

Copyright and the Value of the Public Domain

Study 2: Performance of Public Domain Inspired Works on Kickstarter

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Abstract:

Crowdfunding platforms such as Kickstarter appear governed by an ethos which rewards originality and niche production. However, not all intellectual property (IP) on the platform is new and original. Often, pitch creators incorporate IP from a third party rightsholder, as well as material from the public domain. In order to assess the role of public domain material in a crowdfunded creative marketplace, the team performed quantitative analysis on 1,933 Kickstarter projects from January to April 2014. Researchers employed statistical techniques to model likelihood of success of projects when different underlying copyright or public domain material was present. The main findings were as follows:

- Use of both public domain and third party licensed material were significantly associated with higher likelihood of project success.
- Influence of public domain status on success rate was most pronounced in the mediums of Comics and Theatre, compared with Publishing and Video Games. This suggests that the role of PD materials differs across mediums. Direct re-publication of public domain literature does not seem to be rewarded – adaptation to another medium may be more attractive to backers.
- Explicitly obtaining copyright permission to use a third party work in a Kickstarter pitch was significantly associated with higher funding levels achieved.
- Previous experience and status of pitch creator was also significant to project success, suggesting that familiarity of both underlying work and its creator is important to Kickstarter funders.

Study 2: Performance of Public Domain Inspired Works on Kickstarter

Crowdfunding describes the process of raising capital by appealing to a large number of supporters who each contribute a small portion of total funds, either charitably or in exchange for a reward. A number of different configurations and thematic foci exist in practice, with some crowdfunding platforms adopting the approach of charitable giving while others enable exchange of products or services. One example of a popular crowdfunding platform is Kickstarter, where creators present their project 'pitches' with the aim to motivate a number of investors (i.e. 'backers') to commit funds to their projects. The creator sets a request for the minimum amount necessary for the project to be realized and projects get funded if the amount of money asked for is reached within a set time period.

With the passage in the United States of the Jumpstart our Business Start-ups (JOBS) Act in 2012, the regulatory door was opened to direct participation of crowdfunders in venture capital investment. In the UK, the status of venture capital crowdfunding remains—, however, use of consumer crowdfunding platforms such as Kickstarter is legally permitted and accessible by UK creators and project funders.

Nearly all crowdfunding platforms share an ethos of collective peer production and a conviction by users that projects initiated by those seeking crowdfunding could not be realised through existing, traditional financing. Attempting to capture the range of motivations for participation in crowdfunding, researchers Kuppaswamy and Bayus (2013) have referred to the crowd of supporters of a given project as 'consumer-investors', highlighting their dual role in the eventual success of a crowdfunded endeavour. Some backers may contribute to a project because they support the cause of the creator, seeing their investment as essential to disseminate an idea that would not otherwise be realised through traditional market mechanisms. A second and sometimes related role played by backers is that of consumers and early adopters of a product, with financial support tied to a promise by the creator to deliver goods once produced.

The potential societal impact of crowdfunding, by enabling production of new goods to meet demand from under-served consumers, has been widely discussed. However, the precise economic dynamics of crowdfunding remain contested in the literature. Some have

characterized crowdfunding as a disruptive innovation which allows disintermediation of redundant stages in the value chain, resulting in overall efficiency gains. For example, in some media industries such as publishing, the gatekeeping role traditionally played by commissioning editors is no longer essential if crowds can coordinate to determine which products are worthy of funding and which are not. Additional efficiencies may be gained from the ability of crowds to identify and promote valuable early-stage ideas, as well as to locate potential flaws in a business model or product before investment occurs. Literature highlights the democratising features of crowdfunding which include the ability for new market entrants to compete with minimal barriers to entry, lowering costs and enabling the service of niche demand.

On the other hand, a growing body of research suggests that crowds may not be the most efficient way to identify and reward innovation, particularly if markets are subject to herding behaviour and other effects which can distort the value of a project. Preferential attachment and other rich-get-richer effects have long been observed in sociological studies of online social networks (Hindman, 2008; Mislove et al, 2008), but their effect in crowdfunding markets remains under-explored. One impact of crowdfunding is that innovative ideas may be withheld from crowdfunding markets because the owner is fearful of losing competitive advantage by revealing their intentions. Crowdfunding platforms may enable the funding of lesser-quality goods as they become overpopulated with projects that could not attract traditional means of funding (Agrawal et al, 2013: 7). Research from cultural economics and policy studies has questioned whether the burden of crowdfunding disproportionately falls on niche audiences, for example supporters of independent film, while traditional funding bodies such as arts councils retreat from their supporting role (Sørensen, 2012). Crowdfunding success may not be an optimal way to fund merit goods, as the aggregated outcome of crowdfunding decisions may not reflect non-market political objectives such as promoting pluralism.

