

## Great Successes and Great Failures: The Impact of Project Leader Status on Project Performance and Performance Extremeness

Balazs Szatmari<sup>a</sup>, Dirk Deichmann<sup>b</sup>, Jan van den Ende<sup>b</sup> and Brayden G King<sup>c</sup>

<sup>a</sup>*University of Amsterdam*; <sup>b</sup>*Erasmus University*; <sup>c</sup>*Northwestern University*

**ABSTRACT** Research supporting the Matthew effect demonstrates that high-status actors experience performance benefits due to increased recognition of their work and greater opportunities and resources, but recent research also indicates that high-status actors face a greater risk of negative performance evaluations. In this paper, we seek to contribute to the status literature by reconciling these findings and ask: To what extent does status influence heterogeneity in performance evaluations? We explore how project leader status affects the performance of innovation projects in the video game industry. We hypothesize that there is an inverted U-shaped relationship between project leader status and project performance, and a positive relationship between project leader status and performance extremeness (i.e., performance variation). In order to test our hypotheses, we analysed the performance of video game projects and computed the status of project leaders by applying a project affiliation social network analysis. We find that an intermediate level of status – neither too much nor too little – is positively associated with average project performance. We also reveal more extreme performance effects for high-status leaders: While some achieve superior project performance, others experience significant project failures. We, therefore, provide important theoretical and practical insights regarding how status affects the implementation of innovations. We also discuss the implications of these findings for the literature on middle-status conformity.

**Keywords:** innovation, project performance, social network analysis, status

## INTRODUCTION

Ever since Merton coined the term ‘Matthew effect’ in 1968, there has been growing evidence that status has positive effects on performance (see Podolny, 2005; Sauder et al.,

*Address for reprints:* Balazs Szatmari, University of Amsterdam, Plantage Muidergracht 12, 1018 TV Amsterdam, the Netherlands (b.szatmari@uva.nl).

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

2012, for extensive reviews). The Matthew effect refers to the ‘rich get richer’ principle: Those who have high status are in a position to gain even more (Azoulay et al., 2014; Kim and King, 2014; Merton, 1968). What drives the Matthew effect is that the work of high-status actors gets more attention and is valued more highly than similar work by low-status actors. Status functions as an indicator of past unobserved quality and raises performance expectations. People expect high-status actors to be able to continue to produce high-quality work. Such expectations can be beneficial to high-status individuals, inasmuch as it gives them more opportunities and resources for future projects.

Recent research, however, has shown that status is not always beneficial and may sometimes lead to negative performance consequences (King and Carberry, 2018). Inasmuch as status increases attention to and scrutiny of actors, high-status actors may be unable to always satisfy their audiences (King and McDonnell, 2015; Kovács and Sharkey, 2014; McDonnell and King, 2018; Rhee and Haunschild, 2006). How do we reconcile these contrasting patterns of the effect of status on performance? To what extent does status influence heterogeneity in performance?

We seek to reconcile these conflicting findings by examining how status affects performance in a context in which high-status producers face not only greater opportunities and resources but also a greater workload due to the exceeding expectations placed on them in the workplace. High-status actors benefit from increased access to opportunities and resources (à la the Matthew effect) but they also may experience cognitive overload due to the exceedingly high expectations placed on them by others in the workplace, which results in an inverted U-shaped status-project performance relationship. We argue that due to these exceeding expectations, high-status actors’ projects will also face extreme performance.

To empirically assess the consequences of status on performance, we investigate how a leader’s status affects project performance in the video game industry where producers take on the role of project leaders (Irish, 2005; Mollick, 2012). Arguably, the status of video game project leaders in an organization is known to key decision-makers in that organization and they will determine which projects are selected and implemented (Reitzig and Sorenson, 2013). Therefore, in order to launch a product, project leaders first have to convince decision-makers in the organization. Status can be instrumental in this process. In the best case scenario, their individual status can help project leaders to get their project accepted, and the resulting products are evaluated positively by an external audience. In the worst case, however, it can also mean that products are put on to the market that have been evaluated positively internally but turn out to perform poorly once exposed to the external audience.

Thus, when status influences project selection decisions, it may have both positive *and* negative consequences on the ultimate project performance as evaluated by an external audience. To investigate how status affects project performance and variation in project performance, we conducted a social network analysis of project leaders managing innovative product development projects in the video game industry. Through this analysis we determined the status position of a project leader within their organization’s internal status hierarchy by looking at their relative centrality compared to other organizational members (Grigoriou and Rothaermel, 2014). The video game industry is an appropriate setting in which to test our theory, since it is dynamic and uncertain (Venkatraman and

Lee, 2004), and informal quality indicators such as status should thus have a decisive effect on internal organizational decision-making (Reitzig and Sorenson, 2013). To illustrate and contextualize our theoretical arguments, we also use quotes from interviews we conducted with experts in the video game industry.

Our findings help to show how status affects project performance and which project leaders can conform to those expectations that come from their status. To support our theory, we provide evidence to show that the highest average project performance is achieved when the project leader has an intermediate level of status. In addition, we show that very high status is a contributory factor in extreme project performance (Chatterjee and Hambrick, 2007; Sanders and Hambrick, 2007). This second finding implies that, on the one hand, high-status project leaders are associated with projects that are evaluated very positively by external audiences and thus perform very well on the market. On the other hand, they also appear to be associated with projects that fall below the expected performance, that is, where performance is much lower than would normally be expected from a leader of such high status. Interestingly, while middle-status conformity would predict that both low- and high-status actors should exhibit extreme performance (Phillips and Zuckerman, 2001), we show that, among project leaders, only those with high status are given scope to do so.

It is crucial to increase our understanding of the factors that lead not only to great project successes but also to major project failures. Initial acceptance and going ahead with low-quality projects is a serious issue for organizations, since product-related decision-making is subject to decision traps, which may then lead to notable project failures (Van Oorschot et al., 2013). A single failure, however, may be enough to put the organization itself in danger (see, for instance, Thompson (2009) and Yin-Poole (2019) for two notable examples from the video game industry). Consider the example of George Brussard, one of the most renowned and admired video game producers in the industry in the '90s. After many successful titles, he started to develop *Duke Nukem Forever*, a project for which there were great expectations. However, his co-workers recognized too late that things were going wrong. After 12 years of development and estimated expenditure of at least \$20 million, his previously successful company, 3D Realms, went bankrupt (Thompson, 2009). Our findings help to provide a better understanding of why project performance may vary so much when projects are led by high-status actors, and they also have implications for how the internal process of selecting projects might be structured differently to avoid products being put on to the market that may become major failures.

## **STATUS AND PROJECT PERFORMANCE**

We theorize about the effects of status in the context of video game innovation projects. Innovation projects are inherently uncertain, meaning that their underlying quality and potential cannot be accurately assessed in advance (Baer, 2012; Sethi et al., 2012). Since several scholars have shown that the effects of status are more pronounced in uncertain environments (Collet and Philippe, 2014; Dimov et al., 2007; Podolny, 1994), status is expected to have important implications for the performance of innovation projects

(Reitzig and Sorenson, 2013). A project is defined as performing well when there is a good product–market fit. In other words, the product is favorably received by the organization’s target external audience (Sethi et al., 2012). In the video game industry, project performance is captured by user ratings and review scores from critics, and this is considered to be mainly down to the project leader in this setting (Mollick, 2012).

We suggest that status is associated with increased project performance, because it helps project leaders to access resources and support. There are two reasons for this. First, since the work of people with status is valued more highly than that of people with little or no status (Azoulay et al., 2014; Kim and King, 2014), top decision-makers are more likely to provide such leaders with increased levels of resources and support. Second, high-status actors also tend to have more valuable networks (Podolny and Phillips, 1996) and to receive more help from their network contacts (Brass and Burkhardt, 1993; Stuart et al., 1999). When implementing innovation projects, for instance, high-status project leaders are likely to have more relationships with key decision-makers, whose commitment to the project should arguably help them to attract more resources and support from the whole organization compared to lower-status project leaders (Baer, 2012; Sethi et al., 2012). The notion that status helps project leaders to gain a high level of resources and support from decision-makers and other network contacts is echoed by one of our industry experts:

‘High-status producers are better able to get resources, attention, and support. [...] Status is beneficial for getting the attention and opening doors’.

Project leaders with status can subsequently use these resources and support to improve their project’s performance (Ancona and Caldwell, 1992). Resources can be used, for instance, to hire a better workforce or acquire more advanced technologies. Thus, resources and support should help project leaders to implement good projects that will perform well on the market.

However, too high a level of status can also be detrimental, since more is expected of high-status actors in the workplace (e.g., Kim and King, 2014). High-status project leaders are frequently called on to provide help and advice to others in their network. Indeed, low-status individuals will often attempt to create relationships with high-status individuals (Call et al., 2015). Given that high-status project leaders are in high demand and are interacting with many different people, they can easily experience information overload (Oldroyd and Morris, 2012), which can then prevent them from giving sufficient attention to their managerial role in the project. Importantly, this may reduce their ability to find a good product–market fit for their product, resulting in lower project performance. This is illustrated in a comment from one of our industry experts:

‘I can certainly notice that as my status grows, my productivity goes down [...] [and] the threshold of [my] “antennas” changes. I noticed that when people are not absolutely clear, I start to miss the signals [...] until somebody says something like, “I need help!”. In the past, I had more time for processing the information, but now, if somebody doesn’t scream then I don’t see the problem’.

