, the results of our research show, cultural entities use chances on the way to achieving not only a competitive advantage, but also a cooperative, or – as has been shown – a cooperative one.

Thirdly, the research showed how important is the perception of decision makers when it comes to taking advantage of chances in the changing environment. The perception of chances appears to be a key impulse initiating and directing entrepreneurial activities, also in the sphere of strategic management, where they stimulate organizations to implement assumed business projects and enable the achievement of ambitious goals and above-average results (Lachiewicz et al., 2021).

Fourthly, the paper offers a novel view on coopetition from the chance management concept perspective. Coopetition has so far been considered in management and quality sciences mostly as a strategic phenomenon and a long-term, planned and purposeful relationship (Devece et al., 2019; Czakon et al., 2020; Greven, 2022). The research in the cultural sector has revealed that the coopetition relationship usually has temporary, ad hoc, short-term nature, being an incremental action taken spontaneously depending on the occasion, which thus confirms the assumptions researchers have put forward in this regard (Czakon, 2010; Juszczak & Wójcik, 2021). Thus, coopetition seen in this way can be analyzed by taking into account the concept of chance management, and especially the relational approaches towards chances considered within the concept, which sees them in the organization's environment.

What is more, it appears that cultural institutions are becoming more and more flexible in their way of operating, which also makes it possible for them to start cooperation with entities without the need to enter into long-term relationships. The specificity of the way cultural institutions function reveals numerous one-off activities, a focus on speed, activity dynamics and programmatic freedom, as in culture one should work on the basis of enthusiasm, passion, creativity and spontaneity, which is not conducive to establishing rigid, long-term relationships. Therefore, activities are characterized by high flexibility and are shaped depending on the chances currently perceived or created by the entities. This confirms the position of researchers on the contextual approach to the phenomenon of coopetition (Bengtsson and Raza-Ullah, 2016). In the case of cultural institutions, projects financed from public funds, both at the local and national level, enforce ad hoc actions, causing many entities to develop adaptive abilities, ingenuity and speed of response to changes in the environment. In addition, the emphasis on the project or event nature of

many activities undertaken by cultural and art institutions relates to the so-called theory of long duration (fr. *longue durée*), in which, apart from the perspective of the long and medium term, also indicates the short-term nature of the analyzed phenomena (Ames, 1991).

The results of our research also showed the specificity of cooptation in cultural institutions and the importance of social factors (Engwall, 2003). Our research is in line with the other researchers' findings indicated cooptation as the result of social construction (Baker & Nelson, 2005; Czakon & Rogalski, 2014) and individual actions, as well as the motivations of managers (Wood & McKinley 2010; Czakon et al., 2020). Simultaneously, scholars emphasize that in taking advantage of a chance, the individual cognitive perspective of the manager who is able to see, use or create a chance is extremely important. Chances are formed by the entrepreneurs themselves through a chance-creating process (Saravathy, 2001; Venkataraman, 2003). What is more, they are created through a process of social construction, so cannot exist separately from the entrepreneur (Shackle, 1979; Saravathy, 2001; Baker & Nelson, 2005).

To sum up, the research findings so far indicate that cooptation relationships analyzed at the inter-organizational level are dependent on and specific to the industry or the given area in which the entities operate (Czakon, 2014), and therefore are contextual in nature (Bengtsson & Raza-Ullah, 2016). The specificity of the operation of cultural institutions – including its various types – shows that it is not only necessary, but also required to verify and test existing theories, and as a consequence to supplement, modify or expand them in order to better explain and understand the phenomenon of cooptation. This research has shown a completely different aspect of the cooptation relationship – considered on the basis of the chance management concept – which can be perceived as a game changer in the field of strategic management. This concept justifies searching for a deeper understanding of the theoretical lenses of cooptation (i.e., through game theory, the resource-based view, network theory, the paradox concept or governance logic). Thus, cooptation theory still has many gaps in terms of the theoretical underpinnings of the entire concept.

As the representatives of cultural institutions show, curiosity and courage in testing new ways of developing entities in the field of culture can lead to the discovery of completely new, innovative management models. Chance also seems to be the basis for the development of further fascinating research questions, for example because they are sometimes difficult to identify, discover and create. They are also transient, hence they require quick actions and reactions, as well as showing their incremental, spontaneous nature. As a result, some people are more effective in using them than others (Short et al., 2010), which emphasizes the role of organization managers in their effective use, i.e., in a way that ensures the success and survival of organizations on the market.

6.1. Limitations and Future Research Directions

The research has some limitations, mainly related to the use of the interpretive approach and qualitative research to analyze the phenomena. The research was carried out in selected museums, and therefore it is not possible to generalize the results to all such entities. Our choice of sector and interlocutors may have overemphasized a specific mode of cooperative action – ad hoc using chances, which has been noticed in other sectors (Zakrzewska-Bielawska et al., 2022; Oke, 2020), also in competition of institutions (Monticelli et al., 2023), including cultural field (Cortese et al., 2021). The research was also carried out in the current socio-economic conditions in Poland, hence similar research carried out in other countries may yield different results.

Our findings suggest a few directions for future research, some stemming directly from the limitations of this study. Firstly, it is recommended to carry out similar research in other countries in order to verify and supplement the results obtained for Polish cultural institutions. Moreover, it is worth examining other types of cultural institutions in order to verify the results obtained. In the future research, it would be fruitful to explore other types of sectors and informants that contribute to the adoption of a cooperative mindset using the chance management concept. Secondly, the research revealed several attributes of chance, hence it would also seem that extended research using this approach would be recommended in order to identify more characteristic or features of chance. Thirdly, in the longer term, qualitative research could be used to determine which of the attributes most strongly determine competition among cultural institutions and – as the last – it seems justified to extend the current trend of research on competition to include behavioral, cognitive and social aspects (Czakov et al., 2020; Randolph et al., 2020; Meena et al., 2023), which seem to be important in analysis of this phenomenon, taking into account approaches adopted in sociology or social psychology.

6.2. Managerial Implications

On the basis of the presented considerations, some recommendations can be formulated for managers of cultural institutions (and museums in particular), which may help in the strategic management of these entities. However, it should be emphasized that this issue has not been sufficiently explored so far in theory or practice. Managers of cultural institutions should understand that taking advantage of chances on the basis of inter-organizational relationships, e.g., competition, may be necessary for development and survival, as well as being a real time strategy for generating and appropriating value, and transferring it to recipients. Finally, taking into account the developed configuration (taking advantage of chance in competition relationships), managers should also know how to manage

cooperation in the short term, for example by focusing more on the most effective performance possible under given conditions, rather than on emerging tensions.

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Endnotes

- ¹ The conducted research project covered a broader issue referring to cooperation among museums, taking into account social contexts; however, due to the issues raised in this article, only selected research results are presented.
- ² We understand them as contextual factors of chance.

References

- Alvarez, S. A., & Barney, J. B. (2007). Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, 1(1–2), 11–26.
- Amata, R., Dagnino, G. B., Minà, A., & Picone, P. M. (2022). Managing cooperation in diversified firms: Insights from a qualitative case study. *Long Range Planning*, 55(4). <https://doi.org/10.1016/j.lrp.2021.102128>
- Ames, K. (1991). The archaeology of the «longue durée». Temporal and spatial scale in the evolution of social complexity on the Southern Northwest Coast. *Antiquity*, 65(249).
- Atkinson, P., & Delamont, S. (2010). *SAGE qualitative research methods*. Sage.
- Auerbach, C., & Silverstein, L. B. (2003). *Qualitative data: An introduction to coding and analysis*. NYU Press.
- Bagdadli, S., & Arrigoni, L. (2005). Strategic positioning of the Venice Biennial: Analysing the market for periodic contemporary art exhibitions. *International Journal of Arts Management*, 7(3), 22–31.
- Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3), 329–366.
- Bandura, A. (2005). The evolution of social cognitive theory. In K. G. Smith & M. A. Hitt (Eds.), *Great minds in management* (pp. 9–35). Oxford University Press.
- Bengtsson, M., & Kock, S. (1999). Cooperation and competition in relationships between competitors in business networks. *Journal of Business & Industrial Marketing*, 14(3), 178–194.
- Bengtsson, M., & Raza-Ullah, T. (2016). A systematic review of research on cooperation: Toward a multilevel understanding. *Industrial Marketing Management*, 57, 23–39.
- Bengtsson, M., Eriksson, J., & Wincent, J. (2010). Co-opetition dynamics – An outline for further inquiry. *Competitiveness Review: An International Business Journal*.
- Bouncken, R. B., Qiu, Y., Sinkovics, N., & Kürsten, W. (2021). Qualitative research: Extending the range with flexible pattern matching. *Review of Managerial Science*, 15(2), 251–273.
- Brandenburger, A. M., & Nalebuff, B. J. (1996). *Co-opetition*. Harper Collins Business.
- Buenstorf, G. (2007). Creation and pursuit of entrepreneurial opportunities: An evolutionary economics perspective. *Small Business Economics*, 28(4), 323–337.
- Carr, D., Zhang, C., & Cheung, C. F. (2004). *Space, time and culture*. Springer Science & Business Media.
- Chen, M. J., & Miller, D. (2015). Reconceptualizing competitive dynamics: A multidimensional framework. *Strategic Management Journal*, 36(5), 758–775.
- Chang, C. H., Garnsey, E., & Ruan, Y. (2019). *Opportunity discovery and creation in disruptive innovation*. University of Cambridge.

- Clegg, S. R., Da Cunha, J. V., & e Cunha, M. P. (2002). Management paradoxes: A relational view. *Human Relations*, 55(5), 483–503.
- Collins, J. C., & Porras, J. I. (2008). CMR classics: Organizational vision and visionary organizations. *California Management Review*, 50(2), 117–137.
- Cortese, D., Sinicropi, S., Pollifroni, M., & Cantino, V. (2021). “Coopetition” for cultural tourism: An accounting history perspective. *De Computis-Revista Española de Historia de la Contabilidad*, 18(1), 157–168.
- Cravens, D. W., Piercy, N. F., & Shipp, S. H. (1996). New organizational forms for competing in highly dynamic environments: The network paradigm. *British Journal of Management*, 7(3), 203–218.
- Czakon, W. (2010). Emerging coopetition: An empirical investigation of coopetition as inter-organizational relationship instability. In S. Yami, S. Castaldo, G. B. Dagnino, & F. Le Roy (Eds.), *Coopetition strategy: Winning strategies for the 21st century*. Edward Elgar Publishing.
- Czakon, W., & Rogalski, M. (2014). Coopetition typology revisited – A behavioural approach. *International Journal of Business Environment*, 6(1), 28–46.
- Czakon, W., Klimas, P., & Mariani, M. (2020). Behavioral antecedents of coopetition: A synthesis and measurement scale. *Long Range Planning*, 53(1).
<https://doi.org/10.1016/j.lrp.2019.03.001>
- Czernek-Marszałek, K., & McCabe, S. (2022). Why qualitative papers get rejected by *Annals of Tourism Research*? *Annals of Tourism Research*, 92.
- Darbi, W. P. K., & Knott, P. (2022). Coopetition strategy as naturalised practice in a cluster of informal businesses. *International Small Business Journal*. <https://doi.org/10.1177/026624262210797>
- Davidsson, P., Delmar, F., & Wiklund, J. (2017). Entrepreneurship as growth: Growth as entrepreneurship. In M. A. Hitt, S. M. Camp, D. L. Sexton, & R. D. Ireland (Eds.), *Strategic entrepreneurship: Creating a new mindset* (pp. 328–342). Blackwell Publishers.
- Denrell, J., Fang, C., & Liu, C. (2015). Perspective – Chance explanations in the management sciences. *Organization Science*, 26(3), 923–940.
- Denzin, N. K., & Lincoln, Y. S. (2008). *The landscape of qualitative research* (3rd ed.). Sage Publications.
- Devece, C., Ribeiro-Soriano, D. E., & Palacios-Marqués, D. (2019). Coopetition as the new trend in inter-firm alliances: Literature review and research patterns. *Review of Managerial Science*, 13, 207–226.
- Dimov, D. (2007). From opportunity insight to opportunity intention: The importance of person–situation learning match. *Entrepreneurship Theory and Practice*, 31(4), 561–583.
- Eckhardt, J. T., & Shane, S. A. (2003). Opportunities and entrepreneurship. *Journal of Management*, 29(3), 333–349.
- Eisenhardt, K.M., & Sull, D. (2001). Strategy as simple rules. *Harvard Business Review*, 79(1), 106–16, 176.
- Engwall, M. (2003). No project is an island: linking projects to history and context. *Research Policy*, 32(5), 789–808.
- Foss, K., & Foss, N. J. (2008). Understanding opportunity discovery and sustainable advantage: The role of transaction costs and property rights. *Strategic Entrepreneurship Journal*, 2(3), 191–207.
- Frey, B. S., & Meier, S. (2006). The economics of museums. In V.A. Ginsburg, D. Throsby (Eds.), *Handbook of the economics of art and culture* (Vol. 1, pp. 1017–1047). Elsevier.
- Galloway, S., & Dunlop, S. (2007). A critique of definitions of the cultural and creative industries in public policy. *International Journal of Cultural Policy*, 13(1), 17–31.
- Garri, M. (2021). Coopetition, value co-creation, and knowledge-enhancement in the UK alpaca industry: A multi-level mechanism. *European Management Journal*, 39(5), 545–557.

- Gernsheimer, O., Kanbach, D. K., & Gast, J. (2021). Coopetition research – A systematic literature review on recent accomplishments and trajectories. *Industrial Marketing Management*, 96, 113–134.
- Ghazinoory, S., Malekifar, S., Nasri, S., & Kousari, S. (2021). Visioning for cultural industries: CLA inspired scenario method. *Futures*, 131. <https://doi.org/10.1016/j.futures.2021.102770>
- Giannini, T., & Bowen, J. P. (2019). *Museums and digital culture: New perspectives and research*. Springer.
- Ginsburgh, V. A., & Throsby, D. (Eds.). (2006). *Handbook of the economics of art and culture* (Vol. 1). Elsevier.
- Greven, A., Fischer-Kreer, D., Müller, J., & Brettel, M. (2022). Inter-firm coopetition: The role of a firm's long-term orientation. *Industrial Marketing Management*, 106, 47–57.
- Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Ectj*, 29(2), 75–91.
- Hamel, G., Doz, Y. L., & Prahalad, C. K. (1989). Collaborate with your competitors and win. *Harvard Business Review*, 67(1), 133–139.
- Hasitschka, W., Goldsleger, P., & Zembylas, T. (2005). Cultural institutions studies: Investigating the transformation of cultural goods. *The Journal of Arts Management, Law, and Society*, 35(2), 147–158.
- Hilbert M (2012) Toward a synthesis of cognitive biases: How noisy information processing can bias human decision making. *Psychological Bulletin*, 138(2), 1–27.
- Jarunwaraphan, B., & Mallikamas, P. (2020). A corpus-based study of English synonyms: Chance and opportunity. *REFlections*, 27(2), 218–245.
- Jing, R., & Van de Ven, A. H. (2018). Toward a chance management view of organizational change. *Management and Organization Review*, 14(1), 161–178.
- Jullien, F. (2004). *A treatise on efficacy: Between Western and Chinese thinking*. University of Hawaii Press.
- Juszczyk, P., & Wójcik, D. (2021). Coopetition in synoptic and incremental approaches. Context of the cultural sector. *Przegląd Organizacji*, (9), 12–18.
- Klimas, P., Czakon, W., Kraus, S., Kailer, N., & Maalaoui, A. (2021). Entrepreneurial failure: A synthesis and conceptual framework of its effects. *European Management Review*, 18(1), 167–182.
- Klimas, P., Stańczyk, S., Sachpazidu, K., Stanimir, A., & Kuźmiński, Ł. (2023). The attributes of inter-organizational relationships: Which fifteen of them really matter to software developers? *Industrial Marketing Management*, 110, 1–16.
- Kosińska, O. (2018). Kiedy projekt połyka organizację. Problem projektyzacji w organizacjach pozarządowych w kulturze a zagadnienie wyobraźni organizacyjnej. *Zarządzanie w kulturze*, 19(3), 257–272.
- Krupski, R. (2006). Badania nad oryginalnością zasobów przedsiębiorstwa. In J. Skalik (Ed.), *Zmiana warunkiem sukcesu. Dynamika zmian w organizacji – ewolucja czy rewolucja. Prace Naukowe Akademii Ekonomicznej*, (1141). Akademia Ekonomiczna.
- Krupski, R. (2008). Okazje jako przedmiot badań w zakresie zarządzania strategicznego. In A. Kaleta & K. Moszkiewicz (Eds.), *Zarządzanie strategiczne w badaniach teoretycznych i praktyce* (pp. 156–162). *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*.
- Krupski, R. (2011). Okazje w zarządzaniu strategicznym przedsiębiorstwa. *Organizacja i Kierowanie*, (4), 11–24.
- Krupski, R. (2013). Rodzaje okazji w teorii i w praktyce zarządzania. *Prace Naukowe Wałbrzyskiej Wyższej Szkoły Zarządzania i Przedsiębiorczości*, (21), 5–16.
- Kumar, N., Stern, L. W., & Anderson, J. C. (1993). Conducting interorganizational research using key informants. *Academy of Management Journal*, 36(6), 1633–1651.
- Lachiewicz, S., Matejun, M., & Mikoláš, Z. (2021). *Okazje w zarządzaniu innowacjami w firmach sektora MŚP*. CeDeWu.

- Lado, A. A., Boyd, N. G., & Hanlon, S. C. (1997). Competition, cooperation, and the search for economic rents: A syncretic model. *Academy of Management Review*, 22(1), 110–141.
- Lee, S. H., Peng, M. W., & Barney, J. B. (2007). Bankruptcy law and entrepreneurship development: A real options perspective. *Academy of Management Review*, 32(1), 257–272.
- Levy, M. (2003). Are rich people smarter? *Journal of Economic Theory*, 110(1), 42–64.
- Lin, Q. I. N., & Wan-hua, Q. I. U. (2006). An exploration of the organizational framework of large-scale cultural projects. *Journal of Beijing University of Aeronautics and Astronautics Social Sciences Edition*, 19(2), 22.
- Lin, W., Hu, Y., & Jiang, P. (2016). The impact of external environment factors on the growth of cultural enterprises in China. *Journal of Discrete Mathematical Sciences and Cryptography*, 19(5–6), 1091–1107.
- Link, P., & Marxt, C. (2004). Integration of risk-and chance management in the co-operation process. *International Journal of Production Economics*, 90(1), 71–78.
- Mandják, T., Szalkai, Z., Neumann-Bódi, E., Magyar, M., & Simon, J. (2015). Emerging relationships: How are they born? *Industrial Marketing Management*, 49, 32–41.
- Mariani, M. M. (2007). Coopetition as an emergent strategy: Empirical evidence from an Italian consortium of opera houses. *International Studies of Management & Organization*, 37(2), 97–126.
- Massaad, C. (2021). *Opportunity management in complex infrastructure projects: An attempt at exploiting complexity*. Delft University of Technology. <https://repository.tudelft.nl/islandora/object/uuid:72d5f88d-acee-44f5-b667-14099ee5bb0f?collection=education>
- Meena, A., Dhir, S., & Sushil, S. (2023). A review of coopetition and future research agenda. *Journal of Business & Industrial Marketing*, 38(1), 118–136.
- Mintzberg, H. (1973). Strategy-making in three modes. *California Management Review*, 16(2), 44–53.
- Mintzberg, H., Ahlstrand, B., & Lampel, J. (2005). *Strategy safari: A guided tour through the wilds of strategic management*. Free Press.
- Mischkowski, D., & Glöckner, A. (2016). Spontaneous cooperation for prosocials, but not for proselfs: Social value orientation moderates spontaneous cooperation behavior. *Scientific Reports*, 6(1), 1–5.
- Monticelli, J. M., Verschoore, J. R., & Garrido, I. L. (2023). The emergence of coopetition in highly regulated industries: A study on the Brazilian private healthcare market. *Industrial Marketing Management*, 108, 35–46.
- Najda-Janoszka, M., & Sawczuk, M. (2018). Museums as a research object in the strategic management field. In A. Nalepka & A. Ujawry-Gil (Eds.), *Business and non-profit organizations facing increased competition and growing customers' demands* (Vol. 17, pp. 51–67). National-Louis University in Nowy Sącz.
- Opp, K. D., & Gern, C. (1993). Dissident groups, personal networks, and spontaneous cooperation: The East German revolution of 1989. *American Sociological Review*, 659–680.
- PONS. (2023). *PONS Dictionary*. Retrieved January 15, 2023, from <https://pl.pons.com>
- Qizi, M. K. I. (2021). The role of museums in the development of tourism. *Academica: An International Multidisciplinary Research Journal*, 11(2), 121–124.
- Ramoglou, S., & Tsang, E. W. (2016). A realist perspective of entrepreneurship: Opportunities as propensities. *Academy of Management Review*, 41(3), 410–434.
- Randolph, R. V., Hu, H. F., & Silvernail, K. D. (2020). Better the devil you know: Inter-organizational information technology and network social capital in coopetition networks. *Information & Management*, 57(6). <https://doi.org/10.1016/j.im.2020.103344>
- Reinartz, W., Krafft, M., & Hoyer, W. (2004). The customer relationship management process: Its measurement and impact on performance. *Journal of Marketing Research*, XLI, 293–305.

- Saldaña, J. (2014). Coding and analysis strategies. In P. Leavy (Ed.), *The Oxford handbook of qualitative research* (pp. 581–605). Oxford University Press.
- Sandström, K. (2005). *Is an opportunity a possibility and a chance?: A semantic study of three similar nouns*. University of Technology.
- Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2), 243–263.
- Sebt, M. H., Gereei, A., & Naghash, T. H. (2009). A comprehensive framework for integrated management of opportunities and threats by using dynamic system. *International Journal of Civil Engineering*, 7(3), 161–169.
- Shackle, G. L. S. (1979). *Imagination and the nature of choice*. Edinburgh University Press.
- Short, J. C., Ketchen Jr, D. J., Shook, C. L., & Ireland, R. D. (2010). The concept of “opportunity” in entrepreneurship research: Past accomplishments and future challenges. *Journal of Management*, 36(1), 40–65.
- Silverman, D. (2016). *Qualitative research*. Sage.
- Skat-Rørdam, P., Muzyka, D. F., & Zagrodzki, M. (2001). *Zmiany decyzji strategicznych: wykorzystanie okazji rynkowych do rozwoju przedsiębiorstwa*. PWN.
- Suddaby, R. (2006). From the editors: What grounded theory is not. *Academy of Management Journal*, 49(4), 633–642.
- Towse, R., & Hernández, T. N. (2020). *Handbook of cultural economics*. Edward Elgar Publishing.
- Tsang, E. W. (2004). Toward a scientific inquiry into superstitious business decision-making. *Organization Studies*, 25(6), 923–946.
- Van de Ven, A. H., & Jing, R. (2012). Indigenous management research in China from an engaged scholarship perspective. *Management and Organization Review*, 8(1), 123–137.
- Venkataraman, S. (2003). Foreword. In S. Shane (Ed.), *A general theory of entrepreneurship: The individual-opportunity nexus* (pp. xi–xii). Edward Elgar.
- Ver Steeg Jr, J. (2022). A mixed-methods study of how university museums use outreach to build community relationships and deliver value to the university. *Museum Management and Curatorship*, 37(1), 71–91.
- Wood, M. S., & McKinley, W. (2010). The production of entrepreneurial opportunity: A constructivist perspective. *Strategic Entrepreneurship Journal*, 4(1), 66–84.
- Zacharia, Z., Plasch, M., Mohan, U., & Gerschberger, M. (2019). The emerging role of cooperation within inter-firm relationships. *The International Journal of Logistics Management*, 30(2), 414–437.
- Zakrzewska-Bielawska, A. (2016). Tworzenie i apropriacja wartości jako cel strategii relacyjnej przedsiębiorstwa. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, (444), 609–622.
- Zakrzewska-Bielawska, A., & Piotrowska, D. (2021). Toward a relational strategic orientation. In *Organizational change and relational resources* (pp. 29–46). Routledge.
- Zhang, X. J., Fu, P. P., Xi, Y. M., Li, L., Xu, L. G., Cao, C. H., Li, G. Q., Ma, L., & Ge, J. (2012). Understanding indigenous leadership research: Explication and Chinese examples. *The Leadership Quarterly*, 23(6), 1063–1079.
- Zielińska, A. (2016). Formułowanie strategii w organizacji pozarządowej. *Modern Management Review*, 21(23(3)), 229–238.
- Zineldin, M. (2004). Co-opetition: The organisation of the future. *Marketing Intelligence & Planning*, 22(7), 780–790.