Finally, research in economics and management studies has focused on the potential for failure in crowdfunding markets due to the presence of information asymmetry (Akerlof, 1970; Agrawal et al, 2013). Unlike a traditional market where goods can be inspected and compared, early investors in a crowdfunded product have limited information about the quality of the final good as well as the capacity of the project owners to successfully deliver the product. The result is that consumer-investors may misallocate resources to projects that never bear fruit, at the expense of more productive investment in traditional market alternatives. Another possibility arising from a lack of information signals is that

crowdfunding platforms may generate perverse incentives by rewarding fraudulent behaviour and misrepresentation of projects' aims and capabilities.

This study contributes to existing literature on information asymmetry in crowdfunding markets to explore the role on intellectual property as a potential quality signal in crowdfunded media goods. The role of intellectual property rights remains under-theorised in the literature, even though the majority of production undertaken by creators on these platforms consists of protectable intellectual property. This includes media products in the copyright industries such as literary and artistic works and performances, as well as innovative product inventions and consumer goods protectable by patent and design rights. The present study is focused on copyright and its effect on crowdfunding success for media projects on Kickstarter, the largest rewards-based crowdfunding platform.

IP rights in crowdfunding markets

Creators of crowdfunded media projects normally choose from among four options when bringing a new project to a crowdfunding market: 1) develop and publish original content of their own creation; 2) obtain a licence to re-publish or adapt an existing copyright work; 3) re-publish or adapt an existing work from the public domain; or 4) significantly remix or transform any of the above resulting in a new derivative work.

The intellectual property rights underlying a given crowdfunded project may complicate existing theoretical propositions about the impact of information asymmetry in a number of significant ways. Firstly, in cases where the creator faces a choice between crowdfunding or seeking funding via more traditional routes, the extent to which they are able to retain and exploit their rights in the completed project may be a factor of importance. For example, in the case of an independent film creator, the traditional route to funding often involves relinquishing ownership of rights in exchange for investment capital, thus limiting creative and entrepreneurial control over the final project (Sørensen, 2012). Crowdfunding finance, to the extent that it can replace the sale of rights, may therefore be advantageous to certain types of creator. Secondly, the protection of crowdfunding innovation may be complemented by knowledge about intellectual property on the part of the creator. The extent to which a project creator is confident in their ability to secure and assert intellectual property rights in their creation may be a factor in their willingness to publicly reveal an innovation on a crowdfunding platform. Thirdly, intellectual property rights may act as a quality signal to potential backers in the absence of other information about the quality of goods and the capabilities of the producer. For example, the ability to secure the rights to

re-use a well known commercial property may signal the professional capabilities of the project creator, or act as a form of endorsement. A new product based on an existing work, either in copyright or in the public domain, may attract backers who are familiar with the qualities of the original work.

In this study, we are interested in comparing the performance of projects based on different types of underlying IP, to determine the extent to which intellectual property rights serve as a quality signal in an environment of information asymmetry. Specifically, we seek to compare projects where there exists an exclusive property right – either because it is a new original creation or because the creator has secured a licence – against those where the underlying ideas remain in the public domain. Traditional economic theory suggests that the non-excludable and non-rival characteristics of the public domain will result in lower incentives to take up and re-publish these works, because competition from producers will drive down profits (Landes & Posner, 2003).

Effect on transaction completion (success)

On Kickstarter, a project is successful if the pitch creator manages to secure the amount of money requested through individual supporter pledges before the pre-determined cut off date (usually 30 or 60 days). If the amount requested by the creator is not raised within that time, any funds received will be returned to backers and no fees will be taken. The creator must therefore set a price that is sufficient to meet the requirements of the project, but attractive enough that it does not exceed the collective willingness to pay of a group of potential backers.

Each pitch contains quality signals such as experience and status of the creator. For example, when creators are lesser known or when they have less experience in the medium, the underlying intellectual property right should be important. Copyright and PD works, which are known by a wider potential audience, could compensate the lack of quality signals originating from the unknown status of amateur creators. The analysis must control for the other major signal of quality in a pitch – the experience and status of the creator.

We hypothesise that intellectual property has an effect on the outcome of successful transactions in the following ways:

- 1) The intellectual property status of projects serves as a quality indicator to potential backers, increasing their confidence in the quality of the final goods and therefore their willingness to pay.
Hypothesis 1a: Public Domain works are positively associated with the amount of money raised.
Hypothesis 1b: Copyrighted works are positively associated with the amount of money raised.

- 2) The Intellectual property status of projects provides some information about price which helps creators (sellers) and backers agree on the value of goods, prompting higher likelihood of a successful transaction. Thus:
Hypothesis 2a: Public Domain works are positively associated with successful pitches.
Hypothesis 2b: Copyrighted works are positively associated with successful pitches.