To summarize, we expect that status will have an inverted U-shaped relationship with project performance. That is, status opens up important opportunities for project leaders to boost their project's performance by accessing resources and support from their network to help with implementation. For these reasons, status should increase project performance, but only up to a certain point. Having too much status may become a liability, because of its association with information overload, which reduces the likelihood of creating a project that will perform well on the market. For leaders with very high status, the greater information overload offsets the positive effects on project performance of having more resources and a wider network. In other words, such leaders become less and less able to manage their resources and network effectively; having access to these types of support, therefore, does not benefit them in terms of project performance (Barney, 1995).

*Hypothesis 1:* There is an inverted U-shaped relationship between project leader status and project performance.

## **STATUS AND PERFORMANCE EXTREMENESS**

We argue next that where a project leader has high status, this can prevent their projects – good or bad – being terminated. Project leaders are typically assigned to the implementation of project ideas by the top decision-makers and these ideas vary in terms of quality (please see the Online Appendix for qualitative evidence). Just because a project is considered to be high quality does not necessarily mean that it will be implemented. And even when a project leader is assigned to the implementation of a high-quality idea, status can still be instrumental in the execution of a project. Indeed, high-quality projects could fall victim to organizational resistance because they may pose a threat to the organization's status quo (Frost and Egri, 1991). High-status leaders, however, should experience less resistance to their projects. This is because other people will be less critical of a project when it is led by someone who has high status. Experiencing less resistance could help high-status leaders to have their projects selected and sustained. In fact, high-status leaders will have less need to justify the quality of their project to others or to convince them of the added value it will bring to the organization (Reitzig and Sorenson, 2013). Given their better network connections to decision-makers, they can interact with them more directly and can discuss and alleviate any skepticism they may have about the project without needing to engage in organization-wide discussion about their project (Baer, 2012; Fralich and Bitektine, 2020; Phillips et al., 2013; Podolny and Baron, 1997). While high-status leaders might experience information overload, we suggest that it is even more important that such leaders can avoid the possible termination of their high-quality projects. In such a case, the resources and support that these leaders can organize can effectively be utilized by the project team to turn a high-quality idea into a great success.

That said, status may also be instrumental in preventing the termination of low-quality projects. High-status actors benefit from an evaluation bias – the work they produce is valued more highly than those of their low-status counterparts (Podolny, 2001). Since projects led by high-status leaders are given more credit irrespective of the observable

quality (Azoulay et al., 2014; Kim and King, 2014), this bias may cause low-quality projects to be viewed as suitable for continuation, even though the quality is such that they would normally be terminated (Green et al., 2003). Hence, decision-makers may be less able to recognize when a project led by a high-status person is of low quality, because their evaluation is biased by status signals. In other words, the evaluation bias results in a project being more likely to be accepted and continued inside an organization, regardless of its quality, thus increasing the chances of the organization undertaking low-quality projects that will perform poorly on the external market. Indeed, this negative consequence of project leader status is highlighted by one of our industry experts:

‘I can think of plenty of examples of projects that failed because of the status of the producer. Once we got an assignment from a renowned company [not specified to maintain anonymity]. I was completely convinced that the idea was a long way from what we should do, but there was this producer guy who sold the project to the owners of the company so well that they believed in him blindly, despite all the apparent signals. This guy was on our back for many, many years and burned many million dollars. [...] We signaled the problems to the owner of the company lots of times, but it took almost two years before one of the owners started to look into this. We could have created a very nice game, but we didn’t unfortunately’.

Thus, we suggest that status might lead to the implementation both of extremely successful projects and of major failures, resulting in greater performance variation in the project portfolio of high-status project leaders. In other words, project leader status is associated with a greater degree of deviation – both positive and negative – from the quality of innovation projects that might be expected statistically from project leaders (Sanders and Hambrick, 2007). Organizational support facilitates the implementation of any project, regardless of the risk involved; we would, therefore, expect high-status project leaders to exhibit more variation in performance than lower-status leaders, if we control for the risk of the project concerned, which is captured by project newness.

*Hypothesis 2:* There is a positive relationship between the project leader status and performance extremeness, if we control for both the newness-to-market and newness-to-firm of the project in question.

## METHOD

### Sample and Setting

We tested our hypotheses in a new video game development context, because these projects involve a high level of uncertainty (Aoyama and Izushi, 2003; Venkatraman and Lee, 2004), and status should thus have an observable effect in such a context (Podolny, 1994). We collected data on projects from the online database *MobyGames.com*, which contains information about most of the video games developed from 1972 onwards and allows us to construct relatively accurately the professional networks of game developers



(Cattani and Ferriani, 2008). The database contains project performance data based on user ratings and review scores from industry critics. A valuable feature of the dataset is that it allows us to use a standardized measurement of project performance, enabling us to make reliable comparisons between performance scores for projects with different sizes of development and advertising budget and to compare projects aimed at different market segments.

Our study focuses on the status of the video game producer (Mollick, 2012). The producer function is a senior role undertaken by a person who takes full responsibility for managing the project as a business, including delivering a finished product on time (Irish, 2005). While the producers facilitate all decisions of the product development team, their role also involves ensuring that their projects get the necessary resources and advocacy from the executive management. They do so by evangelizing the product in the organization and by eliminating all barriers to product development (Irish, 2005). Since top managers in game development and publishing companies typically make decisions on whether or not to go ahead with a project after interacting with the project producer (Irish, 2005), the producer has a direct influence on project implementation and continuation decisions.

We decided to narrow down our selection to projects undertaken by a set of successful companies that were either dominant throughout the whole observation period or were on the path to establishing dominance. We did this to test our theory in a conservative setting, because the effectiveness of project-related decision-making in such successful companies was probably better than that of most other organizations. In order to select these organizations, we used the database of Euromonitor International, which has been monitoring the global video game market since 2008 (Euromonitor International, 2017). Using this database, we selected all the companies that were in the top 10 in terms of global market share in at least one of the years between 2008 and 2012. Together, our selected companies consistently accounted for at least 60 per cent of the global market during this period. Every additional company would increase that market share by less than a fraction of a percent. We also considered selecting only projects from these companies that were released after 2007, but this would have reduced our sample size to 45 projects.

Using this sampling strategy, we initially had 12 companies. These organizations are considered the leading video game developer companies during the given time frame. However, three of the companies were a result of mergers between two separate organizations. Therefore, we treated the two companies before the merger as separate entities and the post-merger company, which combined the experience and knowledge base of the two companies, as a third separate entity. In this way, we ended up with 18 companies. We found 4,741 projects (out of 7,771) for which there was information about the developer team. Using all the information from these 4,741 projects, we constructed separate longitudinal affiliation networks for each of the 18 companies so that we could build a reliable picture of the producers' network position in their organizations.

An affiliation network is a network of vertices connected by membership of common groups such as projects, teams, or organizations (Cattani and Ferriani, 2008). Social network analysts have a long tradition of analyzing affiliation networks such as co-authorships (McFadyen and Cannella, 2004) and collaborations between Broadway

artists (Uzzi and Spiro, 2005). Newman et al. (2002) argue that affiliation networks tend to be more reliable than friendship ties, for example, since group membership can be identified with greater precision. Following prior social network analysis research, we used a 3-year moving time window and converted our two-mode networks into one-mode networks (Cattani and Ferriani, 2008; Uzzi and Spiro, 2005): That is, there was said to be a tie between two persons if they had worked together to implement at least one project in the 3 years prior to a given year.

We subsequently selected all projects where we could identify the main producer and where this role could be clearly associated with one and only one person (1,842 projects). In one organization we did not find any such project, so we ended up with 17 companies. Given that the role of producer has been widely adopted by video game companies only since the '90s, selecting projects with a single producer led to a sample of more recent projects (from 1987 onwards), but their performance scores were not statistically different from these firms' other projects. For an overview of our sampling timeline, see the Online Appendix. Of these 1,842 projects, we had full information for 745 (full information on their genres, novelty, target market, etc.). However, since we wanted to control for project leaders' previous performance, we needed to exclude any projects that were a project leader's first project, which led to a final sample size of 349 projects. Excluding previous performance as a control variable and testing our hypotheses on the 745 projects did not, however, lead to different results concerning the statistical significance and direction of relationships of our main theoretical interest.

We now explain how we measured all our variables. First, we explain the measurement of our independent and control variables, then the dependent variables, because we used all our independent and control variables to calculate one of our dependent variables: performance extremeness.

### **Independent Variable**

*Status.* We measure individuals' status in their organization based on their network position in their organization; this is in line with Grigoriou and Rothaermel (2014), Hagedoorn and Duysters (2002), Kim and Rhee (2017), Rider (2009), Waguespack and Sorenson (2011), Aadland et al. (2019), and others (for other examples, see the review by Piazza and Castellucci, 2014, pp. 304–7). Network position is appropriate for capturing an individual's status, because those who are the most central in the social network of an organization are typically those thought to be the most competent employees or star performers (Ibarra, 1993; Kehoe et al., 2016; Oettl, 2012; Oldroyd and Morris, 2012). Indeed, Betancourt et al. (2018) showed that individuals ascribed the most status to members of a social network who were the most central in three different types of network. In addition, our industry experts noted that they themselves used network centrality as a measure of status, as one of them explained:

'Social networks are very important in this industry [...] and they can be very valuable. [...] For instance, if I have a problem, I immediately have someone in mind to call. For example, I've an engine that is available to everyone, but I need a specific support plan [...] I probably know a guy who can help me with that. So, these social



networks give you a lot of work-around. If I have a problem, I can call someone who will pull some strings and arrange that we get a sort of custom solution in a price-efficient manner. [...] Also, I can ask things from others, like “please take a look at what I am doing. Your feedback matters a lot to me.” This is something that a young person without any social network cannot provide in the business’.