The Impact of Hybrid Work on the Quality of Interpersonal Relations in the HR Department of the Enterprise – A Case Study

Miroslaw Wójcik

Warsaw University of Technology, Poland
<https://orcid.org/0000-0003-1167-7036>

Magdalena Poroszevska

Warsaw University of Technology, Poland
<https://orcid.org/0000-0002-4323-5163>

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Abstract

Purpose: The purpose of this article is to answer the question of whether the implementation of hybrid work organization results in a quality change of interpersonal relations in an HR Department.

Methodology: To achieve the stated goal, the authors decided to conduct a case study in a large, dispersed organization. Empirical data were obtained through an online research questionnaire, an individual in-depth interview, and the IT systems of the organization under study.

Findings: As a result of the study, it was shown that in the examined HR Department, the implementation of hybrid work organization did not change the quality of employee relations. The results contradict some existing sources, making us assume that the impact of hybrid work on employee relations is not unequivocal. Therefore, there are possible situations where its negative or positive effect does not exist. This opens a wide range of possibilities for applying hybrid work methods without negatively impacting the organization.

Originality/value: The literature is scarce when it comes to analyzing the impact of hybrid work organization on employee relations. Most of the available material is based on reports from consulting companies and its scientific value is impossible to examine. Even less literature addresses the issue of interpersonal relations in the post-pandemic era.

Keywords: hybrid work, interpersonal relations, relational capital, relational quality, human resources, pandemic, case study.

JEL: M100; M140; M500; M540; M590

Correspondence address: Warsaw University of Technology, Pl. Politechniki 1, 00-661 Warsaw, Poland.

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Wpływ hybrydowej organizacji pracy na jakość relacji międzyludzkich w obszarze HR przedsiębiorstwa – studium przypadku

Streszczenie

Cel: celem artykułu jest odpowiedź na pytanie, czy wdrożenie hybrydowej organizacji pracy prowadzi do jakościowej zmiany relacji międzyludzkich w dziale HR.

Metodologia: aby osiągnąć postawiony cel, autorzy postanowili przeprowadzić studium przypadku w dużej, rozproszonej organizacji. Dane empiryczne uzyskano za pomocą kwestionariusza badawczego online, indywidualnych wywiadów pogłębionych oraz przy wykorzystaniu systemów informatycznych organizacji poddanej badaniom.

Wyniki: w wyniku badania wykazano, że w badanym obszarze HR wdrożenie hybrydowej organizacji pracy nie wpłynęło na jakość relacji między pracownikami. Wyniki te stoją w sprzeczności z niektórymi istniejącymi źródłami, co pozwala przypuszczać, że wpływ pracy hybrydowej na relacje między pracownikami nie jest jednoznacznie określony. Istnieją także sytuacje, w których taki wpływ nie występuje. Otwiera to szeroki zakres możliwości wdrożenia hybrydowej organizacji pracy bez negatywnego wpływu na organizację.

Oryginalność/wartość: literatura dotycząca wpływu hybrydowej organizacji pracy na jakość relacji między pracownikami nie jest bogata. Większość dostępnych materiałów opiera się na raportach firm konsultingowych, których wartość naukową trudno ocenić. Podobnie niewielu badaczy podejmuje problematykę relacji międzyludzkich w erze postpandemicznej.

Słowa kluczowe: praca hybrydowa, relacje międzyludzkie, kapitał relacyjny, jakość relacji, zasoby ludzkie, pandemia, studium przypadku.

1. Introduction

Although not new, hybrid work became widespread globally only in the era of the COVID-19 pandemic. Earlier cases of applying these methods should be treated rather in terms of interesting curiosities. Because of their selectivity, treating them as objects of scientific observation and sources of theoretical generalizations is difficult. Only the context of the global pandemic, which eliminated many formal, legal, or social constraints, forced or allowed organizations to widely implement solutions and tools of hybrid work, making it a common phenomenon. In the first period of the pandemic, hybrid work implementations were avalanche-like and unstructured. Organizations forced to operate under conditions of uncertainty, lacking the necessary know-how, implemented new solutions in the way they could (Al-Habaibeh et al., 2021). Thus, during this period, the effect of change materialized diversely and unevenly. For example, organizations in which more importance was given to the formal way in which work was carried out than to its results were much slower to absorb the change (Rudolph et al., 2020), as were companies that did not have a previously developed IT infrastructure (Arora & Suri, 2020). However, assessing the impact of implemented solutions should be considered not only from the perspective

of labor efficiency but also from the perspective of employee health and mental hygiene. It is telling that the COVID-19-related increase in stress indicators was higher than before the pandemic despite the stabilization and normalization of work in the “new” reality (O’Bannon, 2020). The importance of social relationships in the workplace is often explicitly recognized in studies on human motivation (Ryan & Deci, 2000) and job design (Grant, 2007). Employees’ belongingness to an organization is constructed through different resources such as their daily social interactions and exchanges with their peers and supervisors. The shift to remote work has reduced multiple opportunities for social interaction, including support and feedback (Golden & Veiga, 2008), especially during the pandemic with even fewer opportunities for FTF interactions (Hwang et al., 2020). According to Bertoni (2021), family and social factors also play a role in assessing and perceiving the work organization transition process. Changing the work organization by moving the place of performing duties to employees’ homes directly affects their private sphere, including relationships (Bertoni et al., 2021). Thus, it is worth posing the question of how hybrid work affects the quality of relationships in work teams and whether this impact is positive or negative. The research problem formulated in this way touches on a research gap that is important from the work organization point of view, including the characteristics of changes in employee relations caused by hybrid work. It is worth noting that relationships in an organization as an intangible resource of a company also play an important element of intellectual capital (IC) which, in turn, is directly related to the value of the company or its ability to compete (Kuzel, 2018). Relational capital is also an element that directly affects an organization’s other resources, including human capital (HC) and structural capital (SC) (Wójcik, 2021). Additionally, relationships are also part of formal and informal organizational culture, that is, the identity of the organization and the way its participants act (Shein, 2004). The issue focuses on the changes the pandemic has caused in labor relations and the sustainability of these effects when the economy emerges from the pandemic regime of operation. The purpose of the article is to determine the impact of hybrid work on the quality of interpersonal relations of HR Department employees and to support or reject the following research hypothesis:

H0: Implementation of hybrid work organization affected the quality of relationships in the HR Department.

To achieve such a goal, the authors pose the following research question:

1. Did the hybrid work deteriorate or improve the quality of the study group’s interpersonal relations?

The focus on HR Department employees was due to several reasons: firstly, the accessibility of the group and the homogeneity of the group in terms of competences. Secondly, HR Department employees are more

involved than other employees in the process of establishing, implementing, and maintaining work organization systems. They are the most familiar of all employees with the rules related to the functioning of the implemented policies, which makes them more capable of consciously assessing the changes taking place. An organization is a complex structure, with different occupational groups performing different types of work. The inclusion of the HR Department in the study is interesting because this department is largely responsible for organizing and implementing hybrid solutions in the organization (Kulik, 2022). This may be crucial in the subsequent evaluation of the implementation of hybrid working solutions in an organization.

Seeking answers to the above question, the authors in the first part of the article refer to the existing state of knowledge, defining the organizational context of the studied area of ignorance based on literature review, and adopt a definitional framework of such concepts as employee relations, relational capital, hybrid work organization. On such a foundation, the authors conducted a case study of a large business organization. The choice of the theory-building research method used is related, on the one hand, to the early stage of knowledge development in this area of research, and at the same time, to the fact that two years after the outbreak of the pandemic, the evaluation of hybrid work and its impact on people is devoid of possible distortions resulting from the change effect accompanying the implementation of these solutions in the initial period of the pandemic. Thus, this is the moment of consolidation of accepted and developed organizational patterns. For this reason, it is worthwhile to undertake observation of the processes taking place in this area. The selection of the case in this study is related primarily to the criterion of data availability but also to the fact that the studied group of employees, i.e., the HR team, consists of several hundred people and works partly in a dispersed structure. In the authors' opinion, this facilitates the assessment of employee relations, which could not always be possible in small, specialized teams or single-person functions and roles. The studied organization is one of the largest Polish companies and therefore the HR Department is an experienced group of people aware of the personnel processes in the organization. The chosen object of research allows for studying hundreds of individual cases in similar conditions and a homogeneous business environment, which is an added value and constitutes an important justification for the choice made. The paper is empirical and touches on the issue of mutual employee relations in a team. Especially, the presented research addresses the sustainability of some solutions developed in the pandemic times and tries to answer questions related to the maintenance of these solutions in the new post-pandemic reality.

2. Literature Review

Although the notion of hybrid work only became widespread in the pandemic era, this form of work was also applied earlier (Williamson & Colley, 2022). It was determined either by the specifics of the employee's profession (mainly knowledge professions such as IT specialists, lawyers, and creative professionals) or by the so-called telework defined in the Labor Code (Zender-Zięcina, 2020). However, in many cases, this solution was more a form of additional benefit than a systemic workflow solution. Practically, hybrid work involves working from home and partially, as needed, at the company. The shape and form of the "hybrid", i.e., the number of days of work outside the company, the choice of these days, and the flexibility to switch them, are different in organizations and sometimes depend on the preferences of the employees themselves (Shirmohammadi et al., 2022). Hybrid work organization also means new technological solutions and a new philosophy of work related to digitalization and automation of processes or at least work without direct supervision (Gratton, 2021). These changes force organizations and employees to acquire new professional and managerial competencies. Hybrid organization also affects the company by changing the way employees live. Undoubtedly, working from home blurs the boundary between work and private life. Studies show that most people performing duties from outside the office carry out activities related to their personal lives during working hours. This is evidenced by the research of the Pracuj.pl portal (2022), according to which as many as 89% of respondents working remotely or in the hybrid mode admit that during working hours, they dedicate time to private activities unrelated to professional activity (Pracuj.pl, 2022). At the same time, research by Polzer's team (2020) indicates that remote workers spend more time at work, hold more meetings and communicate more often than they usually would. Hybrid work is therefore also a source of redefined personal goals and a work paradigm shift (Dowling et al., 2022). Observed in the United States of America and spreading through Europe, the so-called *Great Resignation* effect is largely an effect of changes in people's values also caused by remote and hybrid work. All this makes it worthwhile to analyze the impact of hybrid work more broadly and in a specific organizational context.

Evaluating hybrid work organization is a difficult task and brings with it social challenges. This is confirmed by the dynamically changing results of employee opinion surveys conducted throughout the pandemic. According to Dolot's 2020 survey, which was conducted at the beginning of the pandemic, the implementation of remote work was met with many negative assessments. Nearly 30% of respondents expressed fear of losing their jobs as a result of implementing remote work. More than 60% of respondents cited lack of interpersonal contact and isolation as the most significant negative factors directly related to the concept of relationships. Respondents did not perceive

significant positive aspects of this change when comparing opportunities and risks, while significantly emphasizing negative elements. About 40% of respondents expressed a desire for occasional remote work in the future (Dolot, 2020). In comparison, a survey conducted the following year by Ernst & Young (2021) indicated that after the pandemic ended, nearly 90% of respondents would strongly demand flexibility in terms of when and where they work (Ernst & Young, 2021). Similar data is presented in a study by the Pracodawcy RP organization. Before the pandemic, about 47% of employees, regardless of company size, had a positive attitude toward hybrid work. After the pandemic outbreak, the percentage of positive evaluations exceeded 66%. The attitude of employers towards this form of work has also changed. Before the pandemic, 39% presented a positive attitude towards employees performing work duties from home. In contrast, after implementing this form of work, the percentage of positive responses exceeded 67%. (Pracodawcy RP, 2021). According to a survey conducted by Antal and Corees Polska (2021), employers rate the effectiveness of remote work very highly – according to 92% of them, it is good or very good. The lowest ratings are given to issues such as integration and collaboration (35% negative indications) and employee onboarding (29% negative indications). Similar results were presented by PwC (2021), indicating that 83% of employers and 71% of employees consider implementing remote work a success for the organization (PwC, 2021). Changing the organization of work constitutes not only fear and apprehension of change but also transformations in interpersonal relations. According to Antal (2021), 65% of respondents noticed a weakening of relationships in the work environment, and 54% experienced a hindrance in external and/or internal cooperation (Antal, 2021). According to the Hays Poland (2021) survey, 76% of respondents positively viewed their relationships with their bosses and appreciated their efforts during the pandemic (Hays, 2021). On the other hand, 48% of respondents to the 4ClickMeeting (2021) survey believe that the lack of direct supervision and remote contact with the boss translates into greater work efficiency. Along with forming new relationships, the perception of this change is also changing (4ClickMeeting, 2021).

Despite the identified difficulties, hybrid work positively impacts employee motivation and attitude. The survey conducted by Pracuj.pl (2022) paints a picture of employees as more confident, less worried about their professional future, making precise demands for their employers, and, thanks to the lessons learned during the pandemic, choosing their workplace more consciously. The introduction of remote work has not only affected the expectations of employers but has also changed employees' lifestyles. The survey results indicate that employees recognize the benefits of remote work, such as staying at home when they feel unwell or when someone close to them needs support. Working in a hybrid work arrangement certainly makes it possible to meet both work-related and, to some extent, personal needs at the same time (Pracuj.pl, 2022).

Market reports (mentioned by the authors above) assessing the impact of hybrid work on employees' efficiency are part of an ongoing discussion about the future of organizations. More and more attention is being paid to the concept of employee well-being, health, motivation, and relationships with other employees. These issues can be framed through the prism of physical, mental, and social well-being. As it turns out, it is possible to define a catalogue of factors associated with hybrid work which positively or negatively affect well-being in each area mentioned (Tabor-Blazewicz, 2022). In the context of the conducted research, the issue of the social well-being of employees, i.e., their interpersonal relations, seems to be particularly crucial.

At this point, it should be emphasized that the literature on the subject lacks conceptually unified definitions and developed methods for measuring and studying relationships. This fundamentally hinders research in this area. According to the Dictionary of the Polish Language, a relationship is a relation or dependence between objects, concepts, quantities, or a relation occurring between people or social groups. To paraphrase Gulati (2010), relationships in an organization are crucial to its functioning. The processes of cooperation and, therefore, the materialization of relationships are increasingly becoming a source of value in the management process. The notion of relationships in organizational theory is both linked to the resource approach, which refers to the strategic role of intellectual capital within which relationships should also be identified (Martin de Castro, 2019), and considered in the context of an organization understood through the prism of networks in which relationships are the connections of individual network units. In this view, it is also important to mention the formal and informal dimensions of relationships, which, regardless of their entrenchment in the organization, shape and are shaped by its participants. In the intellectual capital based view, relational capital is its component and, in conjunction with HC and SC, determines the organization's ability to compete and gain a competitive advantage (Ujwary-Gil, 2020). Thus, changes within relationships determine the ability to compete. Given the practical nature of the phenomena studied and the need to analyze their context each time, it is worth transferring the discussion to the organization's operational level. Thus, the assessment of the external factors impact, hybrid work and its tools in this case, seems to be naturally included in the current positive and negative management research. The dichotomy and apparent contradiction of the observed phenomena blurs this division and betrays the characteristics of apparentness. As stated earlier, the effects of the examined changes in the organization can take on both negative and positive deviation characteristics for the same variables since it is not the nature of the change that determines its evaluation but also its context. What may be a benefit in one company may be a non-issue in another (Sidor-Rzadkowska, 2020).

3. Research Methods

To answer the research questions posed and support or reject the research hypothesis, the authors decided to conduct a case study of a large organization with a dispersed organizational structure. The object of the study became the HR Department of the biggest logistic company in Poland with its facilities in 17 regional locations. In the conducted study, several research tools were used: a questionnaire addressed to the employees of the studied area, an interview with the department's senior management, and an HR KPI analysis.

Although the study looked at changes over time, a longitudinal study was abandoned for several reasons. Firstly, a longitudinal study, as Stańczyk-Hugiet (2014) points out, must be conducted over an extended period on a fixed, predetermined sample. The occurrence of the pandemic and its consequences were impossible to predict, so it would also have been impossible to plan such a study in advance, select a sample and then measure it before hybrid work occurred, during its implementation and during the stabilization period of the implemented solution. Secondly, given the unusual circumstances of life- and health-threatening factors, there was a significant risk that the selected group would not be maintained over time and that other, not identifiable external factors would affect the obtained results. Consequently, it was decided to conduct the study using a single survey questionnaire whose questions focused not on assessing the quality of interpersonal relations at the time of the survey, but on assessing the change that hybrid work had generated in the quality of these relationships since implementation. The choice of a single questionnaire in this type of study is not an isolated case and is applicable to other contemporary research in social sciences. It is worth citing here the research of Smith and team (2022) on interpersonal interaction patterns of students during COVID-19 or the paper of Gorzelany-Dziadkowiec (2020) on Changing Consumer Behaviour in the Era of COVID-19.

The survey research was conducted using the authors' survey questionnaire for the design of which the model of interpersonal relational quality proposed by Szostek and Głinska-Noweś (2017) was used. In this model, the quality of interpersonal relations was captured through the prism of 4 categories:

1. Task performance, which includes, among other things, an individual employee's willingness to perform tasks, motivation, cooperation with other employees.
2. Organizational climate within which the work atmosphere, team activities, conflict resolution efficiency, and job satisfaction are defined.
3. Management style, which includes, among others, the ability to communicate, listen, plan and delegate responsibilities, fairness in approaching employees, and openness to their problems.

4. Personal closeness includes, among other things, personal contact between employees, sincerity, trust, affective relationships, and helping each other in private matters.

The model in question additionally contains a common ground for all areas, including relationship-building tools, and touches on each category indicated earlier. All sorts of elements can be shown here, such as communication tools, rules of cooperation, integration initiatives, compensation policies, etc. Based on the assumptions of this model, a research questionnaire was designed, divided into four parts: task performance, organizational climate, leadership style, and personal proximity. The survey contained 23 primary questions and a metric (questions used in the survey are attached as Appendix 1). The main questions were based on a 5-point Likert scale where answer 1 meant strongly disagree, 2 disagree, 3 have no opinion, 4 agree, and 5 strongly agree. The 22 questions were phrased in such a way that a higher answer meant strengthening a specific characteristic and a lower answer meant weakening it. In the case of one question, this rule was changed, which required reversing the scale at a later stage of coding the answers. Thus, it became possible to make the following assumptions:

1. Answers at level 3 mean that there is no impact of hybrid work on a given aspect of interpersonal relational quality,
2. Answers at a level below 3 mean deterioration of the quality of these relationships,
3. Responses at a level above 3 mean strengthening the quality of interpersonal relations.

The developed survey was conducted in June 2022. The survey yielded 124 responses, 79 of which were complete and suitable for further analysis. The remaining responses were incomplete. The percentage of correctly completed surveys accounted for 12% of the total population of the HR Department of the surveyed company. In the studied sample of 79 people, 78% were women and 22% were men, which largely corresponds to the gender structure of the HRs of the surveyed organization. The predominant group among the respondents (53%) were those with premises that allowed them to work comfortably from home. The largest group separated according to the criterion of work experience was the group with more than six years of seniority (76%). Most respondents (63%) worked in non-managerial positions. 35% of respondents performed mainly individual, analytical work, 33% performed work in which contact with internal customers predominated, 10% performed work with predominant contact with customers outside the company, and 22% performed work related to managing people.

The survey questions designed for each study area were verified for internal consistency using the reliability coefficient – Cronbach's alpha. The selected coefficient can take values from 0 to 1, with its correct and commonly accepted value being at least 0.6, while the best-case scenario

strives for a value of 0.9. Reliability indicates with what accuracy a dimension measures what it measures. High-scale reliability is indicated by values of this coefficient greater than 0.7.

Table 1
Cronbach's Alpha for Each Part of the Survey

Questionnaire	Cronbach's alpha
Part 1	0.87
Part 2	0.85
Part 3	0.88
Part 4	0.82

The alpha values obtained (Table 1) were above 0.8 in each surveyed case, which confirms high accuracy of the prepared tool.

The second stage of the survey was an indicator analysis of the surveyed area to confirm whether the statistical analysis results were confirmed by the dynamics of the fundamental analytical indicators. For this purpose, data on employment, absenteeism, and staff turnover were analyzed. To calculate the absenteeism rate, data on all employee absences were used, regardless of their length. The value of the index was taken as the percentage of working time lost due to absenteeism to the nominal working time in the period. For the retention rate, the total number of employees who left work during the periods under study was taken. The period covered by the analysis of the indicator is 2019–2021.

To identify more thoroughly the studied problem and to clarify any inaccuracies that might materialize during the research, the method of individual in-depth interviews with managers in charge of the company's HR area was used. This method was chosen because, according to Konecki (2000), the interviewer is free to set the sequence of questions, formulate questions, adjust the language of communication with the respondent, which, in this case, is an advantage and allows effective communication with the respondent. It should be emphasized that the respondents were not researchers and the issue under investigation was so new that previously unplanned topics might have emerged during the interview.

A semi-structured formula was chosen in which reference was made to pre-prepared questions (Appendix 2), but at the same time the possibility was left to formulate additional questions during the interview. These questions were grouped according to the structure of interpersonal relationship quality model proposed by Szostek and Glinska-Noweś (2017), which was adopted in the paper and described previously. In addition to the questions, several dispositions were formulated which represent important issues in the area under study: digital tools, processes automatization, continuity of operations,

quality and timeliness, stakeholders' comments, conflicts, reaction to change, communication, knowledge sharing, teamwork, responsibility and formal competence, guidelines, delegation of powers. These interviews aimed to precisely outline the organizational context of the hybrid solutions applied and clarify any interpretive doubts that may have arisen during the first two stages of the study. Three managers responsible for the HR area including HR Controlling, HR Development and HR Administration took part in the interviews. The interviews were conducted according to a prepared script and consisted of three parts: an introductory part, the main part, and transcription and data analysis. In the introductory part, the interviewer introduced the participant to the research topic, presented its objectives, and explained the methodology. Then, the main part of the interview was conducted following the proposed structure (Appendix 2), where respondents' answers were collected using a questionnaire. The questionnaire also allowed participants to assign an evaluative variable (positive, negative, neutral) to the discussed issues regarding their impact on the quality of interpersonal relationships, which proved helpful in the further stages of the study.

For example, during the transcription phase, the statement „In practice, it has become possible, even so, for an employee to work 100% remotely or from the office” was categorized as „work flexibility” according to the structure presented in Appendix 2, specifically under the „management style” category and with a „positive” degree of impact on the observed change. Overall, within the 13 indicated provisions in the transcription process, a total of 24 elements were identified and parameterized in 4 categories: IT tools, task performance, organizational climate and personal proximity, and management style. Additionally, each category underwent individual assessment. The collected data were compiled in a collective matrix and analyzed at the level of specific categories. Although interpretations of individual elements varied in the survey results, identical results were obtained at the aggregated category level.