Effect on price and willingness to pay

Pitch creators (sellers) come to Kickstarter with limited information about the size of audience and willingness to pay of contributors, and must set a price in the absence of those signals. We propose that intellectual property status of a given project will inform the price set by sellers. If the only factor under consideration were labour costs, we would expect to see public domain inspired works priced lower than competing original work, because some creative labour already exists freely within the public domain material. Copyright works where a licence fee has been paid should be priced accordingly (higher than untested original works by the pitch creator). In works where there is recombination of public domain and copyright materials, we would also expect to observe price tracking the amount of transformative labour introduced to an altered public domain work. If the status of the creator is an important signal of quality to potential backers, then we should expect to see a corresponding price increase related to the status and fame of the creator, represented by the personal brand value that they bring to the project, above and beyond any IP related price considerations.

Field Site and Research Methods

In this section we introduce the data source, the players acting in the market, i.e. pitch creators and backers, and describe the variables used in the analysis in detail.

Platform characteristics

Kickstarter, like other crowdfunding platforms, functions as a two-sided market. Pitch creators may use the service to set up a page outlining details of a project to potential backers. Important contents include a description of the project, the amount of funding requested, the amount of time that the campaign will run, and the rewards that will be given in exchange for pledges from potential backers. To the user, i.e. an individual who wants to invest money into creative projects presented on the website, Kickstarter functions as a shop window: backers may browse through current projects in different categories, looking for those they wish to support, either charitably or in exchange for a reward. Rewards often but not exclusively include a pre-order for a product once completed, so in this sense Kickstarter functions as an e-commerce site for innovative niche products, where buyers assume a higher degree of risk than they would on a traditional e-commerce website where returns are possible. The platform offers social networking capabilities in the form of project updates and messaging, as well as tracking of user involvement across different projects, either as a creator or backer. Kickstarter claims 5% of total project funding raised upon successful completion of a finding campaign. An additional fee of 3%-5% is taken to cover third party payment processing depending on the country of origin of the project. If a project does not raise the requested amount by the end of the campaign (normally set by the creator to 30 or 60 days) then all pledged money is returned to individual backers and the project fails.

The managers of the Kickstarter platform have an incentive to maximise the flow of high-quality, fundable projects, and to ensure as much as possible that projects are represented accurately to potential backers. Repeated fraudulent behaviour or failed transactions could reduce the legitimacy of the platform. This problem has been underlined by a number of high profile failures of Kickstarter projects after funds were raised.¹ In response to these issues, Kickstarter has added information to its website to warn users about the potential for misrepresentation and to emphasise its limited liability for failed projects. In August 2014, the website added a link to every project page titled 'Learn about accountability on Kickstarter'. On the website's blog, platform operators further warn users,

¹ For example, in 2014 the Attorney General's Office of the State of Washington filed suit against a Kickstarter project creator who failed to deliver a finished product funded in 2012, under that state's Consumer Protection Act. See *State of Washington v Altius Management, LLC; Edward J. Polchlopek III* (No. 14-2-12425-SEA).

“Kickstarter does not investigate a creator's ability to complete their project.

On Kickstarter, people ultimately decide the validity and worthiness of a project by whether they decide to fund it.”²

Pitch Creators

Project creators may seek crowdfunding on a platform like Kickstarter for a variety of reasons. In the emerging literature, creators have been characterised as i) amateur producers lacking access to traditional financing to support a niche, unpopular or untested new idea; or ii) entrepreneurs that select crowdfunding from among other financing options because it enables low cost access to capital and permits price discrimination when testing a new product with early adopters. It is likely that both types of producers use Kickstarter and that there is further diversity in project creators' motivations. Agrawal et al (2013) have proposed that informational aspects of crowdfunding are important to pitch creators. Firstly, lowered barriers to communication enabled by digital two-sided markets like Kickstarter allow for access to larger numbers of potential consumers, resulting in better 'matches' between sellers and buyers than in traditional, geographically constrained markets. Secondly, the response of crowd supporters may provide market signals to the producer, helping them to make better decisions about product features and marketing, “reducing the variance of post-launch demand” (2013: 12). This second feature is particularly relevant for copyright industries where research has pointed to the high risk of creative product development and demand uncertainty (Hesmondhalgh, 2012; Towse, 2014).