Thus, both previous research and our industry experts offer evidence for the fact that the position of project leaders in the formal network shapes the beliefs of other social actors about what most people think about their status worthiness and competence compared to other project leaders (Ridgeway and Correll, 2006).

We apply Bonacich’s centrality measure to our affiliation network matrices. Kim and Rhee (2017, p. 728) argue in a study conducted in the film industry that, with regard to film producers, the Bonacich network centrality score is one of the most ‘important indicators of filmmakers’ status in the film industry, reflecting prestige conferred by their peers’. Bonacich’s network centrality captures the size and quality of project leaders’ affiliation networks. As such, network centrality of an individual in our setting is a signal of a producer’s competence. Indeed, individuals are assigned to projects when they are viewed by their collaborators and higher-ups as having the necessary skills to contribute to a project, especially compared to other organizational members who are assigned to fewer and less significant projects. Following previous research, we apply the following formula to compute the centrality score for each individual (Bonacich, 1987; Bothner et al., 2012; Podolny, 2005):

$$S_{ikt}(\alpha, \beta) = \sum_j (\alpha + \beta S_{jkt}) d_{ijt}$$

where  $S_{ikt}$  denotes the status of actor  $i$ , in firm  $k$ , at time  $t$ , where  $t$  is the release year of the game in question, and  $d_{ijt}$  denotes whether actors  $i$  and  $j$  have implemented a project together in the 3 years prior to time  $t$  (i.e., the year in which the game was published).<sup>[1]</sup> We dichotomized the values in our one-mode matrices to make sure we were capturing the real position of individuals in their networks. Note that we looked at the whole network in these companies, not just the ties between leaders. Since we were interested in an actor’s organizational status, we did not include ties that stemmed from an actor being involved in implementing a project in a completely different organization, without any collaboration with the organization in question before year  $t$ . Following Grigoriou and Rothaermel (2014), we measured status based on the relative centrality of each individual compared to other individuals in an organization. Therefore, we chose the scaling vector  $\alpha$  to normalize centrality scores so that they added up to 100 for each year in each firm; this enabled us to compare centrality scores across companies and years (Borgatti et al., 2003). We chose 100 for interpretive purposes.  $\beta$  is a parameter that denotes the traveling distance of communication in the network. Essentially,  $\beta$  serves as a length-based weight that can be adjusted when calculating the status score of a given node in order to weight the status scores of nodes that are farther from that node. In this study,  $\beta$  is set to three-quarters of the inverse of the highest normed eigenvalue of the corresponding affiliation matrix, in line with prior network analytic studies (Bothner et al., 2012; Podolny,

2005; Rider, 2009). Thus, the connectedness of two nodes that are far away from each other in the network is relatively unimportant in determining their status scores, since their connectedness carries a low weighting in this calculation.

### **Control Variables**

We control for eight project-level variables, four producer-level variables, and three firm-level variables. For an overview of our control variables, their measurement, and the rationale for using them, see Table I.

### **Dependent Variables**

*Project performance.* In line with previous research, we measure performance as the extent to which a project fulfills its intended purpose. In the new product development literature, this typically means that there is a good product–market fit (e.g., Sethi et al., 2012). In the video game industry this fit can be easily captured using user ratings and review scores from critics. Both of these we were able to download from the website *MobyGames.com*, and enabled us to capture multiple aspects of project performance at the same time. Products in creative industries typically need to fulfill a dual purpose to perform well on the market: they have to be both commercially successful and artistically sophisticated (Eikhof and Haunschild, 2007). User reviews capture the former, since they reflect customer satisfaction, which is linked to purchase intentions. Previous research also shows that customer satisfaction is positively associated with market success. For instance, Rego et al. (2013) found a positive relationship between customer satisfaction and market share. Thus, user ratings can be regarded as a reliable measure of project performance. Customer satisfaction is measured by the average of the ratings from the website's user community. Review scores from professional critics capture the extent to which the product design, graphics, and the technology it incorporates comply with the industry standards; they are, therefore, suitable for capturing technological and artistic sophistication. The critic review score is a combination of reviews and rankings of each game from professional critics from a number of industry-specific online, television, and print media.

The scores for the critic reviews and user ratings were measured using different scales. The critic review scores ranged between 0 and 100, with 100 representing the most positive review, whereas user ratings were on a scale of 0 to 5, with 5 representing the highest rating. To capture these multiple facets, we standardized the two scores and took their average, following the approach used by Staw and Hoang (1995). We standardized these scores by multiplying the user rating scores by 20, and took the average of both scores to get a combined project performance score. If one of the scores was missing (as happened 379 times for the critic review score and 163 times for the user ranking score out of the 1,842 projects), we took the other score as the final performance score. Our measurement offers an adequate alternative to sales figures for two reasons. First, it makes product performance scores more comparable across time and organizations. Second, because there is an unsealed agreement between a game developer and a major game publisher company, one can argue that ratings on online websites are very important for the decision-makers in such organizations, and they pay great attention to these

Table I. Control variable descriptions

<i>Control variable</i>	<i>Measure</i>	<i>Reason for inclusion</i>
<b>Project-level variables</b>		
Year of release	The year when the video game was released	Controlling for trends, technological changes, and changing user and critic perceptions over time
Project team size	Count of project participants	Controlling for the amount of human capital and internal visibility of the project
Newness-to-market	To obtain these variables, we used 62 category codes drawn from information found on the <i>MobyGames.com</i> website. The category codes can take values of 0 or 1, with 1 meaning that the game fits into a certain category (e.g., action game, racing game, etc.). This resulted in a 62-digit code for each project that captured the product's main characteristics. Newness-to-market is included in our models as a dummy variable, where 1 means that the combination of category codes given to the project is completely new – i.e., there had been no similar game published between 1972 and the year in which the game in question was published (in time <i>t</i> )	Controlling for the risk and organizational resistance associated with a project (Sethi et al., 2012)
Newness-to-firm	Calculated in a similar way to newness-to-market, but the project's category codes are compared only to those of other projects developed or published by the company in question before time <i>t</i>	Controlling for the risk and organizational resistance associated with a project (Sethi et al., 2012)
Licensed	A dummy variable, with a value of 1 signifying that the game is licensed. A licensed game is an adaptation of a movie (e.g., James Bond movies), a comic book (e.g. Superman), or a TV series (e.g., Star Trek)	Controlling for the amount of resources the team has access to and other organizational members' perceptions of the project
Externally developed	A dummy variable, with a value of 1 indicating that the publisher is not identical to the developer company	Externally developed projects might have a greater division of labor in the development and publishing activities (Brockhuizen et al., 2013)

Table I. *Continued*

<i>Control variable</i>	<i>Measure</i>	<i>Reason for inclusion</i>
Number of reviews	Number of reviews <i>Mobygames.com</i> collected from a wide variety of professional review websites	Controlling for the marketing efforts of the firm. Video game developers and publishers generally put conscious effort into contacting, and even trying to influence, professional reviewers to write about their games (Nieborg and Sihvonen, 2009). This process involves providing reviewers with a beta version of their software so that they can write product reviews, often even before the official release of the game (Ahmad et al., 2017)
Target group	The target market is determined by the scores of the Entertainment Software Rating Board (ESRB). The ESRB assigns age and content ratings for video games and specifies the appropriate target group for each video game: everyone, everyone10+, kids to adults (changed to 'everyone' after 1998), teen, and mature. We control for target market by including four dummy variables in our analyses with 'everyone' being the reference category	Controlling for access to resources and the ability of the project leader to sell the project to top management
<b>Producer-level variables</b>		
Parallel projects	Number of projects implemented by the project leader in question in a given year	Controlling for workload
Experience	Number of projects implemented in the past	Controlling for acquired project management skills
Network constraint	We applied Burt's constraint measure, which is given by the following formula (Burt, 2004): $c_{ij} = \left[ p_{ij} + \sum_q p_{iq} p_{qj} \right]^2 ; i \neq j, \text{ where } p_{ij}$ <p>the proportion of <i>i</i>'s network time and energy invested in actor <i>j</i>; the constraint score of actor <i>i</i> is given by <math>\sum_i c_{ij}</math></p>	Controlling for the producer's ability to broker between people (Burt, 2004)
Past performance	Average of performance scores for the project leader's previous projects	Past performance might be an indicator of individual competencies that might be stable traits of underlying individual performance (Groysberg and Lee, 2008)

Table I. *Continued*

<i>Control variable</i>	<i>Measure</i>	<i>Reason for inclusion</i>
<b>Firm-level variables</b>		
Firm innovativeness	We aggregated the number of projects that were new-to-market in a firm's project portfolio in year $t-1$ , $t-2$ , and $t-3$ , and divided this measure by the sum of all firm projects implemented in the same time frame	Novel projects might face less resistance in firms which are more open to highly novel projects (Sethi et al., 2012)
Number of firm projects	Number of the projects implemented by the firm in question in years $t-1$ , $t-2$ , and $t-3$	A large number of implemented projects might indicate that there is relatively little resistance to novel products within the firm and that it has a flexible project review process
Firm network size	Number of individuals who participated in any project implemented by the firm in question in years $t-1$ , $t-2$ , and $t-3$	Since we rescaled the status scores so that they added up to 100 in each year in each firm, status may be seen as a function of firm network size, because the larger the network, the more distributed status scores become. Also, firm network size is an indication of the firm's access to resources

results when making decisions.<sup>[2]</sup> This was also echoed by our industry experts. We also considered using sales revenues as a possible alternative. (See the Online Appendix for further analyses.)

