

Playing with social relationships. Their role among actors in the video game industry

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Abstract

Purpose. This paper focuses on social (informal, interpersonal) relationships and identifies their positive effects on business activity in – a rarely empirically analyzed – the video game industry.

Methodology. Given the lack of previous research on the positive business effects of social relationships in the chosen empirical context, qualitative and explorative research was conducted. To address the research goals, seventeen semi-structured in-depth interviews and one focus group interview with six video game developers were carried out. The interviews were analyzed using inductive coding procedure.

Findings. The key contributions are as follows: (1) specific industry characteristics determine the relevance of social relationships for business activity; (2) among the key actors maintaining such relationships are: consumers (i.e., gamers), business partners (investors, contractors, and co-operators), employees (past and current), and competitors; (3) industry-specific social relationships benefits are identified by comparing them with the general social relationships benefits indicated in the literature, detailing them in the chosen empirical context, and addressing the type of actors with which social links are exploited.

Practical implications. Game developers can realize with whom to maintain social relations within video game industry to generate particular business benefits, for example, better promotion and higher game sales, building a proper firm's image.

Originality: The identification of actors of social relationships diverse in terms of establishing and intentional usage of social relationships, the recognition of the specific business-related benefits of maintaining social relationships by video game developers, and providing empirical evidence of the industry-wide determinants of the benefits of maintaining social relationships.

Keywords social/informal relationships, creative industries, gaming communities, VGI, video game developers, qualitative research.

INTRODUCTION

In the relational view on firm advantage we assume – as Gulati et al. (2000, p. 203) claim – that “firms are embedded in networks of social, professional, and exchange relationships with other organizational actors.” Therefore, if we limit the focus to formal agreements only, our perspective on interorganizational relationships will remain incomplete. Indeed, as Ratajczak-Mrozek (2017, p. 4) stresses “the company’s activity is not limited to impersonal interactions between ‘companies’ or ‘institutions’. Companies are managed by people.” Nonetheless, although the relational stream of research provides progressive results, we still lack knowledge on some aspects of the social facet of interorganizational relationships, including social relationships (SR). SR play an important role in influencing the business activity (Granovetter, 1985; Gulati et al., 2000). In particular, it is advocated that creativity has its origins in networks of interpersonal relationships (Glińska-Neweś & Karwacki, 2018). Therefore, they have a fundamental role in creative organizations (Clare, 2013; Oakley, 2006).

SR are acknowledged as relevant, but there are still some research gaps making our knowledge on SR non-comprehensive. First, so far researchers have focused mainly (if at all) on the general role of SR in different sectors (Ahmed et al., 2015; Czernek-Marszałek, 2020a,b; Hite, 2005), while in creative industries, SR have been considered much less frequently (Aoyama & Izushi, 2003; Boyd et al., 2015).

Second, it seems important to identify the benefits of SR not only in general, but referring to different types of actors, that is, business partners, employees, customers, competitors, etc. As such, studies are completely missing in the literature.

Third, there are considerations in the literature referring to social contexts, including the shared norms, habits, and routines

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of social groups (Cohendet et al., 2018). However, such works adopt a group-level perspective, not the individual one, even though this level is the most suitable for the interlinks among people managing organizations.

Given the above, in this paper, we extend the existing perceptions on SR and thus place our study in one of the creative industries, analyzing SR established, maintained, exploited, and terminated by a wide range of individuals operating in the video game industry (VGI). The focus is given on VGI, as it is one of the fastest-growing creative industries (Krampus-Sepielak et al., 2020), and SR are suggested to be critically important for its development (Balland et al., 2013; Burger-Helmchen & Cohendet, 2011; Cardoso et al., 2018; Gidhagen et al., 2011; Wachs & Vedres, 2021). Nonetheless, even if in some works SR are considered in VGI, the focus is placed on the relationships between and among gamers (Boyd et al, 2015; Kwon, 2022) and/or their communities (Burger-Helmchen & Cohendet, 2011; Cohendet et al., 2020; Parmentier & Mangematin, 2014), SR among industry actors such as video games developers remain outside the scientific exploration.

This article presents the results of a field study implemented through 17 in-depth interviews and 1 focus group interview with Polish video game developers. Our research has shown that building and maintaining SR with a wide range of actors – current and previous employees, gamers, competitors, and business partners, (including cooperators), investors and contractors – enables game developers to achieve multidimensional business benefits. Moreover, we show that these benefits may differ depending on the type of actor. Research findings contribute both to theory, extending the existing knowledge on the importance of SR for business activity (by type of actors) and simultaneously can be useful from a practical point of view. The findings may be interesting for game developers in the VGI growing rapidly and serving to generate economic benefits on a global scale (Krampus-Sepielak et al., 2020).

The aim of the paper is to explore the relevance of SR for video game developers. Our exploration takes three perspectives: the specificity of VGI as favoring SR exploitation, actors with whom valuable SR are maintained, and heterogeneous benefits of SR.

To reach the above aim, we conducted qualitative research in the form of seventeen in-depth individual interviews (IDIs) and one focus group interview (FGI) with six purposefully chosen game developers operating in Poland.

THEORETICAL BACKGROUND

SR and their importance in business activity

The number of scientific papers on SR has been growing for many years (Granovetter, 1985; Uzzi, 1997). Nonetheless, although they are still identified as significant for business activity in recent papers (Baggio et al. 2022; Mariani, 2016; Styvén et al., 2022), the concept of SR itself remains not clearly presented in the literature. This is because SR are complex and multidimensional (Tsai & Ghoshal, 1998). They may be defined by interaction with a single person – “*person to person*” – or generalized more broadly to a group of others, “*many to many*” (Polese, 2009). Researchers also connect them with social networks (Uzzi, 1996), using often interchangeably (Sousa, 2005) terms such as “*personal ties*” (Chow and Ng, 2004), “*personal bonds*” (Beritelli, 2011), “*personal links*” (Sulzer, 2001), “*social bonds*” (St-Pierre et al., 2009), “*social ties*” (Burt, 2009), and “*social links*” (Hu et al., 2014). All of the above leads to conceptual inconsistencies, thus to the incomparability of research as well.

In this paper, after Cook and Whitmeyer (1992), we define SR as information-carrying connections between people in social networks. SR are seen as a component of social capital (Adler & Kwon, 2002), while personal relationships are an element of SR (Polese, 2009). This means that SR include personal relationships but are not limited only to them (Gulati et al., 2000). In other words, SR occur not only between individuals but also between communities (i.e., collective SR). Last but not least, SR include not only private but also business and professional relationships (Polese, 2009), as they can take place both within and outside the organization (Jo & Ellingson, 2019).

SR generate many positive organizational effects (Granovetter, 1985; Uzzi, 1997), which are identified by many researchers regarding different sectors of economy. We synthesize SR benefits in Table 1.

Table 1. Benefits of social relationships for business practice

Factors	Author(s), year
Access to resources, for example, information, tacit knowledge, experience accumulated inside informal communities	Watson, 2008; Wright et al., 2001
Enhance business performance (e.g., sales volume)	Glińska-Neweś & Karwacki, 2018; Chen et al., 2009
Provide a competitive advantage	Polese, 2009; Chen et al., 2009; Allen et al., 2007; Letaifa & Rabeau, 2013
Development of employees' competences and shaping their attitude	Lingo & Tepper, 2013; Kourtit et al., 2014
Increase effectiveness	Hite, 2005; Yang et al., 2011; Vilana & Monroy, 2010
Enable the starting of a business or staying on the market	Men & Chen, 2017; Turner, 2007
Enhance trustworthiness between business actors, which helps in day-to-day business activity	Jordan et al., 2016; Czernek-Marszałek, 2020a
Improve the image of the company or its products/services	Hoang & Antoncic, 2003
Facilitate cooperation	Bai et al., 2021; Blatt & Camden, 2007; Chassagnon & Audran, 2011; Sun et al., 2016; Ahmed et al., 2015; Rooks et al., 2000; Wang et al., 2016
Enable the building of different communities (wide networks of connections), including new teams (which, thanks to SR, is easier, faster, more enjoyable, and brings satisfaction)	Brandtæg & Heim, 2009; Tomkins, 2001; Sousa, 2005; Bapna et al., 2017
Support in crisis situations	Leimeister et al., 2008; Czernek-Marszałek, 2020a
Knowledge creation, development, and sharing	Allen et al., 2007; Zhou et al., 2010; Ahmed et al., 2015; Watson, 2008; Lingo & Tepper, 2013; Kourtit, et al., 2014
Stimulate innovations and innovativeness	Doh & Kim, 2014; Glińska-Neweś & Karwacki, 2018; Styvén et al., 2022

Source: Own elaboration.

These benefits, being complementary to one another and concerning different areas of business activity, create our conceptual framework for further considerations and analysis of benefits of SR in VGI.