4. Findings

As a result of the interviews, it was determined that the personnel function in the organization under study was carried out by a specialized, organizationally separate intra-enterprise organizational structure. Within this structure, it is possible to distinguish its central component and 16 regional components that provide services to employees working in each province. The central component is responsible for creating personnel policy, analytical, and planning functions, while the regional components are responsible for the operational service of employees.

The dispersed organization of the personnel function is related to the dispersed structure of the entire company, which has more than

6,000 workplace locations and employs nearly 80,000 employees. The scale of the business means that, despite the regionalization of HR services, most interactions and contacts between HR staff and employees are carried out through electronic channels of communication, by phone, or by mail.

Employees work in teams each of which has a manager. At the regional level, managers are responsible for organizational aspects, while at the central level, they are also the source of guidelines and interpretations of existing regulations. The hybrid work organization was successively implemented in March–May 2020 and operated until the end of the first quarter of 2022 after the pandemic restrictions ceased. Although stationary work has been restored, most of the solutions created and adopted for hybrid work have been maintained and used in the organization. Such solutions include some digitized HR processes, such as issuing electronic leave requests and electronic attendance records, eliminating the need for paper documentation. Videoconferencing systems were popularized and began to be used as a standard, e.g., for meetings with trade unions, periodic meetings of HR managers, recruitment processes, and everyday communication between employees.

The interviews also confirmed that the most significant barriers to „enter” into hybrid work organization were hardware problems, lack of previously digitized processes, and employee competency gaps. Hardware problems mainly manifested in insufficient portable equipment and lack of additional accessories such as microphones or webcams. Likewise, processes previously operated in the paper form could not be effectively implemented in a work-from-home situation. The successive IT systems development and partial digitalization of the activities minimized the barriers. The final element posing an organizational challenge turned out to be employee competence. The need to suddenly switch to new solutions in the sphere of communication, meeting planning, teamwork, and organization of one’s work simultaneously, was, in the opinion of managers, a serious obstacle for employees with less developed IT and computer competences and for managers not used to such organization of work. Those barriers became the cause of unusual way of implementing hybrid work in the organization. The company left a great deal of authority to the operational managers to decide how to divide and organize the work of their teams. The minimum percentage of people who could at the same time provide work from home was determined, and a rule was established that at least one person should always be available on a stationary basis. In cases of individual needs or employee preferences, it was even possible to work 100% remotely or in the stationary mode. In addition, the hybrid system was implemented for three months consecutively in individual locations.

The results of the survey indicated a strong diversity of opinions. Neutral answers „3” were present in only 24% of all answers, which means that

in 76% cases, respondents perceived positive or negative effects of the change in question. Changes related to sources of motivation or effective communication were clearly emphasized. The overwhelmingly positive opinion of respondents concerned such issues as increased motivation (52%), easier planning and organization of work (68%), positive change in the work atmosphere (45%), increased commitment (58%), and satisfaction (47%). The number of conflicts at work also decreased, according to 56% of people. As for negative opinions, attention was drawn to the difficulty of obtaining data from other employees (55%), receiving support from others (53%), scheduling meetings (47%), and teamwork (60%). Most respondents also noted the insufficient competence of their supervisors in remote working conditions. Particular attention was paid to problems in delegating tasks (40%), issues in individual communication (49%), and low awareness of the duties performed by employees (39%).

Table 2

Basic Statistics for the Results Obtained in Each Category and for the Total

Measure	Part 1	Part 2	Part 3	Part 4	The entire questionnaire
number of questions	6	6	6	5	23
standard deviation	5.23	5.31	4.67	4.06	4.26
average total	18.76	19.15	17.41	14.18	17.37
average on question	3.13	3.19	2.90	2.84	3.02

When choosing a method for testing the hypothesis, it was assumed that the distribution of employee opinions in the organization was normal. Given that the sample size and the population's standard deviation were unknown, it was decided to test the null hypothesis using a small-sample *t*-test at a significance level of $\alpha = 0.01$. For hypothesis H₀ stating that hybrid work organization affects the quality of interpersonal relations in the HR Department to be true, the expected value (m_0) of the average response to the survey question for the entire population would have to be in the range corresponding to 1; 2 and 4; 5 because only such a result means a change in favor or to the disadvantage of interpersonal relations.

It was assumed that to reject the H₀ hypothesis, the *p* value for every expected value (1, 2, 4, or 5) must be lower than $\alpha = 0.01$. A statistical test value and *p* value was calculated for each category (Table 3). The test result showed that regardless of whether a category or the whole survey were considered, the *p* value for every expected value got lower than 0.01.

Table 3
*The Result of the T-Test and P-Value for Each Expected Value
 in Each Category and the Total*

Expected value	The result of the statistical test <i>p</i> value				
	Part 1	Part 2	Part 3	Part 4	The entire questionnaire
1	21.66649803 <0.001	22.0011742 <0.001	21.6932919 <0.001	20.06533479 <0.001	24.23498884 <0.001
2	11.47808526 <0.001	11.9640649 <0.001	10.2808387 <0.001	9.133186869 <0.001	12.24615826 <0.001
3	1.289672501 0.201	1.92695559 0.058	-1.13161456 0.261	-1.79896105 0.076	0.257327679 0.798
4	-8.89874026 <0.001	-8.11015374 <0.001	-12.5440678 <0.001	-12.731109 <0.001	-11.7315029 <0.001
5	-19.087153 <0.001	-18.1472631 <0.001	-23.9565211 <0.001	-23.6632569 <0.001	-23.7203335 <0.001

The *p* values for an expectation value of 1, 2, 3, or 4 took on a value less than 0.001 and so the probability of making a grade one error because of rejecting hypothesis H_0 is less than 0.1%. The statistical test result is significant at the significance level $\alpha = 0.01$ and allows us to reject hypothesis H_0 in favor of the alternative one which states that hybrid work in the studied organization did not affect the quality of interpersonal relations.

Indicator analysis of the studied area showed that during the studied period, i.e., from March 2020 to the end of Q1 2022, there were significant changes in employee turnover and absenteeism (Table 4). The sharp increase in the absenteeism rate by more than 3% quarterly was caused, as it turned out, by the exponential rise in employees' use of the right to paid childcare in the first lockdown period, at a time when the solutions of the hybrid work organization did not yet cover the entire area of the personnel function. In 2021, an increased number of leavers was also noticeable, which, according to the information received, was mainly the result of the Voluntary Leave Program launched at the company at the turn of 2020/2021. Taking the above into account, the indicator data on absenteeism and turnover do not indicate any sudden deviations that could affect changes in interpersonal relations caused by hybrid work. Thus, the obtained analytical indicators provide an additional argument confirming the statistical test's results.

Table 4
 Turnover and Absenteeism Rates in the Personnel Area in 2019–2022

	Q1	Q2	Q3	Q4
Absenteeism (Monthly average)				
2019	7.41%	6.65%	6.19%	6.94%
2020	9.39%	7.67%	5.22%	6.64%
2021	5.49%	6.12%	6.67%	9.25%
2022	5.51%	6.05%		
Leavers (HR Department – FTE)				
2019	17	9	19	24
2020	8	5	12	52
2021	48	16	22	48
2022	35	25	0	0

The results of the survey, as well as data from selected organizational metrics, indicate that there was no significant impact of the changes in question on the quality of interpersonal relationships. This is confirmed by the interviews conducted, which found that factors minimizing the potentially negative effects of the change, such as the need to provide hybrid work in the absence of physical conditions for the provision of such work, appeared to be significant factors in maintaining the existing quality of interpersonal relations in the Department. These factors have become:

- Delegating to managers the competence to select people working in the hybrid model

“Unions agreed on the need for flexible scheduling of hybrid work patterns in such a way that employees who do not have the conditions to work from home can continue to do so in the office. Such a solution made it necessary to ask line managers to schedule and plan work accordingly.”

- Establishing percentages of employees who can be in the office at any one time.

“Once individual needs were taken into account, a certain percentage of employees would be kept in the office at any one time.”

“In practice, it has become possible, even so, for an employee to work 100% remotely or from the office.”

Managers pointed out that the dynamic implementation of hybrid working had also exposed them to serious communication problems. Improving and streamlining remote communication therefore became a priority.

“In order to ensure the proper circulation of information and contact, weekly video meetings were established with the main purpose of sharing experiences, problems, good practices and mutual support. During the first meetings, it became apparent that some employees were not actively participating in the meetings. After a few weeks, it came to light that some of these people were not equipped with cameras, and some did not have microphones. Once the equipment was replenished, the number of people taking an active part increased.”

“For some employees, the opportunity to have a ‘face-to-face’ video meeting was their first opportunity to see their colleagues. In this respect, hybrid working has paradoxically helped to reduce the distance. Meeting and video communication has in many cases become a standard form of communication.”

Complementing the electronic means of communication was the automation and digitization of selected operational processes, which fundamentally increased the comfort of performing work. A big problem at the beginning of the pandemic and hybrid work organization was the paper workflow. There were cases when employees carried out some of their tasks at home, but the rest of their work had to be completed in the office by their colleagues or by themselves at another time. It was only when these processes were digitalized that the workload started to be reduced.

“Replacing paper-based workflows with various electronic forms made it possible to fully exploit the potential of remote working. This has been an important requirement for keeping the morale of employees at the expected level.”

An important factor raised by respondents seemed to be the fact that before video communication was launched, some employees working in a geographically dispersed structure had no contact with each other except by email or telephone. The organization of video meetings, the work of online project teams and other similar examples of new practices allowed the existing quality of relationships to be maintained despite the even greater dispersion of employees.

“The mere fact of doing work away from other colleagues was not a problem. Our employees are used to working in different parts of our organization, in dispersed and geographically diverse structures.”

“Work mobility is written into our DNA.”

5. Discussion of the Results

As a result of the statistical test, hypothesis H0 was rejected, which means that for $\alpha=0.01$, the alternative hypothesis according to which the implementation of hybrid work pattern does not affect the quality of interpersonal relations in the organization is true. The obtained result may stir emotions from the ongoing discussion on the future of work organization and the ongoing dispute about the benefits and risks of implementing hybrid work in organization. However, when analyzing the obtained data, it is necessary to keep the organizational and social contexts in mind. The case study concerned a large organization operating in a distributed structure. Working remotely, customer service through communication channels other than direct and team members sometimes located in different corners of the country are the daily work of the respondents, which can certainly affect the perception of hybrid work and the ability to find themselves in the new conditions of the pandemic period. The type of work performed may also be of significance. In most cases, HR tasks are done individually and do not require team decision-making or doing other things together. As a result, HR employees work in conditions of far-reaching competence delegation, characterized by a high degree of independence and a sense of strong responsibility for their work. It is worth mentioning that almost 80% of the employees in this area are people with more than 10 years of experience in the organization, which largely testifies to the quality of interpersonal relations, as well as the close personal intimacy between these employees. Particularly noteworthy is the critical and not entirely positive assessment of managers, resulting from the survey and confirmed in interviews with executives. As it turns out, the change in the rules of organizing the work of teams particularly affected managers who, according to the surveyed employees, had significant communication problems, did not cope with the precise delegation of tasks, and were unaware of the duties carried out by their subordinates. Thus, a change in work organization affects the expected structure of managerial competence model.

Based on the presented research, what can be done is to point out that under certain conditions, hybrid work does not necessarily affect the quality of interpersonal relations in a team. This is confirmed by the research of Boyer O'Leary, Wilson, and Matiu, according to which the quality of interpersonal relations at work does not depend on the physical distance between them but on the subjective perception of this proximity and how people feel in contact with the other person (as cited in Wilson et al., 2005). In the case at hand, it is also important to note the original and unprecedented approach to hybrid work implementation where a rigid mandatory number of days of work at home and the office was not set, and only the percentage of employees staying in the remote mode was determined. The managers made the final decision based on employee preferences. This approach offset the negative

impact of the sudden change and allowed more conservative employees to adjust to the change in their own time.

Likewise, some of employees who did not have the conditions to work remotely from home could continue to work in the stationary mode. This way, external factors that could negatively affect employees' opinions were eliminated. Thus, the individual approach to every employee can be considered in this case as one of the success factors in implementing hybrid work in the studied organization. This case also confirms the findings of the Shirmohammadi team's work-life balance study, according to which allowing employees to make the decision to work remotely significantly reduces the negative effects of a change (Shirmohammadi et al., 2022).

6. Conclusions

As stated earlier, the finding of no impact of hybrid work on the quality of employee relations is likely controversial. It is an important voice in the ongoing discussion on the future of work. It is even more important because the results of the conducted survey contradict the official positions of the largest recognized companies, such as Microsoft, Netflix, and Tesla, which strongly declare a return to standard stationary working conditions, justifying it, among other things, by the need to build and maintain the right level of employee relations. However, it should be emphasized that the study concerned a specific case and a specific, clearly defined professional group. This fact prevents the authors from making a broad generalization, but at the same time, indicates that the same generalization cannot be the opinion disseminated by some market players about the negative impact of hybrid work organization on employee relations.

The study's object was a large organization with a dispersed operations structure. It is hard to resist the impression that hybrid work organization is similar to work in distributed structures. In both cases, employees provide work in different locations, and the element of the physical presence of co-workers, or rather the lack of it, seems to be irrelevant in many cases. The individual characteristics of the organization and its distributed nature may therefore be the reason for the lack of severe changes in the quality of interpersonal relations after introducing hybrid work rules. The study identified the problem of the competence gap that was placed in a group of managers. Perhaps the reluctance of some organizations to hybrid work is somewhat due to the fear of this gap and is nothing more than an expression of the limitation of the rationality of decisions made by the management.

A limitation of the research carried out is the specific nature of the group studied. First and foremost, these are employees who, as stated above, prior to the outbreak of the pandemic, worked largely in a dispersed structure. The ability to function independently and to communicate remotely is certainly an important characteristic of the group. For many of those interviewed,

hybrid work meant only a change in the place of work provision, but minimal impact on interpersonal contacts. Another limitation is also the awareness of the function performed by these employees. HR staff were responsible for establishing and then implementing and maintaining hybrid work organization. Having such knowledge limits the negative effect of the change, which can undoubtedly be significant in the context of the research objective pursued.

Hybrid work, regardless of emerging opinions, will remain a permanent part of the landscape of many companies after the pandemic, and the solutions developed will stay with us permanently. However, it is worth noting that the current challenges for successful implementation of new solutions are not so much about technical issues, but about aspects of building and strengthening teams, such as cooperation, communication, motivation. It seems that a key element of the change will direct special attention to people and social relations, which no technology can replace nowadays. The new reality that has dawned on the work environment also requires employers to develop soft skills, including managerial skills, which are essential in managing distributed teams and maintaining a high level of commitment and efficiency among employees. Of course, the problem seems to be much more complex, and the research carried out points out new issues that would be worthwhile to study:

1. What is the impact of hybrid work on organizational structures efficiency?
2. Are teams in distributed organizations more resistant to the effects of remote work than teams in companies with a centralized structure?
3. Does the type of work performed make any difference in hybrid work?
4. Will hybrid work lead to the provision of work by an employee to different employers?

Answering all those questions will help to understand the process of another change, the change of relationship between employees and employers. And this is probably the most important and interesting case in the era of new normality.

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References

- 4 ClickMeeting. (2021, April). *Jak oceniamy pracę zdalną po roku pandemii?* https://knowledge.clickmeeting.com/uploads/2021/04/praca_zdalna_kwiecien_2021.pdf?_gl=1*1loaka9*_ga*NDQxNjcwMTYuMTY4NzUwNDExNg..*_ga_K7H94QHx99*MTY4NzUwNDExNi4xLjAuMTY4NzUwNDExNi42MC4wLjA.&_ga=2.241175498.934052076.1687504116-44167016.1687504116
- Al-Habaibeh, A., Watkins, M., Waried, K., & Javareshk, M. B. (2021). Challenges and opportunities of remotely working from home during Covid-19 pandemic. *Global Transitions*, 3, 99–108. <https://doi.org/10.1016/j.glt.2021.11.001>

- Antal, & Corees Polska. (2021, February). Model pracy a efektywność i zadowolenie pracowników. <https://antal.pl/wiedza/raport/model-pracy-a-efektywnosc-i-zadowolenie-pracownikow>
- Antal. (2021, June). *Spotkania i wydarzenia biznesowe w czasach zmiany*. <https://antal.pl/wiedza/raport/spotkania-i-wydarzenia-biznesowe-w-czasach-zmiany>
- Arora, P., & Suri, D. (2020). Redefining, relooking, redesigning, and reincorporating HRD in the post-Covid 19 context and thereafter. *Human Resource Development International*, 23(4), 438–451. <https://doi.org/10.1080/13678868.2020.1780077>
- Bartel, C. A., Wrzesniewski, A., & Wiesenfeld, B. M. (2012). Knowing where you stand: Physical isolation, perceived respect, and organizational identification among virtual employees. *Organization Science*, 23(3), 743–757. <https://doi.org/10.1287/orsc.1110.0661>
- Beauregard, T. A., Basile, K. A., & Canónico, E. (2019). Telework: Outcomes and facilitators for employees. In R. N. Landers (Ed.), *The Cambridge handbook of technology and employee behavior* (pp. 511–543). Cambridge University Press.
- Bertoni, M., Cavapozzi, D., Pasini, G., & Pavese, C. (2021, October). *Remote working and mental health during the first wave of COVID-19 pandemic* (IZA Discussion Paper 14773). Institute of Labor Economics (IZA).
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet*, 395(10227), 912–920. [https://doi.org/10.1016/s0140-6736\(20\)30460-8](https://doi.org/10.1016/s0140-6736(20)30460-8)
- DeFilippis, E., Impink, S. M., Singell, M., Polzer, J. T., & Sadun, R. (2020). *Collaborating during coronavirus: The impact of COVID-19 on the nature of work* (Harvard Business School Organizational Behavior Unit Working Paper No. 21-006). <http://dx.doi.org/10.2139/ssrn.3654470>
- Dolot, A. (2020). Wpływ pandemii COVID-19 na pracę zdalną – perspektywa pracownika. *e-mentor*, 1(83), 35–43. <https://doi.org/10.15219/em83.1456>
- Dowling, B., Goldstein, D., Park, M., & Price, H. (2022). Hybrid work: Making it fit with your diversity, equity, and inclusion strategy. *The McKinsey Quarterly*.
- Dutton, J. E. (2003). *Energize your workplace: How to create and sustain high-quality connections at work*. Jossey-Bass.
- Dutton, J. E., & Ragins, B. R., (2007). *Exploring positive relationships at work: Building a theoretical and research foundations*. Psychology Press. Taylor & Francis Group.
- EY. (2021, June). *Work reimagined. Global employee survey – Key findings and implications for ICMIF*. <https://www.icmif.org/wp-content/uploads/2021/06/ICMIF-EY-Work-Reimagined-Presentation-June-2021.pdf>
- Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. *Journal of Applied Psychology*, 92(6), 1524–1541. <https://doi.org/10.1037/0021-9010.92.6.1524>
- Golden, T. D., & Veiga, J. F. (2008). The impact of superior–subordinate relationships on the commitment, job satisfaction, and performance of virtual workers. *The Leadership Quarterly*, 19(1), 77–88. <https://doi.org/10.1016/j.leaqua.2007.12.009>
- Gorzalany-Dziadkowiec, M. (2020). Changes in consumer behaviour in the time of COVID 19. *Problems of Economics and Law*, 5, 1–15.
- Grant, A. M. (2007). Relational job design and the motivation to make a prosocial difference. *Academy of Management Review*, 32(2), 393–417. <https://doi.org/10.5465/amr.2007.24351328>
- Gratton, L. (2021). How to do hybrid right. *Harvard Business Review*, 99(3), 65–74.
- Hays Polska. (2020, August). *Zaangażowanie w czasie pandemii. Wpływ COVID-19 i zdalnego trybu pracy na efektywność polskich firm*. <https://image.email.hays.com/lib/fe4515707564057c751477/m/3/57c35059-f185-4d5d-aa4c-981d0cb7857f.pdf>

- Hwang, T., Rabheru, K., Peisah, C., Reichman, W., & Ikeda, M. (2020). Loneliness and social isolation during the COVID-19 pandemic. *International Psychogeriatrics*, 32(10), 1217–1220. <https://doi.org/10.1017/S1041610220000988>
- Kulik, C. T. (2022). We need a hero: HR and the 'next normal' workplace. *Human Resource Management Journal*, 32(1), 216–231. <https://doi.org/10.1111/1748-8583.12387>
- Kuzel, M. (2018). *Intellectual capital of organisations in the process of internationalisation of Polish companies – Foreign investors*. Scientific Publishing House of the Nicolaus Copernicus University.
- Martin-de Castro, G., Díez-Vial, I., & Delgado-Verde, M. (2019). Intellectual capital and the firm: Evolution and research trends. *Journal of Intellectual Capital*, 20(4), 555–580. <https://doi.org/10.1108/JIC-12-2018-0221>
- McKinsey & Company. (2021, July 9). *It's time for leaders to get real about hybrid*. <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/its-time-for-leaders-to-get-real-about-hybrid>
- Microsoft. (2021, March 22). *Work trend index annual report: The next great disruption is hybrid work – Are we ready?* <https://www.microsoft.com/en-us/worklab/work-trend-index/hybrid-work>
- Nurmi, N., & Hinds, P. (2020). Work design for global professionals: Connectivity demands, connectivity behaviours, and their effects on psychological and behavioral outcomes. *Organization Studies*, 41(12), 1697–1724. <https://doi.org/10.1177/0170840620937885>
- O'Bannon, I. M. (2020, June 30). *Covid-normal: Worker stress, work/life balance, and productivity start to stabilize*. CPA Practice Advisor. <https://www.cpapracticeadvisor.com/2020/06/30/covid-normal-worker-stress-work-life-balance-and-productivity-start-to-stabilize-2/38629/>
- Pracodawcy RP. (2021, March). *Księga rekomendacji projektu „Praca zdalna 2.0”. Rozwiązanie na czas pandemii czy trwała zmian?* <https://pracodawcyrp.pl/upload/files/2021/03/praca-zdalna-2-0-rekomendacje-1.pdf>
- Pracuj.pl. (2022, March). *Dwa lata nowej normalności. Pracownicy i kandydaci w nowym świecie pracy*. <https://media.pracuj.pl/presskits/dwa-lata-nowej-normalnosci-pracownicy-i-kandydaci-na-nowym-rynku-pracy>
- PwC. (2021, January 12). *PwC's US remote work survey*. <https://www.pwc.com/us/en/services/consulting/business-transformation/library/covid-19-us-remote-work-survey.html>
- Razzetti, G. (2022). *Remote Not Distant: Design a Company Culture That Will Help You Thrive in a Hybrid Workplace*. Liberationist Press.
- Rudolph, C., Allan, B., Clark, M., Hertel, G., Hirschi, A., Kunze, F., Shockley, K., Shoss, M., Sonnentag, S., & Zacher, H. (2021). Pandemics: Implications for research and practice in industrial and organizational psychology. *Industrial and Organizational Psychology*, 14(1–2), 1–35. <https://doi.org/10.1017/iop.2020.48>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>
- Schein, E. (2004). *Organizational culture and leadership* (3rd ed.). Jossey-Bass.
- Shirmohammadi, M., Au, W. Ch., & Beigi, M. (2022). Remote work and work-life balance: Lessons learned from the covid-19 pandemic and suggestions for HRD practitioners. *Human Resource Development International*, 25(2), 163–181. <https://doi.org/10.1080/13678868.2022.2047380>
- Sidor-Rządkowska, M. (2020). *Kształtowanie przestrzeni pracy. Praca w biurze, praca zdalna, coworking*. Wolters Kluwer.
- Smith, R. A., Brown, M. G., Grady, K. A., Sowl, S., & Schulz, J. M. (2022). Patterns of undergraduate student interpersonal interaction network change during the COVID-19 pandemic. *AERA Open*, 8. <https://doi.org/10.1177/23328584211073160>

- Stańczyk-Hugiet, E. (2014). Badania longitudinalne w zarządzaniu, czyli jak dostrzec prawidłowości w dynamice. *Organizacja i Kierowanie*, 2(162), 45–56. <https://econjournals.sgh.waw.pl/OiK/issue/view/736/125>
- Szostek, D., & Glińska-Noweś, A. (2017). Identyfikacja wymiarów jakości relacji interpersonalnych w organizacji. *Organizacja i Kierowanie*, 3(177), 11–24.
- Tabor-Błażejczak, J., & Rachoń, H. (2022). *Wyzwania kierowania ludźmi w systemie hybrydowej organizacji pracy*. Oficyna Wydawnicza SGH.
- ter Hoeven, C. L., Van Zoonen, W., & Fonner, K. L. (2016). The practical paradox of technology: The influence of communication technology use on employee burnout and engagement. *Communication Monographs*, 83(2), 239–263. <https://doi.org/10.1080/03637751.2015.1133920>
- Ujwary-Gil, A. (2020). *Organizational network analysis: Auditing intangible resources*. Routledge. Taylor & Francis.
- Van Zoonen, W., & Sivunen, A. E. (2021). The impact of remote work and mediated communication frequency on isolation and psychological distress. *European Journal of Work and Organizational Psychology*. <https://doi.org/10.1080/1359432X.2021.2002299>
- Wang, B., Liu, Y., Qian, J., & Parker, S. K. (2021). Achieving effective remote working during the COVID-19 pandemic: A work design perspective. *Applied Psychology*, 70(1), 16–59. <https://doi.org/10.1111/apps.12290>
- Williamson, S., & Colley, L. (2022). *Working during the pandemic: The future of work is hybrid*. UNSW Canberra.
- Wilson, J. M., O'Leary, M. B., Metiu, A., & Jett, Q. (2005). Subjective distance in teams. *INSEAD Working Paper*, (38).
- Wójcik, M. (2021). Structural capital and its importance for the intellectual capital of an organization. *e-mentor*, 5(92), 61–68. <https://doi.org/10.15219/em92.1543>
- Zander-Zięcina, E. (2020). Praca zdalna w kontekście proponowanych zmian w Kodeksie pracy. *Studia Prawnicze. Rozprawy i Materiały*, 27(2), 243–253.