Backers

Previous research has identified a range of motivations for participating in a crowdfunded project as a backer. A proliferation of different crowdfunding platforms with distinct rewards systems ranging from charitable giving to pre-purchase of goods likewise suggests heterogeneity in the motivations of crowdfunding communities. Kickstarter does not offer backers an investment stake in start-up companies, but it supports both charitable donation and product exchange through its open-ended rewards tier system. As such, a variety of backer motivations are likely present across Kickstarter projects. Kuppuswamy and Bayus (2013) found different types of behaviour in specific project categories, leading them to speculate that product type may influence the motivation of backers (purchasing a good rather than supporting a cause). Crowdfunding backers may be motivated by a range of

² Accessed online 12 January 2015: <https://www.kickstarter.com/blog/accountability-on-kickstarter>

extrinsic and intrinsic rewards. Intrinsic rewards include the feeling of supporting a worthy cause or idea, or self-actualisation through participation in a shared community. Extrinsic rewards offered by crowdfunding may be tangible or intangible. These may include utility gained from pre-purchase of a product directly or from prestige gained by being an early adopter. Other prestige rewards include recognition by the project creators in production credits, special 'flair' or status in interactive settings, early access or other VIP benefits. Additional extrinsic rewards highlighted in literature on innovation include the ability to shape the outcome of a collective project or gain competitive advantage in other markets due to insider status. Additionally, as backers are likely to buy the products of the projects they funded one can reasonably assume that an increase in utility is associated with the consumption of those outputs.

Due to the confluence of intrinsic and extrinsic rewards for participation in a crowdfunded project, backers on Kickstarter require information about not only the quality of goods purchased, but also the identity and capabilities of the producer. Many Kickstarter rewards consist of goods to be delivered to backers once the project is funded and some development time has elapsed. The goods may arrive on time and meet the quality described in the original pitch, or they may be delayed or suffer from a lack of quality compared to the initial description when a pledge was made. Sometimes, goods may never arrive at all. In addition to goods quality, Kickstarter backers are potentially interested in information about the project creator. This information may enable backers to make a judgment about likelihood of delivery (creator experience, capabilities, social network). The information may also be used to judge the worthiness or authenticity of the project creator, which is linked to the intrinsic rewards described above and the ethos of crowdfunding as an alternative financing scheme.

Sample selection

This study is based on computer-assisted content analysis of a sample of completed media products on the Kickstarter platform. We selected a sample of all projects in the categories of publishing, video games, theatre and comics, which ended their funding period between 1st January and 31st March (Q1) 2014. This sampling method yielded 1,993 projects in total (see Table 3.2). The sample included successful, unsuccessful and cancelled projects with a funding cut-off date within the study range.

The sample categories were chosen for their status as copyright industries and for the diversity of works represented within this selection of media (print photography, illustration, fiction and non-fiction literature, entertainment software, and theatrical performance). The sample excluded projects within these categories that did not involve a copyright work (such as fundraising to build a new theatre or purchase studio equipment).

Selecting and recording information about the sample of projects presented challenges. The Kickstarter website does not permit reliable access to the total population of projects hosted on the platform. Non-transparent human and algorithmic curation techniques sort projects according to their popularity and other factors. Unsuccessful and cancelled projects are buried deep in the search results and not systematically organised. In order to ensure that the sample included all projects submitted to the website, a software tool was created using the unpublished Kickstarter Application Programming Interface (API) to extract a list of all projects in each category from the Kickstarter website, for the duration of the study period.

Projects were then analysed on an individual basis and data about each one were entered into a database via an electronic questionnaire instrument. In total, six research assistants were trained for coding and participated in the data collection. The latter was facilitated by the SNAP software which all coders used. The questionnaire consisted of 22 questions related to variables that the research team constructed based on the available information contained in each project pitch. Table 3.1 summarises the list of variables used, the values recorded for each and the abbreviation used in regression models.

Table 3.1: Description of variables

Variable	Values	Abbreviation
Dependent Variables:		
Success	1 = Project successful 0 = Unsuccessful	Success
Funds Raised (GBP)	Amount in £ GBP that was received, regardless of success outcome	GBPRec
Number of Backers	Number of individuals contributing to the project	Backers
Independent variables:		
Media category	1 = Comics 2 = Film & Video 3 = N/A 4 = Publishing 5 = Theatre 6 = Video Games	
Main source of Inspiration	Dummies: 1 = Original, 0 = Otherwise 1 = Public Domain, 0 = Otherwise 1 = Third party copyright, 0 = Otherwise	Orig. PD ThirdPCR
Inputs Present in transformative work	1 = Original 2 = Public Domain 3 = Copyright 4 = Creative Commons	
Type of Public Domain	Dummies: 1 = Term expired, 0 = Otherwise 1 = Not appropriating substantial, 0 = Otherwise 1 = Not protectable, 0 = Otherwise 1 = Copyright exception, 0 = Otherwise	Coded during data collection but not used in analyses
Licence status	Dummies: 1 = Sought already, 0 = Otherwise 1 = To be sought after fundraising, 0 = Otherwise 1 = Fair use, 0 = Otherwise 1 = Not indicated, 0 = Otherwise	Permission sought; Sought after funds; Fair use