The importance of SR among VGI actors

In the strategic management, SR are shown as impacting firm performance (Gulati et al., 2000). This finding has also some empirical support in the case of VGI (Burger-Helmchen & Cohendet, 2011). It is claimed that long-term success of game developers is increasingly determined by SR (Balland et al., 2013), and that maintaining different external relationships – mainly with individuals – is of significant value (Kourtit et al., 2014). Among the actors discussed so far as relevant in the context of SR, there are mainly gamers and their communities (Burger-Helmchen & Cohendet 2011; Garcia et al., 2022; Parmentier & Mangematin, 2014), but there are also game developers and game developers' employees (Balland et al., 2013; Cardoso et al., 2018; Marchand & Hennig-Thurau, 2013; Poor, 2013). Although VGI brings together various entities (e.g., developers, publishers, and creative specialists) between which there are continuous and multidirectional social relationships (Ewing, 2022), the research on the role of such SR has not been carried out so far.

Gamers and gaming communities

So far, most interest has been given to customers, namely gamers as well as their communities (Burger-Helmchen & Cohendet, 2011; Kleer & Kunz, 2022; Parmentier & Mangematin, 2014; Poor, 2013; Tong, 2021). When it comes to gamers, there is emphasized their role in game ideation (Tschang, 2005), game development and improvement (e.g., when launching patches or even fixing bugs and glitches [de Prato et al., 2014]), game promotion (Zackariasson & Wilson, 2010), and fund-raising via crowdfunding actions (Cha, 2017; Wachs & Vedres, 2021). Moreover, gamer communities can function as online innovation communities capable of contributing not only to product development but also to co-creation and strategy processes, constituting an external dynamic capability (Orelj & Torfason, 2022).

The relevant communities of gamers include not only typical gamer or players (note that there is a difference in terms of engagement into gaming [Balland et al., 2013]) but also more engaged ones like moders (gamers able to change the gameplay

or technical issues), hackers (Poor, 2013; Münch, 2013), game testers (Gidhagen et al., 2011), amateur developers (Cardoso et al., 2018), and fans of specific technologies/platforms/game genres (Klimas & Czakon, 2022). As shown in previous studies, gaming communities are based on strong SR and well-developed social norms covering a “*strong sense of commitment*” (Parmentier & Mangematin, 2014, p. 42). They are highly socially embedded in dense networks of SR and often engage in official or unofficial game development and improvements (Burger-Helmchen & Cohendet, 2011).

Additionally, although gaming communities are linked with game developers through loose, social, informal relationships, they are claimed to have a significant impact on a firm’s innovativeness in the long-term perspective (Orelj & Torfason, 2022; Parmentier & Gandia, 2013; Parmentier & Mangematin, 2014). SR among gamers are claimed to appear within gaming communities but are also maintained with game developers. These relationships, based on a level of emotional engagement, feeling a sense of community, identity, and support within communities (Kwon, 2022), can be divided into three categories: membership, partnership, friendship (Boyd et al., 2015). Regarding innovativeness, social communities of gamers share ideas and knowledge, and thus are acknowledged as engaging in innovation processes (Orelj & Torfason, 2022; Parmentier & Mangematin, 2014) at their different stages, including co-discovery, co-development, co-deployment, and/or co-delivery (Klimas & Czakon, 2022).

Competitors

Regarding establishing and exploiting SR among game developers themselves (Klimas, 2018; Tschang, 2007; Zackariasson & Wilson, 2010), as indicated by de Prato and co-authors (2014), SR are built due to the disintermediation of the value chain, leading to the decline (and even elimination of) publishers and retailers, and later on even distributors. Game developers usually create a highly hermetic business environment based on a specific type of professionals who are simultaneously passionate about what they do (Klimas, 2017) and value highly the creative integrity of game developers (Golding et al., 2022; Styhre & Remneland-Wikhamn, 2019), reflecting a high level of mutual, intra-industry trust and thus a belief in knowledge sharing (including ideas of new products [Klimas & Czakon, 2022]).

When it comes to the intra-industry competition, it is worth adding that the recent studies point at the huge role (if not a success factor) of cooperation of competing game developers (Abanazir, 2022; Klimas & Czakon, 2018; Le Roy et al., 2022). It seems that video game developers can gain from such benefits in a coopetition context, as it is suggested that they share knowledge, ideas for new games, and even complementary technologies among themselves mainly on informal base (Klimas & Czakon, 2018). It seems that informal and interpersonal linkages of coopetitors in VGI (i.e., between game developers) may be important, as it has been proven in other industry contexts (Kallmuenzer et al., 2021).

Employees

Alongside the gamers at individual level of consideration, are employees shown as relevant in the context of exploitation of SR. Within the VGI, employees act as “*communities of specialists*” (Klimas & Czakon, 2018; Trammell, 2022) or “*creative specialist*” even (Ewing, 2022) comprised mainly of young professionals, usually working as freelancers or part-time, often equipped with a formalized body of knowledge. Thus, such workers create loose forms of “*rather informal groups with no hierarchical structures*” (Burger-Helmchen & Cohendet, 2011, p. 318). Moreover, it seems that not only their SR play a role, as social identity (in both professional communities and perceptions of potential employers), but it seems to be similarly important (Weststar, 2015). Creative employees of game developers do maintain extensive informal networks of interpersonal and interorganizational linkages with big industry players, including game developers, but also hardware producers, game publishers and distributors, venture, and seed capitalists (Cohendet et al., 2018). Indeed, creative workers employed in the game industry usually work on project contracts; therefore, boundaryless careers are quite typical, and social networks and interpersonal relationships within industry communities have been growing in strength (Weststar, 2015). Thus, from the developers’ perspective, SR can be maintained with internal communities of their own employees, but also with external communities outside the firm (Burger-Helmchen & Cohendet, 2011).

RESEARCH METHOD

The paper presents the findings of qualitative research conducted using an interpretative paradigm (Eisenhardt & Graebner, 2007). This kind of research enables new concepts or relations to be identified, which can be particularly useful when existing knowledge is not sufficient to explain a particular issue (Graebner et al., 2012). Taking into account the limited knowledge about

the importance of SR in the VGI and simultaneously the complexity of this issue, it was assumed that qualitative research of an exploratory nature would be the proper choice – as it enables to identify the various benefits of maintaining and developing SR for the activities of the research entities in its specific context (i.e., VGI) and from different perspectives, that is, different interviewees (Eisenhardt & Graebner, 2007).

The *spiritus movens* of VGI, namely video game developers, are perceived as creative occupational communities characterised by social identification but also requiring strong interpersonal connections (Weststar, 2015). Also, SR with other industry members (Ip, 2008; Klimas & Czakon, 2018; Tschang, 2007) as well as with gamers and their communities (Parmentier & Gandia, 2013; Parmentier & Mangematin, 2014) are acknowledged as highly relevant for running the business successfully. At the same time, on the academic ground, the SR of game developers are gaining growing importance in the processes of game co-creation (Lingo & Tepper, 2013; Klimas & Czakon, 2022).

So far, the focus in VGI research has been placed on large, global development studios (e.g., Cohendet et al., 2020) or the most valuable national industries (i.e., the dominant focus on American and Japanese markets e.g., Aoyama & Izushi, 2003; Izushi & Aoyama, 2006), leaving the game industry in countries where VGI is fast-developing and promising in a global scale (Krampus-Sepielak et al., 2020) under-researched (Del Bosco et al., 2020). Poland and its game developers, presented in this paper, are one such example (Klimas & Czakon, 2018; 2022).

To achieve the aim of the paper, we have purposefully chosen the representatives of Polish gaming companies, which would meet the following conditions: (1) they are well-known companies belonging to VGI; (2) they are members of associations/ groups linking actors in this sector (which was important to select firms experienced in cooperation thus potentially gaining benefits from SR) – here we used several databases available to the public and owned by one of the members of the research team who has been conducting research in this sector for years; and (3) actors are characterised by diversity in terms of the time they have been present on the market, type of product, location, number of employees, and the legal form of the business – this was intended to capture possible features of VGI actors that may affect SR built by the company's employees and owners. Those criteria allowed us to meet the purposeful sampling requirements according to Miles and Huberman (1994), assuming that: (1) the sample is related to the research problem; (2) the phenomenon (i.e., SR), that is, the subject of the study may occur in the studied sample; (3) the selection of interlocutors will increase analytical generalizations due to the theoretical power; (4) that reliable descriptions and explanations that accurately reflect reality can be created (in the last two cases, it was ensured by the selection of important game developers operating in Poland); (5) sampling is practically feasible due to the resources of the research team and the sampling plan is ethical (e.g., all interviewees selected for the study have agreed to participate in the study and record the interview).

The research was done in two stages. In the first one (between February and March 2020), IDIs with 17 developers (mostly), but at the same time also publishers and distributors of VGI, were conducted. In the second stage (in June 2021) a FGI with six developers, but at the same time being also publishers and distributors, was conducted.

Most of research entities (in IDIs and FGI) is located in cities that are enclaves of the games industry in Poland (Wrocław, Łódź, Katowice, Kraków or Poznań). The majority of the interviewees were company owners, while some functioned as game designers or animation directors, publishing directors, senior developers, or company presidents. The oldest of companies was established in 1991, and the youngest in 2020; however, most of the companies have operated on the market usually for at least several years. The vast majority of companies were private enterprises. Most companies were micro-firms, but at the same time, there were also firms of global reach as VGI is borderless (Krampus-Sepielak et al., 2020) See Table A in the supplementary materials.