Appendix 1

Primary questions of the questionnaire on the quality of interpersonal relations

Category	Question
Task performance	<ol style="list-style-type: none"> 1.1. In a hybrid working environment, I feel more motivated to perform tasks. 1.2. Under hybrid working conditions, it is easier for me to obtain necessary information from other employees. 1.3. Under hybrid working conditions, it is easier for me to plan my working time and schedule tasks to be performed. 1.4. In a hybrid working environment, it is easier for me to get help from colleagues to complete my tasks. 1.5. Under hybrid working conditions, it is easier for me to plan contacts and meetings with colleagues. 1.6. In a hybrid working environment, it is easier to identify co-workers who play a major role in the completion of my tasks.
Organizational climate	<ol style="list-style-type: none"> 2.1. The implementation of hybrid working has had a positive impact on the working atmosphere. 2.2. Being able to carry out work tasks from home results in increased commitment to work. 2.3. Hybrid working makes it easier to perform team tasks. 2.4. Hybrid working reduces the number of conflicts at work. 2.5. Hybrid working positively influences the professional image of the team. 2.6. Hybrid working increases the sense of job satisfaction.
Management style	<ol style="list-style-type: none"> 3.1. Hybrid working has increased the effectiveness and quality of managers in my company. 3.2. In a hybrid working environment, my supervisor better organizes and defines my tasks. 3.3. In a hybrid work setting, my supervisor better communicates to me the importance of my responsibilities and their impact on the performance of the whole team. 3.4. In a hybrid working environment, my supervisor is more aware of my responsibilities and the tasks I perform 3.5. Meetings in our team are more effective than before the introduction of hybrid working. 3.6. Hybrid working facilitates individual contact with my supervisor.
Personal proximity	<ol style="list-style-type: none"> 4.1. Hybrid working has a positive impact on team integration. 4.2. Hybrid working strengthens relationships between employees. 4.3. Hybrid working weakens existing inter-employee relationships. 4.4. Hybrid working strengthens the sense of trust in colleagues. 4.5. Hybrid working formalizes inter-employee relationships.

Appendix 2

Form of key questions and dispositions of the in-depth interview

Category	Key Questions	Dispositions
IT tools	Was this implementation extended to the whole organization at one time or not? What IT solutions have emerged in the organization?	<ul style="list-style-type: none"> • digital tools • processes automatization
Task performance	How did the performance during pandemic change?	<ul style="list-style-type: none"> • continuity of operations • quality and timeliness • stakeholders' comments
Organizational climate and personal proximity	Has hybrid working increased the number of conflicts in the organization to any extent? Does hybrid working make it difficult to interact with employees and subordinate teams? Do you perceive a change in the quality of relationships between employees?	<ul style="list-style-type: none"> • conflicts • reaction to change • communication • knowledge sharing • teamwork
Management style	Who is responsible for organizing hybrid work in teams? How was the implementation of hybrid working carried out in the organization?	<ul style="list-style-type: none"> • responsibility and formal competence • guidelines • delegation of powers

Trust, Distrust and Control Interplay in Interorganizational Relations

Agnieszka Padzik-Wołos

Kozminski University, Poland
<https://orcid.org/0000-0001-8307-5427>

Anna Pikos

Kozminski University, Poland
<https://orcid.org/0000-0003-2002-1055>

Dominika Latusek

Kozminski University, Poland
<https://orcid.org/0000-0003-3317-0084>

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Abstract

Purpose: The purpose of this paper is to provide a systematic literature review of research on the interplay between trust, distrust and control in interorganizational relations. The authors aim at diagnosing the current state of research along with gaps in the literature and then outlining opportunities for further research. The paper fulfills the aims by exploring the literature in four fields: (1) the understanding of trust, distrust and control, (2) interplay between trust and control, (3) relation between control and distrust and (4) relation between trust, distrust and control.

Design/methodology/approach: The systematic literature review was conducted following the framework in Kraus et al. (2020). The sample consisted of 78 publications which were analyzed both quantitatively and qualitatively.

Findings: Our systematic literature review revealed the prevalence of debate on trust, with distrust being marginalized. Five research gaps emerged from the analysis. As for the relation between two constructs, the trust–control debate is on top, trust–distrust takes the second position, with distrust–control as a marginal research area.

Originality/value: The paper is a comprehensive review of the body of literature integrating three constructs: trust, distrust and control, along with new research directions.

Keywords: trust, control, distrust, interorganizational relations, systematic literature review.

JEL: M10

Correspondence address: Kozminski University, 57/59 Jagiellonska, 03-301 Warsaw, Poland; e-mail: apikos@kozminski.edu.pl

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Zaufanie, nieufność i kontrola w relacjach międzyorganizacyjnych

Streszczenie

Cel: celem niniejszego artykułu jest przedstawienie systematycznego przeglądu literatury dotyczącej badań nad wzajemnym oddziaływaniem zaufania, nieufności i kontroli w relacjach międzyorganizacyjnych. Autorzy dążą do zdiagnozowania obecnego stanu badań wraz z lukami w literaturze, a następnie nakreślenia możliwości dalszych badań. Artykuł spełnia te cele, badając literaturę w czterech obszarach: (1) rozumienia zaufania, nieufności i kontroli; (2) wzajemnego oddziaływania zaufania i kontroli; (3) związku między kontrolą a nieufnością oraz (4) związku między zaufaniem, nieufnością i kontrolą.

Metodologia: systematyczny przegląd literatury został przeprowadzony zgodnie z ramami przedstawionymi przez S. Krausa, M. Breiera i S. Dasi-Rodríguez (2020). Próba składała się z 78 publikacji, które zostały przeanalizowane zarówno ilościowo, jak i jakościowo.

Wyniki: przeprowadzony systematyczny przegląd literatury ujawnił przewagę debaty skoncentrowanej wokół tematu zaufania, przy czym można zauważyć, że nieufność jest marginalizowana. Jeśli porównamy relacje między dwoma konstruktami, to debata zaufanie–kontrola jest na czołowym miejscu, zaufanie–nieufność zajmuje drugą pozycję, natomiast zaufanie–nieufność zajmuje trzecią pozycję, natomiast nieufność–kontrola jest marginalnym obszarem badawczym. Z analizy wyłoniło się pięć luk badawczych.

Oryginalność/wartość: artykuł stanowi kompleksowy przegląd literatury integrującej trzy konstrukty: zaufanie, nieufność i kontrolę, wraz z nowymi kierunkami badań.

Słowa kluczowe: zaufanie, kontrola, nieufność, relacje międzyorganizacyjne, systematyczny przegląd literatury.

1. Introduction

A large body of research shows that trust and control are important factors for interorganizational relationships (IORs). For many decades control was treated as a governance mechanism, and trust has emerged as the central mechanism for the coordination of IORs (Costa & Bijlsma-Frankema, 2007). It is as such crucial to embrace both control and trust in interorganizational relationships (Cao & Lumineau, 2015; Long & Sitkin, 2018; Long & Weibel, 2018; Vlaar, Van den Bosch & Volberda, 2007) as they facilitate cooperation (Cao & Lumineau, 2015).

Trust and control have been studied in IORs from various perspectives stressing the complexity and significance of the trust-control nexus (Costa & Bijlsma-Frankema, 2007). However, the literature calls for more theoretical frameworks addressing the trust and control relationship (Long & Sitkin, 2006). Despite a vast amount of research in the past two decades, there is no consensus on the type of relation between trust and control (substitute vs complementary). The question of whether any optimal combination of trust and control may serve as a prerequisite for cooperation (Long & Sitkin, 2018; Möllering & Sydow, 2019) also remains subject to discussion.

One should also not neglect the role of distrust in organizations, as an equally important governance mechanism (Six & Latusek, 2023). Both trust and distrust “contribute to establishing and maintaining relations: trust

through heightening the belief in positive intentions of the other party, and distrust through undertaking rational measures to secure transactions” (Lewicka & Zakrzewska-Bielawska, 2022). Vlaar et al. (2007) indicate that trust and distrust impact on formal coordination and control, inter-organizational performance, and managers’ perceptions attributed to their partners’ behavior.

However, the relationship between trust, distrust and control in interorganizational relations still remains unclear (Connelly, Miller & Devers, 2012). Exploring the issue, we discovered that no systematic review has yet been conducted on it. Such a review would enable integrating the existing body of research from different disciplines and creating a knowledge base on which future research can be grounded (Tranfield, Denyer & Smart, 2003). Therefore, the purpose of the paper is to systematically review the current literature on the relationship of trust, distrust and control in IORs. To meet the goal, the following research questions were formulated:

RQ1: How do trust, distrust and control interplay on an interorganizational level?

RQ2: What research gaps exist in the literature on trust, distrust and control on an interorganizational level that future studies can address?

In our opinion, understanding the mechanisms of interplay between trust, distrust and control is crucial for business areas, such as: strategic management (particularly internationalization strategies), business development and R&D innovation – as strategic alliances are often created in the areas. Strategic alliances require cooperation, but other aspects come into play, for instance the power relations between parties that impact the quality of an alliance. Business alliances leading to innovations or product development rely strictly on knowledge, it requires protection along with good relations, therefore cooperation arrangements become commonplace (Raza-Ullah & Kostis, 2020).

The paper has been structured as follows: Section 2 describes the scope of the review, Section 3 presents methods for the literature review, whereas the quantitative and qualitative results are included in Section 4, Section 5 presents a discussion, future avenues for research and some limitations of the paper.

2. Scope and Boundary of the Review

2.1. Trust

The concept of trust has been discussed and shown from different perspectives – many publications refer to the definition by Mayer, Davis and Schoorman (1995) that emphasizes a willingness towards vulnerability by one party towards another (Fryxell, Dooley & Vryza, 2002; Vlaar et al.,

2007). Factors influencing trust creation identified so far include: level of uncertainty (Adobor, 2006), familiarity and past experience (Costa & Bijlsma-Frankema, 2007); shared values, communication and opportunism (Goo, 2009); successful fulfillment of repeated exchanges (Connelly et al., 2012); relational behaviors (Schoenherr, Narayanan & Narasimhan, 2015), as well as information sharing (Shin, Yoo & Kwon, 2020). Even though trust as a term invokes positive connotations, scholars point out that excessive trust may result in detrimental effects (Costa & Bijlsma-Frankema, 2007; Gallivan & Depledge, 2003; Gundlach & Cannon, 2009) or introduce *rigidities* that require moderation (Thorgren & Wincent, 2011).

Scholars emphasize the aspects of the definition that refer to belief, subjective expectations or attitude (Das & Teng, 1998; Das & Teng, 2001; Kostis & Näsholm, 2020; Lui & Ngo, 2004; Nooteboom, 1996; Tomkins, 2001). However, the aspects are more related to the individual level of interaction. At the organizational level, the aspect of management is emphasized, i.e., trust as an organizing principle (Kostis, Bengtsson & Näsholm, 2021) that is connected with organizational structure and social interactions in an organization (Reed, 2001). The enabling role of trust is related to: (1) greater confidence (Das & Teng, 1998; Das & Teng, 2001) though also to a negative side of being overconfident (Kostis & Näsholm, 2020), as well as (2) open communication and negotiation outcomes (Vlaar et al., 2007). Interorganizational trust is a phenomenon hard to observe and measure (Mellewigt, Madhok & Weibel, 2007) and it “(...) is linked to the predictability of a partner firm’s behavior toward a vulnerable focal firm” (Gulati & Nickerson, 2008, p. 3).

In the general academic debate, trust as an incremental component of any IOR (Costa & Bijlsma-Frankema, 2007; Kostis & Näsholm, 2020; Vlaar et al., 2007) is linked with an exchange between organizations and plays a significant role in risk reduction, as it relates to the reduction of subjective risk perception (Das & Teng, 1998; Das & Teng, 2001).¹ Other areas where trust acts as a reductor are: complexity or uncertainty (Das & Teng, 1998; Tomkins, 2001), the probability of opportunistic behavior (Das & Teng, 2001; Kostis & Näsholm, 2020) or the effects of potential tensions in IORs (Kostis & Näsholm, 2020). Some scholars indicate the role of trust as a safeguard in situation of insufficient contractual governance and as a means of relational governance (Dekker, 2004; Inkpen & Curall, 2004; Nooteboom, 1996; Poppo & Zenger, 2002) or “(...) non-market form of exchange governance between firms” (Alvarez, Barney & Bosse, 2003, p. 393).

Das and Teng (1998) differentiated between trust and confidence in interorganizational cooperation. Even though trust contributes to confidence, it is linked with expectations, whereas confidence is a perception of certainty in the partnership relation. The definition of trust elaborated by Tomkins (2001) is based on the belief of one party in the activities of another party without suspicion and in circumstances of a possible lack of information.

Conceptualizing trust in joint ventures as a decision to rely on another party taking into account certain amount of risk makes trust more universal and enables analysing at different levels: individual, group or organization (Inkpen & Curall, 2004) while being observable as behaviors (Kramer, 1999). Table 1 summarizes criteria that constitute the conceptualization of trust.

Table 1
Criteria and Meaning Contributing to the Conceptualization of Trust

Criterion	Meaning
Role	<p>A factor considered in the design of control systems (Langfield-Smith & Smith, 2003)</p> <p>Enhancing the probability of desired behavior (Das & Teng, 1998) or reduction of probability of opportunistic behavior (Das & Teng, 2001)</p> <p>Reduction of: risk, complexity, uncertainty (Das & Teng, 1998; 2001), loss (Inkpen & Curall, 2004)</p> <p>Managing the area of intangible human resources in IORs (Bijlsma-Frankema & Costa, 2005)</p> <p>Enabling interorganizational cooperation (Vlaar et al., 2007); enhancing cooperation (Fryxell et al., 2002); enabling coordination (Costa & Bijlsma-Frankema, 2007)</p> <p>Enabling formation of alliances in early phase and moderation in the implementation stage (Kostis & Näsholm, 2020)</p>
Nature	<p>Fragile (Kramer, 1999; Yang et al., 2011)</p> <p>Requires resources over time (Das & Teng, 1998), initial cost is high (Lui & Ngo, 2004)</p> <p>Is a state of mind rather than action (Das & Teng, 2001) and is subjective (Nooteboom, 1996)</p> <p>Reciprocal (Das & Teng, 2001)</p> <p>Derives from experiences (Tomkins, 2001)</p> <p>Can exist without calculation (Tomkins, 2001)</p> <p>Multilevel phenomenon (Das & Teng, 2001)</p> <p>Develops incrementally (Inkpen & Curall, 2004)</p> <p>Based on “new similarities” (incl. formal and informal, codified or non-codified rules) (Bijlsma-Frankema & Costa, 2005)</p> <p>Has tangible and intangible components (Koch & Koch, 2018)</p> <p>Future oriented – predicting future performance (Koch & Koch, 2018)</p> <p>Different intensities (Kostis, 2020)</p>
Types	<p>Category-based, role-based and rule-based (Kramer, 1999)</p> <p>Goodwill trust, competence trust (Das & Teng, 2001)</p> <p>Swift trust (Tomkins, 2001; Schiffing et al., 2020)</p> <p>Cognitive-based or affect-based (Das & Teng, 2001; Fryxell et al., 2002)</p> <p>Contractual trust (Langfield-Smith & Smith, 2003)</p> <p>Calculus-based, relational and institution-based (Dekker, 2004)</p> <p>Character-based, process-based, institution-based (Bijlsma-Frankema & Costa, 2005; Pavlou, 2002)</p> <p>Calculative and non-calculative (incl. i.e. intuition) (Lumineau, 2014)</p> <p>Intangible and tangible trust (Koch & Koch, 2018)</p> <p>Partnership trust: agreement-driven, knowledge-driven, “swim or sink together” (Shin et al., 2020)</p>

2.2. Distrust

Contrary to trust, distrust has been not researched to such an extent (Six & Latusek, 2023). Scholars (Kostis & Näsholm, 2020; Vlaar et al., 2007), refer to the definition by Lewicki et al. (1998) stating that distrust is “confident negative expectations regarding another’s conduct”. Conceptual relations between trust and distrust remain an open question both in interpersonal relations (Mayer & Mussweiler 2011) as well as in interorganizational relations (Bijlsma-Frankema, Sitkin & Weibel, 2015; Gustafsson et al., 2021) and interorganizational settings (Guo, Lumineau & Lewicki, 2017). In the trust literature, three different perspectives on how trust and distrust relate to each other can be found: (1) trust and distrust as two ends of the same conceptual continuum, (2) trust and distrust as opposites but with neutral ground in between, and (3) trust and distrust as related yet distinct concepts. Even though traditionally distrust was conceptualized as the opposite of trust, recent studies posit that despite their naturally polarized definitions, they are in fact separable and distinct (Dimoka, 2010; Komiak & Benbasat, 2008; Moody et al., 2014; Mthombeni & Chizema, 2022; Oomsels, 2019; Saunders, Dietz & Thornhill, 2014). They can also co-exist within the very same relationships having high or low intensity simultaneously (Sitkin & Bijlsma-Frankema, 2018). Distrust has been defined as a “lack of confidence in the other, a concern that the other may act so as to harm one, that he does not care about one’s welfare or intends to act harmfully, or is hostile” (Grovier, 1994, p. 240).

As indicated by Lewicka and Zakrzewska-Bielawska (2022) the majority of studies on distrust show that it has mostly negative connotations. It may manifest in poor information and knowledge exchange between partners (Vlaar et al., 2007) and withholding (Kostis et al., 2021). Scholars elaborate on the negative effects of distrust, with it manifested in imposing additional protection (Tomkins, 2001); safeguarding, bypassing and development of alternative strategies (Kostis et al., 2021). Despite its restrictive nature (Vlaar et al., 2007), distrust as an organizing principle may have its “bright side” (Kostis, 2020), fostering a necessary dose of suspicion and alertness in relationships (Kostis & Näsholm, 2020) or making parties’ responsibilities transparent “on paper” and limiting any “gray zones” (Kostis et al., 2021). Distrust may act as a kind of remedy for “rose colored glasses” – a symbol of excessive optimism and too much trust put in the relationship. Table 2 summarizes the dimensions that constitute the conceptualization of distrust.

Table 2
Criteria and Meaning Contributing to the Conceptualization of Distrust

Criterion	Meaning
Role	“Enables healthy suspicion” (Lumineau, 2014), Facilitation of uncertainty management through alternatives (Kostis & Näsholm, 2020), Reduction of negative consequences of trust (Kostis et al., 2021)
Nature	State of suspicion is an incremental part (Kramer, 1999), Restricting nature (Vlaar et al., 2007), Stemming from incongruent values (Kostis & Näsholm, 2020)
Types	Category-based distrust – social categorization of individuals (Kramer, 1999); Interpersonal and institutional distrust – each divided into: ability-based distrust, integrity-based distrust, benevolence-based distrust (Bachman & Hanappi-Egger, 2012), Calculative and non-calculative (including intuition) (Lumineau, 2014), swift distrust (Schiffeling et al., 2020),

2.3. Control

While trust has been identified as a key resource in successful alliances, recent research indicates that it can lead to improved effectiveness only if coupled with effective control processes (Möllering, 2001, 2005; Long, 2010). The relationship between trust and control is characterized by tensions and contradictions. In particular, the literature identifies a lack of knowledge regarding how managers effectively balance their control and trust-building activities in practice (Long & Weibel, 2018); and – given the co-existence of trust and distrust – how trust or distrust between partners influences their control decisions and practices (Gulati & Nickerson, 2008). Recent studies also show that trust can be not only an asset, but also a liability in IORs which may create lock-in (Möllering & Sydow, 2019; Swärd, 2016). Control and institutionalized distrust have also been identified as mechanisms that may help avoid lock-in and maintain trust at an appropriate level (Möllering & Sydow, 2019)

Overall, control plays a significant role in IORs mainly by reducing risks, but also by impacting different aspects of IORs: confidence (Das & Teng, 1998), coordination (Das & Teng, 2001; Dekker, 2004; Reed, 2001), especially via formalization (Vlaar et al., 2007), as well as the achievement of strategies and goals (Inkpen & Curall, 2004). As an organization needs to specify goals, goal setting is treated as a social control mechanism, as it involves actors in interactions therefore enabling them to better understand each other in the process (Das & Teng, 1998). With reference to goals, control is not only a “checklist”, but may serve as a motivational factor, accompanied by incentives (Dekker, 2004). In their research on CEO-board of directors relations with reference to strategic alliance formation, Gulati

and Westphal (1999, p. 476) note “(...) the board is viewed as an efficient control device that can help align management decision making with shareholders’ interests”.

Control may also function in organizations as a routinization mechanism for certain fields or activities, such as learning (Das & Teng, 1998). In their research on IORs between small and large companies, Vélez, Sánchez and Álvarez-Dardet (2008) identified three main types of control: (1) actions, (2) results, (3) personnel-cultural control along with specific control mechanisms, i.e. control scorecards, feedback control, evaluation system, norms and procedures limiting actions. Table 3 summarizes the criteria and meanings contributing to the conceptualization of control.