Fiction	Dummies: 1 = Fiction, 0 = Otherwise 1 = Non-fiction, 0 = Otherwise 1 = unsure, 0 = Otherwise	Fiction Non-fiction
Open Source or Creative Commons	Dummy 1 = OS or CC, 0 = Otherwise	
Previous experience of backer	Number of projects launched Number of projects backed	
Funding time period	Number of days	
Team Size (categorical)	1 = Single creator 2 = Pair of creators 3 = Group of 3-10 4 = Group larger than 10	
Pitch creator characteristics	Gender dummy: 1 = Male, 0 = Female Status dummies: 1 = Obscure, 0 = Otherwise 1 = Known to a specific community, 0 = Otherwise 1 = Known beyond community, 0 = Otherwise 1 = Widely recognizable, 0 = Otherwise Previous crowdfunding experience: 1 = Unsure, 0 = Otherwise 1 = No previous experience, 0 = Otherwise 1 = Some previous working experience, not necessarily known to backers, 0 = Otherwise 1 = Successful previous experience that would be known to backers, 0 = Otherwise	Gender Cstat: Obscure Cstat: Community Cstat: Beyond Cstat: Recognisable No experience Some experience Successful exp.
Presence of video in pitch	1 = Project pitch contained a video, 0 = Otherwise	Video

While gathering numerical data on variables such as the total amount of funding raised was straightforward, the research team faced the task of additionally coding categorical variables from qualitative data such as the type of intellectual property underpinning a particular project.

For example, the variable 'licence status' was constructed to determine whether the creators of a Kickstarter pitch based any part of their project on copyright work belonging to others, and whether they obtained a licence to do so. Such information is not collected systematically by Kickstarter, so the research team mined pitch narratives for that information. Pitch creators might have used a third party copyright work wittingly or unwittingly. Examples of borrowings of copyright work from others might include a theatre production to perform a play written by somebody else, a comic book adaptation of a literary novel, a video game based on a literary character or TV show; etc.

We further sought to determine whether the Kickstarter project had obtained or intended to seek a licence from the copyright owner to use that aspect of the work. Sometimes this was mentioned explicitly in the Kickstarter pitch, for example, 'We have obtained permission to adapt this work' or 'We will use the money raised to purchase the licence'. If licence information was nowhere mentioned, the research team recorded that as such – these cases may indicate conscious or unconscious infringement, since not all project creators understand what is allowed in copyright law.

After judging various IP related elements present in each pitch the coders were asked to make an overall judgement about the main source of inspiration underlying the specific project. This variable takes the following values (1) original work, for projects where the bulk of creative inputs come from the project creator themselves (2) public domain work, for projects that seek to re-publish or make available a public domain work without substantial transformation, and (3) copyrighted work consisting of re-published work owned by third party rights holders. The coders were trained by working on overlapping subsamples which enabled us to control for inter-coder reliability. No issues emerged.

Table 3.2 summarises the sample according to the main source inspiration present in the projects.

Table 3.2: Summary of Kickstarter sample by primary IP status

	All categories	Comics	Theatre	Video Games	Publishing
Original	1657 (83%)	242 (79%)	144 (59%)	215 (91%)	1056 (87.5%)
Copyright	220 (11%)	22 (7%)	67 (27%)	12 (5.5%)	119 (10%)
Public Domain	116 (6%)	44 (18%)	33 (14%)	8 (3.5%)	31 (2.5%)
Total	1993	308	244	235	1206

Discussion

This section presents the analysis of the dataset generated from kickstarter.com in Q1 2014. The estimation strategy is as follows: First, we investigate hypotheses 1a and 1b by using the log-transformed 'Funds raised' (i.e. the amount of money measured in GBP) as dependent variable in an OLS regression. Second, we analyse hypotheses 2a and 2b using a binary dependent variable (1=success, 0 otherwise). In this analysis we employ a logistic regression model.

Analysis of funding levels

Table 3.3 below presents the results for the full sample. We estimate 3 models in different subsamples. The first one includes IP status only, the second one adds a variety of project characteristics, the third adds creator characteristics. Coefficients have to be interpreted as percentage change in the dependent variable when the independent variable changes by one unit. Model 1 only includes the IP status when third party work is used, i.e. public domain or third party copyright. The reference category is original work by the pitch creator. Model 1 does only explain a low amount of variation (adj-R2.= 1%) therefore we ignore it. Model 2 performs better. It shows significant effects on many variables (third party copyright, permission sought, no experience, successful experience and gender). Most interestingly the coefficient on the third party copyright variable implies that copyrighted

works generate approximately 70% less funds than original works³. Additionally, backers prefer clear indications of the fact that permission to use a copyright work is sought already. Model 3 indicates that projects using public domain works as their main inspiration attract 56% more funding as compared to projects based on untested original works. Further, excluding the licence status from the model brings the creator status to the front. The more the creator is known the more funds he or she tends to attract.

Overall, these results provide support for hypothesis 1a suggesting that public domain works are associated with higher funding levels whereas hypothesis 1b, that copyrighted works are associated with higher funding levels, can be rejected.