In the first stage (IDIs), a semi-structured interview questionnaire containing 17 questions was used. The questions concerned the way interviewees understand SR, their importance for the company's activity and for the whole industry, SR components, and sources. In this paper, we focus on benefits of SR in VGI, including VGI features as factors stimulating SR building and development. The average interview lasted about 90 minutes.

In the second stage (FGI), the interview scenario was used. It contained instructions for a moderator and open questions asked to six FGI participants. At this stage, the aim was to deepen knowledge obtained after conducting IDIs and their analysis. The FGI lasted 2 hours and 7 minutes.

All IDIs and FGI were run in Polish, recorded, and then transcribed. IDIs analysis from the research material, consisting of several hundred pages, was coded and analyzed (under three related activities: data reduction, display and verification) (Miles & Huberman, 1994). First, IDI material was analyzed. Regarding the coding process, an inductive analysis was performed with the reference to: (1) the features of the game industry as favoring the establishment of SR; and (2) the importance of SR for economic activity in the VGI. See the codebook in Table 2.

Table 2. Inductive codes emerged in coding procedure of IDIs and FGI – the codebook

No.	Code in IDI	Code in FGI	Features of VGI important from the point of view of SR identified in the research	
1.1.	X		Product specificity – creating products that require the building of relationships	
1.2.	X		Creativity as being very important and stimulating SR	
1.3.	X	X	VGI actors characterised by specific values, interests, and in particular passions	
1.4.	X	X	VGI being small industry – people know each other	
1.5.	X		A lack of distance, loose atmosphere in the industry	
1.6.	X		Virtual world (online contacts)	
			Benefits of SR in VGI with the reference to VGI actors	Type of actor
2.1.	X		Building community	Gamers (including influencers)
2.2.	X		Building the credibility of the product and the company	
2.3.	X		Game release	
2.4.	X		Promotion and sale of the game	
2.5.	X		Building the image of the company/product	
2.6.	X		Motivating to work	
2.7.	X		Giving feedback when the game is not satisfying gamers	
2.8.	X		Stimulating the company's innovation	
2.9.		X	Finding employees	
3.1.	X		Continuing the financial involvement of investors/shareholders	Business partners
3.2.	X		Increasing the sales volume	
3.3.	X		More advantageous offers/larger assortment than contractors	
3.4.	X		Certain services for free or in barter	
3.5.	X		Knowledge transfer (including tacitly)	
3.6.	X	X	Help in crisis, unusual or problem situations	
3.7.	X		Faster, more direct contact	
3.8.	X		Staying on the market	
3.9.	X	X	Starting cooperation, making it easier, realizing it at a lower cost	
3.10.	X		Creating a network of contacts for the future	
3.11.		X	Finding employees	
3.12.		X	Limiting inappropriate behaviour	
4.1.	X		Possibility of doing business	Employees (previous and current)
4.2.	X		Building a team and ensuring the employment of valuable employees in the future, thanks to a good working atmosphere that motivates to work	
4.3.	X		Easier, cheaper, faster, and more effective recruitment process	
4.4.	X		Increase of work efficiency	
4.5.	X		An easier way to communicate and work	
4.6.	X		Greater transparency, easier way to control what is happening in the company by employees	
4.7.	X	X	Increase of innovativeness	
4.8.	X		Reliable performance of painstaking work	
5.1.		X	Maintaining good relationships for the future	Competitors
5.2.		X	Sharing knowledge	
5.3.		X	Mitigating tensions among competitors	

Source: Own elaboration.

In this way, two groups of factors, that is, the features of the game industry as favoring the establishment of SR and SR benefits in VGI, were identified. Afterward, FGI material was analyzed in order to develop those two lists of elements. As deductive codes to code the FGI transcript, there were used codes that we obtained inductively from the IDIs analysis. Some of those codes, after the coding process, appeared in FGI transcript, which means that FGI allowed to confirm some particular features of VGI

important for SR and SR benefits with gamers, business partners, and employees – see Table 2 with codebook. However, FGI was done not only in order to confirm or deepen our IDIs findings, but also to shed new light on the researched phenomenon, that is, to identify factors that could not be discovered during IDI. FGI allowed to reveal some new benefits of SR (e.g., codes no. 2.9., 3.10., 3.11.), including benefits with a new group of entities, that is, competitors (codes no. 5.1.-5.3.). Table 2 shows which codes occurred during which research stage. The findings of both stages made it possible to obtain a coherent picture of the issue under study, which allowed the authors to better and more fully understand it. Finally, the identified SR benefits in the VGI were put together with the more general benefits of SR in other sectors of the economy (as identified in the Table 1) and either detailed those benefits – but in the context of VGI – or extended the list if specific groups of SR benefits, which were not previously identified in the literature.

In order to increase the trustworthiness of the research (Guba, 1981), certain activities were undertaken, including organizing meetings in places proposed by the interviewees, thus assuring them conditions to speak freely (IDIs were conducted face-to-face, since they were done prior to the COVID-19 pandemic and FGI was carried out remotely); presenting a thick description of the phenomenon through collection and analysis of field notes and preparing full transcriptions; setting up a detailed protocol; creating and checking the full transcripts and codes in order to assure dependability; and using triangulation of interviewees in order to ensure different views on the issue being analyzed. The findings, along with quotes from the interviews that provide the thick description (Geertz, 1973) being crucial in qualitative research, are presented in the next section of this paper.

For the presentation of the research findings, quotations from the research were used, which enrich the discussion and conclusions from the research and allow the reader to put a voice to the interviewees and understand them better (Eisenhardt & Graebner, 2007; Miles & Huberman, 1994).

RESEARCH FINDINGS

The research findings are presented in two main parts. The first one entitled “*VGI characteristics favoring social relationships*” shows what features of VGI favor social relationships. The second “*Actors’ social relationships exploited in VG*” presents the benefits of social relationships maintained by developers in VGI with each group of actors, that is, gamers, business partners, employees, and competitors.

VGI characteristics favoring social relationships

Based on our research findings, it can be said that SR appear as indispensable element of business activity in VGI to a large extent because of the characteristics of the industry itself. The six features of VGI, determining the relevance of SR for business activities, identified in our research, are connected to the: (1) VGI product specificity; (2) key role of creativity in VGI; (3) specific values, interests, and passions of VGI actors; (4) relative small size of VGI; (5) informal atmosphere among close-knit VGI community; and (6) a virtual contact domination. In the following considerations, we refer to each of the six VGI characteristics.

VGI products specificity

The VGI creates products that require the building of relationships as the development process is implemented through projects. Moreover, games are less and less able to be made independently without technological or artistic support from experts; thus, the projects are run by interdisciplinary teams:

We are not able to build anything on our own, so relationships between people are crucial, in fact for our industry. [D2 – interviewee code number]

(...) Creating games is, a very difficult industry, the most difficult of the, let’s say, entertainment or IT industries, it combines many different types of people and requires different skills. Therefore, if you go through such a project (...) the relationships are completely different than if you just do something different and only communicate with each other. [G12]

Key role of creativity in VGI VGI is one of the creative industries. In our study, it was emphasized that SR are the source of creativity underlying the dominant logic of game developers:

We are in the creative industry, so these relationships are very important. So that people trust each other, have common goals, and achieve them together. I believe that without these relations it is practically impossible. [R1]
Because it is also such a specificity of the industry that we are creative, so we try as little as possible to be associated with any laws or hard rules. We only focus on looser cooperation, as if matching our character as well. [D2]

Specific values, interests, and passions of VGI actors.

All of the actors in the industry are characterised by specific values, interests, and in particular passions, which are a way of life and at the same time connect people in the form of SR:

People treat this job as a passion, they treat it personally, so the relationships between people at work, in companies and between companies are also often very close. [D2]

It's very much a part of our industry, at [firm name] we say that the company was built by enthusiasts, and most of the people who work here are passionate about computer games, whether it's graphics or programming, but the common passion is game development and the games industry in general, and without that it would be difficult [to develop games]. [G7]

The relative small size of VGI

VGI when compared to other high-tech industries is small; hence, people in it know each other, which may lead to SR:

Because the industry is incredibly close-knit, we all really know each other. Every company knows practically every other (...). Many of us from different companies are simply friends. [D2]

Informal atmosphere among close-knit VGI community

VGI is characterised by a lack of distance, with the atmosphere in the industry (including inside individual companies) most often loose, and with contacts informal – often using first names at work is based on merit, and it is not formal authority that decides, all of which favors contact based on SR:

[Relations] are always much less distanced, it probably comes from using first names in the first e-mail. This is standard for us. [G8]

Formal things, one's position in a community can affect informal relations. But it is informal relations that I feel are the content of what I myself understand by relations here. [G1]

Virtual contact domination

Because the product developed in VGI are digital, they are developed in a cyberspace, and a large part of the relations of the project teams takes place in the virtual world, for example, with the use of Skype, Slack, Zoom, Google Meets, Tips, Discord, or Messenger and phone. In virtual communication channels, it is easier to blur the line between project-related and everyday matters. Thus, in the online network that numerous SR are built and developed:

We often have it [non-virtual face-to-face contact] limited to zero, because in the industry we are in, the product is electronic and, frankly speaking, there is no need to see each other in person. [D1]

Actors' social relationships exploited in VGI

Our research has shown that for the developers' business activity there are four key groups of actors with which SR are maintained: (1) gamers (including influencers), (2) competitors, (3) employees (current and previous) and (4) business partners (e.g., cooperators, investors, and contractors). Below we present our findings in relation to each group of identified actors. Please note that more descriptive details of these findings, along with relevant direct quotations of interviewees ensuring thick description of qualitative data (Geertz, 1973), are included in the supplemental online materials within Table B.