*Performance extremeness.* Following the steps taken by Sanders and Hambrick (2007), we operationalized performance extremeness as follows. We first regressed project performance on all our variables, including our main independent variables (status and status squared) to predict what project performance could be statistically expected from project leaders ( $\chi^2 = 57.56$ ,  $p < 0.0001$ , conditional  $R^2 = 0.36$ ). We then took the absolute value of the residuals of this regression, because we were interested in the absolute deviation from expected performance, regardless of its direction (Sanders and Hambrick, 2007).

## Analysis

The hypothesized and methodological relationships are depicted in Figure 1. After excluding all observations with relevant missing data, we ended up with 349 projects, involving 179 producers from 17 companies. The mean of the performance scores of

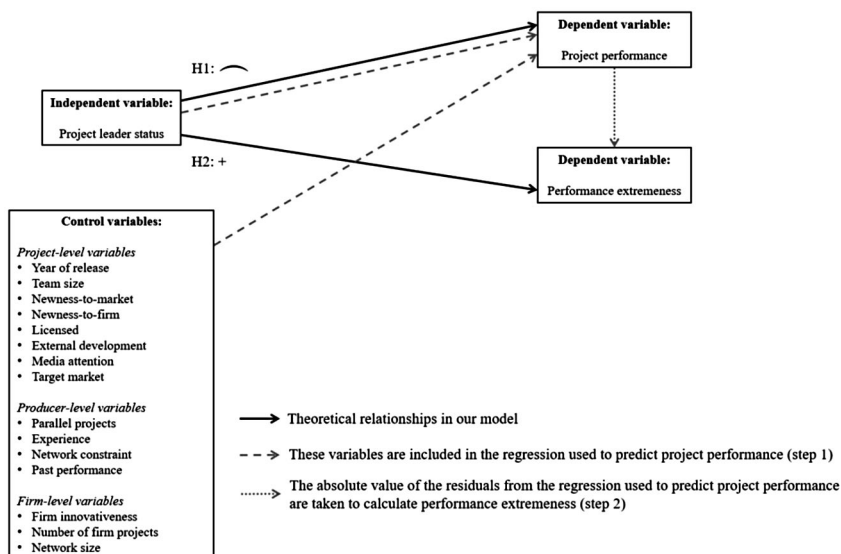


Figure 1. Our theoretical and methodological relationships

Table II. The status of project leaders and the percentage of projects below and above average performance

	<i>Status &lt; 0.5</i>	<i>0.5 &lt; Status &lt; 1.5</i>	<i>Status &gt; 1.5</i>
Below average performance	37.6%	20.8%	27.3%
Above average performance	62.4%	79.2%	72.7%

excluded observations did not differ significantly from that of our final sample ( $t = 0.62$ ,  $p > 0.10$ ). Since there might be within-cluster dependence among the observations, we built a linear mixed-effects model in which we included the project leaders as a level-2 and the companies as a level-3 random effect.

## RESULTS

### Preliminary Analysis

Before our main analysis, we conducted some preliminary analysis, looking for patterns in the raw data that would support our theoretical intuitions presented above. First, looking at Table II and comparing project leaders with a status score below 0.5, between 0.5 and 1.5, and above 1.5, we can observe that the relationship between status and project performance does not seem to be linear, but shows an inverted ‘U-shaped’ pattern, with project leaders with a medium level of status leading more above-average performance projects than either low- or high-status leaders. In order to visualize the relationship



between status and project performance, we fitted a polynomial regression line using the LOESS method (see Figures 2A and 2B) (Cleveland et al., 1992). The shape of the curve indicates that the relationship between status and performance was curvilinear.

In order to investigate whether high-status project leaders exhibit more extreme performance, we created a dummy variable indicating whether the project exhibited extreme performance compared to the industry average, i.e., was either above or below the mean performance score by plus or minus at least one standard deviation. We then calculated the proportion of projects with extreme performance for leaders with a status score of below or above 1.0 (indicating low- and high-status project leaders, respectively), and reported our results in Table III. It shows that, as status increases, the number of projects that tend to deviate from the industry average in any direction also increases, indicating that status leads to more extreme performance, in both positive and negative directions.

Finally, we were interested in finding empirical evidence for our claims concerning our theoretical mechanisms. One of our central arguments was that high-status project leaders have better access to organizational support and resources. Although we did not have

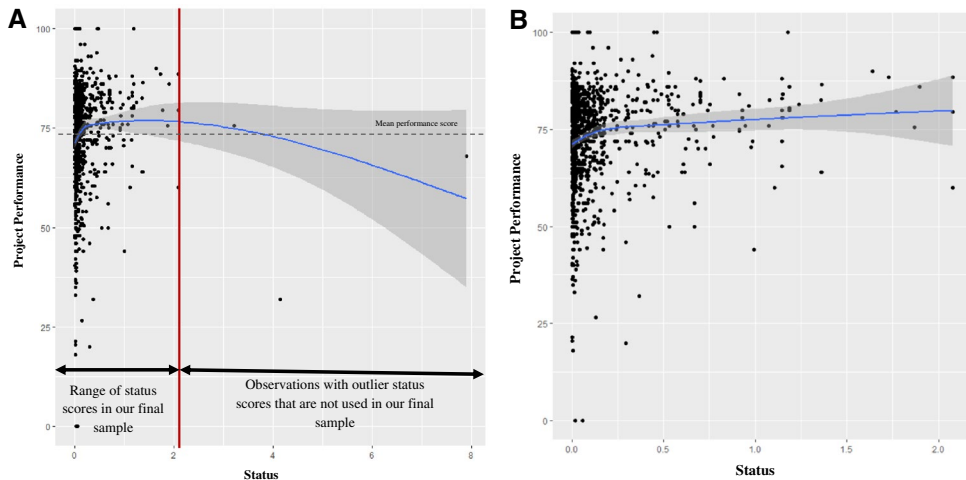


Figure 2. (A) A scatterplot and a polynomial regression line depicting the relationship between status and project performance for every project where we could clearly identify a project leader. (B) A scatterplot and a polynomial regression line depicting the relationship between status and project performance in the range of status scores in our sample

Table III. The status of project leaders and descriptive data of their project portfolio

	<i>Status &lt; 1.0</i>	<i>Status &gt; 1.0</i>
Absolute deviation from the industry average < one standard deviation	80.3%	71.0%
Absolute deviation from the industry average > one standard deviation	19.7%	29.0%
Below average number of reviews/Project team size	73.7%	42.8%
Above average number of reviews/Project team size	26.3%	57.2%

any data on each project's development budget, we could use the number of reviews for each video game on online professional outlets as a proxy for marketing budget, since the number of reviews a video game receives in media outlets is determined by the marketing efforts of the firm (Ahmad et al., 2017; Gemser et al., 2007), as was suggested by our industry experts. We divided the number of reviews for each video game on online professional outlets by the size of the project team (i.e., the number of team members), and calculated the proportion of projects with above and below average number of reviews per project team member (see Table III). As can be seen, there was a positive relationship between status and the number of reviews per team member, providing tentative evidence to support our thesis that high-status project leaders receive more organizational support and have better access to resources. We now report our results of our main analysis.

## Main Analysis

Table IV presents the descriptive statistics as well as bivariate correlations, and Table V contains our statistical analyses of how a project leader's status affects project performance. Hypothesis 1 predicted there would be an inverted U-shaped relationship between status and project performance. To determine whether this is so and to assess the significance of that relationship, we apply a three-step procedure proposed by Lind and Mehlum (2010). First, we find that the coefficient of the linear term of status is positive ( $\beta = 17.20$ ,  $p < 0.05$ ) and that of the squared term of status is statistically significant and negative ( $\beta = -9.25$ ,  $p < 0.05$ ). Second, the slope needs to be significantly steep at both ends of the data range (Lind and Mehlum, 2010). We do indeed find that the slope of the effect of status on project performance is positive and significant with low levels of status, and negative and significant with high levels of status. Third, we find that the estimated extreme point of this relationship (0.96) and its 95 per cent confidence interval, calculated based on Fieller's standard error method (0.54; 1.68), are located within the data range (Lind and Mehlum, 2010). Thus, our results show support for Hypothesis 1. Status is associated with higher project performance only up to a certain point. The negative coefficient of the squared term of project leader status implies that project leaders with very high status may often fail to outperform their middle-status counterparts.

We also find support for Hypothesis 2, which predicted a positive linear association between status and absolute deviation from the expected performance ( $\beta = 3.14$ ,  $p < 0.05$ ) (see Table V). Hence, we may conclude that the positive relationship between status and performance extremeness is statistically significant. That is, the status of project leaders increases the absolute deviation from the expected performance level of their project in both directions. More specifically, when a project leader's status score increases by one point, their project performance scores tend to deviate from the expected level of performance by 3.14 points in either direction (i.e., upward or downward).