Table 3.3: Funds raised and IP Status

VARIABLES	(1) log Funds raised (GBP)	(2) log Funds raised (GBP)	(3) log Funds raised (GBP)
PD	0.804*** (0.217)	0.412 (0.378)	0.450*** (0.169)
ThirdPCR	0.514*** (0.168)	-0.350** (0.171)	-0.0382 (0.148)
Fiction		0.167 (0.165)	
Permission sought		0.569*** (0.195)	
Sought after funds		0.180 (0.184)	
Fair use		1.294 (0.890)	
Cstat: Obscure		-0.650 (0.723)	-0.330 (0.256)
Cstat: Community		-0.205 (0.734)	0.482* (0.273)
Cstat: Beyond		0.279 (0.768)	1.122*** (0.311)
Cstat: recognisable		0.339 (1.444)	2.070 (1.283)
No experience		-1.149*** (0.378)	-1.121*** (0.187)
Some experience		-0.384 (0.399)	-0.362* (0.197)
Successful exp.		1.412***	0.915***

³ To arrive at this value the coefficient (-0.350) needs to be exponentiated. This is due to the fact that the dependent variable is log transformed. This is also the case in model 3.

		(0.475)	(0.258)
Male		-1.002***	-0.724***
		(0.161)	(0.0972)
Constant	6.066***	7.671***	7.010***
	(0.0580)	(0.703)	(0.237)
Observations	1,878	652	1,878
R-squared	0.011	0.234	0.199
Adj.-R-squared	0.010	0.217	0.195

Note: Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1; Model 2 includes only observations indicating licence status therefore has a reduced number of observations.

Next, we look into the various categories of projects in order to see if the relations hold in those subsamples. The projects contained in the dataset fall into the categories comics, video games, publishing and theatre. Table 3.4 summarises the results, which point towards varying effects of IP elements across media categories. For example, exploitation of public domain elements in projects is beneficial in the comics category but negatively associated with funding for video game projects. Funding level in the categories of publishing and theatre appears to be unaffected by the IP status of the project. Overall, the results relating to the project categories fail to reject hypothesis 1a (i.e. for comics) but clearly reject hypothesis 1b.

Table 3.4: Funds raised and IP Status per project category

	(1)	(2)	(3)	(4)
	Comics	Video Games	Publishing	Theatre
VARIABLES	log_GBPrec	log_GBPrec	log_GBPrec	log_GBPrec
PD	0.731** (0.308)	-1.905* (0.981)	0.134 (0.273)	0.0553 (0.231)
ThirdPCR	0.111 (0.478)	-0.558 (0.682)	-0.127 (0.211)	0.0909 (0.225)
Cstat: Obscure	0.243 (0.327)	-1.741 (2.430)	-0.925 (0.588)	-
Cstat: Community	0.846** (0.395)	-0.891 (2.207)	0.486 (0.583)	0.635** (0.302)
Cstat: Beyond	0.872* (0.485)	-	1.191* (0.636)	1.371*** (0.368)
Cstat: recognisable	-0.326 (0.566)	3.437 (2.426)	3.001*** (0.643)	-
No experience	0.286 (0.351)	-1.066** (0.414)	-0.375 (0.752)	-
Some experience	0.679**	0.599	-0.0951	0.191

	(0.294)	(0.488)	(0.751)	(0.323)
Successful exp.	1.513***	-0.192	1.436*	1.735**
	(0.345)	(1.118)	(0.779)	(0.704)
Gender (1=male, 0+female)	-0.607***	-1.294***	-0.738***	-0.357
	(0.220)	(0.334)	(0.129)	(0.223)
Constant	6.250***	9.145***	6.583***	6.152***
	(0.309)	(2.423)	(0.882)	(0.227)
Observations	298	221	1,087	228
Adj.-R-squared	0.195	0.184	0.211	0.142

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, (-) variables excluded due to multicollinearity

Analysis of project success

We now test hypotheses 2a and 2b focusing on project success. In this case the dependent variable is the success of the project which is a binary variable. Therefore, we use a logistic regression model to analyse the hypothesised relationships. Results are displayed as odds ratios with values above one indicating increased odds of success. We estimate 5 models. The first model includes IP status only, the second one adds a variety of project characteristics, the third adds creator characteristics. Models four and five are variations omitting various project characteristics and can be considered robustness checks. As before we start with analysing the full sample (i.e. across project categories) and subsequently take a more detailed look into the project categories.

Table 3.5 presents the results. In all models public domain inspired projects and copyright material inspired projects have significantly higher chances to succeed than projects presenting exclusively original work. As in the previous set of analyses the piece of information indicating that permission is sought boosts the odds of success. Overall these results provide strong support for hypotheses 2a and 2b.