Table 3
Criteria and Meanings Contributing to the Conceptualization of Control

Criterion	Meaning
Role	<p>“Building confidence in partner cooperation through enhancing predictability of goals” (Das & Teng, 1998)</p> <p>Reduction of risk (Das & Teng, 2001)</p> <p>Facilitation of coordination (Das & Teng, 2001; Dekker, 2004; Reed, 2001); co-ordination (Reed, 2001)</p> <p>Countermeasures towards a partner’s powerful market position (Handfield & Bechtel, 2002)</p> <p>Helps better interpretation of a partner’s behavior (Vlaar et al., 2007)</p> <p>Enables knowledge sharing and interaction in offshoring projects (Karlsen et al., 2021)</p>
Nature	<p>May require high expenses (Das & Teng, 1998)</p> <p>“More proactive and interventionist” (Das & Teng, 2001, p. 254)</p> <p>Formal control can be cybernetic, while social – not pre-specified in terms of output or behavior (Fryxell et al., 2002)</p> <p>Depends on codified shared rules and expectations (Bijlsma-Frankema & Costa, 2005)</p> <p>Can change during time, depending on the gap between expected and actual performance (Karlsen et al., 2021)</p>
Types	<p>Formal – behavior, output, Informal – social/clan, External measure-based and internal value-based (Das & Teng, 2001)</p> <p><i>Controlling the partner and the alliance per se</i> (Das & Teng, 2001)</p>

3. Review Method

Kraus, Breier and Dasí-Rodríguez (2020) highlighted the issue of quality in systematic literature reviews, as it affects the editorial process. Addressing the call for more rigorous systematic literature reviews, we followed the framework proposed by Kraus et al. (2020). To identify relevant publications, we relied on the Scopus database which has been indicated as one of the possible valuable sources for literature reviews (Kraus et al., 2020). We decided to rely on the Scopus database for two reasons: (1) its quality and

(2) its advanced search functions. Its wide range of functions enables better content extraction by narrowing the search by diversified criteria (i.e., type of paper, search field, subject area, etc.).

A review protocol (Table 4) was created to track the steps taken within review process. The research process started in March 2022 and ended on the 30th of June 2022.

Table 4

Review Protocol for the First Course of Systematic Literature Review – Scopus Search

Subject area:	
<ul style="list-style-type: none"> • business, management and accounting (all subfields) • decision sciences (all subfields) • economics, econometrics and finance (all subfields) • social sciences (all subfields) 	
Search in: article title, abstract, keywords	
Document type: article, conference paper and book chapter	
Source title: journal, conference proceeding, book chapter	
Language: English	
Keywords	
Trust	AND control (with variations: audit, auditing, monitoring, governance, supervision)
Distrust	AND control (with variations: audit, auditing, monitoring, governance, supervision)
Search within results function in Scopus:	Interorganizational cooperation alliance(s), strategic alliance(s), interorganiz(s)ational collaboration, interfirm cooperation, interfirm collaboration, interorganizational governance, interorganizational relations interorganizational collaboration

In the first step, we proceeded with search strings with the keywords “trust or distrust*” and “control*” – the latter with synonyms: “audit*”, “monitoring*”, “governance*”, “supervision*” in the titles, abstracts, or keywords of publications (Cao & Lumineau, 2015). We narrowed the subject area to four fields: 1) “business, management and accounting”, 2) “social sciences”, 3) “decision sciences” and 4) “economic, econometrics and finance”, as our research field concerns the areas. Our experience shows that relying only on the “social sciences” dimension could narrow the literature review results; on the other hand, not excluding any subject areas could produce a huge amount of irrelevant literature. In the scope of document types, we included: “article”, “conference paper” and “book chapter”, as the component of peer-reviews adds to search quality.

Further, we decided to extract the essential publications using the Scopus function “search in the results”. Additional search was conducted in two fields: 1) interorganizational cooperation–alliance(s), strategic alliance(s), interorganizational collaboration, interfirm cooperation, interfirm collaboration, interorganizational governance, interorganizational relations and 2) collaboration. We focused on English-language peer-reviewed academic publications. At the end of the Scopus search procedure 196 papers emerged.

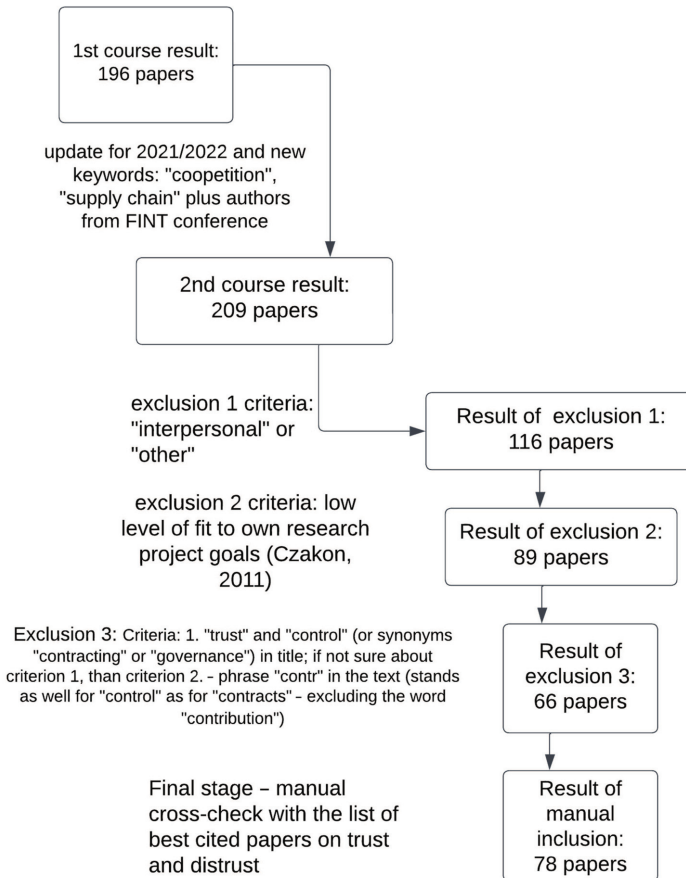
In the second step, we examined the abstracts of the remaining articles to determine the level of relationships they referred to. We defined two levels of relationships: interorganizational and interpersonal; papers impossible to match were tagged as “others”. Even though in the first step we included “interorganizational” as a keyword, some publications were strongly focused on the individual level of analysis (i.e., relations between managers responsible for a given area in the organization). As our scope of interest is at the interorganizational level, all papers tagged as “interpersonal” and “others” were excluded, which resulted in 116 papers remaining.

In the third step, we proceeded with literature extraction. This step ensures the quality of the literature review (Kraus et al., 2020) due to vast number of publications on trust/distrust in interorganizational relations. In this process, two rounds of exclusion were conducted. Firstly, we defined exclusion criteria following Czakon (2011, p. 58) who divided text stratification into three levels: “1) referring directly to the researched phenomena, 2) referring partly to the researched phenomena or 3) referring loosely to the researched phenomena”. We complied the articles into an Excel file, on the basis of the description of a few dimensions: (1) general research purpose, (2) terms used in relation to main constructs (trust, distrust, control), (3) key research areas (i.e., business, public sector), in terms of our own research goals. Respectively, we excluded publications with a low fit level to our research purpose. In the final exclusion we searched for the co-existence of keywords “trust/distrust” and “control” in the title (along with synonyms of “contracting” or “governance”). In case of uncertainty, we decided upon additional criterion – the phrase “contr*” – which could stand either for “control” or “contracts”. We were checking publication content in terms of the presence (using the word count tool) of the phrase, excluding the word “contribution” (which is not our scope of interest). As a result, 66 papers were left.

At the final stage, publications were also identified through reference checking (Booth et al., 2012) and by contacting experts working in the trust field (Petticrew & Roberts, 2008). Contacts with experts took place in March 2022 by project team members during an academic conference on trust studies. The selected experts were scholars who possess in-depth knowledge and experience in trust research. The papers that were found at the stage, were reviewed by full text analysis. In this way, another twelve

articles were added to the sample, resulting in a final total of 78 papers. The 12 included papers referred to, for instance, supply chain, R&D alliance, competition. As they had not been found in the earlier Scopus search, they enriched the final body of literature reviewed. The time scope of reviewed articles dates from 1996 until 2022.

Figure 1
Literature Review Process



4. Findings

4.1. Bibliometric Analysis

The bibliometric analysis focused on aspects that might be useful to researchers willing to further explore the field of interplay between trust, distrust and control.

We might state that interest in the topic of relations between trust, distrust and control has been rather stable, resulting in single or a few publications appearing in any given year (see Figure 2). During the period, only 3 book chapters were published on the studied issue. One may notice a peak in the number of items published in 2021. This might be a weak signal of growing interest on the issue, especially when we consider the pandemic period of 2020–2021 that raised questions on the overall level of trust.

Figure 2
Distribution of Publications in 1996–2022

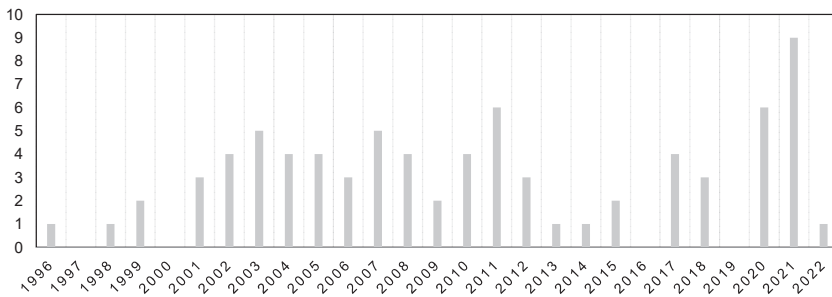


Figure 3 and 4 present types of analyzed papers. Most of them are empirical ones (67%) with a focus on the qualitative approach to research.

Figure 3
Breakdown by Paper Type of All Analyzed Publications

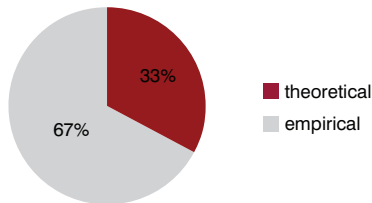


Figure 4
Breakdown by Research Type of All Analyzed Publications

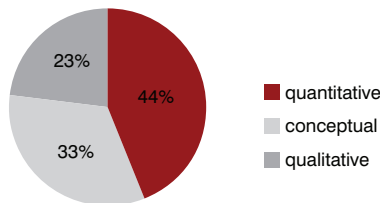


Table 5 shows the most frequently cited papers. Most of the publications are conceptual papers (60%). The most often cited article (3043 times) is theoretical one published in 2001 by Das and Teng, followed by Poppo and Zenger (2002) and once again Das and Teng (1998), with 2130 and 1918 citations, respectively. We can also see that most of the most cited documents concern trust and control (one theme) and trust and contracts (second theme). There is only one article that refers to distrust, however it is the fourth most cited paper which confirms a growing interest in the concept.

Table 5
Top 10 Cited Papers

Authors	Title	Year	Type of paper	Type of research	Citations (Scopus)
Das, T.K. and Teng, B.-S.	Trust, control, and risk in strategic alliances: An integrated framework	2001	Theoretical	Conceptual	3043
Poppo, L., and Zenger, T.	Do formal contracts and relational governance function as substitutes or complements?	2002	Empirical	Quantitative	2130
Das, T.K. and Teng, B.-S.	Between trust and control: Developing confidence in partner cooperation in alliances	1998	Theoretical	Conceptual	1918
Kramer, R.M.	Trust and distrust in organizations: Emerging perspectives, enduring questions	1999	Theoretical	Conceptual	1822
Dekker, H.C.	Control in inter-organizational relationships: Evidence on appropriate concerns and coordination requirements	2004	Empirical	Mixed-method	1430
Nooteboom, B.	Trust, opportunism and governance: A process and control model	1996	Theoretical	Conceptual	1080
Tomkins, C.	Interdependencies, trust and information in relationships, alliances and networks	2001	Theoretical	Conceptual	1044

Table 5 – continued

Authors	Title	Year	Type of paper	Type of research	Citations (Scopus)
Inkpe, A.C. and Currall, S.C.	The coevolution of trust, control and learning in joint ventures	2004	Theoretical	Conceptual	986
Handfield, R.B., and Bechtel, C	The role of trust and relationship structure in improving supply chain responsiveness	2002	Empirical	Quantitative	588
Lui, S.S. and Ngo, H.	The role of trust and contractual safeguards on cooperation in non-equity alliances	2004	Empirical	Quantitative	582

The overview of academic journals included in our sample shows a prevalence of business and management journals. On the basis of Figure 5, the 12 most relevant journals represent only 40% of the total number of articles, which confirms the spread of publications among many outlets.

Figure 5

Overview of Journals that Included at Least Two Papers from the Sample



4.2. Content Analysis

Content analysis was conducted by coding papers using the MAXQDA software. Codes were related to research questions and the main purpose of the paper. Figure 6 presents the code tree with its main codes, they include the aggregated number of coded paragraphs.

Figure 6
Content of code tree – main codes

Code	Number of coded segments
Control	375
Distrust	76
Distrust-control relation	13
Governance	82
IOR	84
Lack of trust	18
Mistrust	11
Performance	31
Risk	51
Trust	543
Trust-control relations debate	491
Trust-control-innovation	14
Trust-distrust relation	107
Trust-distrust-control relation	25
TOTAL	1921

As trust, distrust and control are complex constructs, those codes were divided into subcodes. Subcodes were related to issues such as: definition, mechanisms, effects, nature, types, role. Relations between trust, distrust and control constructs were treated as stand-alone codes. A quick glance at the general code tree leads us to the following conclusions:

- High visibility of trust in academic debate, control in second place and distrust being marginalized,
- As for relations including two constructs, there is prevalence of the trust-control debate, with trust-distrust taking the second position, trust-distrust taking the third position, with distrust-control marginalized,
- Marginal debate that includes the three concepts together.

The prevalence of trust and control are visible in different dimensions in the graphic form of a word cloud extracted from MAXQDA. Figure 7 depicts keywords on the basis of their frequency in all codes and subcodes, where the size of each word in the cloud is related to a higher frequency of mentions.

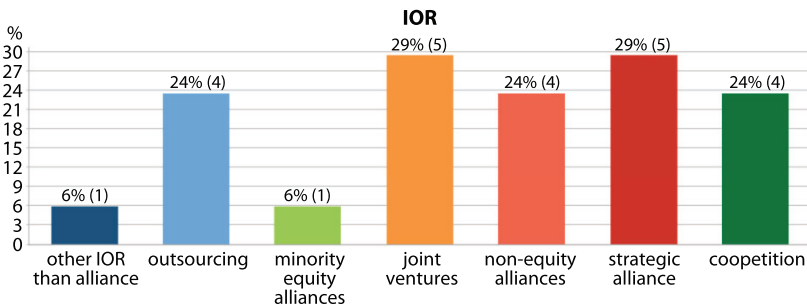
Figure 7
Word Cloud of Main Codes and Their Subcodes



Source: own analysis in MAXQDA.

In the general content analysis, our scope of interest also included IOR types as research areas. Our analysis of documents with subcodes related to a main IOR code showed that 29% of documents (where subcodes appeared) belonged to strategic alliance and joint ventures; non-equity alliances, competitions and outsourcing being ranked the second position. Minority equity alliance and other forms than alliance could benefit from more research.

Figure 8
Types of IOR in Trust, Distrust and Control Research



4.2.1. Different Understandings of Trust and Control

The majority of scholars' efforts have been devoted to research on trust and control relations. Trust and control have been subjects of debate in the IORs research field, as they are "(...) the two contributory factors of confidence in partner cooperation" (Das & Teng, 1998, p. 494).

Firstly, there is ambiguity around the meanings of trust and control, as has been noted by Gallivan and Depledge (2003). Different meanings of trust result from varied theoretical approaches. Tomkins (2001) linked his view with the agency theory; whereas Lui and Ngo (2004) drew it from transaction cost theory. Faems et al. (2008) indicated a relational perspective stemming from social exchange theory. Puranam and Vanneste (2009) referred to the *sociological tradition* in research. Schepker et al. (2014, p. 215) positioned trust in the *capabilities and relational contracts* theoretical field. Susarla, Holzhaecker and Krishnan (2020) indicated that theoretical lenses impact research on trust: economic lenses focus on calculative trust and future output, whereas social lenses expose a relational side with vulnerability and past issues. Furthermore, trust as *relational governance* has been operationalized with features such as: trustworthiness, fairness, keeping promises or good reputation (Cao & Lumineau, 2015, p. 24).

Secondly, what makes the debate on the trust-control relation more complicated, is the conceptualization of trust as a means of control. Gundlach and Cannon (2009), Wang, Yeung and Zhang (2011) as well as Yang, Zhou and Jiang (2011) have referred to trust directly as a mechanism of control, whereas Pavlou (2002) used the term *control trust* (meaning the one based on institutionalized procedures, for instance: monitoring, accreditation or legal bonds). Vélez et al. (2008) clearly state that trust should not be viewed as means of control, as it is based on belief and a positive approach to partners and its primary role is not to influence a person's behavior.

Thirdly, vast amount of research on trust-control relations has been devoted to formal contracts. This might be an effect of previous research on "formal control as a mechanism of governing organizational relations" (Bijlsma-Frankema & Costa, 2005, p. 263). In the study of supply chain responsiveness, Handfield and Bechtel (2002) did not support the hypothesis stating that detailed contracts would contribute to a buyer's greater trust perception of a supplier. Mellewigt et al. (2007) noted that formal contracts – defined as legal commitments – have been regarded mainly as a means of control, therefore neglecting their second role of coordination. The authors contributed to the debate on formal contracts and trust by shedding light on the duality of functions that have the same goal, namely the predictability of behavior.

4.2.2. Interplay Between Trust and Control in Interorganizational Relations

Research concepts in the field of trust and control in IORs have included the impact of the interplay on: benefits to exchange (Puranam & Vanneste, 2009), confidence in partner cooperation (Das & Teng, 1998), coordination (Dekker, 2004), long-term orientation (Yang et al., 2011), opportunism (Yang et al., 2011; Cao & Lumineau, 2015), performance of international joint ventures (Fryxell et al., 2002), positive expectations (Bijlsma-Frankema & Costa, 2005), relationship performance (Cao & Lumineau, 2015; Gulati & Nickerson, 2008; Vlaar et al., 2007), responsiveness of supply chain (Handfield & Bechtel, 2002), risk perception (Das & Teng, 2001; Pavlou, 2002), repairing relationship after a conflict situation (Malhotra & Lumineau, 2011), satisfaction (Cao & Lumineau, 2015; Lui & Ngo, 2004; Pavlou, 2002).

Relations between trust and control do not fit a universal frame. Intuitively, one might think of the two concepts as opposites, but the issue is complex. Firstly, different types of trust and control can be considered as part of the debate on their relation. Secondly, *trust* is also referred to as relational governance. One must be mindful of the nuances while exploring the field. For instance, Langfield-Smith and Smith (2003) bring us to the point where the role of trust is to provide control in a relationship. Similarly, Puranam and Vanneste (2009) explored the relation between *trust* and *governance mechanisms* — the latter defined as formal governance, like contracts or ownership. Thirdly, the borders between trust and control may not be as sharp as one would think. Bijlsma-Frankema and Costa (2005), differentiating between formal and social control, indicated similarities between trust and control (alignment of mutual expectations and interaction) along with their dissimilarities (enforcement of agreement). Puranam and Vanneste (2009) stated that both trust and formal governance create the foundations for exchange in relationships and enable coordination and mitigation of conflicts stemming from unexpected changes. In her longitudinal study on client-contractor relationships, Badenfelt (2010) noted some implicit control mechanisms that may be treated as tools of power over partners to maintain a desired level of trust.

Based on this systematic literature review, we have identified four types of relations between the two phenomena: where trust and control are substitutes, complements, simultaneous and where trust acts as a moderator/mediator. The general dispute has been focused on the following main question for many years: do trust and control substitute or complement each other? As Alvarez et al. (2004) explained, the substitution effect appears when two governance devices address the same need in a similar way and their joint interaction effect is negative, whereas complementary effects result in a joint positive outcome. Puranam and Vanneste (2009, p. 16) specified two effects crucial to the relation: (1) a direct crowding out effect

(reducing trust in the relationship because of complex formal governance) and (2) an indirect crowding out effect, when complex formal governance “(...) weakens the positive association between the ex-ante trust and trust in the relationship”. They differentiate them from the substitution relationship between trust and formal governance: “(...) trust lowers the marginal benefits of governance complexity, and vice versa” (Puranam & Vanneste, 2009, p. 23). Schepker et al. (2014, p. 218) conclude: “(...) our review indicates that there is more support for the complementarity of relational capabilities and contracts than there is for them being substitutes”, but they do refer to the general terms *control* and *trust*. Grafton and Mundy (2017) challenged the debate by addressing “the myth of trust” with their research outcomes. They showed that, in a cooperative alliance, companies may decide upon a lower level of formal contracts not because of any reliance on trust, but because of an alternative approach – relational contracts, which are substitutes for formal contracts. Globerman and Nielsen (2006) noticed the macro aspects of environment of international alliances, being public policies (i.e. concerning infrastructure), which could substitute for “private” trust among parties. Gulati and Nickerson (2008, p. 1) were among those who reframed the debate on the trust-control relation, stating “(...) the question is not whether trust is a substitute or complement to formal governance, but rather when and how it may serve as both simultaneously”. As Bijlsma-Frankema and Costa (2005, p. 263) pointed out, trust not only “lubricates relations between partners and organizational processes”, but similar benefits can be achieved with control mechanisms. Alvarez et al. (2004) hypothesized that trust may be crucial as a governance form for the company in its relationship with its first partner, but contracts may matter more in the case of their next partnership.

Mellewigt et al. (2007) took another perspective – instead of exploring a direct relationship between trust and control, they hypothesized about trust as a mediator: (1) between contractual complexity and control concerns and (2) between contractual complexity and coordination concerns. Contractual complexity was defined as the number of provisions used in contractual arrangements. Other researchers based their research models on specific types of trust or/and control. Fryxell et al. (2002) used affect-based trust as a moderating factor between social control and international joint venture performance, whereas in the same paper they treated cognitive-based trust as a control variable. Lui and Ngo (2004) explored the moderating effects of competence and goodwill trust on contractual safeguards and performance satisfaction. In Malhotra and Lumineau (2011), competence-based trust and goodwill trust were mediators between contract choices and relational outcomes.

4.2.3. Relations Between Control and Distrust

Relations between distrust and control in IORs have not been thoroughly explored, however there are few scholars who have touched upon the area (Connelly et al., 2012; Gulati & Westphal, 1999; Koolwijk, van Oel & Bel, 2021; Malhotra & Lumineau, 2011).

Work by Yang et al. (2011) on the trust-formal control relationship considered the social aspect of weak or strong relational ties between parties as a critical factor for determining the interpretation of formal control and its effects. According to the authors, there are two possibilities (Yang et al., 2011, p. 89):

- a) when a structural framework is needed, formal control and trust mutually promote each other, and their joint effects on the relationship are better than individual;
- b) when a structural framework has already been established, formal control indicates distrust, and its joint effects with trust have a worse impact than their individual effects.

Even though the aim in Yang et al. (2011) was to highlight different relations between trust and control, depending on the type of relationship, they also referred to distrust. Distrust appeared there as an effect or formal control in the case of strong relational ties, which does not happen in weak relational ties. Similarly to Yang et al. (2011), the discussion in Malhotra and Lumineau (2011) notes that even a suggestion of contracts may signal distrust in the other party and therefore undermine the process of trust building. Bachman and Hanappi-Egger (2012) found out that interpersonal trust and institutional distrust may coexist in a productive manner in the context of corporate governance between the supervisory and executive boards in German and Austrian companies. What is important, they referred to the co-existence of the two constructs. This is contrary to a simultaneous relation, which – as hypothesized – could be detrimental to the productivity of the organization. Schiffing, Hannibal, Fan and Tickle (2020) highlighted the simultaneous existence of swift trust and swift distrust in cooperation in humanitarian operations. “As with the simultaneous nature of cooperation, we find that swift trust and swift distrust may simultaneously facilitate cooperation and help with managing uncertainty in hastily formed networks of organizations” (Schiffing et al., 2020, p. 18).