SR with gamers

Research has shown that SR with gamers are crucial. They serve to build a community of gamers around a company and its games, and the existence of such a community was perceived by gamers as a value in itself. The interviewees pointed out also that their relationships with the gamers enabled them to build the credibility of a product/game and the company, for example, through ongoing contact with gamers, especially before a game's release, in order to assure them that the game will be released on the market. The process of its development is long and risky, and before the game is released, companies keep in touch with gamers to inform them about the progress of the game and assure them the game will be released on the market and when (more details in Table B).

Next, social contacts with gamers are also relevant in the field of game development. Gamers test the games at different stages of development but also can make game corrections and improvements if the code is open (i.e., domain of game modders [Klimas & Czakon, 2022]), thus reducing the risk associated with the release of a game that would not find a sufficient number of fans. This is confirmed by the words of one of the interlocutors talking about how, thanks to the support of gamers who pointed out cultural differences, the problem of game acceptance by the audience was eliminated:

I heard about an example where the game had no chance on the market of Arab countries because one of the characters was a pig, who is super cool and nice, generally fine, we have no negative connotations, but because in that region a pig has a bad association, not as nice just as dirty, you shouldn't have contact with it at all. So in games it also had no chance at all; it was immediately rejected for social, cultural, and religious reasons. After changing the character, (...) who is the hero of the game, it turned out that the game is great (...). So sympathy in one cultural zone has nothing to do with the other. And such information about the fact that certain things shouldn't be used, [which] often arise during such interactions, that is, if someone says listen, this is something that shouldn't be used because... [G4]

The very important role of SR with gamers can be identified also after the game launch. First, they can be intensively exploited in promoting and selling games. These relationships make it possible to reach a wider audience, mainly thanks to the use of the player's network of contacts:

And of course within these business contacts, well, the individual relationships I mentioned, they help a lot. They help in that a game that is even brilliant and is not promoted is not known, is not described, nobody has seen it, and it has no chance [for success]. [G4]

Second, SR with gamers can be a good source of honest feedback, especially if the game does not satisfy gamers. This problem was signaled by many interlocutors, for example, one of them said:

A very strong example is a company like [name], which recently has been very focused on something called loot boxes, and principally focuses on making their games earn money, not on making it enjoyable for gamers. Many gamers have started to get very angry with them, and very strong attacks on this company have begun. [G12]

Last but not least, SR maintained with gamers can be used to internally strengthen particular game developer. As mentioned, one of our interviewees can be seen as solid external motivation to keep the promises and thus reach the company's goals.

It's very important for us to maintain these [gaming] committees as well. We have also a large fan base as well as... the production process takes quite a long time, approximately four years in our case (...) but there are people who really are waiting for it, who react vividly to what we show, who give us such particularly positive feedback, who give us the fuel to go on, and also like the fact that ultimately we're doing it for them and not just for ourselves, right? [G7]

Moreover, they can also serve to build the image of a company and a product. Some interviewees emphasized that thanks to ongoing contacts with gamers, taking into account their comments, corrections, or suggestions, they create the image of a company that is open to its community and for which gamers' opinions are very important.

Finally, the interviewees also emphasized that the purpose of their SR with gamers is to stimulate the company's innovativeness. Often it is the gamers, thanks to their high expectations and creativity, who are the source of the innovation. Moreover, informal meetings with gamers in pubs often allow us to find – among gamers – new employees.

SR with competitors

FGI research also allowed us to identify three groups of benefits of SR maintained with competitors, that is, with other game developers. Interestingly, this group of actors has not been identified in our IDIs.

First, the interviewees declared that maintaining SR with competitors is often useful in various, unexpected situations, also for the potential activities in the future; therefore, such relationships are treated as an organization's resource:

(...) we are trying to maintain relatively good relations. When I can, I praise the competition for being good, if I know who is doing something, because it's not always known. And it seems to me that this is the method that should be followed, but it will turn out in a few years. [FR5]

Some, as another demonstration of the positive results of SR for business operations, claimed that SR favor knowledge sharing with business rivals. The interlocutors emphasized that the community of players is so large that game developers often do not even perceive themselves as competition, despite the fact they are competitors regarding their activities:

So I think everyone has an interest to share this knowledge, and we compete for billions of players, so I won't take these two players away from anyone. [FR1]

At the same time, it was emphasized that the smaller the company, the easier it is to share knowledge with the competition, because the non-disclosure agreement (NDA) applies to large companies:

Giant companies most often have such security policies that, in general, even when returning home, he says, "No, no, I was at the construction site for eight hours." Can't say anything. Any NDAs look like this, I shouldn't even say I signed the NDA. And certainly not with whom. [FR5]

The third group of benefits of SR with competitors in the form of mitigating tensions in relations with them was also indicated:

I would risk that these relationships are the most important, actually. It is these interpersonal relationships. Because, as my colleagues mentioned here, there is competition, but then we all see each other at industry events, at various fairs (...) they [social relationships] also influence how this competition actually looks like. [FR2]

SR with employees

The interviewees also strongly emphasized the significance of maintaining SR with employees, interestingly, not only with current employees but also with the former ones. In general SR with both types of employees are used to create a good image of the company but also determine relationships with potential, future employees.

First, developers pointed out that thanks to SR with current employees, it is possible to conduct their business at all, as game development requires informal links with creative workers. They stressed that the gaming industry is specific – if only because of the product that requires constant interaction with others, as well as the creativity and involvement of different employees.

Second, the role of SR in building a team and ensuring employment was emphasized thanks to a good working atmosphere that motivates current employees in their work, or thanks to the image of an employee-friendly company, which is intended to motivate future employees (of particular importance taking into account hypercompetition for employees in the industry). This is what one of the interviewees said about it:

The goal of the activity may be the development of the entire team. Also, not only are we aiming to launch this game, but we're also aiming to release the next game. So at this stage, not only do we want to get to our release goal as soon as possible, but also to do it in such a way that the team remains connected with each other, to keep the relationships that are there, because it is a more long-term investment than just the next project. [G7]

A similar opinion was expressed by another interlocutor:

In an employee's market, money doesn't play such a role, because it is good everywhere if you know a lot. So more relational, soft arguments start to play a big role. [G1]

Third, another key role identified regarding to SR with employees – interestingly with both current and former ones – was in the process of recruiting new employees. It was emphasized that this recruitment is easier, cheaper, faster, and more effective when it is not necessary to search for employees through official channels, but through one's own employees and their social contacts:

We like know each other through a network of friends. There was a situation in which, while looking for a graphic designer for the office, we wondered for some time what the best share price would be for us. Due to the fact that we are a small company, we had some limited resources, but also as we were looking for a place on the market, we decided to play it smarter (...). So ... we had a few friends who were graduates of the Łódź Film School, and we just decided to ask them, like they were there in groups of Film School students, to post this announcement for us and like we had all the people with whom so far we had collaborated graphically. It came from these sources, and we were satisfied with all of them, and it was like a relationship where we, like in our private lives, knew certain people who turned out to be graduates of the film school, which a few years later allowed us to germinate a kind of set of talents, which is usually harder for people in our industry to access. [G11]

It was emphasized that a person recommended in this way wants to prove themselves, not only for their own reputation, but also for the reputation of the person who recommended them. This means that often people employed in this way turn out to be good, loyal employees. This form of looking for employees is important, especially when a person with specific predispositions (e.g., with experience, appropriate skills) is needed for the work at hand. It was also pointed out that SR with employees also result in employment of people with values similar to those represented by the company.

One of the interviewees also said that by hiring employees from France, it is easier for him to hire other people representing this community, not only through contacts of current employees, but also because for potential employees, cooperation with people representing a specific community/cultural circle may constitute information that the company is open to this community and knows its needs.

Fourth, an increase in work efficiency can be achieved thanks to SR with current employees. This results mainly from trust in the employees, and therefore, there being no need to check or correct their actions, and the possibility of talking to employees in a free and direct way to communicate goals, explain expectations, and to call an employee's attention to when they have done something wrong. It was emphasized that these benefits are especially visible in long-term relations.

Fifth, the interviewees also emphasized that communication and teamwork was easier thanks to SR with employees. It was said that it was easier to reprimand such an employee, and even, as one interviewee put it, easier to conduct a conversation about the dismissal of an employee, due to their understanding (although it was emphasized that at the same time, a close

relationship with an employee also makes such a conversation difficult).

Sixth, thanks to SR with employees, there is greater transparency, it is easier for employees to monitor what is happening in the company, and employees feel jointly responsible for the company.