Table 3.5. Full sample, Success Chances

	(1)	(2)	(3)	(4)	(5)
suc dum1	Success	Success	Success	Success	Success
VARIABLES	odds ratio	odds ratio	odds ratio	odds ratio	odds ratio
PD	2.786*** (0.532)	2.990** (1.479)	3.082** (1.602)	2.820** (1.440)	2.321*** (0.470)
ThirdPCR	2.353*** (0.343)	2.268*** (0.391)	1.798*** (0.329)	1.741*** (0.316)	1.705*** (0.267)
Fiction		1.018 (0.305)	1.115 (0.351)		1.193 (0.239)
Non-fiction		0.682 (0.221)	0.732 (0.248)		0.826 (0.178)
Permission sought		2.076*** (0.454)	2.184*** (0.507)	2.217*** (0.512)	
Sought after funds		1.044 (0.185)	1.262 (0.241)	1.270 (0.242)	
Fair use		3.138 (2.790)	2.886 (2.701)	2.804 (2.634)	
Cstat: Obscure			0.472 (0.327)	0.482 (0.333)	0.464*** (0.118)
Cstat: Community			0.729 (0.517)	0.713 (0.504)	0.970 (0.265)
Cstat: Beyond			0.945 (0.731)	0.879 (0.676)	1.990** (0.688)
Cstat: recognisable			0.390 (0.634)	0.422 (0.686)	1.550 (1.926)
No experience			0.364** (0.156)	0.337** (0.143)	0.536*** (0.109)
Some experience			0.566 (0.248)	0.539 (0.235)	0.889 (0.184)
Successful exp.			1.251 (0.690)	1.238 (0.680)	1.437 (0.419)
Male			0.555*** (0.0926)	0.554*** (0.0919)	0.587*** (0.0575)
Constant	0.640*** (0.0319)	0.645 (0.194)	2.471 (1.729)	2.618 (1.659)	1.595 (0.468)
Observations	2,040	696	696	696	2,040
McFadden R2	0,022	0,044	0,105	0,100	0,108

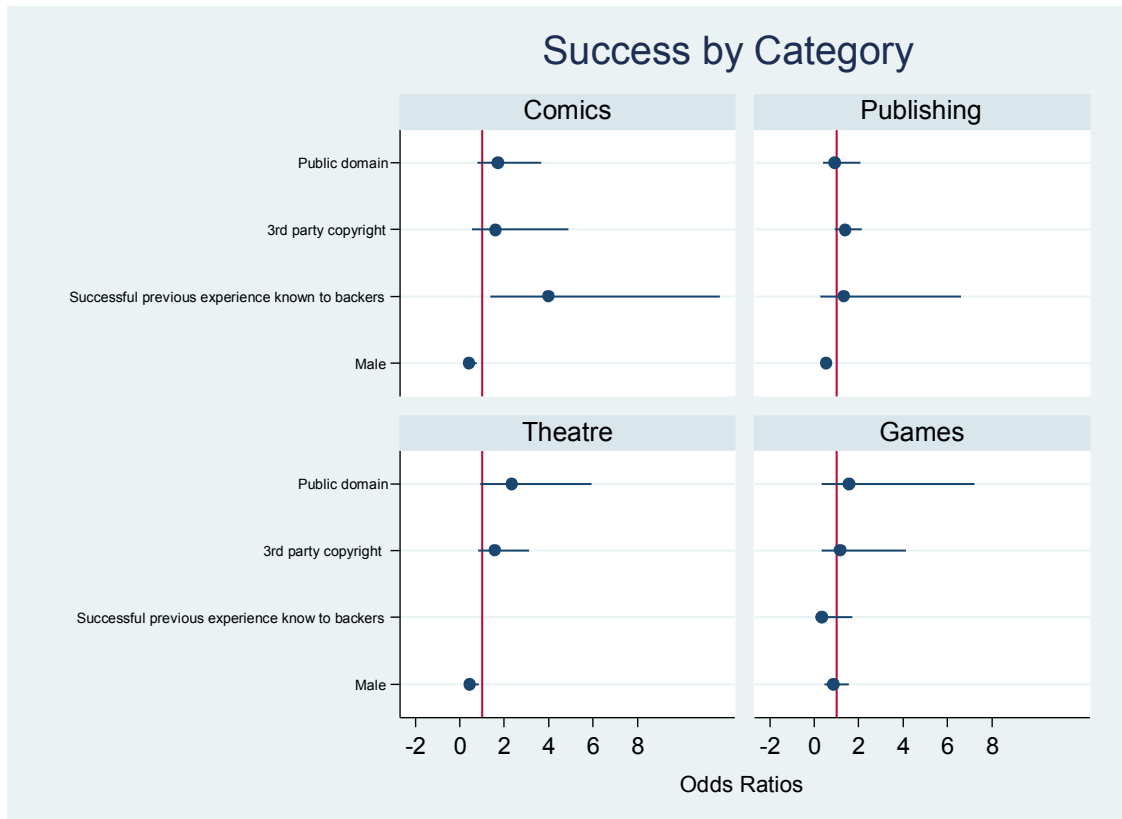
Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 3.6 (see Annex 2) breaks the analysis down into project categories and reveals a more nuanced picture. According to these results public domain inspired projects have a significantly higher probability to succeed in the theatre category (2.3 times higher as

compared to original projects). While the other categories also display values above one indicating increased odds to succeed they fail to achieve significance. Thus, the effects need to be considered with caution. Overall the results partially support hypotheses 1b.