4.2.4. Relations Between Trust, Distrust and Control

The three concepts: trust, distrust and control have been treated differently in terms of their place in the debate, with trust dominating over others. Some scholars (Connelly et al., 2012; Costa & Bijlsma-Frankema, 2007; Lumineau, 2011; Vlaar et al., 2007; Yang et al., 2011) made a step forward and escaped the main framework of trust-control relations by adding the component of distrust.

According to Vlaar et al. (2007), research on trust/distrust and control should be related to performance assessments. Trust/distrust and control should not be the final goal, instead their role in achieving a certain purpose should be discussed. Their research model of trust-distrust-formalization (including coordination and control) encompasses both performance and interpretation of other party's behaviors by managers. Vlaar et al. (2007, p. 417) concluded: "Relationships in which high levels of trust are accompanied by low levels of distrust and/or formal control entail higher performance risks than relationships in which high levels of trust are accompanied by higher levels of dis-trust and/or formal control".

Referring to the model by Vlaar et al. (2007), Karlsen, Solli-Sæther, Oorschot and Vaagaasar (2014, p. 55) commented: "In the presence of distrust, trust and control should be substitutes, whereas for decreasing levels of distrust, trust and control enable each other." Connelly et al. (2012) argued that scholars seeking an understanding of trust-based governance nature in IORs have to measure trust and distrust independently. They claimed that contract specificity significantly decreases only in the presence of trust and no distrust in context. Lumineau (2014) took a further step, building his conceptual proposals on trust, distrust and control. He made a vital contribution in the field in terms of his conceptual work, by exploring contractual control and coordination in relation to trust and distrust (calculative and non-calculative types) with their positive and negative aspects.² An important remark in this context was also the existence of "(...) potential asymmetries of trust and distrust between the partners, both in terms of quality – for example, calculative or non-calculative – and in terms of levels" (Lumineau, 2014, p. 1569). Lumineau (2014) proposed a matrix of directions of influence of contractual control and contractual coordination on trust and distrust, respectively, to their types. Even though his research is a vital input to the body of conceptual papers, it was also limited to a universal trust and control meaning, without the inclusion of contextual factors (such as societal values, national and organizational culture) and contractual governance. He called for empirical research including context factors and the role of information processing systems for building trust and distrust.

5. Discussion and Future Research

This study contributes to the research area on the interplay between trust, distrust and control in interorganizational relations. It synthesized relevant studies and developed a research protocol to organize the existing literature. The paper fulfills its aim by exploring the literature in four fields: (1) the understanding of trust, distrust and control, (2) the interplay between trust and control, (3) the relation between control and distrust, and (4) the relation between trust, distrust and control.

Our systematic literature review revealed five research gaps. The first two research gaps refer to the common area of trust, distrust and control. The next three research gaps exist in the relation between two constructs: (3) trust-distrust, (4) trust-control and (5) distrust-control.

The first research gap is based on the conclusion regarding the scarce number of publications (78) in the analyzed period of 26 years (1996–2022). The annual number of publications is rather stable, though we can observe both a peak in 2021 and also years without any publications. This poses a question about the future potential of investigations at the crossroad of three phenomena: trust, distrust and control. On the one hand, this potential may be significant, as a relatively low number of publications have appeared. On the other hand, the question is why the field has not been explored enough, taking into account the presence of trust in business environment narratives. This issue is worth exploring, as: “(...) distrust appears to be the default condition in IOR contracting because organizational decision makers are unable to determine *ex ante* whether or not their partner will act opportunistically” (Connelly et al., 2012, p. 9). As our bibliometric analysis reveals, the management discipline is the most popular field of study on trust, distrust and control, which may suggest that such research would contribute to management practices and be valuable to organizational process design practices. On the other hand, this issue moves from strict management and business into other areas, such as humanitarian aid (Schiffing et al., 2020), organization of events (Adongo, Kim & Elliot, 2019) as well as university-industry collaboration (Bstieler, Hemmert & Barczak, 2015). As we showed in our content analysis, other IOR forms (more than the most common strategic alliances or joint ventures) also deserve more research.

The second research gap refers to the most cited paper type, the conceptual. This may suggest a need for stronger theoretical foundation for this area. Future research could focus on conceptual models embracing the three phenomena: trust, distrust and control, because the majority of literature covers relations between trust and control/contracts. This leaves distrust abandoned as a concept and so opens future avenues of research into its relations with trust and control in interorganizational exchange. Proposing conceptual models linking the three components could give new impetus for research in, as compared to previous years.

The third research gap touches the issue of asymmetry between trust and distrust, as noted by Lumineau (2014). Our qualitative analysis of papers brought scarce evidence of distrust mechanisms and types, in comparison to trust.³

The fourth research gap has been identified in the trust and control nexus, as most studies focused on formal control (i.e., contracts). This is contrary to the conclusion that: “these are often incomplete and that other mechanisms are employed to manage inter-firm relations (...)” (Grafton & Mundy, 2017: 24). The formal type of control is most obvious and

common, therefore it would be more challenging for researchers to dig into informal control types. It would be interesting to inquire whether informal control could have more common points with trust or distrust. Another future avenue would be to refer to Grafton and Mundy (2017, p. 25) and urge that trust – as an analytical device in inter-firm relations – should be investigated through the lens of economics, rather than “the narrow management perspective traditionally adopted in the control literature”.

Additionally, our findings highlight the need for future research to gain more insights into relations between distrust and control in IORs, as only few studies have investigated this nexus. Distrust has recently surfaced as an autonomous research subject (Guo et. al., 2017; Nienaber, Woodcock & Liotopoulos, 2021), so our understanding of its interplay with control remains limited.

This review study has its limitations. Firstly, the systematic literature review is focused on interorganizational relations, excluding the literature on the interpersonal dimension of trust. Secondly, our systematic review was based only on the Scopus database. Expanding repositories could enlarge the body of publications to be analyzed. Therefore, future work could include another large database, for instance the Web of Science. This inclusion would be in line with the guidelines in Kraus (2020) on the use of two databases. Thirdly, only English language publications were subject to analysis. Adding publications in other languages (e.g., Polish) could result in more publications being brought into the analysis. This would address the call in Lumineau (2014) for research to include contextual factors, such as national culture, societal values, as well as historical circumstances (i.e., different experiences in Central Europe and West Europe in the years after the Second World War). Finally, the review has been carried out with considerable caution and according to a research protocol, even though we naturally cannot eliminate the possibility of overlooking single articles.

Acknowledgements

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Endnotes

- ¹ Speaking about the general debate it is worth mentioning Hagedoorn et al. (2008, p. 89) who found out that “(...) interorganizational trust does not have to develop in such a situation, where partners are substantially different in terms of size and where both groups of companies play such a different role in the innovation process”. Their research was conducted in a specific context of partnerships between small entrepreneurial biotechnology firms and big pharmaceutical companies.
- ² Distrust may also have positive effects, as it “Supports monitoring of vulnerabilities, Encourages constructive skepticism, enables healthy suspicion” (Lumineau, 2014, p. 6).
- ³ According to the own analysis in MAXQDA, only 28 fragments were coded as “distrust mechanisms”, while “trust mechanisms” were present in 75 paragraphs.

References

- Adobor, H. (2006). Optimal trust? Uncertainty as a determinant and limit to trust in inter-firm alliances. *Leadership & Organization Development Journal*, 27(7), 537–553. <https://doi.org/10.1108/01437730610692407>
- Adongo, R., Kim, S. S., & Elliot, S. (2019). “Give and take”: A social exchange perspective on festival stakeholder relations. *Annals of Tourism Research*, 75, 42–57. <https://doi.org/10.1016/j.annals.2018.12.005>
- Alvarez, S. A., Barney, J. B., & Bosse, D. A. (2003). Trust and its alternatives. *Human Resource Management*, 42(4), 393–404. <https://doi.org/10.1002/hrm.10097>
- Badenfelt, U. (2010). I trust you, I trust you not: a longitudinal study of control mechanisms in incentive contracts. *Construction Management and Economics*, 28(3), 301–310. <https://doi.org/10.1080/01446191003587745>
- Bijlsma-Frankema, K., Sitkin, S. B., & Weibel, A. (2015). Distrust in the balance: The emergence and development of intergroup distrust in a court of law. *Organization Science*, 26(4), 1018–1039. <https://doi.org/10.1287/orsc.2015.0977>
- Bijlsma-Frankema, K., & Costa, A. C. (2005). Understanding the trust-control nexus. *International Sociology*, 20(3), 259–282. <https://doi.org/10.1177/0268580905055477>
- Booth, A., Clarke, M., Dooley, G., Ghersi, D., Moher, D., Petticrew, M., & Stewart, L. (2012). The nuts and bolts of PROSPERO: an international prospective register of systematic reviews. *Systematic Reviews*, 1(1), 1–9. <https://doi.org/10.1186/2046-4053-1-2>
- Bstieler, L., Hemmert, M., & Barczak, G. (2015). Trust Formation in University–Industry Collaborations in the U.S. Biotechnology Industry: IP Policies, Shared Governance, and Champions. *Journal of Product Innovation Management*, 32(1), 111–121. <https://doi.org/10.1111/jpim.12242>
- Cao, Z., & Lumineau, F. (2015). Revisiting the interplay between contractual and relational governance: A qualitative and meta-analytic investigation. *Journal of Operations Management*, 33, 15–42. <https://doi.org/10.1016/j.jom.2014.09.009>
- Connelly, B. L., Miller, T., & Devers, C. E. (2012). Under a cloud of suspicion: Trust, distrust, and their interactive effect in interorganizational contracting. *Strategic Management Journal*, 33(7), 820–833. <https://doi.org/10.1002/smj.974>
- Costa, C. A., & Bijlsma-Frankema, K. (2007). Trust and Control Interrelations: New Perspectives on the Trust—Control Nexus. *Group & Organization Management*, 32(4), 392–406. <https://doi.org/10.1177/1059601106293871>
- Czakon, W. (2011). Metodyka systematycznego przeglądu literatury. *Przegląd Organizacji*, (3), 57–61. <https://doi.org/10.33141/po.2011.03.13>
- Das, T. K., & Teng, B. S. (1998). Between trust and control: Developing confidence in partner cooperation in alliances. *Academy of Management Review*, 23(3), 491–512. <https://doi.org/10.2307/259291>
- Das, T. K., & Teng, B. S. (2001). Trust, Control, and Risk in Strategic Alliances: An Integrated Framework. *Organization Studies*, 22(2), 251–283. <https://doi.org/10.1177/0170840601222004>
- Dekker, H. C. (2004). Control of inter-organizational relationships: evidence on appropriation concerns and coordination requirements. *Accounting, Organizations and Society*, 29(1), 27–49. [https://doi.org/10.1016/S0361-3682\(02\)00056-9](https://doi.org/10.1016/S0361-3682(02)00056-9)
- Dimoka, A. (2010). What does the brain tell us about trust and distrust? Evidence from a functional neuroimaging study. *MIS Quarterly*, 34(2), 373–96. <https://doi.org/10.2307/20721433>
- Faems, D., Janssens, M., Madhok, A., & Looy, B. V. (2008). Toward an integrative perspective on alliance governance: Connecting contract design, trust dynamics, and contract application. *Academy of Management Journal*, 51(6), 1053–1078. <https://doi.org/10.5465/amj.2008.35732527>

- Fryxell, G. E., Dooley, R. S., & Vryza, M. (2002). After the ink dries: the interaction of trust and control in US-based international joint ventures. *Journal of Management Studies*, 39(6), 865–886. <https://doi.org/10.1111/1467-6486.00315>
- Gallivan, M. J., & Depledge, G. (2003). Trust, control and the role of interorganizational systems in electronic partnerships. *Information Systems Journal*, 13(2), 159–190. <https://doi.org/10.1046/j.1365-2575.2003.00146.x>
- Globerman, S., & Nielsen, B. B. (2006). Trust and the governance of international strategic alliances. *Corporate Ownership and Control*, 3(4), 199–215. <https://doi.org/10.22495/cocv3i4c1p6>
- Goo, J. (2009). Promoting trust and relationship commitment through service level agreements in IT outsourcing relationship. In R. Hirschheim, A. Heinzl, J. Dibbern (Eds.), *Information Systems Outsourcing: Enduring themes, global challenges, and process opportunities* (pp. 27–53). Springer. https://doi.org/10.1007/978-3-540-88851-2_2
- Grafton, J., & Mundy, J. (2017). Relational contracting and the myth of trust: Control in a co-opetitive setting. *Management Accounting Research*, 36, 24–42. <https://doi.org/10.1016/j.mar.2016.07.008>
- Grovier, T. (1994). An Epistemology of Trust. *International Journal of Moral Social Studies*, 8(2), 155–174.
- Gulati, R., & Westphal, J. D. (1999). Cooperative or Controlling? The Effects of CEO-Board Relations and the Content of Interlocks on the Formation of Joint Ventures. *Administrative Science Quarterly*, 44(3), 473–506. <https://doi.org/10.2307/2666959>
- Gulati, R., & Nickerson, J.A. (2008). Interorganizational Trust, Governance Choice, and Exchange Performance. *Organization Science*, 19(5), 688–708. <https://doi.org/10.1287/orsc.1070.0345>
- Gundlach, G. T., & Cannon, J. P. (2010). “Trust but verify”? The performance implications of verification strategies in trusting relationships. *Journal of the Academy of Marketing Science*, 38, 399–417. <https://doi.org/10.1007/s11747-009-0180-y>
- Guo, S. L., Lumineau, F., & Lewicki, R. J. (2017). Revisiting the Foundations of Organizational Distrust. *Foundations and Trends in Management*, 1(1), 1–88. <https://doi.org/10.1561/3400000001>
- Gustafsson, S. N., Gillespie, R., Searle, V., Hailey, H., & Dietz, G. (2021). Preserving organizational trust during disruption. *Organization Studies*, 42(9), 1409–1433. <https://doi.org/10.1177/0170840620912705>
- Hagedoorn, J., Roijakkers, N., & Van Kranenburg, H. (2008). The formation of subsequent inter-firm R&D partnerships between large pharmaceutical companies and small, entrepreneurial biotechnology firms – how important is inter-organisational trust? *International Journal of Technology Management*, 44(1–2), 81–92. <https://doi.org/10.1504/IJTM.2008.020699>
- Handfield, R. B., & Bechtel, C. (2002). The Role of Trust and Relationship Structure in Improving Supply Chain Responsiveness. *Industrial Marketing Management*, 31, 367–382. [https://doi.org/10.1016/S0019-8501\(01\)00169-9](https://doi.org/10.1016/S0019-8501(01)00169-9)
- Inkpen, A. C., & Currall, S. C. (2004). The Coevolution of Trust, Control, and Learning in Joint Ventures. *Organization Science*, 15(5), 586–599. <https://doi.org/10.1287/orsc.1040.0079>
- Karlsen, J. T., Solli-Sæther, H., Oorschot, K. E. V., & Vaagaasar, A. L. (2021). Managing trust and control when offshoring information systems development projects by adjusting project goals. *International Journal of Technology Management*, 85(1), 42–77. <https://doi.org/10.1504/IJTM.2021.113693>
- Komiak, S. Y. X., & Benbasat, I. (2006). The effects of personalization and familiarity on trust and adoption of recommendation agents. *MIS Quarterly*, 30(4), 941–960. <https://doi.org/10.2307/25148760>

- Koolwijk, J., van Oel, C., & Bel, M. (2022). The interplay between financial rules, trust and power in strategic partnerships in the construction industry. *Engineering, Construction and Architectural Management*, 29(3), 1089–1108. <https://doi.org/10.1108/ECAM-09-2020-0713>
- Kostis, A. (2020). *Coping with Interpartner Uncertainty in Interorganizational Interactions*. Doctoral dissertation. Umeå University. <https://doi.org/10.5465/AMBPP.2020.20084abstract>
- Kostis, A., & Näsholm, M. H. (2020). Towards a research agenda on how, when and why trust and distrust matter to cooperation. *Journal of Trust Research*, 10(1), 66–90. <https://doi.org/10.1080/21515581.2019.1692664>
- Kostis, A., Bengtsson, M., & Näsholm, M. H. (2022). Mechanisms and Dynamics in the Interplay of Trust and Distrust: Insights from project-based collaboration. *Organization Studies*, 43(8), 1173–1196. <https://doi.org/10.1177/01708406211040215>
- Kramer, R. M. (1999). Trust and distrust in organizations: Emerging perspectives, enduring questions. *Annual Review of Psychology*, 50(1), 569–598. <https://doi.org/10.1146/annurev.psych.50.1.569>
- Kraus, S., Breier, M., & Dasí-Rodríguez, S. (2020). The art of crafting a systematic literature review in entrepreneurship research. *International Entrepreneurship and Management Journal*, 16, 1023–1042. <https://doi.org/10.1007/s11365-020-00635-4>
- Langfield-Smith, K., & Smith, D. (2003). Management control systems and trust in outsourcing relationships. *Management Accounting Research*, 14(3), 281–307. [https://doi.org/10.1016/S1044-5005\(03\)00046-5](https://doi.org/10.1016/S1044-5005(03)00046-5)
- Lewicka, D., & Zakrzewska-Bielawska, A.F. (2022) Trust and distrust in interorganizational relations — Scale development. *PLoS ONE*, 17(12). <https://doi.org/10.1371/journal.pone.0279231>
- Lewicki, R. J., McAllister, D. J., & Bies, R. J. (1998). Trust and distrust: New relationships and realities. *The Academy of Management Review*, 23(3), 438–458. <https://doi.org/10.2307/259288>
- Long, C. P. (2010) Control to cooperation: Examining the role of managerial authority in portfolios of managerial actions. In S. Sitkin, L. Cardinal, K. Bijlsma-Frankema (Eds.), *Organizational Control* (Cambridge Companions to Management, pp. 365–395). Cambridge University Press. <https://doi.org/10.1017/CBO9780511777899.013>
- Long, C. P., & Sitkin, S. B. (2006). Trust in the Balance: How Managers Integrate Trust-Building and Task Control. In R. Bachmann, A. Zaheer (Eds.), *Handbook of Trust Research* (pp. 88–106). Edward Elgar Publishing. <https://doi.org/10.4337/9781847202819.00012>
- Long, C. P., & Sitkin, S. B. (2018). Control–Trust Dynamics in Organizations: Identifying Shared Perspectives and Charting Conceptual Fault Lines. *Academy of Management Annals*, 12(2), 725–751. <https://doi.org/10.5465/annals.2016.0055>
- Long, C. P., & Weibel, A. (2018). Two sides of an important coin: Outlining the general parameters of control-trust research. In R. H. Searle, A. I. Nienaber, S. B. Sitkin (Eds.), *The Routledge Companion to Trust*. (pp. 506–521). Routledge. <https://doi.org/10.4324/9781315745572>
- Lui, S. S., & Ngo, H. Y. (2004). The Role of Trust and Contractual Safeguards on Cooperation in Non-equity Alliances. *Journal of Management*, 30(4), 471–485. <https://doi.org/10.1016/j.jm.2004.02.002>
- Lumineau, F. (2014). How Contracts Influence Trust and Distrust. *Journal of Management*, 43(5), 1553–1577. <https://doi.org/10.1177/0149206314556656>
- Malhotra, D., & Lumineau, F. (2011). Trust and Collaboration in the Aftermath of Conflict: The Effects of Contract Structure. *Academy of Management Journal*, 54(5), 981–998. <https://doi.org/10.5465/amj.2009.0683>
- Mayer, J. & Mussweiler, T. (2011). Suspicious spirits, flexible minds: When distrust enhances creativity. *Journal of Personality and Social Psychology*, 101(6). <https://doi.org/10.1037/a0024407>.

- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *The Academy of Management Review*, 20(3), 709–734. <https://doi.org/10.2307/258792>
- Mellewigt, T., Madhok, A., & Weibel, A. (2007). Trust and formal contracts in interorganizational relationships — substitutes and complements. *Managerial and Decision Economics*, 28(8), 833–847. <https://doi.org/10.1002/mde.1321>
- Moody, G. D., Galletta, D. F., & Lowry, P. B. (2014). When trust and distrust collide online: The engenderment and role of consumer ambivalence in online consumer behavior. *Electronic Commerce Research and Applications*, 13(4), 266–282. <https://doi.org/10.1016/j.elerap.2014.05.001>
- Möllering, G., & Sydow, J. (2019). Trust trap? Self-reinforcing processes in the constitution of inter-organizational trust. In M. Sasaki (Ed.), *Trust in Contemporary Society* (pp. 141–160), Brill. https://doi.org/10.1163/9789004390430_009
- Möllering, G. (2001). The Nature of Trust: From Georg Simmel to a Theory of Expectation, Interpretation and Suspension. *Sociology*, 35(2), 403–420. <https://doi.org/10.1177/S0038038501000190>
- Mthombeni, M., & Chizema, A. (2022). Recasting trust and distrust in the boardroom. Corporate Governance. *The International Journal of Business in Society*, 22(5), 1004–1025. <https://doi.org/10.1108/CG-06-2021-0235>
- Nienaber, A. M. I., Woodcock, A., & Liotopoulos, F. K. (2021). Sharing Data – Not With Us! Distrust as Decisive Obstacle for Public Authorities to Benefit From Sharing Economy. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.576070>
- Nooteboom, B. (1996). Trust, Opportunism and Governance: A Process and Control Model. *Organization Studies*, 17(6), 985–1010. <https://doi.org/10.1177/017084069601700605>
- Oomsels, P., Callens, M., Vanschoenwinkel, J., & Bouckaert, G. (2019). Functions and dysfunctions of interorganizational trust and distrust in the public sector. *Administration & Society*, 51(4), 516–544. <https://doi.org/10.1177/0095399716667973>
- Pavlou, P.A. (2002). Institution-based trust in interorganizational exchange relationships: the role of online B2B marketplaces on trust formation. *The Journal of Strategic Information Systems*, 11(3–4), 215–243. [https://doi.org/10.1016/S0963-8687\(02\)00017-3](https://doi.org/10.1016/S0963-8687(02)00017-3)
- Petticrew, M., & Roberts, H. (2008). *Systematic reviews in the social sciences: A practical guide*. John Wiley & Sons.
- Poppo, L., & Zenger, T. (2002). Do formal contracts and relational governance function as substitutes or complements?. *Strategic Management Journal*, 23(8), 707–725. <https://doi.org/10.1002/smj.249>
- Puranam, P., & Vanneste, B. S. (2009). Trust and governance: Untangling a tangled web. *Academy of Management Review*, 34(1), 11–31.
- Reed, M. I. (2001). Organization, Trust and Control: A Realist Analysis. *Organization Studies*, 22(2), 201–228. <https://doi.org/10.1177/0170840601222002>
- Saunders, M., Dietz, G., & Thornhill, A. (2014). Trust and distrust: Polar opposites, or independent but co-existing? *Human Relations*, 67(6), 639–665. <https://doi.org/10.1177/0018726713500831>
- Schepker, D. J., Oh, W. Y., Martynov, A., & Poppo, L. (2014). The many futures of contracts: Moving beyond structure and safeguarding to coordination and adaptation. *Journal of Management*, 1(1), 193–225. <https://doi.org/10.1177/0149206313491289>
- Schiffeling, S., Hannibal, C., Fan, Y., & Tickle, M. (2020). Coopetition in temporary contexts: Examining swift trust and swift distrust in humanitarian operations. *International Journal of Operations & Production Management*, 40(9), 1449–1473. <https://doi.org/10.1108/IJOPM-12-2019-0800>
- Schoenherr, T., Narayanan, S., & Narasimhan, R. (2015). Trust formation in outsourcing relationships: A social exchange theoretic perspective. *International Journal of Production Economics*, 169, 401–412. <https://doi.org/10.1016/j.ijpe.2015.08.026>