In order to facilitate interpretation of the effect size, we plotted the effect of status on project performance in Figure 3 and the effect of status on performance extremeness in Figure 4 with a 95 per cent confidence interval. It can be seen that project leaders with moderate levels of status implement the projects that are deemed to perform best; their projects tend to be evaluated about eight points higher than projects undertaken by

Table IV. Descriptive statistics and correlation matrix

Variable	Mean	s.d.	Min.	Max.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Project performance	73.76	10.84	20.5	89.5																					
2. Performance extremeness	6.23	5.09	0.05	31.51	-0.49*																				
3. Status	0.14	0.26	0.00	2.08	0.19*	-0.02																			
4. Year of release	2002.02	4.89	1987	2012	-0.03	-0.06	-0.52*																		
5. Project team size	150.99	211.89	7	2885	0.05	-0.02	-0.19*	0.42*																	
6. Newness-to-market	0.20	0.40	0	1	-0.02	0.07	-0.01	0.01	-0.02																
7. Newness-to-firm	0.42	0.49	0	1	0.20*	-0.16*	0.23*	-0.03	-0.01	0.00															
8. Licensed	0.21	0.41	0	1	-0.23*	0.13*	-0.15*	-0.07	0.02	-0.12*	-0.22*														
9. External development	0.52	0.50	0	1	-0.20*	0.20*	-0.23*	0.05	0.07	-0.01	-0.80*	0.17*													
10. Number of reviews	25.22	24.27	0	179	0.25*	-0.09	-0.02	0.32*	0.26*	-0.02	0.13*	-0.17*	-0.06												
11. Target group: Everyone (ref.)	0.42	0.49	0	1	-0.03	-0.06	-0.07	0.16*	-0.16*	-0.02	0.14*	0.08	-0.21*	-0.06											
12. Target group: Everyone 10+	0.07	0.25	0	1	0.02	-0.04	-0.10	0.30*	0.10	-0.02	-0.10	0.00	0.10	0.05	-0.23*										
13. Target group: Kids to Adults	0.17	0.38	0	1	0.09	0.01	0.39*	-0.66*	-0.21*	-0.05	0.05	0.11*	-0.04	-0.23*	-0.39*	-0.12*									
14. Target group: Mature	0.09	0.28	0	1	-0.05	-0.01	-0.09	0.11*	0.27*	0.02	-0.06	-0.14*	0.12*	0.08	-0.27*	-0.08	-0.14*								
15. Target group: Teen	0.25	0.43	0	1	-0.03	0.09	-0.15*	0.13*	0.13*	0.06	-0.11*	-0.09	0.13*	0.18*	-0.49*	-0.16*	-0.26*	-0.18*							
16. Parallel projects	1.70	1.08	1	6	0.07	0.01	0.34*	-0.40*	-0.23*	0.07	0.10	-0.02	-0.18*	-0.15*	0.00	-0.08	0.34*	-0.12*	-0.17*						
17. Experience	4.27	5.94	1	34	0.21*	-0.13*	0.44*	-0.20*	-0.18*	0.00	0.25*	-0.12*	-0.23*	0.15*	0.12*	-0.06	0.21*	-0.12*	-0.20*	0.35*					
18. Network constraint	0.02	0.03	0.00	0.25	-0.03	0.00	0.17*	-0.41*	-0.19*	0.06	-0.06	0.07	0.01	0.13*	-0.04	-0.08	0.18*	0.01	-0.07	0.02	-0.11*				
19. Past performance	74.95	9.29	32	100	0.33*	-0.26*	0.18*	-0.03	-0.10	0.01	0.23*	-0.24*	-0.20*	0.14*	0.04	-0.03	-0.02	-0.01	-0.01	0.09	0.24*	-0.07			
20. Firm innovativeness	0.20	0.07	0	0.53	0.08	-0.05	0.12*	-0.27*	-0.21*	0.01	0.09	-0.07	-0.01	-0.06	-0.06	-0.07	0.17*	-0.04	-0.02	0.04	0.09	0.12*	0.10		
21. Number of firm projects	73.95	40.23	2	190	-0.12*	0.12*	-0.34*	-0.05	0.01	-0.08	-0.29*	0.26*	0.29*	-0.04	-0.07	0.02	0.17*	-0.08	-0.02	-0.12*	-0.17*	-0.21*	-0.17*	-0.13*	
22. Network size	4423.14	3723.71	86	20199	-0.08	0.03	-0.41*	0.54*	0.43*	-0.07	-0.19*	0.18*	0.27*	0.21*	0.03	0.20*	-0.33*	0.05	0.10	-0.34*	-0.29*	-0.27*	-0.21*	-0.37*	0.48*

Notes:  $n = 349$ ; project leaders = 179; companies = 17; and \* denotes significance level at 5%.

Table V. Estimates for mixed-effects models of project performance and performance extremeness

<i>Variables</i>	<i>Project performance</i>		<i>Performance extremeness</i>	
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
Constant	227.73 (418.16)	−42.40 (470.18)	114.41 (204.65)	−80.38 (225.13)
Year of release	−0.09 (0.21)	0.05 (0.23)	−0.05 (0.10)	0.05 (0.11)
Project team size	0.00 (0.00)	0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)
Newness-to-market	−0.87 (1.27)	−1.19 (1.27)	0.87 (0.65)	0.87 (0.64)
Newness-to-firm	−1.61 (2.00)	−1.77 (1.98)	1.04 (0.97)	0.94 (0.98)
Licensed	−4.08 (1.46)**	−3.78 (1.45)**	1.14 (0.72)	1.30 (0.72)
External development	−3.32 (1.98)	−3.34 (1.96)	2.32 (0.96)*	2.29 (0.97)*
Number of reviews	0.08 (0.02)***	0.08 (0.02)***	−0.01 (0.01)	−0.01 (0.01)
Target group controls	Included	Included	Included	Included
Parallel projects	−0.01 (0.60)	−0.16 (0.60)	0.24 (0.30)	0.26 (0.30)
Experience	0.06 (0.13)	−0.08 (0.14)	−0.07 (0.06)	−0.08 (0.06)
Network constraint	−2.93 (24.39)	8.67 (25.10)	−10.37 (12.24)	−6.33 (12.34)
Past performance	0.25 (0.06)***	0.25 (0.06)***	−0.12 (0.03)***	−0.12 (0.03)***
Firm innovativeness	11.20 (9.19)	6.89 (9.28)	−6.06 (4.52)	−5.59 (4.53)
Number of firm projects	−0.02 (0.02)	−0.01 (0.02)	0.01 (0.01)	0.02 (0.01)
Firm network size	0.00 (0.00)	0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)
Status		17.20 (8.07)*		3.14 (1.58)*
Status × Status		−9.25 (3.89)*		
Log likelihood	−1280.10	−1277.29	−1040.45	−1038.51
Number of observations	349	349	349	349
Number of project leaders	179	179	179	179
Number of firm IDs	17	17	17	17
Variance: Project leaders	18.70	17.49	2.56	2.99
Variance: Firm IDs	0.00	0.00	0.00	0.00
Residual	74.97	74.38	20.55	19.97

*Notes:* Standard errors are in parentheses; all tests are two-tailed;

\*, \*\*, and \*\*\* denote significance levels of 5%, 1%, and 0.1%, respectively.

low-status project leaders. Furthermore, the projects undertaken by high-status leaders tend to receive scores that are similar to the average scores for lower-status leaders.

This difference between the project performance scores of middle-status project leaders and those with higher or lower status seems to indicate that status can make a difference, as the difference of eight points is close to the standard deviation of project performance scores in our sample (10.84). Thus, the effect of status on project performance is substantial (Hypothesis 1). Also, despite the project performance scores being on average eight points lower for high-status project leaders, the variation in their performance scores nevertheless means that in some cases they attain the same average

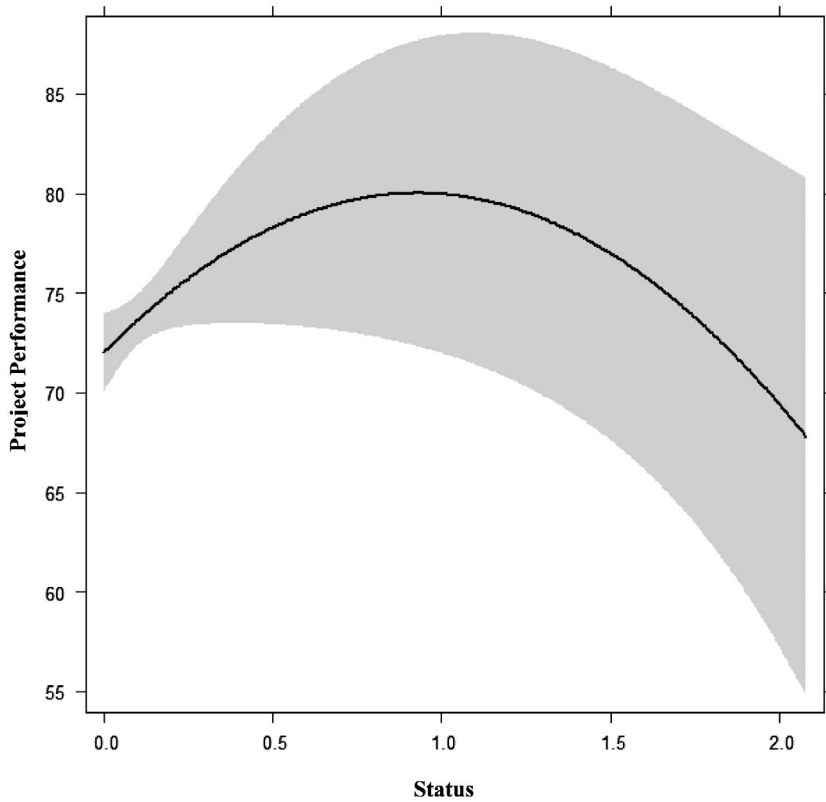


Figure 3. The effect of status on project performance (Hypothesis 1). *Note:* The gray area represents the 95% confidence interval around the regression line.

performance scores as the middle-status project leaders. The expected deviation increases by  $\beta_{status}$  (3.14) with each status score. Thus, high-status project leaders tend to exhibit  $2 \times \beta_{status}$  ( $2 \times 3.14 = 6.28$ ) scores that deviate more in either direction compared to their low-status counterparts. While, on the one hand this allows them in some cases to achieve similar performance scores to their high-performing but middle-status counterparts, on the other hand it also leads to low-performing projects being undertaken, projects whose performance scores are about 6.28 points lower than those of low-status project leaders. Hence, we suggest that, in terms of how status affects performance extremeness (Hypothesis 2), the size of the effect is very important, both theoretically and practically.