Seventh, according to our interviewees, SR with employees make it possible to increase the company's innovativeness:

It seems to me that social relationships help to develop these organizational innovations. If people are close to each other, trust each other, then they talk to each other, challenge each other, and criticize what is happening in the organization, thanks to which they are able to generate organizational innovation. And propose other, better or worse, solutions. But that's the only way to make these changes. [R1]

And finally, thanks to SR, employees are encouraged not only to be more creative or innovative but also to perform tedious, time-consuming tasks, which, apart from innovative activities, also have to be carried out in the gaming industry (e.g., programming work).

SR with business partners

In the next type of key actor in terms of exploited SR by video game developers, there are business partners, that is, contractors, and various types of cooperating companies, as well as partners, investors, and other external shareholders, so far mostly beyond empirical analysis.

In the context of relationships with external shareholders, one of the interviewees emphasized that it was thanks to SR that some shareholders decided to continue their financial involvement in the company when the sales results of its products were falling:

We do it by talking, openness, honesty, and, for example, if they were looking purely at the results, well, our main shareholders, who lost millions because they invested 20 million at such a price, and now there is a price that out of 20 million, they have about two left over, they should be very angry. And they are definitely not happy. It's hard to be happy about it, but we still respect each other and talk in a cultural way. This has an impact on us again, because I know that when I have a meeting with them (...), I don't have to stress about it. It's not something that my heart beats faster and I feel sick, as I know that the next day, OK it's hard to talk, but I can tell them honestly what's going on. They know we're trying, and that's also important. [G1]

SR with contractors also make it possible to increase sales volumes:

It seems to me that these informal relationships increase sales volumes and the willingness of the other party to cooperate, so here it pushes the business in the right direction. [R3]

The third aspect that was raised in the context of the importance of game developers' SR with contractors was also more advantageous offers received from friendly contractors or the possibility to choose products from a wider range.

Additionally, the interviewees indicated numerous forms of providing services either free of charge, in the form of a barter, or also deferred (a favor for a favor at an unspecified date).

SR with business partners in the gaming industry in the field of knowledge transfer play an important role. In this context, it was emphasized above all that this transfer – thanks to interpersonal relationships – is first of all possible, while second, it is often faster and more effective. It was also pointed out that it is often the transfer of tacit knowledge (including private contacts) access to which without SR would be impossible, because it is prohibited by law. One of the interviewees talked about it in a very interesting way:

In the gaming industry, which is particularly independent, there is a concept called a "friend NDA – Non-Disclosure Agreement". This is a confidentiality agreement that is signed between two entities (...). However, it seems to me that as long as someone doesn't violate this trust strongly, for example, by spewing out information that shouldn't be disclosed, for example to journalists, there is a certain high degree of trust. And especially in such situations like, let's call them casual, social events at conferences, it is not uncommon that, let's say, by talking to someone we are able to get... I mean learn some things about other companies, or for example some plans, or wide-ranging changes in the industry. Because, people are quite open to sharing knowledge that may be useful to someone. Even if it falls within the scope of things that shouldn't be talked about, sometimes someone will mention that, for example, this topic is like this, but I can't tell you why. [G11]

Such knowledge transfer as emphasized above reduces the risk of making the wrong decisions and actions. One of the interviewees also emphasized that thanks to SR, he often gains a new/fresh perspective on certain issues or problems. It was also indicated that thanks to SR it was possible to mentor, lead, or introduce a given company to a specific area of activity in the industry.

Another area that was emphasized was that SR with contractors or other cooperating entities often make it possible to obtain help in crisis, unusual or problem situations:

Or when it is necessary to act outside the box. And having on the other side a person who knows that I know what it is about, who trusts me, who knows that we have a common goal, and we've proven it over the years, it's definitely easier. [FR5]

Meanwhile, contact with contractors is facilitated by SR, which, thanks to these relations, is faster and more direct, and one can, for example, relatively freely present one's own expectations to the other party:

Researcher: Is it good that you don't keep your distance from each other in your industry?

Interviewee: I don't know if it is an advantage or a disadvantage, it is a standard. It is faster, it is more convenient, and thankfully mainly in professional matters we don't need to look for a reason why we had to say it gently. Sometimes it's better to say something bluntly that something is not working or that it is very, very bad. It is easier. Thanks to this we know that something is wrong, and we can react faster rather than look for some gentle way of saying it. [G8]

Another issue interviewees mentioned concerning the importance of SR with business partners was the possibility of staying on the market, resulting from, for example, getting new contacts and contracts:

Tightening interpersonal relationships helps to keep business at a similar level during a stagnation period. It doesn't mean reducing the share of sales, but maintaining a constant level. [R3]

One of the most important roles of SR in contacts with contractors and other cooperating entities also relates to enabling cooperation, facilitating its course, stimulating its development, and as FGI has shown stimulating future cooperation. It was emphasized in particular that SR are conducive to establishing oral cooperation without a formal contract, and that SR increase the chance of choosing a friendly actor as a business partner, and even facilitate the termination of cooperation:

Interviewee: I think it is important. This is where it begins, some kind of contact. As I said before, these business aspects are the most important for us. But it is often the case that if we have two similar partners to choose from, where these business aspects are the same, we will choose the one where we have better social relationships. This makes it much easier in the future (...).

Researcher: Are these social relationships significant for ending or dissolving interorganizational cooperation?

Interviewee: They certainly make it easier to do it, that is end cooperation in a healthy way. On good, remaining on good terms. [R1]

Thanks to trust in a given person, SR enable access to a wider group of proven actors, encourage many of them to cooperate (e.g., when it is to be cooperation in the form of networks/larger groups), offer greater flexibility of action (thanks to the fact that there is no need to have written contracts every time or – if necessary because of the legal regulations – they can be written down during the service provision), and opens the “next doors” to cooperation, reducing operating costs, etc.

The last element to the manifestations of the positive impact of game developers' SR with business partners on the activities of developers was the creation of a network of contacts that can be very useful for business activities, if not immediately then in the future:

You know, here just like with these interpersonal relationships, it seems to me that this networking is also very important. And even if we meet somewhere on our project and it seems to me that we don't need this direct cooperation at a given moment, it quickly turns out that all these relations in this industry are very useful. [FR2]

FGIs allowed also to claim that private contacts with universities' employees allow to search employees. FGI research has also shown that SR with business partners can reduce inappropriate behaviour, which is due to the fact that the industry is small and it is easy to lose a good reputation. It was also emphasized that SR are useful when it is necessary to act outside the box.

DISCUSSION

The study fills identified research gaps, as it shows the relevance of SR in the VGI while simultaneously taking into account the specific character of the industry analyzed. Indeed, we present the role of SR in VGI, putting emphasis on very different types of actors of this industry. The main contribution of this research is presented in Table 3.

We compared the inductively identified during data analysis the benefits of SR in VGI (“research added value” column in Table 3) with the previously identified in the literature – in relation to various sectors – more general benefits of SR in business (“previous knowledge” column in Table 3). This enabled identification of completely new VGI-specific benefits of SR in business. All in all, we see our contribution to the relational view as multi-threaded. First, the field research was conducted on SR in the gaming sector as one within creative industry (Clare, 2013; Tschang, 2007). Until now, research on SR relatively seldom

concerned the creative sector (Boyd et al., 2015; Klimas, 2017; Lingo & Tepper, 2013), although theoretically it was claimed to be relevant (Clare, 2013; Glińska-Neweś & Karwacki, 2018; Oakley, 2006).

Second, the study also characterises SR maintained with different types of actors. Complementary to prior works (e.g., Cardoso et al., 2018; Cohendet et al., 2018; de Prato et al., 2014; Kleer & Kunz, 2022; Le Roy et al., 2022; Wachs & Vedres, 2021), our findings point to both individual actors (e.g., gamers, business partners, etc.) and collective actors (e.g., gaming communities, developer subculture, the indie community, i.e., independent game developers, etc.) as significant recipients of SR exploited by game developers. Nonetheless, in contrast to previous works, this one points at all of those actors together, not selectively at one specific type, thus indirectly revealing the very complex nature of relational social embeddedness (Baggio et al., 2022; Granovetter, 1985) inside VGI.