- Shin, N., Yoo, J. S., & Kwon, I. W. G. (2020). Fostering Trust and Commitment in Complex Project Networks through Dedicated Investment in Partnership Management. *Sustainability*, 12(24), 10397. <https://doi.org/10.3390/su122410397>
- Sitkin, S. B., & Bijlsma-Frankema, K. M. (2018). Distrust. In R. H. Searle, A. I. Nienaber, S. B. Sitkin (Eds.), *The Routledge Companion to Trust*. (pp. 50–61). Routledge. <https://doi.org/10.4324/9781315745572-5>
- Six, F., & Latusek-Jurczak, D. (2023). Distrust: A critical review exploring a universal distrust sequence. *Journal of Trust Research*, 13(1), 1–23. <https://doi.org/10.1080/21515581.2023.2184376>
- Susarla, A., Holzhaecker, M., & Krishnan, R. (2020). Calculative trust and interfirm contracts. *Management Science*, 66(11), 5465–5484. <https://doi.org/10.1287/mnsc.2019.3394>
- Swärd, A. (2016). Trust, Reciprocity, and Actions: The Development of Trust in Temporary Inter-organizational Relations. *Organization Studies*, 37(12), 1841–1860. <https://doi.org/10.1177/0170840616655488>
- Thorgren, S., & Wincent, J. (2011). Interorganizational Trust: Origins, Dysfunctions and Regulation of Rigidities. *British Journal of Management*, 22(1), 21–41. <https://doi.org/10.1111/j.1467-8551.2010.00717.x>
- Tomkins, C. (2001). Interdependencies, trust and information in relationships, alliances and networks. *Accounting, Organizations and Society*, 26(2), 161–191. [https://doi.org/10.1016/S0361-3682\(00\)00018-0](https://doi.org/10.1016/S0361-3682(00)00018-0)
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*, 14(3), 207–222. <https://doi.org/10.1111/1467-8551.00375>
- Vanneste, B. S., & Yoo, O. S. (2020). Performance of trust-based governance. *Journal of Organization Design*, 9, 1–28. <https://doi.org/10.1186/s41469-020-00075-y>
- Vélez, M. L., Sánchez, J. M., & Álvarez-Dardet, C. (2008). Management control systems as inter-organizational trust builders in evolving relationships: Evidence from a longitudinal case study. *Accounting, Organizations and Society*, 33(7–8), 968–994. <https://doi.org/10.1016/j.aos.2008.02.006>
- Vlaar, P. W., Van den Bosch, F. A., & Volberda, H. W. (2007). On the Evolution of Trust, Distrust, and Formal Coordination and Control in Interorganizational Relationships: Toward an Integrative Framework. *Group & Organization Management*, 32(4), 407–428. <https://doi.org/10.1177/1059601106294215>
- Wang, L., Yeung, J. H. Y., & Zhang, M. (2011). The impact of trust and contract on innovation performance: The moderating role of environmental uncertainty. *International Journal of Production Economics*, 134(1), 114–122. <https://doi.org/10.1016/j.ijpe.2011.06.006>
- Yang, Z., Zhou, C., & Jiang, L. (2011). When do formal control and trust matter? A context-based analysis of the effects on marketing channel relationships in China. *Industrial Marketing Management*, 40(1), 86–96. <https://doi.org/10.1016/j.indmarman.2010.09.013>

Perception of Eco-innovation Based on Educational Attainment

Erika Loučanová

Technical University in Zvolen, Faculty of Wood Sciences and Technology,
Department of Marketing, Trade and Wood Forestry, Slovakia
<https://orcid.org/0000-0003-0505-3251>

Vladislav Kaputa

Technical University in Zvolen, Faculty of Wood Sciences and Technology,
Department of Marketing, Trade and Wood Forestry, Slovakia
<https://orcid.org/0000-0002-5953-1223>

Miriam Olšiaková

Technical University in Zvolen, Faculty of Wood Sciences and Technology,
Department of Marketing, Trade and Wood Forestry, Slovakia
<https://orcid.org/0000-0002-3137-1774>

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Abstract

Aim: To evaluate the influence of educational attainment on the perception of ecological innovation was the main objective of the paper. The depth of attention paid to the interdisciplinary impact of innovations and education in society ultimately affects the level of the culture of education and whether the innovations that arise respect people and their environment.

Design/methodology/approach: Input data gathered via survey of customers using the Kano questionnaire. The research applied the Kano model to data processing. The analysis allowed us to measure and explore the emotional reactions of Slovak customers to products.

Findings: If multidisciplinary innovations positively affect the environmental, economic, and social development of society, they also tend to increase competitiveness of regions and lead to sustainability, development, and the knowledge economy. It can be concluded that the level of education achieved affects attitudes towards ecological innovation. The higher the education level of the respondents, the more sensitively they perceived the issue of eco-innovation. The interpretation of the results is a contribution to the discussion about the importance of education with an interdisciplinary overlap, as well as a view on innovation that respects individuals, society, and the environment.

Correspondence address: Technical University in Zvolen, Faculty of Wood Sciences and Technology, T.G. Masaryka 24, 900 01 Zvolen, Slovakia; e-mail: kaputa@tuzvo.sk.

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Research limitations/implications: Even though the results demonstrate the influence of the attitudes of Slovak customers depending on their educational attainment, it is necessary to verify whether they are reflected in real purchasing behavior.

Originality/value: The originality of the research lies in the methodical approach of connecting the perception of ecological product innovations and the socio-demographic aspect (educational attainment) in the market conditions of the Slovak Republic.

Keywords: eco-innovation, perceptions, education, society, Kano model, Slovakia.

JEL: O35, O36, O39

Wpływ poziomu wykształcenia na postrzeganie ekoinnowacji

Streszczenie

Cel: celem artykułu była ocena wpływu poziomu wykształcenia na postrzeganie innowacji ekologicznych. Głębokość uwagi poświęconej interdyscyplinarnej roli innowacji i edukacji w społeczeństwie ostatecznie wpływa na poziom kultury edukacji oraz szacunku powstających innowacji wobec ludzi i ich środowiska.

Metodologia: dane wejściowe zebrano za pomocą ankiety przeprowadzonej wśród klientów przy użyciu kwestionariusza Kano. W badaniu zastosowano model Kano do przetwarzania danych. Analiza pozwoliła zmierzyć i zbadać emocjonalne reakcje słowackich klientów na produkty.

Wyniki: w przypadku gdy multidyscyplinarne innowacje pozytywnie wpływają na środowiskowy, gospodarczy i społeczny rozwój społeczeństwa, mają one również tendencję do zwiększania konkurencyjności regionów i prowadzą do zrównoważonego rozwoju i gospodarki opartej na wiedzy. Można stwierdzić, że osiągnięty poziom wykształcenia wpływa na postawy wobec innowacji ekologicznych. Im wyższy poziom wykształcenia respondentów, tym bardziej wrażliwi byli na kwestię ekoinnowacji. Interpretacja wyników stanowi wkład w dyskusję na temat znaczenia interdyscyplinarnej edukacji, a także spojrzenie na innowacje, które szanują jednostki, społeczeństwo i środowisko.

Oryginalność/wartość: oryginalność badań polega na metodycznym podejściu do łączenia postrzegania ekologicznych innowacji produktowych z aspektem społeczno-demograficznym (poziom wykształcenia) w warunkach rynkowych Słowacji.

Słowa kluczowe: ekoinnowacje, postrzeganie, edukacja, społeczeństwo, model Kano, Słowacja.

1. Introduction

We live in a changing, hyper-connected world and face increasingly global, complex, and dynamic problem situations, such as poverty, income disparities, environmental crises, organized crime, and health quality problems. The complex or “serious” problems cannot be adequately solved through one scientific discipline (Rittel et al., 1973; Özbekhan, 1970) but comprehensively, through the cooperation of several scientific disciplines, leading to multidisciplinary and thus to multidisciplinary innovation. They represent any positive quantitative or qualitative change in which cooperation of several scientific disciplines in the implementation of professional and scientific activities is required. Simply put, solve problems through the cooperation of several scientific disciplines, because they are not individual

problems, but they are in a mutual relationship and “internally connected in the meta-system of problems”. They cannot be solved in isolation and require what has been defined as a transdisciplinary approach (Jantsch, 1972). As part of the approach, education leaders are paying increasing attention to building a culture of cooperation (Jones & Harvey, 2017). This means interdisciplinarity should be a natural part of the educational and research process. Going beyond the field of our own expertise, we must be aware of the fact that Penalva (2022) specifies as follows: culture is becoming ambiguous, uncertain, volatile, and complex in a complicated world, a multidimensional organization, which also brings together several pluralistic institutions (Penalva, 2022).

With the ever-increasing rate of environmental degradation in countries around the world, ways are being sought to limit environmental deficiencies to achieve future sustainability. In this pursuit of green development, economies are motivated to adopt ecological practices that can help in the effort to conserve resources and increase efficiency in achieving green ecosystems (Afshan et al., 2022). The way to achieve innovative performance and build a sustainable competitive advantage is to access innovative resources and strengthen capabilities through ecological integration (Zang et al., 2022). In the professional literature on entrepreneurship, a new trend has begun in recent years examining business strategies that focus on the environmental dimension (Rodríguez-García et al., 2019; Mikušová, 2017) but they also do not neglect the social and economic dimensions of sustainability. The concept of such business models is based on innovation, environmental care and long-term sustainability (Hultman et al., 2016). For this reason, it is necessary to examine how they react to innovative activities not only those of distributors, and manufacturers but also consumers (Jonh et al., 2019). Consumers are primarily characterized by the adoption of environmentally responsible behavior and the adoption of ecological innovations.

According to Brekhus (2015), our culture of perception is “shaped by the groups and social networks we belong to and the structural and social conditions under which we operate”. Individuals pay selected attention towards any given activity developed unconsciously through culturally acquired schemas of perception, classification, judgement, and satisfaction (Bourdieu, 1984). Nowadays, we often come across the interpretation of consumer satisfaction as based on the theory of contradiction, which we can apply in various areas – it is the most often used in product evaluation. When monitoring the quantities representing consumers’ satisfaction (their perception, classification, and judgement) with products, it is appropriate to confront them with the characteristics of the given product, where their experiential feeling of conformity or contradiction with their expectations occurs. The issue of defining individual quantities has been followed by several authors, who are basically based on the theory of different perceptions of product parameters derived from two-factor motivation, while

varying the conceptual apparatus for product requirements. One of the methodologies is the Kano model. Traditionally, the Kano model has been used in product development and creation of attractive quality, including studies on conceptual design aimed at improving product's life cycle (Dace et al., 2020; Hassan et al., 2017) etc. There are also some “untraditional” applications, for example, in the assessment of Eco-city, or in the assessment of implications for the open-innovation, but also application of the Kano model for a better understanding of customer requirements in higher education (Li et al., 2021; Madzik et al., 2019; Loučanová et al., 2021).

In the paper we are presenting results of the research focused on examining perception of eco-innovation in relation to the level of educational attainment through the Kano model. Such research complements the profile of Slovak consumers in relation to the given issue. We see a research gap in the understanding. By identifying the part of the profile of consumers who pay selective attention to any given activity unconsciously developed through culturally acquired schemes of perception, classification, judgment, and satisfaction, it represents a key role in the design and implementation of sustainable strategies (Rodríguez-García et al., 2019, Akehurst et al., 2012).

2. Literature Review

Nowadays, innovations influence and are closely connected with all areas of society. Therefore, innovations are also closely connected with sustainable development because limits of natural resources have to be considered in economic growth. Continuous climate change and environmental problems also affect it to a large extent. Due to the deterioration of the environment, the issue of ecological innovation, sustainability and the entire environmental agenda became an important part of innovation strategies (Loučanová et al., 2018). Reconciling the economic and environmental performance of businesses through ecological innovations represents an opportunity to increase competitiveness while eliminating environmental impacts.

In professional literature, we often encounter not only the term ecological innovation but also green innovation, sustainable innovation, sustainability-oriented innovation, etc. According to Fussler and James (1996), eco-innovations are equivalent to sustainable innovations and similar types of innovations such as green innovations, because each eco-innovation contributes to sustainable development and uses the commercial use of knowledge to obtain direct or indirect ecological improvements.

In addition to the sustainable use of resources, it deals with solving environmental problems in an effort to develop and improve the quality of social conditions and the environment through eco-innovation, which should clearly ensure environmental sustainability while ensuring socio-economic development (Kollár & Brokeš, 2005). While innovations were mainly associated with products in the past, the innovative approach in the area

of services was minimal. Later, innovative development spread to all business activities, internal and external, in production and services (Hečková, 2007). At present, eco-innovation supporting sustainable development leads in all sectors of society (Loučanová et al., 2019; Straka, 2013; Štofková, 2013; Havierníková, 2012). Eco-innovation represents socially acceptable innovative paths and must be sensitive to the fundamental bonds between social and ecological systems. Eco-innovation can, however, also create undesired and “rebound effects” in the economy, environment and/or society. Ideally, they bring positive effects on the environment (eco-innovation) and society at large (social eco-innovation) (Inno4sd, 2022).

Over the centuries, human development has been based on education. The key factor for success in the education sector depends on creative processes. For this purpose, it is necessary to distinguish between the nature of “efficiency” and “innovation”. The success of Steve Jobs has become popular, and a number of studies analyzed what brought him to success, describing the patterns of his success, and then suggesting the “application” of what they consider to be the “pattern” of success. From a scientific and methodological point of view, when trying to determine the cause of something, it is one thing to proceed “from consequence to cause” and another to proceed from “cause” in that meaning (Penalva, 2022). The first of them work under the premise of efficiency; the other one is finding innovation. The first relies on given techniques and procedures; the latter relies on the creative process itself. The first works under the “application” of knowledge; the other works under the perspective of “design”. When looking for innovation in higher education, research is better understood as a matter of design rather than an application of knowledge. This difference between efficiency and innovation is particularly important in our time. At present, international comparisons in higher education lead policy to an evidence-based agenda. Pedagogical research pays attention to the research-evidence approach and practice is gradually becoming a research-informed activity. “Efficiency” or what is essentially the same as “what works” is the dominant perspective. In this context, innovation is understood as an effective adaptation to a given context. However, innovation is not adaptation to context; innovation rather means the transformation of context into educational goals, the transformation of context into worldviews.

As Penalva (2022) states, productivity growth and the economic success of innovations and the entire society depend on the diffusion and spread of innovations. It is a challenge for companies all over the world. This is conditioned by the dissemination strategy implementation, the dissemination of innovations as well as knowledge. The idea that this effort essentially consists of building learning communities, social relations and an ecological approach is gaining momentum every day in education, and especially university education plays an important role here (Pei-Ling et al., 2017; Crosling, Nair, & Vaithilingam, 2015; Eckel & Hartley, 2016; Hall et al., 2013). Such social-

ecological innovations do not drive the world as opposed to a sustainable future, but as ensuring equitable human development (Graid, 2022).

Social eco-innovation should be a natural means applied to fulfilling the development strategies of Higher Education Institutions (HEIs). They are key institutional players especially influencing local communities with their significant economic and social impacts (Glasson, 2003). Higher education goals assume not only to acquire those skills that will enable permanent employability but also those that will equip students for active citizenship (Baturina, 2022). In addition to social areas, active citizenship is often manifested in environmental attitudes and actions. Thus, the term environmental citizen is widely used. The meaning of the term environmental citizenship often includes its social and economic dimension, not only purely as a person's relationship to the environment. Consortium ENEC (2018) broadly defined Environmental Citizenship "as the responsible pro-environmental behaviour of citizens who act and participate in the society as agents of change in the private and public sphere, on a local, national and global scale, through individual and collective actions, in the direction of solving contemporary environmental problems, preventing the creation of new environmental problems, achieving sustainability as well as developing a healthy relationship with nature. Environmental citizenship includes the exercise of environmental rights and duties, as well as the identification of the underlying structural causes of environmental degradation and environmental problems, the development of the willingness and the competencies for critical and active engagement and civic participation to address those structural causes, acting individually and collectively within democratic means, and taking into account inter- and intra-generational justice".

It is obvious that even if the social side is not explicitly stated in the definition, such citizens actively influence the creation of social awareness of various social structures – from the local to the transnational level. The design of such a social climate is often created by HEIs in cooperation with local communities. Not only do they spread awareness of social and environmental challenges, but they also inspire solutions. It happens precisely because of their innovative potential. Citizens with such a background can be described as agents of change leading to beneficial attitudes and behaviour at the social (citizen and politician), economic (consumer and entrepreneur) and environmental (men and their environment) levels. A person as a consumer and his purchasing decisions represent a probe for the investigation of a relatively broad platform of attitudes. For the purposes of the study, we analyzed the perceptions resulting from the customer survey, specifically the differences in the perception of ecological innovation from the point of view of educational attainment. The approach to the literature review was semi-systematic, which is typical for scientific articles as stated by Snyder (2019).

3. Methodology

Based on the above mentioned review of the literature, we can state the inevitability of ecological innovations in the present and the need to investigate how not only distributors, manufacturers, but also consumers react to innovative activities, as reported by Jonh et al. (2019) and other mentioned authors in the literature. Likewise, the literature points to the significance of our perception of culture as being formed by the groups and social networks to which we belong and the structural and social conditions in which we operate, as Brekhus (2015) states. The need for the creation and implementation of ecological innovations in the present basically consists of efforts to build educational communities, social relations and an ecological approach, as it is stated by Pei-Ling et al. (2017) and other authors mentioned in the literature. Therefore, our research question is formulated as: “Does educational attainment affect the perception of ecological innovations in Slovakia?”. To define the individual quantities, we followed the theory of different perceptions of the parameters of the quantities derived from the two-factor motivation, while they changed the conceptual apparatus for the requirements of the investigated quantity, for which the Kano model is used. It was the primary method to investigate the perception of eco-innovative attributes of products by customers in relation to the education they have achieved. The Kano questionnaire was constructed based on the identified elementary requirements for the issue, where positive and negative questions were created for each attribute examined. The examined attributes were:

- Environmental safety of products
- Importance of eco-innovation
- Origin of eco-innovation
- Slovak products with enviro brand
- Ecology of innovation
- Concept of eco-innovation
- Availability of eco-innovation
- Information on eco-innovation
- Attractiveness of eco-innovation
- Advertising of eco-innovations
- Price of eco-innovation

The mentioned parameters for evaluating ecological innovations from the point of view of education in Slovakia were incorporated into the Kano questionnaire. The Kano questionnaire was formulated according to the principles of the Kano model; i.e., two statements were prepared for each parameter – one positively conceived and one negatively conceived (example from the Kano questionnaire, positively formulated statement: “When choosing a product, the environmental label is important to me.”;

negatively formulated statement: “I clearly do not prefer Slovak products marked with an environmental label”. Subsequently, consumers had the opportunity to express their consent or disagreement with the statement on a 5-point Likert scale, where 1 means “I like it” and 5 means “I don’t like it”.

Subsequently, with respect to the given questionnaire measures, a survey was realized. The sample of respondents was determined at a confidence level of 95%, the allowable margin of error $\pm 5\%$ with a standard deviation of 0.5 which represents 384.16 respondents (385 respondents). A total of 1.345 respondents participated in the research, which fulfilled the required sample size with an overlap to the set level of significance, standard deviation, and acceptable range of error.

The survey was carried out from September 2021 to February 2022. Table 1 presents descriptive statistics of the sample of respondents. The sample of respondents consisted mainly of respondents who studied at a university – 52.12%, 32.79% of respondents attended a secondary school with a school leaving exam and 15.09% of respondents graduated from a secondary school without a school leaving exam. Men were 64.09% of all respondents, the rest 43.42% were women. In terms of age, 24.39% of respondents were between 18 and 30 years old, 24.54% of respondents were between 31 and 50 years old, 25.5% of respondents were between 51 and 60 years old and 25.58% of respondents were over 61 years old.

Table 1
Sample of Respondents in Research – Descriptive Statistics

Factor n = 1345	Specification	Multiplicity	
		Absolute (Number of Respondents)	Relative (%)
Age	18–30	328	24.39
	31–50	330	24.54
	51–60	343	25.50
	61 and over	344	25.58
Gender	Female	584	43.42
	Male	761	56.58
Education	Secondary school without a school leaving exam	203	15.09
	Secondary school with a school leaving exam	441	32.79
	University degree	701	52.12

Subsequently, the set of data was adjusted for further analysis. Interpretation of the results was carried out using the Kano model cross rule to identify the perceived ecological innovation from the point of view of achieved education, as mandatory, one-dimensional, attractive, indifferent, questionable, and reverse requirements. In terms of how respondents perceive eco-innovation, the findings were divided into the following categories:

- M – obligatory requirements that customers consider normal and are automatically expected. The requirements can be identified as primary or basic. Customers consider the requirements as prerequisites if present. If not, they will be extremely dissatisfied (Hsin-Hung, Yung-Tai & Jyh-Wei, 2010).
- O – one-dimensional requirements that are represented by those product attributes that lead to fulfilment and satisfaction in the event of non-compliance to customers' dissatisfaction.
- A – attractive requirements that have a clear impact on customers' satisfaction because it is a requirement that customers did not expect.
- R – contradictory or reverse requirements in some literature (Loučanová, 2016).
- I – requirements which do not have any influence on customers. They are also called indifferent requirements.
- Q – questionable requirements (Grapentine, 2015; Loučanová et al., 2020).

“Based on the Kano analysis, a weight of requirements was assigned. Each identified request is a value of 1. This value is multiplied by the weight according to the identified category. Mandatory requirements (M) have a weight 3, attractive requirements (A) have a weight of 2, one-dimensional requirements (O) have a weight of 1, indifferent requirements (I) or those that have no effect have a weight of 0, backward requirements (R) have a weight of -1, question marks (Q) have a weight of -2. The innovation status then represents the sum of the weights identified on the basis of the respondents' requirements for the examined quantities. Innovation status can be characterized as the overall attitude of consumers towards the issue being addressed. The size of the factor represents the weighted arithmetic average of the relative share of the identified requirements and their weights of individually examined parameters. Based on the sum of the values, we can compare the results (Loučanová et al., 2020). Based on the results from the Kano model, a final analysis is performed by creating a typological matrix. Using the analysis, we find out the innovation status and the size of the impact of ecological innovation.

4. Results

Table 2 introduces the innovation status and the size of the impact of the eco-innovation from the point of view of educational attainment of customers in Slovakia.

Table 2

Basic Data for Compiling a Typology Matrix of the Perceived Ecological Innovation Issues from the Point of View of Educational Attainment, Part 1 – Focused on the Calculation of Innovation Status

Parameters	Educational attainment					
	Secondary school without a school leaving exam		Secondary school with a school leaving exam		University degree	
	Requirements	Weight	Requirements	Weight	Requirements	Weight
Environmental safety of products	I	0	I	0	I	0
Importance of eco-innovation	I	0	I	0	I	0
Origin of eco-innovation	I	0	I	0	I	0
Slovak products with enviro brand	I	0	O	1	A	2
Ecology of innovation	I	0	I	0	I	0
Concept of eco-innovation	I	0	I	0	I	0
Availability of eco-innovation	I	0	I	0	I	0
Information on eco-innovation	I	0	I	0	I	0
Attractiveness of eco-innovation	I	0	I	0	I	0
Advertising of eco-innovation	I	0	I	0	I	0
Price of eco-innovation	R	-1	R	-1	R	-1
Innovation status	-1		0		1	

As Table 2 indicates, the monitored parameters of eco-innovation supporting sustainability do not have a significant impact on Slovak respondents. They perceive the price of ecological innovation in contradictory (reverse) ways. From the point of view of education, we can see the differences in the parameters of Slovak products with the enviro brand. Respondents with secondary education without a school leaving exam perceive Slovak products with the enviro brand as an attribute that does not affect their purchasing decisions. The other two monitored respondent groups (regarding educational attainment) differ in their perceptions. The innovative status of respondents with secondary school without a school leaving exam is negative and has a value of “-1”. The respondents that graduated from a secondary school with a school leaving exam consider Slovak products with the enviro brand as a one-dimensional requirement representing a linear dependence between their satisfaction and dissatisfaction. Their innovation status is “0”. Respondents with a university degree perceive products with enviro brand attractive, which means that if this requirement is not met, the product meets their needs because this requirement is not expected in advance, but if it is met, they are very satisfied. Their innovation status is the highest and has a value “1”. In a comprehensive way, we can state that innovation status increases with increasing education.