Figure 3.2 represents these main results visually. Please note that figure 3.2 displays the odds ratios and associated confidence intervals. The Public Domain Odds Ratios in the categories comics, publishing and games miss the statistical significance only marginally as indicated by the short ends of their confidence intervals crossing the red reference line. Consequently, these results are also included.

Figure 3.2 Odds Ratio Plots



Conclusions

This research investigated how IP status elements contained in Kickstarter projects are related to funding levels and success chances. In addition to IP status of the underlying work, the analysis included various project and pitch creator characteristics. Hypotheses 1a and 1b linked the intellectual property status of works to funding levels received by the pitch

creators. Hypotheses 2a and 2b focused on the success probabilities thus capturing slightly different information.

With respect to funding levels, we find that the amount of previous experience possessed by the pitch creator is a driver of funding received (as indicated by highly significant coefficients in table 3.3, models 2 and 3). We find only moderate support for the role of IP status in supporting funding levels, with counterintuitive results (public domain projects raising more funds than licensed third party work). However, we find that the presence of a licence to use a work is a strongly significant factor and positively associated with funding levels achieved. The signal transmitted by the fact that a pitch creator has taken steps to clear copyright appears to be very strong and important for potential backers. Backers may also interpret it as conveying external support for the project (but this is speculation as we have not surveyed backers themselves). Overall, the hypotheses are partially supported because we fail to reject hypothesis 1a (public domain work associated with higher funding) but have to reject hypothesis 1b. These relations appear to be especially dominant in the comics and theatre categories.

Hypotheses 2a and 2b are more strongly supported by these results. Since Kickstarter allows pitch creators to effectively set their own price, project success is dependent upon their ability to price their goods appropriately. A project can be successful if creators and backers all agree that its is worth £500 or £50,000. Uptake and reuse of third party copyright and public domain works are both significantly correlated with higher likelihood of project success when controlling for other factors, suggesting that intellectual property status of a project is a robust signal of quality. The information conveyed by the underlying intellectual property in a work may be important for both pitch creators (sellers) and backers, which could help to explain the strength of these results. The impact of underlying IP on the price set by sellers is worthy of further investigation.

We find variation in effects of IP across different media categories, suggesting different roles for IP in terms of quality signal. We observed the highest likelihood of success for public domain works in theatre, video games and comics categories, while the presence of public domain work did not effect likelihood of success in the publishing category. This may be because consumers are interested in adaptations of original public domain stories (mainly literary works) into new mediums rather than straight re-publication of public domain material, which may be available elsewhere. The impact of the amount of transformative use of an underlying work on likelihood of success requires further consideration.

We conclude that the findings support the idea that both public domain and third party licenced works deliver significant benefits to entrepreneurs operating in crowdfunding markets. However, this effect is conditional on the medium and creative sector.

Annex 2: Supplementary tables

Table 3.6 Success by categories

VARIABLES	(1) Comics odds ratio	(2) Publishing odds ratio	(3) Theatre odds ratio	(4) Video Games odds ratio
PD	1.707 (0.665)	0.904 (0.381)	2.353* (1.111)	1.543 (1.214)
ThirdPCR	1.634 (0.915)	1.405 (0.301)	1.604 (0.544)	1.160 (0.750)
fiction_dum1	1.240 (0.649)	1.183 (0.159)	1.082 (0.400)	1.695 (0.948)
cstat: obscure	0.808 (0.271)	0.584 (0.405)	1.117 (0.472)	0.189 (0.222)
cstat: community	1.410 (0.678)	1.834 (1.275)		0.801 (0.858)
cstat4: recognizeable	4.209 (3.918)	2.602 (1.945)		
No experience	1.852 (0.821)	0.454 (0.334)	0.770 (1.069)	0.595 (0.256)
Some experience	2.331** (0.767)	0.566 (0.417)	1.248 (1.637)	1.177 (0.535)
Successful exp.	4.015** (2.193)	1.335 (1.088)		0.348 (0.282)
male	0.426*** (0.124)	0.564*** (0.0745)	0.475** (0.144)	0.850 (0.262)
Constant	0.995 (0.559)	1.170 (0.861)	1.630 (2.207)	1.691 (2.138)
Observations	308	1,205	244	235
McFadden R2	0,122	0,109	0,046	0,054

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

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