Table 3. Research contribution to knowledge development

PREVIOUS KNOWLEDGE		RESEARCH ADDED VALUE	
General SR benefits	Author(s), year	Specific SR benefits in VGI	Main actors
Access to resources (e.g. information, tacit knowledge, experience accumulated inside informal communities)	Watson, 2008; Wright et al., 2001	Game release Giving feedback when the game is not satisfying gamers	Players Gamers
Enhance business performance (e.g., sales volume)	Glińska-Neweś & Karwacki, 2018; Chen et al., 2009	Promotion and sale of the game	Gamers
		Increasing the sales volume	Business Partners
		More advantageous offers/larger assortment than contractors	
Provide a competitive advantage	Polese, 2009; Chen et al., 2009; Allen et al., 2007; Letaifa & Rabeau, 2013; Parmentier & Mangematin, 2014	<i>No direct statements of interviewees</i>	
Development of employees' competences and shaping their attitude	Lingo & Tepper, 2013; Kourtit et al., 2014	Motivating to work	Gamers
Increase effectiveness	Hite, 2005; Yang et al., 2011; Vilana & Monroy, 2010	Reliable performance of painstaking work	Employees (current)
		Certain services for free or in barter	Business partners
		Increase of work efficiency	Employees (current)
		An easier way to communicate and work	
Enable the starting of a business or staying on the market	Men & Chen, 2017; Turner, 2007	Staying on the market	Business partners
		Possibility of doing business	Employees (previous and current)
Enhance trustworthiness between business entities, which helps in day-to-day business activity	Jordan et al., 2016; Czernek-Marszałek, 2020a	Greater transparency, easier way to control what is happening in the company by employees	Employees (current)
		Limiting inappropriate behaviour	Business partners
Improve the image of the company or its products/services	Hoang & Antoncic, 2003	Building the image of the company/product	Gamers
Facilitate cooperation	Bai et al., 2021; Blatt & Camden, 2007; Chassagnon & Audran, 2011; Sun et al., 2016; Ahmed et al., 2015; Rooks et al., 2000; Wang et al., 2016	Faster, more direct contact	Business partners
		Easier cooperation, realized at a lower cost	

PREVIOUS KNOWLEDGE		RESEARCH ADDED VALUE	
General SR benefits	Author(s), year	Specific SR benefits in VGI	Main actors
Enable the – faster and easier – building of different communities (wide networks of connections), including new teams	Brandtæg & Heim, 2009; Tomkins, 2001; Sousa, 2005; Bapna et al., 2017	Building gamers community	Gamers
		Creating a network of contacts/good relationships for the future	Business partners Competitors
		Building a team and ensuring the employment of valuable employees in the future, thanks to a good working atmosphere that motivates to work	Employees (current and previous)
		Mitigating tensions	Competitors
		Easier, cheaper, faster, and more effective recruitment process	Employees (current and previous) Business partners Gamers
Support in crisis situations	Leimeister et al., 2008; Czernek-Marszalek, 2020a	Continuing the financial involvement of investors/ shareholders in difficult time Help in crisis, unusual or problem situations	Business partners
Knowledge creation, development, and sharing	Allen et al., 2007; Zhou et al., 2010; Ahmed et al., 2015; Watson, 2008; Lingo & Tepper, 2013; Kourtiti, et al., 2014	Knowledge transfer (including tacitly)	Business partners Competitors
Stimulation of innovations and increase of innovativeness	Doh & Kim, 2014; Glińska-Neweś & Karwacki, 2018; Klimas, 2018	Stimulating the company's innovation	Gamers
		Increase of innovativeness	Employees (previous and current)

Source: Own elaboration.

Our research also allowed us to assess the role of SR regarding internal and external actors in relation to game developers. Thus, regarding internal actors, our research supports prior evidence pointing to social intra-industry networking (e.g., with current employees) as a significant component of developers' business models (Klimas, 2018). Additionally, our research supports prior conceptual claims (e.g., Ip, 2008; Marchand & Hennig-Thurau, 2013) and evidence (e.g., Klimas & Czakon, 2018; 2022; Parmentier & Mangematin, 2014) regarding the role of external actors for game developers, their activity, game development, and value creation. It should be emphasized, however, that external actors are shown here as relevant in a quite new perspective, namely individual, SR that have so far remaining unexplored.

Third, supplementary to prior works (Boyd et al, 2015; Burger-Helmchen & Cohendet, 2011; Cohendet et al., 2020; Parmentier & Mangematin, 2014; Styvén et al., 2022; Weststar, 2015), this study goes beyond SR maintained only between and among gamers. Indeed, alongside the evidence related to gamers' SR with other individuals (employees, investors), are also results relating to SR with organizational actors (business partners including shareholders, contractors so far beyond empirical studies and competitors).

Fourth, in support of existing knowledge (Burger-Helmchen & Cohendet, 2011; Klimas & Czakon, 2022; Weststar, 2015), employees are distinguished as crucial in terms of the maintaining of SR. However, an original contribution of this study is to distinguish between the need for handling SR with current and past creative staff. Moreover, our research has also shown that sound social links with these two groups of employees shape SR with the third group, that is, future (potential) employees. From a managerial perspective, this seems to be critically important, as competition for employees has become extremely intense in VGI worldwide (Krampus-Sepielak et al., 2020).

Fifth, this study provides empirical evidence for six premises for establishing and maintaining beneficial SR, which result from the characteristics of VGI itself. Moreover, it is possible to identify specific recipients of SR resulting in the very specific benefits (as shown in Table 3).

We provide empirical support showing that specific VGI's characteristics determine the relevance of SR for business activity: (1) game developers create products that require building SR; (2) SR are a relevant source of creativity and innovativeness; (3) there is a wide range of passionate amateurs (gamers, developers, indies) linked by dense networks of social connections; (4) there is a favorable environment for SR, as the industry is quite small (i.e., the small world hypothesis works very well), cohesive, and socially embedded; (5) there is a wide room for SR, as the community is close-knit, the work atmosphere in firms in the industry is usually relaxed, and contacts are rather informal and loose; and (6) the industry makes digital products, which require the building and maintaining of remote relationships (online contacts) mainly in the virtual world.

To date, most of these features have not been identified in empirical research, although some of them were stressed by some authors (also in theoretical/conceptual papers). For example, the fact that the industry is small and people know each other was stressed by Krampus-Sepielak et al. (2020). On the other hand, Tong (2021) emphasized continuous contact with the use of social links via digital platforms and forums, claiming that it is of key importance in the development of games created by “indies” (independent game developers). The literature even confirms that many more interpersonal and informal relationships are maintained with gamers via official channels on Discord and via social media communication, to the greatest extent on Facebook and Twitter (Marchand & Hennig-Thurau, 2013). What must be emphasized is that intensive communication via social media, identified as an important component of formalized community management (Klimas, 2017), is shown here as important from the perspective of social and informal relationships.

The contribution of this paper is also the presentation why and how the different types of SR are relevant. Indeed, our study has revealed many benefits of SR (see Table 3 and Table B in supplemental material). In general, they are consistent with the existing more general literature focusing on other sectors; however, most of the benefits are demonstrated for the first time in VGI context. We found support for such benefits as enhancing business performance (Chen et al., 2009; Glińska-Neweś & Karwacki, 2018); increasing effectiveness (Vilana & Monroy, 2010); facilitating cooperation (Ahmed et al., 2015; Bai et al., 2021; Sun et al., 2016; Wang et al., 2016); enhancing trustworthiness between business actors, which helps in day-to-day business activity (Jordan et al., 2016); improving the image of the company or its products/services (Hoang & Antoncic, 2003); building new communities (Bapna et al., 2017; Brandtzæg & Heim, 2009; Sousa, 2005), supporting in crisis situations (Leimeister et al., 2008) applying knowledge creation and sharing (Ahmed et al., 2015; Zhou et al., 2010); and stimulating innovations and innovativeness (Doh & Kim, 2014) (c.f. Table 4).

Additionally, through the interviews we identified other, more specific SR benefits divided into different groups of actors, that is, gamers, employees, business partners, and competitors. When it comes to gamers (including influencers to the greatest extent), our study findings support previous exploration, proving the role of social embeddedness of game developers in gaming communities (c.f. four case studies analyzed by Parmentier and Mangematin, 2014). Similarly to that shown by Burger-Helmchen and Cohendet (2011), good SR with gamers and their communities may be valuable at different stages of game creation, that is, in game development, the improvements phase, and after its premiere. Although prior research on video game developers has shown participation in gaming events as crucial for game promotion and player retention (Klimas, 2017), our study suggests that this participation does not end with the preparation and running of a promotional stand at trade fairs. It also includes establishing and maintaining interpersonal relationships with, for example, visitors and other exhibitors. Moreover, this study sheds new light on the specific types of gamers and passionate gaming amateurs relevant in the context of SR and developer performance. Our interviews prove the significant role of freelancers and influencers (bloggers, video bloggers, reviewers, and the most popular gamers on Steam, Twitch, YouTube, etc.). So far, impactful individuals were identified as important for (formalized) game development and game promotion (Klimas & Czakon, 2022), whereas this study points to the role of maintaining SR with them. Given our findings (Table 3 and Table B in supplementary materials), communities of passionate amateurs (here this includes gamers but also video game developers) seem to be a highly important source of competitive advantage reached through SR thanks to increasing game sales or by leveraging game retention ratio. This supports prior findings obtained for the music industry (Watson, 2008), considered as another component of the creative industry.

Additionally, we show such SR with gamers as beneficial in different managerial areas: project management, marketing (e.g., development of brand credibility, company image, game promotion and sales, customer relationship management) and human resource management (e.g., improvement of customer relationship management). We also support prior results showing gamers as valuable actors in co-innovation processes (Klimas & Czakon, 2022; Parmentier & Mangematin, 2014), thus impacting innovation performance (Parmentier & Gandia, 2013).

Finally, our research also identified a number of benefits of maintaining and developing SR with employees in VGI. What is interesting and completely new in the literature is that this concerned not only current but also previous employees. Our research supports prior suggestions pointing to the crucial value of informal, intra-industry networks of employees (Burger-Helmchen & Cohendet, 2011; Cohendet et al., 2018, 2020). Interestingly, our research has shown that SR with current and previous employees, due to the fact that the industry is small, are key to building positive relationships with future employees. Moreover, our research is in line with claims that in the creative industries, SR with employees are crucial for the development (Oakley, 2006), innovativeness, and creativity underlying competitive advantage in VGI (Scholz, 2012). Moreover, on the basis of our research, we can conclude that SR with employees, based on the declarations of our interlocutors, were to the highest degree characterised by emotionality, including emotions such as trust or sympathy.