### Robustness Analyses

We ran a number of post-hoc analyses to substantiate our findings (see the Online Appendix for an overview of the robustness analyses) and we report here the results of the most important of these (see the Online Appendix for additional robustness analyses concerning endogeneity, alternative explanations, our theoretical framing and theoretical mechanisms, and alternative measures of our dependent variables). Our first and most important concern was endogeneity. To investigate this issue, we checked our

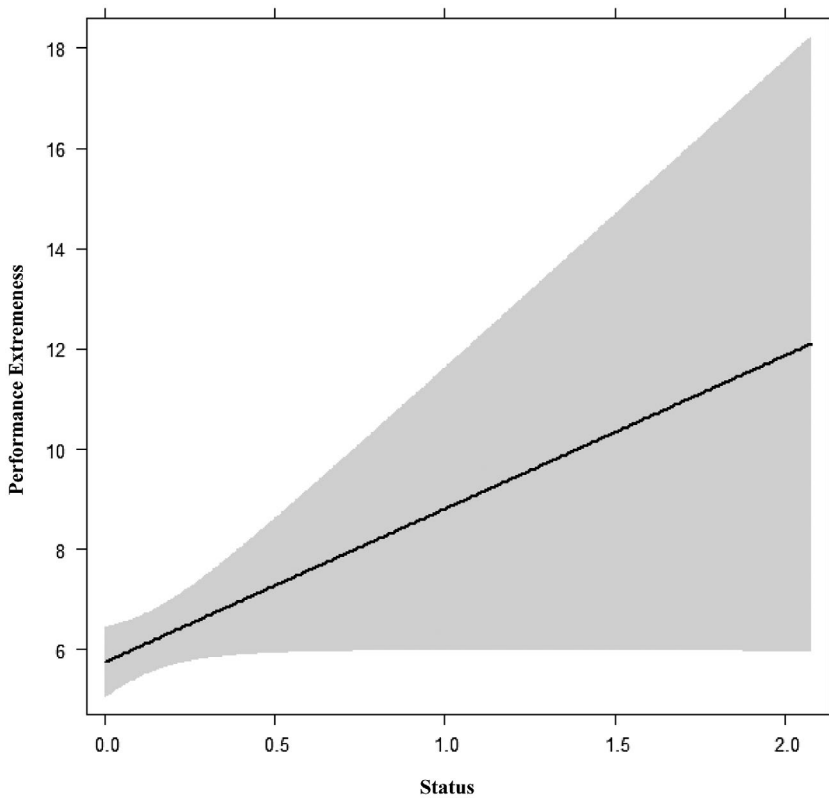


Figure 4. The effect of status on performance extremeness (Hypothesis 2). *Note:* The gray area represents the 95% confidence interval around the regression line.

results, controlling for possible sources of selection bias by applying Heckman's (1979) two-stage selection procedure. First, we checked whether our results were affected by any selection bias caused by our sampling strategy. To control for this, we first predicted the probability that a project would be included in our final sample based on all available information on all the project characteristics in our whole dataset (using a sample of 7,285 projects). We then calculated the Inverse Mills ratio for this regression and included it in our regressions predicting project performance and performance extremeness. This did not substantially change our results in terms of the statistical significance of the relationships of main interest.

To check for other possible sources of endogeneity, we re-examined our results using an instrumental variable: career tenure. Career tenure is an exogenous variable that is regarded as an important source of status as a quality signal, since it signals experience and expertise to others, both of which enhances and supports the higher status of an individual (Pearce and Xu, 2012). Hence, we calculated the number of years project leaders had worked in the industry. First, we looked at whether career tenure is positively related to status, and we did find a positive relationship between career tenure and status, which was significant at the 10 per cent level ( $p = 0.07$ ). We then predicted the status of project leaders based on their career tenure and used these values as the main independent



variable in our regressions predicting project performance and performance extremeness. Using these values, we found additional support for Hypothesis 2 ( $p = 0.02$ ) and marginal support for Hypothesis 1, since the curvilinear relationship between status and performance was significant only at the 10 per cent significance level ( $p = 0.05$ ).

## DISCUSSION

In this study we explored the performance effects of status in innovation projects, a context in which status shapes the expectations for project leaders. We showed that there is a curvilinear relationship between project leader status and innovation project performance and a positive association between status and absolute deviation from expected performance, which means that high-status project leaders tend to fail to meet these expectations.

### Theoretical Implications

We believe that our study makes several important contributions to management theory. First, we provide insights that will be valuable for theory on status. Reitzig and Sorenson (2013) showed that managers might be positively biased toward strategic initiatives developed by high-status business units. We extend these insights by showing how the biasing effect of status affects project performance. Most importantly, we show that, on the one hand, a high status of project leaders can lead to exceptional performance, which we explain with reference to a perceptual bias leading to high resource provision and support for high-quality projects being selected and implemented. On the other hand, we show that high status amplifies the risk of significant failures. We suggest that this is the case because other actors in the network of a high-status project leader find it difficult to assess accurately the quality of this leader's projects (Kim and King, 2014). While it is generally assumed in status theory that perceptual bias increases the subsequent performance of high-status individuals (Kim and King, 2014; Merton, 1968; Sauder et al., 2012), we find evidence to suggest this might not always be the case. Since other people around a high-status leader seldom take into account the possibility of failure when evaluating his or her projects, there is a greater likelihood that they will continue to support those projects. The exceedingly high expectations associated with status may also lead co-workers and other project managers to overload high-status leaders with responsibilities and information that, in the end, weakens their ability to deliver on those expectations. Thus, our study provides additional evidence that the high expectations associated with the Matthew effect has potential negative performance consequences (King and Carberry, 2018).

Our findings also relate to the literature on middle-status conformity. This theory suggests that middle-status actors tend to deviate less from conventional practice than either low- or high-status actors. High-status actors can feel entitled to deviate without being subject to penalties, while low-status actors feel that they do not have any status to lose as a consequence of deviating (Perretti and Negro, 2006; Phillips and Zuckerman, 2001). Recently however, status scholars started to question this assumption and explored the conditions in which the theory of middle-status conformity applies (Durand and Kremp,

2016; Fralich and Bitektine, 2020; Kovács and Liu, 2016; Prato et al., 2019). The project leaders we focused on in our study were not at the top of the formal organizational hierarchy (i.e., not top managers). The status of these leaders not only determines their own behavior, as is suggested by the literature on middle-status conformity, but also the extent to which they are *given scope* by their supervisors and other decision-makers in their organization to realize their innovation projects. We argue that this scope is important in a context like ours, because the risk-taking behavior of high-status project leaders is insufficient to explain project performance. For instance, low-status managers might be willing to make highly risky decisions regarding their projects but this is unlikely to become evident if these leaders have no autonomy to act upon them. Thus, it is important for future studies to take into account the environment in which individual leaders work, and specifically how far they are allowed to behave autonomously.

### **Managerial Implications**

Our findings offer important insights for practice. Managers can follow two approaches in dealing with project leader status. The first is to accept the effects of status on performance as shown in this paper. Managers can leverage the assumed evaluation bias in project evaluations, for instance, by selecting low- or middle-status project leaders based on the particular resource needs of the project. More specifically, they could assign low-status project leaders to projects with low resource needs, and middle-status project leaders to projects with high resource needs. This will maximize project performance and minimize the chance of major failures that would do serious damage to the organization's profits (Van Oorschot et al., 2013). Another approach, which can be used particularly with high-status project leaders, is to implement various measures in order to reduce the negative biasing effect of status in the decision-making process, particularly when an organizational 'star' (i.e., high-status leader) is in charge of a project. One way of doing this might be to increase the formalization of the review process and reduce its flexibility. Furthermore, top performers are very often celebrated within organizations and become very high-profile, with their status increasing accordingly (Oldroyd and Morris, 2012). Our study reveals that, especially when an individual has acquired very high status, this might not always be beneficial, as it can have implications for the performance of his or her projects. We suggest that high-status project leaders often suffer from information overload. To that end, managers should try not to bombard project leaders with information. Information overload can be mitigated by allocating information gatekeepers to high-status individuals who control the information flow between these individuals and the rest of the organization (Oldroyd and Morris, 2012).