As Table 3 indicates, the monitored parameters of eco-innovation supporting sustainability have a greater influence on the group of respondents with lower education. The impact size of respondents with secondary education without a school leaving exam is the highest and has a value of 0.719622, i.e., 71.9622% influence on respondents of this type of education. For secondary school with a school leaving exam and university degree, the differences are minimal.

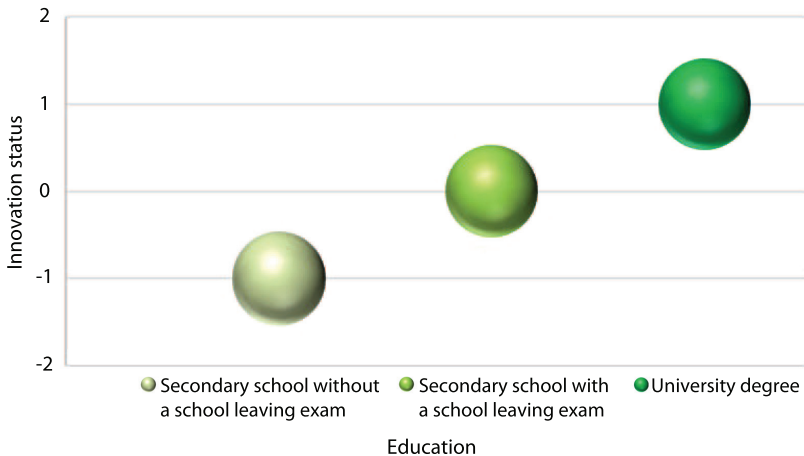
Table 3
Basic Data for Compiling a Typology Matrix of the Perceived Ecological Innovation Issues from the Point of View of Educational Attainment, Part 2 – Focused on the Calculation of Impact Size

Parameters	Educational attainment					
	Secondary school without a school leaving exam		Secondary school with a school leaving exam		University degree	
	Requirements	Relative frequency of identified requirements	Requirements	Relative frequency of identified requirements	Requirements	Relative frequency of identified requirements
Environmental safety of products	I	0.821782	I	0.76644	I	0.807418
Importance of eco-innovation	I	0.628713	I	0.680499	I	0.584879
Origin of eco-innovation	I	0.732673	I	0.61678	I	0.651926
Slovak products with enviro brand	I	0.554455	O	0.635147	A	0.582026
Ecology of innovation	I	0.688119	I	0.657596	I	0.634807
Concept of eco-innovation	I	0.767327	I	0.665329	I	0.704708
Availability of eco-innovation	I	0.806931	I	0.748299	I	0.747504
Information on eco-innovation	I	0.762376	I	0.716553	I	0.723252
Attractiveness of eco-innovation	I	0.886139	I	0.802721	I	0.810271
Advertising of eco-innovation	I	0.826733	I	0.773243	I	0.760342
Price of eco-innovation	R	0.440594	R	0.503401	R	0.479315
Impact size	0.719622		0.687819		0.680586	

The results of the investigation are subsequently shown in the matrix of the typology of perception of eco-innovation issues from the point of view of education, Figure 1.

The matrix of the typology of perception of eco-innovation issues from the point of view of achieved education in Slovakia shows that the university educated group has the highest innovation status. The innovation status for this group of respondents is 1 and the impact size is 0.680586, i.e., 68.0586%. The respondent group with secondary education has an innovative status of 0 with a similar impact. The negative innovation status is shown by the group of secondary school respondents without a school leaving exam, where it was identified as a value of -1 with a high size of influence being the highest.

Figure 1
Matrix of Typology of Perception of Eco-innovation Issues from the Point of View of Educational Attainment



5. Discussion

The graphic representation of Figure 1 illustrates the perception of ecological innovations with respect to the educational attainment of customers. Here, with increasing education, the innovation status, presenting the respondents' relationship to eco-innovation, is also growing. One area of innovation within this research was the exploration of social, environmental, and economic aspects in the context of alternative civic engagement. The results point to the connection of ecological innovation with the green brand, as it is presented by other authors (Lin et al., 2019; Harini et al., 2020).

As the results showed, the perception of eco-innovation has no effect on Slovak respondents. It is manifested only in the perception of Slovak products with the enviro brand and in the price. This is also confirmed by the approach of Penalva (2022), who mentioned the success and effectiveness of innovation and education under two preconditions. The first one works under the assumption of efficiency; the other seeks innovation. It relies on given techniques and procedures. The second one relies on the creation process. The first operates under the assumption of "application" of knowledge; the second one operates under a "design" perspective.

When we look for innovation in university education, research is better understood as a matter of "design" and not as an "application" of knowledge, which is also shown by the results that the eco-design – enviro brand is more attractive to respondents with university education than to those with lower education. Nowadays, the difference between efficiency and innovation is especially important. In this framework, innovation is

understood as effective adaptation to the given context. However, innovation is not adaptation to context; innovation rather means transforming the context into learning objectives.

Therefore, primary improvement is necessary to optimize consumers' perception of green brand innovativeness and green value and to increase their environmental knowledge (Lin, Lobo & Leckie, 2019), and subsequently their application. Eco-innovation can affect consumers' perception of corporate reputation and brand image (Yao et al., 2019).

Slovak products generally and Slovak products with green labels present performance attributes, which is in line with the theoretical basis. According to Panda et al. (2020), the country of origin is significantly important in influencing the degree of customer interest in the environment.

However, it is not the country of origin that is important in general, but rather the loyalty of the green brand to Slovak green products and their innovation. Martínez (2015) confirmed the hierarchy of effects theory to understand the process through which green brand images promote green consumer loyalty to examine consumers' loyalty and its predictions from a sustainable marketing perspective. Cognitive ties related to brand image influence consumer trust and loyalty (Bashir et al., 2020).

Based on the results and the definition of sustainable development as defined by the World Environment Commission (2017), there is a need to create and/or maintain dyadic consonance while respecting contextual needs (Cox, 1999, Darnall, Jolley & Handfield, 2008). Thus, ecological innovation represents challenges for changing the existing technological procedures and, as the research results show, social patterns of behavior.

The findings point to the fact that higher education leads to pro-eco-innovation attitudes (to increase sustainability). Therefore, as stated by LeVasseur and Ciarcia (2019), education based on communities, increased collaboration, building partnerships and projects in general, but also in the context of sustainability, is important. This must take place in the educational process at all degrees, as well as between them and their community partners. Finding specific literacy goals in the field of ecological innovation and sustainability requires partnerships not only among individual degrees of education, but also with practice. This approach brings a greater potential for social change.

As LeVasseur and Ciarcia (2019) and Orr (2019) present, in the period of democratic viability, when students need to acquire competences in the field of sustainability within a broader institutional context with sustainability taken seriously, the civic engagement incorporated into services is a powerful tool. Using the re-accreditation processes across the entire education process and building partnerships in the area of sustainability literacy can help educational institutions quickly and strategically integrate sustainability competencies into school curriculum and common curriculum. Overall, the partnerships based on reaccreditation can provide the tools needed

to create more socially environmentally healthier future and at the same time to provide students with competences to understand and change the serious problems of the century (Hanstedt, 2018). Young people are more capable of living in conditions of uncertainty, but they need a certain number of guarantees for the future, otherwise the society stagnates. Popek and Wanat (2016) studied the attitudes of university students (a sample of 2,000 respondents), most of them would be willing to give up having children just to ensure an adequate social and material position.

The problem with some HEIs reaching the peak of success – and this is also the case of successful industries – is that they tend to repeat the initial success. It means strategies that led to their success. Management tends to institutionalize their previous success. In other words, an organization is a part of the “Ikea paradigm”. It relies on given techniques and procedures, and thus on the given content and not on the creative process itself. We could say that they look for innovation, when in fact they assume that innovation consists of effective adaptation to a given context and situation, so they work according to the paradigm of efficiency and not innovation. That is why they are the most vulnerable at the pinnacle of their success. That explains why successful organizations are under pressure to maintain their success, and why they put pressure on employees until no one in the organization has a gap in their schedule and eventually anxiety emerges in the organization. It is very important to determine the cause of the vulnerability.

As presented in the Matrix of typology (Fig. 1), education has an impact on the perception of ecological innovations in Slovakia and the posed research question “Does educational attainment affect the perception of ecological innovations in Slovakia?” can be answered in the affirmative (Yes, it does). The results present a synergy of practical research and theoretical knowledge of the investigated issue. This research presents a view of the perception of ecological innovations from the perspective of education in Slovakia.

The results help to better understand the relationship between the level of consumer satisfaction and the investigated parameters. It allows decision makers to improve the quality of the examined parameters and optimize strategies for better adaptation of ecological innovations in the market regarding customer requirements. Such approach leads to a higher level of customer satisfaction. Managerial implications are related to the knowledge of the perception of different groups of customers and lead to the limitation or elimination of the shortcomings of business strategies – in this case, also in the communication of the implementation of eco-innovations. Gaining knowledge about their perception with regard to the investigated parameter can help the more extensive introduction of ecological innovations in Slovakia.

As part of the limitations of the study, the methodological side of the Kano model (even if it is widely accepted by researchers) can be pointed

out, as stated by Jain and Singh (2020), that the limitation consists in forcing the respondent to mark only one answer for the functional and dysfunctional form of the question. Despite our efforts to include all relevant data and knowledge in the article, some important ones may also have been inadvertently omitted.

We see the future direction of research in the identification of other factors influencing the profile of the consumer's perception of ecological innovations, with a very practical focus on specific industries, but also types of eco-innovations. This will create a basis for comparing common differences or specifics in individual sectors of the economy.

6. Conclusions

One of the opportunities to solve the complex global problems is to increase innovation level and implement knowledge dissemination strategies. On the other hand, the problems cannot be solved only within one scientific discipline, but they require cooperation of several scientific disciplines, leading to multidisciplinary innovation. Besides business environment, the necessity of innovation is also manifested in the field of education, especially in university education. Most HEIs are multidisciplinary oriented. Paradoxically, individual academics are often confined to specific fields, leading to results applicable only within narrow frameworks. Consequently, they do not solve the society's needs holistically, but are oriented towards "niche markets". The fact is also reflected in education. Students mainly acquire knowledge from specific areas and they lack the ability to connect the view and other areas of life. Thus, the ability of critical thinking is weakened, which requires thinking through several disciplines when solving problems.

The study evaluates the perception of ecological innovation in relation to educational attainment in Slovakia. The results of the research prove that the degree of education influences perception towards ecological innovation. The higher achieved education, the closer relationship to eco-innovation. If such an attitude is also reflected in decision-making (for example, purchasing – not only by individuals, but also by companies) and subsequent actions, it logically contributes to the fulfillment of what we refer to as sustainability. We understand it as a concept of human endeavor leading society towards a paradigm based on prosperity of humankind that thrives socially and environmentally.

The educational process should consider local communities, intensify interdisciplinary cooperation, and build partnerships. This must take place in the educational process at all levels. Setting specific literacy goals in the field of ecological innovation and sustainability requires partnerships not only between individual levels of education, but also with practice. This approach brings greater potential for social change.

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References

- Afshan, S., Ozturk, I., & Yaqoob, T. (2022). Facilitating renewable energy transition, ecological innovations and stringent environmental policies to improve ecological sustainability: Evidence from MM-QR method. *Renewable Energy*, 196, 151–160. <https://doi.org/10.1016/j.renene.2022.06.125>
- Akehurst, G., Afonso, C., & Gonçalves, H. M. (2012). Re-examining Green Purchase Behaviour and the Green Consumer Profile: New Evidences. *Management Decision*, 50, 972–988. <https://doi.org/10.1108/00251741211227726>
- Bashir, S., Khwaja, M. G., Rashid, Y., Turi, J. A., & Waheed, T. (2020). Green Brand Benefits and Brand Outcomes: The Mediating Role of Green Brand Image. *SAGE Open* 2020, 10(3). <https://doi.org/10.1177/2158244020953156>
- Baturina, D. (2022). Pathways towards Enhancing HEI's Role in the Local Social Innovation Ecosystem. In C. Păunescu, K. L. Lepik, N. Spencer (Eds.), *Social Innovation in Higher Education. Innovation, Technology, and Knowledge Management*. Springer, Cham. https://doi.org/10.1007/978-3-030-84044-0_3
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Routledge.
- Brekhus, W. H. (2015). *Culture and Cognition*. Polity Press.
- Cox, A. (1999). Power, value and supply chain management. *Supply Chain Management*, 4, 167–175. <https://doi.org/10.1108/13598549910284480>
- Crosling, G., Nair, M., & Vaithilingam, S. (2015). A creative learning ecosystem, quality of education and innovative capacity. *Studies in Higher Education*, 40(7), 1–17. <https://doi.org/10.1080/03075079.2014.881342>
- Dace, E., Stibe, A., & Timma, L. (2020). A holistic approach to manage environmental quality by using the Kano model and social cognitive theory. *Corporate Social Responsibility and Environmental Management*, 27(2), 430–443. <https://doi.org/10.1002/csr.1828>
- Darnall, N., Jolley, G. J., & Handfield, R. (2008). Environmental management systems and green supply chain management: Complements for sustainability? *Business Strategy and the Environment*, 17(1), 30–45. <https://doi.org/10.1002/bse.557>
- Eckel, P., & Hartley, M. (2016). Developing academic strategic alliances: Reconciling multiple institutional cultures, policies, and practices. *The Journal of Higher Education*. <https://doi.org/10.1080/00221546.2008.11772121>
- ENEC – European Network for Environmental Citizenship. (2018). Defining "Environmental Citizenship. <https://doi.org/10.21820/23987073.2018.8.52>
- European Commission. (2007). Final Report MEI Project about Measuring Eco-Innovation; UM-MERIT: Maastricht, The Netherlands.
- Glasson, J. (2003). The widening local and regional development impacts of the modern universities—a tale of two cities (and north-south perspectives). *Local Economy*, 18(1), 21–37. <https://doi.org/10.1080/0269094032000073799>
- Graid. (2022). Social-ecological innovations (Chapter 3). Stockholm Resilience Centre. Stockholm University. Retrieved from <https://whatisresilience.org/en/chapter-3/>
- Grapentine, T. (2015). Why the Kano model wears no clothes. *Quirks Marketing Research Media*, 34.
- Hall, B., Jackson, E., Tandon, R., Fontan, J. M., & Lall, N. (Eds.). (2013). *Knowledge, democracy and action: Community-university research partnerships in global perspectives*. Manchester University Press.

- Hanstedt, P. (2018). *Creating Wicked Students: Designing Courses for a Complex World*. STYLUS PUB LLC.
- Harini, C., Priyanto, S. H., Ihalauw, J. J., & Andadari, R. K. (2020). The role of ecological innovation and ecological marketing towards green marketing performance improvement. *Management and Entrepreneurship: Trends of Development*, 1(11), 98–112. <https://doi.org/10.26661/2522-1566/2020-1/11-07>
- Hečková, J. (2007). Rozvoj v oblasti technológií a inovácií ako determinant ekonomického rozvoja krajiny. Retrieved from <https://is.muni.cz/do/1456/soubory/aktivity/obzor/6182612/7667728/02Heckova.pdf>
- Hsin-Hung, W., Yung-Tai, T., & Jyh-Wei, S. (2010). An integrated approach of Kano's model and Importance-Performance Analysis in identifying key success factors. *African Journal of Business Management*, 4, 3238–3250.
- Hultman, M., Bonnedahl, K. J., & O'Neill, K. J. (2016). Unsustainable Societies – Sustainable Businesses? Introduction to Special Issue of Small Enterprise Research on Transitional Ecopreneurs. *Small Enterprise Research*, 23(1), 1–9. <https://doi.org/10.1080/13215906.2016.1188719>
- Inno4sd. (2022). *Eco-innovation Society*. Retrieved from <https://www.inno4sd.net/ecoi-society-6>
- Jain, N., & Singh, A. R. (2020). Sustainable supplier selection criteria classification for Indian iron and steel industry: A fuzzy modified Kano model approach. *International Journal of Sustainable Engineering*, 13(1), 17–32. <https://doi.org/10.1080/19397038.2019.1566413>
- Jantsch, E. (1972). Towards Interdisciplinarity and Transdisciplinarity in Education and Innovation. In L. Apostel, G. Berger, A. Briggs, and G. Michaud (Eds.), *Interdisciplinarity, Problems of Teaching and Research in Universities* (pp. 97–121). OECD Publications.
- John, B., Luederitz, C., Lang, D.J., & von Wehrden, H. (2019). Toward Sustainable Urban Metabolisms. From System Understanding to System Transformation. *Ecological Economics*, 157(C), 402–414. <https://doi.org/10.1016/j.ecolecon.2018.12.007>
- Jones, S., & Harvey, M. (2017). Leading the academy: Building capacity through distributed leadership. *Journal of Higher Education, Policy and Management*, 39(2), 126–139. <https://doi.org/10.1080/1360080X.2017.1276661>
- Kollár, V., & Brokeš, P. (2005). *Environmentálny manažment (Environmental management)*. SPRINT.
- LeVasseur, T., & Ciarcia, C. (2019). Sustainability literacy in a time of socio-ecological crisis: using reaccreditation as a leverage point for innovation in higher education. *Sustainability*, 11(18), 5104. <https://doi.org/10.3390/su11185104>
- Li, J., Wang, Q., Xuan, Y., & Zhou, H. (2021). User demands analysis of Eco-city based on the Kano model – An application to China case study. *PLoS One*, 16(3), e0248187. <https://doi.org/10.1371/journal.pone.0248187>
- Lin, J., Lobo, A., & Leckie, C. (2019). The influence of green brand innovativeness and value perception on brand loyalty: The moderating role of green knowledge. *Journal of Strategic Marketing*, 27(1), 1–15. <https://doi.org/10.1080/0965254X.2017.1384044>
- Loučanová, E. (2016). Metódy a nástroje využívajúce sa na generovanie invencií pre tvorbu inovácií v rámci ich strategického riadenia a plánovania. *Posterus.sk*, 9(9).
- Loučanová, E., Olšiaková, M., & Štofková, J. (2022). Open business model of eco-innovation for sustainability development: Implications for the open-innovation dynamics of Slovakia. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(2), 98. <https://doi.org/10.3390/joitmc8020098>
- Loučanová, E., Olšiaková, M., Šupín, M., Šupínová, M., Čorejová, T., Adámiková, E., Štofková, J., & Štofková-Repková, K. (2020). Management of ecological innovation – wood products and products based on wood versus substitute products. In D. Jelačić (Ed.), *Management aspects in forestry and forest based industries: scientific book*. WoodEMA, i.a.

- Loučanová, E., Parobek, J., Nosáfová, M., & Dopico, A. (2019). The Perception of Respondents of Intelligent Packaging in Slovakia as Ecological Innovations. *Studia Universitatis „Vasile Goldis” Arad – Economics Series*, 29(1), 58–67. <https://doi.org/10.2478/sues-2019-0004>
- Loučanová, E., Olšiaková, M., & Dzian, M. (2018). Suitability of innovative marketing communication forms in the furniture industry. *Acta Facultatis Xylogologiae*, 60(1), 159–171. <https://doi.org/10.17423/afx.2018.60.1.17>
- Madzík, P., Budaj, P., Mikuláš, D., & Zimon, D. (2019). Application of the Kano model for a better understanding of customer requirements in higher education – A pilot study. *Administrative Sciences*, 9(1), 11. <https://doi.org/10.3390/admsci9010011>
- Martínez, P. (2015). Customer loyalty: Exploring its antecedents from a green marketing perspective. *International Journal of Contemporary Hospitality Management*, 27(5). <https://doi.org/10.1108/IJCHM-03-2014-0115>
- Mikušová, M. (2017). To Be or Not to Be a Business Responsible for Sustainable Development? Survey from Small Czech Businesses. *Economic Research-Ekonomska Istraživanja*, 30(1), 1318–1338. <https://doi.org/10.1080/1331677X.2017.1355257>
- Orr, D. (2019). The (missing) politics of environmental education. *Sustainability*, 12, 53–59. <https://doi.org/10.1089/sus.2019.29156>
- Özbekhan, H. (1970). *The Club of Rome – The Predicament of Mankind: A Quest for Structured Responses to Growing World-Wide Complexities and Uncertainties*. University of Pennsylvania. Management and Behavioural Science Center.
- Panda, T. K., Kumar, A., Jakhar, S., Luthra, S., Garza-Reyes, J. A., Kazancoglu, I., & Nayak, S. S. (2020). Social and environmental sustainability model on consumers' altruism, green purchase intention, green brand loyalty and evangelism. *Journal of Cleaner Production*, 243. <https://doi.org/10.1016/j.jclepro.2019.118575>
- Pei-Ling, T. J., Choo, S. S., Kang, T., Gregory, A. D., & Liem. (2017). Educating for twenty-first century competencies and future-ready learners: research perspectives from Singapore. *Asia Pacific Journal of Education*, 37(4), 425–436. <https://doi.org/10.1080/02188791.2017.1405475>
- Penalva, J. (2022). Innovation and leadership as design: a methodology to lead and exceed an ecological approach in Higher Education. *Journal of the Knowledge Economy*, 13(1), 430–446. <https://doi.org/10.1007/s13132-021-00764-3>
- Popek, M., & Wanat, L. (2016). Zagrożenia demograficzne Polski w świetle badań ankietowych studentów Uniwersytetu Ekonomicznego w Poznaniu. *The Central European Review of Economics and Management*, 16(91). <https://doi.org/10.29015/cerem.215>
- Rittel, H. W. J., & Webber, M. M. (1973). Dilemmas in a General Theory of Planning. *Policy Sciences*, 4, 155–169. <https://doi.org/10.1007/BF01405730>
- Rodríguez-García, M., Guijarro-García, M., Carrilero-Castillo, A. (2019). An overview of ecopreneurship, eco-innovation, and the ecological sector. *Sustainability*, 11, 2909. <https://doi.org/10.3390/su11102909>
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Štofková, K. (2013). *Sieťové podnikanie. Manažment a sieťové podnikanie vo vedomostnej ekonomike*. Žilinská univerzita v Žiline, EDIS-vydavateľstvo ŽU v Žiline.
- Straka, M. (2013). *Logistika distribúcie, Ako efektívne dostať výrobok na trh*. EPOS, Bratislava.
- Yao, Q., Zeng, S., Sheng, S., & Gong, S. (2019). Green innovation and brand equity: Moderating effects of industrial institutions. *Asia Pacific Journal of Management*, 38(4), 1–30. <https://doi.org/10.1007/s10490-019-09664-2>
- Zang, S., Wang, H., Zhou, J. (2022). Impact of eco-embeddedness and strategic flexibility on innovation performance of non-core firms: The perspective of ecological legitimacy. *Journal of Innovation & Knowledge*, 7(4). <https://doi.org/10.1016/j.jik.2022.100266>