Interestingly, we also identified benefits of SR with business partners previously not mentioned in the literature in VGI context, namely business partners (i.e., investors, shareholders, contractors, partners, and co-operators). These were, for example, the

continuing financial commitment of shareholders (who lose their invested capital when the sale of games decreases, but thanks to SR are more inclined to accept this loss and/or wait longer for the company's market situation to change) or tacit knowledge transfer related to NDAs. Interestingly, those business partners with whom SR were maintained were shown to be a broad group, for example, investors, cooperators, and contractors.

Also benefits of SR with competitors, previously not identified in the literature in the VGI, were identified. These are: maintaining good relationships for the future (i.e., treating SR as a valuable resource in day-to-day activity, sharing knowledge with competitors – especially among small companies) and mitigating tensions between competitors. Our research showed that although developers compete for employees, often they do not treat themselves as competitors and maintain SR allowing for cooperation. Moreover, we found SR as helpful in mitigating tensions when cooperating with competitor(s). We claim it is relevant contribution of this research, as managing tensions is crucial for cooperation effects (Fernandez et al., 2014; Tidström, 2014), while the factors leveling cooperation tensions remain unexplored (Lundgren-Henriksson & Tidström, 2021) also in knowledge-intensive industries (Chiambaretto et al., 2019; Le Roy et al., 2017).

CONCLUSIONS

Although VGI brings together various entities between which there are continuous and multidirectional social relationships, so far there have been no studies directly and holistically describing those relations, especially taking into account various groups of actors. Thus, the conducted research is a contribution to the theory in this field. Our research has shed an explorative light on the significant role of SR for the functioning of VGDs, but also that the role depends on who a relationship is established with, and that its significance can vary both in terms of the level of relationship development and the effects of this relationship. Using our research findings, one can also extract managerial implications. Generally, it can be concluded that maintaining and cultivating SR with a wide range of actors—not only the current employees, but also previous employees, as well as with gamers, competitors, and business partners, including cooperators, investors, and contractors – allows actors to achieve multidimensional VGI business benefits. As the research findings have shown, depending on the type of actor, these benefits may differ.

SR enable benefits to be generated not only in the current activity but also in the future (e.g., building teams, communities, company/product reputation and image among gamers, potential employees and the whole of the VGI, which, as also stressed by our interviewees, is relatively small). From a practical perspective, our findings may be interesting for game developers, as they address current research, namely the importance of SR in the gaming sector in Poland – a country where VGI is fast-developing and highly promising on the global scale (Krampus-Sepielak et al., 2020) and where such research is still very limited (Klimas & Czakon, 2022).

Moreover, some research limitations and future research directions can be formulated. First, our study was country-limited and based on qualitative, not representative research. However, it must be stressed that the games are acknowledged as global products; thus, VGI is considered as boundless (Cohendet et al., 2018; Klimas & Czakon, 2018).

Second, we focused on the positive aspects of SR with different actors in VGI; however, SR also have their “*dark sides*” (Czernek-Marszałek, 2020b; Le Roy et al., 2022). Thus, the picture of SR in VGI could be supplemented with this other point of view on SR. Therefore, regarding future research, there is a need to analyze some negative sides of SR in the context of VGI.

Third, even though our study support prior claims about the importance of relationships with gamers, competitors, and employees, but also empirically reveals the role of SR with business partners, the list of considered actors is limited. Therefore, it would be recommended to dig deeper and find evidence for the role of SR with other stakeholders like hardware producers, game publishers, game distributors and owners of distribution platforms, and non-governmental organizations suggested as relevant for developers' activity (Gidhagen et al., 2011; Ip, 2008; Klimas & Czakon, 2022; Tschang, 2007).

Fourth, our findings point to one type of internal SR as relevant for game developers, namely those with current employees. Relatively seldom did our interviewees speak about the role of SR among managers. Given that, they play different roles in a firm's performance, game development, and value creation (Anderson, 2008); also in VGI (Lingo & Tepper, 2013), it would be interesting to find out if and how the remaining roles are also relevant in the context of SR.

Finally, the identified benefits of SR are industry-limited. However, considered under the relational view, they are always seen as industry-dependent. Moreover, all research in the social sciences is highly contextual; thus, possible generalizations are always contextually limited, while single-industry investigations are well reasoned (Finfgeld-Connett, 2010).

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Table A. IDI and FGI interviewees characteristics

IDIs								
No.	Code	Position	Year of company establishment	Location-city	Company size (no. of employees)	Form of ownership	Range of activity	Type of activity
1.	G1	owner	2007	Katowice	middle	priv. comp.	global	GD
2.	G2	owner	2012	Katowice	middle	priv. comp.	global	GD
3.	G3	game designer	2010	Wrocław	middle	priv. comp.	global	GD
4.	G4	owner	2005	Łódź	micro	private sole	global	GD
5.	G5	owner	2015	Łódź	micro	private sole	global	GD
6.	G6	owner	2005	Kamionki	micro	private sole	global	GD
7.	G7	animation director	1991	Wrocław	Big	priv. comp.	global	GD & GP
8.	G8	owner	2014	Łódź	micro	private sole	global	GD
9.	G9	owner	2014	Poznań	micro	priv. comp.	global	GD
10.	G10	game designer	2007	Poznań	micro	private sole	global	GD
11.	G11	owner	2018	Łódź	micro	private sole	global	GD
12.	G12	owner	2013	Plewiska	micro	private sole	global	GD
13.	R1	owner	2011	Wrocław	middle	public company	global	GD
14.	R2	senior developer	1999	Wrocław	Big	priv. comp.	global	GD
15.	R3	senior developer	2011	Bielsko- Biała	small	private sole	Europe	GDS
16.	D1	publishing director	2012	Warsaw	small	priv. comp.	global	GD, GP & GDS
17.	D2	company president	2015	Warsaw	small	priv. comp.	global	GD
FGI								
1.	R1	owner	2012	Katowice	micro	private sole	global	GD
2.	R2	owner	2020	Katowice	small	priv. comp.	global	GD
3.	R3	owner	2019	Kraków	micro	priv. comp.	global	GD
4.	R4	developer	2004	Kraków	micro	private sole	global	GD
5.	R5	board member, managing director	2001	Wrocław	small	priv. comp.	global	other
6.	R6	owner	2016	Toruń	micro	spin off	global	GD & GDS

Abbreviations: GD – game development / GP – game publishing / GDS – game distribution

Source: Own elaboration.

Table B. Benefits of SR in the VGI

Type of entity	Result of SR building	Quotes from interlocutors
Gamers (including influencers)	Building community	<i>Well, we cannot establish relationships with players too much, because there are too many players to talk about relationships with a single player. Here, you can possibly talk about relations with the gaming community (...) for example, CD Projekt is known for having a very good relationship with the community that likes The Witcher, or Cyber Punk soon too. Because it cares a lot about this community, and it has a lot of such support. [G1]</i>
	Building the credibility of the product and the company	<i>Interviewee: We are already available [before the game's release] as a product card on Steam, even though the game is not available yet. (...) My point is that people who visit our Steam newsgroup usually focus on one issue – will the game actually come out, right There are a lot of concerns about games that have already been announced and have not yet come out because many other developers have lost their way somewhere during the production stage ... (...), so the game never comes out, players are disappointed, and it kind of raises some concerns, so players very often ask if we could start so-called day blogs, that is, we describe specific stages of production from the perspective of people involved in various fields. Researcher: Do you moderate, that is, create SR? Interviewee: Definitely, we prove all the time that the game is still in development ... That it hasn't been abandoned ... [G10]</i>
	Game development	<i>Interviewee: I mean, I think that without these SR, no ... well, we wouldn't be able to create anything really, that's ... Otherwise ... here specifically games created in isolation from everything in some vacuum, well, I think they can be created only for the people who create them, and yet the point is that other people would also like to play our games, so without contact ... Researcher: There must be a target audience and it must be tested. Interviewee: Yes, without contact with other people we don't think we can create something that other people would like to play. At least it would be much more difficult. [G6]</i>
	Promotion and sale of the game	<i>Interviewee: A really important goal is to show the game to those who, those influencers in quotation marks, to those who promote it further, show publishers so that they believe that the game can actually be successful, show the players, but those who are within the framework of the community or those who seem to be interested in games at all (...) at the moment most of the premieres take place by promoting games, how to say it ... organically, that is, you throw something out somewhere, you show what it looks like, meetings are held, but that's just out there online, it shows up like someone is playing, and talks about what you can do with it. As if interest is built up, expectations are fueled, and then this interest is managed. These are those relationships on a higher level. Researcher: Yes, at this higher level, that is, these SR, you establish some kind of cooperation, that is, cooperation may be interorganizational, and it may sound strange to this organization, but these are the influencers, right? Okay? Interviewee: If we treat them as a group, yes (...) hence reaching influencers, that is, those who have so-called followers, you probably know what's going on ... (...). The point is that those who watch can be potential customers in addition to being players, they should also buy it ... it also has a price too, right? You will not survive on fame itself, unfortunately you have to have influence. [G4]</i>
	Building the image of the company/product	<i>(...) we want to create games that are not worthless, that offer a certain amount of play time, for a certain amount of money with a certain quality that we are satisfied with, and that is something that we are convinced that our values are right and can sort of form the basis of this relationship, we release this product into the world, and then it collides with the expectations of players (...) next to the things that I mentioned earlier, as if we wanted to build a brand for ourselves, as developer who reacts to customer feedback. So for example, especially with our first game, if it was specially released like a little sooner, because we wanted to see how people would react to it. The response was positive, but there were a lot of opinions that it was cool, but not much more. So, in response, we spent the next few months adding additional levels to this game for no fee. [G11]</i>
	Motivating to work	<i>Here in [company name], it is very important for us to maintain this committee, we have a large crowd of fans also... this production process takes quite a long time for us, it is now about four years and without those moments where we go out, for example, to trade fairs. We show these things that we do to a wider audience, it would be difficult to maintain this level of motivation, because we would forget that we are doing it for someone, and this reminds us that there are people who are really waiting for it, who react vividly to what we show, they give us such particularly positive feedback that motivates us to further action. After all, we are ultimately doing it for them, not only for ourselves, right? [G7]</i>
	Giving feedback when the game is not satisfying for players	<i>Of course, it is also not flat, there are ups and downs, but for example, [company name] has been around for a long time. It is still considered by the community of the most active players as a company that only looks at money and how to get more and more money and make weaker and weaker games. Recently, they released one or two really good games, players noticed them, but I think that this relationship is more difficult. [G1]</i>
	Stimulating the company's innovation	<i>In the case of games, [innovativeness] is basic, one of the basic elements that helps create something. Gamers don't like to play the same game over and over again. For the most part, there must be some new element, a new surprise, something cooler. [G12]</i>
	Finding employees	<i>There is a Cybermachina pub that simply has branches in many Polish cities. There are also meetings called Pogradajmy [Let's talk], which bring together not only developers, but also players and listeners. So these are, let's say, lectures over a beer. But I have often witnessed how many such informal job interviews took place there, how many employees just somewhere, at least here in Silesia, later found a job thanks to this networking somewhere in a pub dedicated to players. So it seems to me that there are a lot of such initiatives, smaller or larger, and it just works. [FR2]</i>

Type of entity	Result of SR building	Quotes from interlocutors
Business partners	Continuing the financial involvement of investors/shareholders	<i>It is also important, of course, what other stakeholders we have, we do have shareholders or potential shareholders, that is, investors in general. Well, here it seems to me that we meet with single individuals too rarely to create any deeper relationships. We have a relationship with our main shareholders, and this is also important, because although we have poor [financial] results, we can make up for it a bit through our relationships. [G1]</i>
	Increasing the sales volume	<i>We often help each other with promotion, when we know that a game is supposed to come out, other games support it. When the publisher is big, then it makes sense. So creating such a community actively supports the game and contributes to faster business growth and simply better sales results. [G8]</i>
	More advantageous offers/larger assortment than contractors	<i>Often, a person we have known professionally for a longer time trades with them, maybe gets better offers, maybe a better assortment, maybe faster offers ... This is also important in today's trade. [R3]</i>
	Certain services for free or in barter	<i>Interviewee: As our association works only locally, our only two events a year are Pyrkon and PGA. In both of these cases, we are happy and well matched with the organizers and if we turn up, if we exhibit, we get space, simply for free, under certain arrangements. Researcher: And it is also the SR that helped to achieve this? Interviewee: Yes, definitely. And as part of this, let's say, exchange, we get a space where we can exhibit ourselves, but as an association we help to animate the independent games zone. [G10]</i>
	Knowledge transfer (including tacitly)	<i>Yes, I think such knowledge transfer, flow of know-how, is absolutely necessary in this creative industry, and it is often done through informal channels. [R1]</i>
	Help in crisis, unusual or problem situations	<i>On the other hand, if it ended really badly, if good relations can cushion the fall a little, these relationships can help. [G8]</i>
	Faster, more direct contact	<i>Researcher: And do you prefer to work this way when these contacts are looser? Interviewee: Yes, because first of all I know that the other party will present his expectations directly to me, that it won't be passing the buck between both sides, that this person will be direct with me in such relationships. [G10]</i>
	Staying on the market	<i>Well, as I say, it is crucial for us to acquire new titles for the publishing house, also ... and that's how we run our business. [D1]</i>
	Starting cooperation, making it easier, realizing it at a lower cost	<i>(...) without them [SR] we are also able to establish cooperation, and we do it very often, but nevertheless, if we know someone personally and privately, we cooperate with such people much more willingly. D2]</i>
	Create a network of contacts for the future	<i>There are some benefits [of cooperation] that, let's say, we didn't expect or did expect, but we didn't know, that they would be so great. For example, if we work with a better-known publisher or partner each time, it promotes us a lot from the very fact that we work with them. And that opens many more doors for us. And it is a bit like a snowball (...). Well, it's as if the greatest such effect, which was ignored by us earlier, is the opening of the next door. [D2]</i>
	Finding employees	<i>But somehow it all started when someone was looking for an internship, and somewhere with some university I signed something so that he would come to us for an internship. [FR1]</i>
	Limiting inappropriate behaviour	<i>As if the industry is small, everyone knows each other here. This meeting is accidental, and I think I know two faces at least. And it also shows some scale of this industry. So fooling someone out is not in anyone's interest. [FR4]</i>

Type of entity	Result of SR building	Quotes from interlocutors
Employees – previous and current	Possibility of doing business	<i>(...) it is known that a product as large as the games we make require hundreds of people to cooperate with each other, so these relationships, for example, in a team, because the smallest cells are functional teams, where there are, say, from four to twelve, fifteen people rely very much on trust. Because if someone does not help me do something, it means that either I won't be able to do my job, or a lot more work will fall on me. [G7]</i>
	Building a team and ensuring the employment of valuable employees in the future, thanks to a good working atmosphere that motivates to work	<i>If we make sure that we are perceived reasonably (...), then it will be easier for us to establish relationships with potential employees, which will largely affect their coming to the company or not. [G1]</i>
	Easier, cheaper, faster, and more effective recruitment process	<i>The first that comes to mind is, however, in this industry, where it is very difficult to ... just recruit a new employee, that is ... especially one who is very experienced, who is so to say valued on the market, and in addition, he is still loyal in a given job, employing him for a new job is possible only by building such relationships. [G7]</i>
	Increase of work efficiency	<i>So we invest time and energy counting that it will help us in our future work and make it more pleasant and fun and more effective (...) I personally would not like to work if I had to work with people who are good, but I don't like them, I don't want to work with them. [G1]</i>
	An easier way to communicate and work	<i>There is the aspect here that it is possible [thanks to social relationships] to talk to this person about the corrections. [G11]</i>
	Greater transparency, easier way to control what is happening in the company by employees	<i>(...) at the moment, some companies are trying to use so-called turquoise management, that is, participatory. (...) When there are actually closer relationships, in those very organizations, which are much smaller, that is, it is easier, first of all, to even informally control what is happening. It is not like we sit and watch what someone is doing, only after we just know that something is being done; we wait for something, someone waits for us, and we have to account for certain obligations. [G4]</i>
	Increase of innovativeness	<i>It is probably easier to do something new with partners if we have known each other for a long time, and as much as this man, this company that trusts us, or the other way around, will say "let's listen, let's do something different, let's approach the topic completely from the other side." Without these relationships, I think, it will be more difficult to initiate such an idea, to push it forward. [FR5]</i>
	Reliable performance of painstaking work	<i>Apart from people who are innovative, who have cool ideas and things, there is also a need for people who are, in a way, the workhorses for this idea to the end (...). To do it, you need to write a mathematical system, it is purely mathematical, with a mathematical formula, suitable for memory management, so you need a person who will sit down and write hundreds of formulas, test these formulas. Sometimes one formula is written over two weeks, and it is two lines of code, that is, two lines of text that is written for two weeks. And here you don't need an innovative person, here you need a person who will sit down and for two weeks won't throw it in the corner and walk away from it. [G12]</i>
Competitors	Maintaining good relationships for the future	<i>But in general I can see that developers live well with developers, at least as we know other tees, and we are absolutely not in competition with each other. On the contrary, it is a kind of safety valve (...) I, for example, have relations from the previous two companies, where they were crucial for our later projects, for finding a publisher or a client. Also, probably everyone sees it as an advantage to cultivate these relations in some way. [FR6]</i>
	Sharing knowledge	<i>So I think that these relations are generally warm, that representatives of our industry, which is very cool, share their knowledge. And it can be seen not only at fairs, but also in various discords, forums for developers, that here it is easy to get help, after all, from the competition. It is sometimes known, the smaller the company, the easier it is. [FR4]</i>
	Mitigating tensions among competitors	<i>Well, maybe not now, but two years ago, such events took place, of course, and everyone there are simply colleagues for each other, and as if it all mixed up somewhere and these relationships seem very important to me. [FR2]</i>

Source: Own elaboration.