### **Limitations and Direction for Future Research**

Like all research, the present work is not without its limitations. However, these limitations may also spur future research. The most important limitation of our study is that we had insufficient information on precisely how and when status might be affecting project selection and continuation decisions. Future research could examine the decision-making process in greater detail to assess what positive and negative effects status may have at different points in the process. It is possible that the main reason why higher

status is associated with greater variation in performance is because high-status project leaders are already influencing the selection process at the front end of the product development process (Reitzig and Sorenson, 2013) – through framing, for instance (Kaplan, 2008; Sethi et al., 2012). It could also be the case that the status of a leader may make that leader more committed to the project during the development phase, and more determined to keep the project alive by exerting influence and mobilizing support in order to ‘save face’ (Guler, 2007) until such point that he or she can blame any lack of performance on external factors such as market conditions. Future research that addresses this issue could increase our understanding of how status affects the implementation of innovations. Another important limitation of our study is that we did not have information on projects that were not implemented, a common limitation in studies that seek to analyze affiliation networks (Cattani and Ferriani, 2008; McFadyen and Cannella, 2004; Waguespack and Sorenson, 2011). This may raise two concerns that open up new avenues for future research. First, one could argue that affiliation networks do not perfectly reflect the actual social networks in the organizations analyzed in this study. Second, our data offered us no opportunity to investigate how canceled projects affect the status of project leaders. Even though these are relevant concerns, we believe that they are less applicable to status studies. The main focus of such studies is not to analyse the communication or information flow in the network but to understand better how individuals’ status and their ability to provide high-quality work is perceived. Based on our interviews with industry experts, we believe that, in our particular context, status is driven more by the interactions people had on projects that were implemented and not so much by their interactions on those that were not. It would be very beneficial, however, for future studies to investigate how failure and project cancelation affect project leader status. For instance, although it is likely that failed projects reduce the status of project leaders, it is possible that leaders with very high status are more effective at protecting their position than other leaders. It would also be very valuable to investigate further the relationship between affiliation and real-life social networks, for example, by testing the assumption that affiliation networks may serve as a reliable proxy for real-life social networks (Cattani and Ferriani, 2008). Moreover, since we did not have any information on project duration, we could not capture other facets of project leader and project performance, such as completion time. Future studies could generate valuable insights into the relationship between project leader status and project completion. Finally, we did not have accurate information on the size of each project’s development budget. It would be valuable for future research to explore what kind of resources status primarily attracts in development projects.

## CONCLUSION

The objective of this paper was to contribute to status research by showing that the expectations others create for high-status project leaders in fact inhibit project leaders from meeting these expectations paradoxically. Whereas, according to previous research supporting the Matthew effect, status leads to better access to organizational resources and opportunities, our study marks an important step in this ongoing conversation revealing

that the Matthew effect can actually have negative consequences. This is because high expectations coming from status also create cognitive overload and overly positive evaluations resulting in major failures which potentially may even put the survival of some organizations at risk. We hope our paper will guide future research how to overcome the negative side effects of status.

## ACKNOWLEDGEMENTS

The authors would like to thank the Editor John Prescott and three anonymous reviewers of the *Journal of Management Studies* for their valuable suggestions, Balázs Kovács, Jerry Kim, Michael Sauder, and Nathan Betancourt for their helpful comments in the review process, and Murat Tarakci, Michael Jensen, and Ronald Burt for their help and feedback on an early version of this manuscript.

## NOTES

- [1] We also considered reconstructing the social hierarchy by calculating which project leaders outperform other project leaders, following Bothner et al. (2012). In our context this would be inappropriate, however, since the fact that a project leader outperforms another can be attributed to many different factors. This is not the case in the racing and athletic contests studied by Bothner et al. (2012). Despite the fact that one project leader performs better than another, those within their own organization may still hold the second individual in higher regard, because he or she may have penetrated a new market for the firm, for instance. Hence, as Waguespack and Sorenson (2011) did when investigating the film industry, we measure status based on undirected project affiliation relationships. However, following Kim and Rhee's (2017) analysis of film producers' networks, we use Bonacich's power centrality rather than degree centrality in undirected affiliation networks to measure the status of project leaders, because it is not simply the number of relationships that matters but also the centrality of those with whom an individual has worked. As such, project leaders that are allocated to small, and thus relatively insignificant, projects typically have lower status scores than those who are allocated to larger and, therefore, more significant projects.
- [2] Activision-Bungie contract. This document was ordered to be unsealed by the Los Angeles Superior Court and provides the public with in-depth details of an agreement between a game developer and a major game publisher. Retrieved from <http://documents.latimes.com/bungie-activision-contract> on 10 July 2017.

## REFERENCES

- Aadland, E., Cattani, G. and Ferriani, S. (2019). 'Friends, cliques and gifts: Social proximity and recognition in peer-based tournament rituals'. *Academy of Management Journal*, **62**, 883–917.
- Ahmad, N. B., Barakji, S. A. R., Shahada, T. M. A. and Anabtawi, Z. A. (2017). 'How to launch a successful video game: A framework'. *Entertainment Computing*, **23**, 1–11.
- Ancona, D. and Caldwell, D. (1992). 'Bridging the boundary: External activity and performance in organizational teams'. *Administrative Science Quarterly*, **37**, 634–65.
- Aoyama, Y. and Izushi, H. (2003). 'Hardware gimmick or cultural innovation? Technological, cultural, and social foundations of the Japanese video game industry'. *Research Policy*, **32**, 423–44.
- Azoulay, P., Stuart, T. and Wang, Y. (2014). 'Matthew: Effect or fable?' *Management Science*, **60**, 92–109.
- Baer, M. (2012). 'Putting creativity to work: The implementation of creative ideas in organizations'. *Academy of Management Journal*, **55**, 1102–19.
- Barney, J. B. (1995). 'Looking inside for competitive advantage'. *Academy of Management Perspectives*, **9**, 49–61.
- Betancourt, N., Kovács, B. and Otner, S. M. G. (2018). 'The perception of status: How we infer the status of others from their social relationships'. *Network Science*, **6**, 319–47.
- Bonacich, P. (1987). 'Power and centrality: A family of measures'. *American Journal of Sociology*, **92**, 1170–82.
- Borgatti, S. P., Everett, M. G. and Johnson, J. C. (2003). *Analyzing Social Networks*. Thousand Oaks, CA: Sage Publications Ltd.

- Bothner, M. S., Kim, Y.-K. and Smith, E. B. (2012). 'How does status affect performance? Status as an asset vs. status as a liability in the PGA and NASCAR'. *Organization Science*, **23**, 416–33.
- Brass, D. J. and Burkhardt, M. (1993). 'Potential power and power use: An investigation of structure and behavior'. *Academy of Management Journal*, **36**, 441–70.
- Broekhuizen, T. L. J., Lampel, J. and Rietveld, J. (2013). 'New horizons or a strategic mirage? Artist-led-distribution versus alliance strategy in the video game industry'. *Research Policy*, **42**, 954–64.
- Burt, R. S. (2004). 'Structural holes and good ideas'. *American Journal of Sociology*, **110**, 349–99.
- Call, M. L., Nyberg, A. J. and Thatcher, S. M. B. (2015). 'Stargazing: An integrative conceptual review, theoretical reconciliation, and extension for star employee research'. *Journal of Applied Psychology*, **100**, 623–40.
- Cattani, G. and Ferriani, S. (2008). 'A core/periphery perspective on individual creative performance: Social networks and cinematic achievements in the Hollywood film industry'. *Organization Science*, **19**, 824–44.
- Chatterjee, A. and Hambrick, D. (2007). 'It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance'. *Administrative Science Quarterly*, **52**, 351–86.
- Cleveland, W. S., Grosse, E. and Shyu, W. M. (1992). 'Local regression models'. In Chambers, J. M. and Hastie, T. (Eds), *Statistical Models in S*. Pacific Grove, CA: Wadsworth & Brooks/Cole Advanced Books & Software, 309–76.
- Collet, F. and Philippe, D. (2014). 'From hot cakes to cold feet: A contingent perspective on the relationship between market uncertainty and status homophily in the formation of alliances'. *Journal of Management Studies*, **51**, 406–32.
- Dimov, D., Shepherd, D. A. and Sutcliffe, K. M. (2007). 'Requisite expertise, firm reputation, and status in venture capital investment allocation decisions'. *Journal of Business Venturing*, **22**, 481–502.
- Durand, R. and Kremp, P.-A. (2016). 'Classical deviation: Organizational and individual status as antecedents of conformity'. *Academy of Management Journal*, **59**, 65–89.
- Eikhof, D. R. and Haunschild, A. (2007). 'For art's sake! Artistic and economic logics in creative production'. *Journal of Organizational Behavior*, **28**, 523–38.
- Euromonitor International (2017). *Company Shares (by Global Brand Owner)*. Available at <http://www.portal.euromonitor.com/Portal/Default.aspx> (accessed 1 July 2017).
- Fralich, R. and Bitektine, A. (2020). "'Invincibles" and "invisibles": CEO status and the 'Matthew effect' in strategic decision-making". *Long Range Planning*, **53**, 1–21.
- Frost, P. J. and Egri, C. P. (1991). 'The political process of innovation'. In Cummings, L. L. and Staw, B. M. (Eds), *Research in Organizational Behavior*, Vol. **13**. Greenwich, CT: JAI Press, 229–95.
- Gemser, G., Van Oostrum, M. and Leenders, M. A. A. M. (2007). 'The impact of film reviews on the box office performance of art house versus mainstream motion pictures'. *Journal of Cultural Economics*, **31**, 43–63.
- Green, S. G., Welsh, M. A. and Dehler, G. E. (2003). 'Advocacy, performance, and threshold influences on decisions to terminate new product development'. *Academy of Management Journal*, **46**, 419–34.
- Grigoriou, K. and Rothaermel, F. T. (2014). 'Structural microfoundations of innovation: The role of relational stars'. *Journal of Management*, **40**, 586–615.
- Groysberg, B. and Lee, L.-E. (2008). 'The effect of colleague quality on top performance: The case of security analysts'. *Journal of Organizational Behavior*, **29**, 1123–44.
- Guler, I. (2007). 'Throwing good money after bad? Political and institutional influences on sequential decision making in the venture capital industry'. *Administrative Science Quarterly*, **52**, 248–85.
- Hagedoorn, J. and Duysters, G. (2002). 'Learning in dynamic inter-firm networks: The efficacy of multiple contacts'. *Organization Studies*, **23**, 525–48.
- Heckman, J. J. (1979). 'Sample selection bias as a specification error'. *Econometrica*, **47**, 153–61.
- Ibarra, H. (1993). 'Network centrality, power, and innovation involvement: Determinants of technical and administrative roles'. *Academy of Management Journal*, **36**, 471–501.
- Irish, D. (2005). *The Game Producer's Handbook*. Boston, MA: Thomson Course Technology PTR.
- Kaplan, S. (2008). 'Framing contests: Strategy making under uncertainty'. *Organization Science*, **19**, 729–52.
- Kehoe, R. R., Lepak, D. P. and Bentley, F. S. (2016). 'Let's call a star a star: Task performance, external status, and exceptional contributors in organizations'. *Journal of Management*, **44**, 1848–72.
- Kim, J. W. and King, B. G. (2014). 'Seeing stars: Matthew effects and status bias in major league baseball umpiring'. *Management Science*, **60**, 2619–44.
- Kim, T. and Rhee, M. (2017). 'Structural and behavioral antecedents of change'. *Journal of Management*, **43**, 716–41.
- King, B. G. and Carberry, E. J. (2018). 'Reversed riches and Matthew's curse: The liability of status when organizations misbehave'. *Journal of Management Inquiry*, **27**, 365–67.



- King, B. G. and McDonnell, M. H. (2015). 'Good firms, good targets: The relationship among corporate social responsibility, reputation, and activist targeting'. In Tsutsui, K. and Lim, A. (Eds), *Corporate Social Responsibility in a Globalizing World*. Cambridge: Cambridge University Press, 430–54.
- Kovács, B. and Liu, C. (2016). 'Audience structure and status multiplicity'. *Social Networks*, **44**, 36–49.
- Kovács, B. and Sharkey, A. J. (2014). 'The paradox of publicity: How awards can negatively affect the evaluation of quality'. *Administrative Science Quarterly*, **59**, 1–33.
- Lind, J. T. and Mehlum, H. (2010). 'With or without U? The appropriate test for a U-shaped relationship'. *Oxford Bulletin of Economics and Statistics*, **72**, 109–18.
- McDonnell, M. H. and King, B. G. (2018). 'Order in the court: How firm status and reputation shape the outcomes of employment discrimination suits'. *American Sociological Review*, **83**, 61–87.
- McFadyen, M. and Cannella, A. (2004). 'Social capital and knowledge creation: Diminishing returns of the number and strength of exchange relationships'. *Academy of Management Journal*, **47**, 735–46.
- Merton, R. K. (1968). 'The Matthew effect in science: The reward and communication systems of science are considered'. *Science*, **159**, 56–63.
- Mollick, E. (2012). 'People and process, suits and innovators: The role of individuals in firm performance'. *Strategic Management Journal*, **33**, 1001–15.
- Newman, M. E., Watts, D. J. and Strogatz, S. H. (2002). 'Random graph models of social networks'. *Proceedings of the National Academy of Sciences*, **99**, 2566–72.
- Nieborg, D. B. and Sihvonen, T. (2009). 'The new gatekeepers: The occupational ideology of game journalism'. In *Breaking New Ground: Innovation in Games, Play, Practice and Theory – Proceedings of DiGRA 2009*, London, 1–4 September.
- Oettl, A. (2012). 'Reconceptualizing stars: Scientist helpfulness and peer performance'. *Management Science*, **58**, 1122–40.
- Oldroyd, J. B. and Morris, S. S. (2012). 'Catching falling stars: A human resource response to social capital's detrimental effect of information overload on star employees'. *Academy of Management Review*, **37**, 396–418.
- Pearce, J. L. and Xu, Q. J. (2012). 'Rating performance or contesting status: Evidence against the homophily explanation for supervisor demographic skew in performance ratings'. *Organization Science*, **23**, 373–85.
- Perretti, F. and Negro, G. (2006). 'Filling empty seats: How status and organizational hierarchies affect exploration versus exploitation in team design'. *Academy of Management Journal*, **49**, 759–77.
- Phillips, D. J., Turco, C. J. and Zuckerman, E. W. (2013). 'Betrayal as market barrier: Identity-based limits to diversification among high-status corporate law firms'. *American Journal of Sociology*, **118**, 1023–54.
- Phillips, D. J. and Zuckerman, E. W. (2001). 'Middle-status conformity: Theoretical restatement and empirical demonstration in two markets'. *American Journal of Sociology*, **107**, 379–429.
- Piazza, A. and Castellucci, F. (2014). 'Status in organization and management theory'. *Journal of Management*, **40**, 287–315.
- Podolny, J. M. (1994). 'Market uncertainty and the social character of economic exchange'. *Administrative Science Quarterly*, **39**, 458–83.
- Podolny, J. M. (2001). 'Networks as the pipes and prisms of the market'. *American Journal of Sociology*, **107**, 33–60.
- Podolny, J. M. (2005). *Status Signals: A Sociological Study of Market Competition*. Princeton, NJ: Princeton University Press.
- Podolny, J. M. and Baron, J. (1997). 'Resources and relationships: Social networks and mobility in the workplace'. *American Sociological Review*, **62**, 673–93.
- Podolny, J. M. and Phillips, D. J. (1996). 'The dynamics of organizational status'. *Industrial and Corporate Change*, **5**, 453–71.
- Prato, M., Kypraios, E., Ertug, G. and Lee, Y. G. (2019). 'Middle-status conformity revisited: The interplay between achieved and ascribed status'. *Academy of Management Journal*, **62**, 1003–27.
- Rego, L. L., Morgan, N. A. and Fornell, C. (2013). 'Reexamining the market share–customer satisfaction relationship'. *Journal of Marketing*, **77**, 1–20.
- Reitzig, M. and Sorenson, O. (2013). 'Biases in the selection stage of bottom-up strategy formulation'. *Strategic Management Journal*, **34**, 782–99.
- Rhee, M. and Haunschild, P. R. (2006). 'The liability of good reputation: A study of product recalls in the U.S. automobile industry'. *Organization Science*, **17**, 101–17.
- Rider, C. I. (2009). 'Constraints on the control benefits of brokerage: A study of placement agents in U.S. venture capital fundraising'. *Administrative Science Quarterly*, **54**, 575–601.
- Ridgeway, C. L. and Correll, S. J. (2006). 'Consensus and the creation of status beliefs'. *Social Forces*, **85**, 431–53.



- Sanders, W. G. and Hambrick, D. C. (2007). 'Swinging for the fences: The effects of CEO stock options on company risk taking and performance'. *Academy of Management Journal*, **50**, 1055–78.
- Sauder, M., Lynn, F. and Podolny, J. M. (2012). 'Status: Insights from organizational sociology'. *Annual Review of Sociology*, **38**, 267–83.
- Sethi, R., Iqbal, Z. and Sethi, A. (2012). 'Developing new-to-the-firm products: The role of micropolitical strategies'. *Journal of Marketing*, **76**, 99–115.
- Staw, B. M. and Hoang, H. (1995). 'Sunk costs in the NBA: Why draft order affects playing time and survival in professional basketball'. *Administrative Science Quarterly*, **40**, 474–94.
- Stuart, T. E., Hoang, H. and Hybels, R. (1999). 'Interorganizational endorsements and the performance of entrepreneurial ventures'. *Administrative Science Quarterly*, **44**, 315–49.
- Thompson, C. (2009). 'Learn to let go: How success killed duke nukem'. *Wired*. Available at [http://www.wired.com/2009/12/fail\\_duke\\_nukem/](http://www.wired.com/2009/12/fail_duke_nukem/) (accessed 1 March 2016).
- Uzzi, B. and Spiro, J. (2005). 'Collaboration and creativity: The small world problem'. *American Journal of Sociology*, **111**, 447–504.
- Van Oorschot, K. E., Akkermans, H., Sengupta, K. and Van Wassenhove, L. N. (2013). 'Anatomy of a decision trap in complex new product development projects'. *Academy of Management Journal*, **56**, 285–307.
- Venkatraman, N. and Lee, C. (2004). 'Preferential linkage and network evolution: A conceptual model and empirical test in the U.S. video game sector'. *Academy of Management Journal*, **47**, 876–92.
- Waguespack, D. M. and Sorenson, O. (2011). 'The ratings game: Asymmetry in classification'. *Organization Science*, **22**, 541–53.
- Yin-Poole, W. (2019). 'The fall of Starbreeze'. *Eurogamer*. Available at <https://www.eurogamer.net/articles/2019-01-28-the-fall-of-swedish-game-wonder-starbreeze> (accessed 5 February 2019).

## SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article at the publisher's web site: