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# **Crowdfunding Platforms: Ecosystem and Evolution**

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# **Crowdfunding Platforms: Ecosystem and Evolution**

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# ABSTRACT

Crowdfunding is the practice of seeking support from a large number of backers, each funding a small amount, in order to reach a specific funding goal. This monograph examines: (1) the field of crowdfunding, (2) how it has evolved, (3) the impact crowdfunding has on the fields of innovation, marketing and finance and (4) the factors that can affect crowdfunding outcomes.

We view crowdfunding as complementary and transformative, increasing the efficiency of several existing processes such as idea generation and testing, fund raising and collection. We combine practitioner perspectives and research findings to provide insights on this subject. We explore the crowdfunding ecosystem and the role that project creators, backers and the platform play in the entire crowdfunding process.

We provide a comprehensive review of current academic research in crowdfunding that focus on three key components of the crowdfunding process: (1) project design and description, (2) project creator and backer characteristics and (3) platform design and architecture, and explore how different properties of these crowdfunding components impact the crowdfunding process and affect crowdfunding outcomes.

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We further provide an overview of new developments in crowdfunding (such as new crowdfunding models) and suggest trends (such as privacy issues) that may shape the crowdfunding ecosystem in the future.

# Preface

Crowdfunding has become an important aspect of society today. It has been said to have supplanted traditional financial institutions and has given new life to ventures. The intent of this monograph is to allow you to understand crowdfunding in its current context, how it is affecting society, how it functions and factors that can impact successful interactions between the crowdfunding project creator and the people who fund these projects.

In Section 1, we will detail how crowdfunding first came about and how it has evolved over time. We will discuss the key participants of crowdfunding and how crowdfunding as a concept has grown and changed since its inception.

In Section 2, we move on to discuss an important question that the crowdfunding industry has been asking – whether crowdfunding is disruptive to traditional financial institutions or does it transform the entire financial intermediary field. We delve into the ways that crowdfunding could be seen as disruptive, the additional roles they take on that caters to overlooked segments of the market and examine how crowdfunding may have transformed financial mechanisms.

As crowdfunding is a broad term used to describe multiple models of crowdfunding, we present the four common models of crowdfunding – donation, reward, equity and loans. As each crowdfunding model is used for different purposes, there are important distinguishing factors that 4

need to be taken into account when addressing these different types of crowdfunding. We discuss this in Section 3.

Once you have a grasp on crowdfunding, its evolution, place in society as well as the different forms of crowdfunding, we turn to factors that can affect crowdfunding. There are three main players in the crowdfunding process – the project creator, the backer and the platform. The space where these players interact is on the crowdfunding project page created by the project creator on the platform which will be accessed by the potential backer. As such, factors that can affect crowdfunding can be categorized under three main classes: (1) factors that are specific to the crowdfunding users, namely the project creators and backers, (2) factors found within the crowdfunding campaign page itself, and (3) factors built into the platform design and policies. We use Sections 4, 5 and 6 respectively to explore how some of these factors have an impact on crowdfunding outcomes.

Finally, we end the monograph discussing how crowdfunding may be progressing, with a few nascent models entering the crowdfunding sphere as well as how the impact of new technology can affect crowdfunding. Since crowdfunding has become mainstream, there have been multiple cases of fraud and other ethical issues that have arisen as well. We wrap up by delivering views on multiple issues on ethics, responsibility and decision agency in crowdfunding.

We hope that this monograph will give you a clearer understanding on the crowdfunding industry, how far it has come and its trends that can allow you to predict how it will develop in the coming years. With this knowledge as a foundation, you will be able to leverage on the opportunities that develop as the crowdfunding industry continues to grow.

# The Crowdfunding Ecosystem and Its Evolution

In February 1997, fans of Marillion found out that the UK rock band will not be able to tour the United States due to the bankruptcy of their U.S. record label. Many fans were disappointed. This was when a suggestion made by a fan on an online messaging board started to gain traction. The message, crafted by Jeff Pelletier from Massachusetts suggested that the fans raise funds themselves to bring the band over to the U.S. (Golemis, 1997).

While there was a strong spontaneous response online, the band members themselves felt that the hype generated would wear off soon and that the costs of the overseas tour would be a tough obstacle to work around. However, as more contributions came in from different parts of the world from North America, South America, Europe and all the way to Australia, the band started to take things seriously and started planning. First, they nominated a superfan and friend Jeff Woods to oversee the fundraising and fund collection. Woods is a familiar face to Marillion fans as he has been to 46 of their shows and had even proposed to his wife on stage in one of their shows. Then, after knowing that the funds would be in good hands, the band started to organize their tour to the U.S. The Crowdfunding Ecosystem and Its Evolution

The contributions made by the fans online managed to raise \$60,000 for their tour and to thank the contributors of the funds, Marillion sent out 1,000 autographed copies of a live CD recorded during the U.S. tour.

Due to their success in the U.S. tour and several issues that they had with record companies, the band decided to reach out directly to the fans when producing their next album in 2001, Anoraknophobia. The group approached their fans through e-mail, asking if they would buy the next CD in advance for £16. For the 12,674 people who pre-ordered, they would receive a deluxe CD, an additional bonus CD and their name printed on the sleeve of the CDs. At this point, the band now had all the funds paid up front without even recording yet (Strähle and Bulling, 2018).

This revolutionary phenomenon at that time served as the precursor to what we know today as crowdfunding. Although there have been instances of crowdfunding before, with Alexander Pope appealing for people to fund his translation of the Greek masterpiece, the Iliad in 1713, and more famously Mozart, who got enough funding from 176 backers for a performance at a concert hall in 1783, Marillion was the first to have used crowdfunding on a digital platform (Medium, 2017). Within the next two decades, this concept has taken hold within multiple industries from music to technology design and even academic research. The crowdfunding; however, they all share the same core function – to fund a large sum using small amounts from multiple individuals. These are a few examples of crowdfunding campaigns in recent years:

In February 2018, three adults and fourteen children were the victims of a school shooting at Marjory Stoneman Douglas High School in Parkland, Florida. To assist the families of the victims in covering the costs of the funerals and other expenses, a crowdfunding page was set up on a platform called GoFundMe by the Broward Education Foundation. People interested in donating funds to the families of the victims can go to the campaign page and contribute any

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amount they wish. Within 24 hours, the crowdfunding page collected over \$750,000. At the end of the crowdfunding campaign, the site has raised more than \$10 million for the families of the victims. This has helped support the victim's families through the tragedy.

In 2012, a smartwatch company seeking funding to grow looked to venture capital for a cash flow infusion. However, venture capital firms were hesitant to fund the business even with the promise of equity in the company. With that option not being viable, founder Eric Migicovsky decided to approach the consumers directly. He created a campaign around his product - the Pebble smartwatch, on the crowdfunding platform, Kickstarter. Consumers that are interested can contribute funds and if the amount they contribute exceeds a certain tier, they will receive items. For instance, if a consumer pledges \$99 or more, they will receive a black pebble watch which will be shipped to them after the campaign. Contributing above \$125 will allow them to receive a pebble watch with their preferred color. This has led to 68,929 people backing the campaign and pledging a total of over \$10 million. From this successful campaign, Pebble watch has managed to use the funds to expand their company.

A brewery in London, Camden Town Brewery, is set on expanding and building a custom brewery for their brand of lager in 2015. The owner, Jasper Cuppaidge, requires  $\pounds 1.5$  million for the new brewery. Going online to the crowdfunding platform, Crowdcube, he created a campaign where he was willing to offer 5.37% equity for the funds. At the end of his campaign, he received more than  $\pounds 2.7$  million from 2172 investors. After the campaign, Anheuser-Busch InBev, purchased the business for  $\pounds 85$  million, making it a profitable crowdfunding exit for a small independent business.

As joint franchise owners of a health and wellness chain, Massage Envy, Lari Jarvis and Nathan McFarland were looking for funds to build a new spa. Previously for their

#### The Crowdfunding Ecosystem and Its Evolution

other spas, they have been using small business loans from the bank. However, there were many requirements that had to be met and documentation needed before they qualified for the loan. When deciding to open this new spa, to avoid the hassle of loaning the funds from the bank, they decided to use a platform called LendingClub. They received their loan after multiple people decided that the rate of return were attractive enough for them to act as creditors.

Companies that utilize this form of funding range from independent creators to small enterprises and even multinational corporations. As seen from the previous examples, multiple crowdfunding platforms have emerged, each catering to different markets and services. These include Kickstarter, Indiegogo, Prosper, Crowdrise, GoFundMe, Sellaband, Experiment, Patreon, Fundable, Funding Circle, Drip and many more. Furthermore, its impact is not limited to the magnitude of platforms that have sprung up around it, but also by the amount of funds that are raised. Crowdfunding has grown exponentially year on year by 23.3% with current estimates taken from the International Monetary Fund, World Bank, UN and Eurostat (Statista, 2020). This growth has been projected to reach \$93 billion by 2025 (World Bank, 2013). Due to the potential crowdfunding wields, not only individuals but international organizations have embraced crowdfunding, viewing it as an alternative financing option. For instance, the World Bank's Climate Technology Program has examined how crowdfunding can help finance green technology in developing countries (World Bank, 2015) and the increased need for regulating crowdfunding due to the prevalence of crowdfunding as a growing segment of fintech around the world (World Bank, 2019). With the influence crowdfunding wields in the current business climate, there is a need to trace back to how this alternative financing model transcend industries, how has the crowdfunding model grown and evolved across time and what we can expect from it in the near future.

#### 1.1. The Crowdfunding Environment

#### 1.1 The Crowdfunding Environment

In the world of financing, how can ideas and concepts created by an untested individual without the appropriate resources or collateral be fully funded in a matter of days? Why has this become increasingly prevalent? The answer lies in the rapid pace at which the internet has proliferated society. The growth in internet access has paved the way for the three main actors in Crowdfunding to seek each other out easily – the project creator, the backer and the platform.

The project creator provides the idea or the concept that requires funding. This idea can range from a tangible product such as the Pebble watch to an intangible purpose such as comforting the victims of the families in a disaster. It can be large in scale, like the creation of a business, to something more mundane, such as requiring money to create a potato salad. There is no limit in the scope of what a project creator can crowdfund and the creator's purpose in crowdfunding is to persuade others why it is important for their particular idea to receive funding. This nascent idea is akin to a spark and whether this spark can transform from an idea into reality is dependent on another actor in the crowdfunding ecosystem – the backer.

The backer is an individual who has decided to contribute to the project creator's idea. In crowdfunding, this contribution comes in the form of money. Backers can have multiple motivations for why they choose to contribute to a crowdfunding project. In some crowdfunding cases, the backer will not receive any returns from this contribution – such as when the backer contributes to a crowdfunding project to help others in need of help or to support a project creator that they believe in. In other cases, the backer will receive returns from the contribution, this return can come in the form of rewards for contributing a specific amount – such as a tangible product, an intangible reward such as recognition, monetary returns or returns in equity that allows for control of a business. The interaction between multiple backers and the project creator is what creates value in crowdfunding as the exchange of funds for the actualization of the idea constitutes the main merit of crowdfunding as projects can now be funded, not by a single entity with a large capital, but with multiple smaller entities with small amounts of capital.

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#### The Crowdfunding Ecosystem and Its Evolution

The platform is an often overlooked, yet integral part of crowdfunding. Crowdfunding success stories tend to focus on the project, the idea, or concept being funded as well as the number of people who are funding the project. The contributions made by the platform tend to be overshadowed. However, it is the presence of the platform that allows the interaction between the project creator and the backer to happen in the first place. The core of crowdfunding lies in its ability to bring together funds from multiple people from different regions to support an idea and the platform supports this by providing three main functions: (1) it removes geographical and temporal barriers, (2) it provides a framework for interactions that parties can trust and (3) it matches backers with project creators.

As the platform exists online, it transcends geographical locations. Furthermore, there is a period where potential backers can decide whether they are inclined to contribute and when they would like to contribute. This means that a potential backer from London can easily view crowdfunding projects from all over the world. This backer may decide to back a crowdfunding idea based in New York that was launched 30 days ago. The platform handles this entire transaction seamlessly, bypassing the temporal and geographical barriers. The platform also provides a framework that governs how these interactions should take place. This framework offers rules and regulations that guide any interaction that takes place on the platform, providing stability which can lead to consumer trust. It also serves as an important catalyst in the crowdfunding process as they perform another important function, matching backers to projects that they may be interested in. The more accurate the matching process, the more likely backers will contribute to projects that they are interested in. As such, the platform itself does contribute significantly to the entire crowdfunding process and has a role that is arguably more critical than the roles played by the project creator and the backer.

Aside from each of these three integral actors in crowdfunding, it is important that we understand the entire crowdfunding process. The crowdfunding process is similar for most platforms. The project creator creates a campaign on the platform. The campaign page would have details of the idea that the creator is seeking funding for, the funding

#### 1.1. The Crowdfunding Environment

amount required and how long the campaign will last. Potential backers access the crowdfunding page and decide if they want to contribute. Once projects meet the dateline, the page stops accepting contributions. The crowdfunding project is a success if the funds contributed by backers exceeds the funding amount required. For most platforms, the creator may only get the funds if the project is successful. Some platforms do allow creators to collect the funds if the project is unsuccessful. If returns were promised in the campaign, the backer receives these returns after the project has ended. In deconstructing the entire crowdfunding process, it seems simple enough. However, crowdfunding has been developing into a sophisticated and legitimate source of alternative financing and has become an established financial channel that requires governmental legislation.

The internet has provided a radically expanding field where crowdfunding is facilitated. Without the internet, project creators will be unable to present their ideas to the masses and will have to seek traditionally ways of financing – through loans, venture capital or angel investors. Backers too, would not be able to fund projects individually as most do not have sufficient capital to fund a project fully and may need to join an institution such as a hedge fund in order to invest in projects. As these institutions aim to generate high returns, projects that do not promise high returns would not be considered for investment. So it is no wonder that the spread of internet access is indicative of the spread of crowdfunding as well, with crowdfunding starting out in the developed regions, with North America, Europe and Australia generating high funding volume with \$1.6 billion, \$945 million and \$76 million respectively before 2013 (Massolution, 2013), before extending to the rapidly developing countries with countries in Asia overtaking the European crowdfunding volume and generating over \$10 billion in 2015 (Massolution, 2015).

Although crowdfunding seems to have huge potential in affecting the fintech sector, it is not a panacea for all funding woes. There is a need to objectively looking at crowdfunding, what it can offer and how it has changed. Some questions we would want to ask are: Has the core of crowdfunding has evolved over time? Are there new components that have transformed what it means to crowdfund? Are there new 12

restrictions that crowdfunding needs to face for it to stay relevant in society?

### 1.2 Growth and Change of Crowdfunding as a Concept

As previously mentioned, crowdfunding has gradually changed from a laissez-faire concept to one that is increasingly institutionalized. Prior to the rise of platforms dedicated to crowdfunding, the crowdfunding landscape was smaller and the backers that contributed knew the project creator at a more personal level. Connections then were more tightly knit. Using our previous example, Marillion crowdfunded their concerts due to the fans that have already known the band before the crowdfunding campaign. However, as crowdfunding developed, dedicated platforms have emerged and have transformed crowdfunding into several different categories depending on the rewards obtained or the motivation of the project. Crowdfunding platforms now exist for all kinds of ideas across multiple countries. Unlike the period before crowdfunding became mainstream, crowdfunding projects now receive funding from backers that may not have heard about the project before the crowdfunding campaign. With the rise of dedicated platforms, crowdfunding has entrenched itself into modern society and has become a viable option for financing. Given the diversity of crowdfunding models available now, it is imperative that we get a grasp on the crowdfunding concept so that we are prepared for any future changes and developments that may arise in the crowdfunding model.

As crowdfunding has become more mainstream, countries have sought to regulate crowdfunding. There is a worry that backers may be prone to deceptive maneuvering by firms due to their lack of financial knowledge (Gaynor *et al.*, 2015). This is especially the case when companies can decide on their level of transparency when campaigning for funding. The United States has passed the Jumpstart Our Business Startups (JOBS) act that allows businesses, under certain regulations, to crowdfund for equity, soliciting large sums of money from large numbers of investors (Stemler, 2013). The European Union has presented a proposal for the regulation on crowdfunding that lays out rules on information disclosure, governance, risk management and supervision

#### 1.2. Growth and Change of Crowdfunding as a Concept

from the regulatory authorities in 2018 (European Commission, 2018). There are similar regulations in other countries such as China as well, with the Administrative Measures for Private Equity Crowdfunding Draft by the Securities Association of China spelling out rules that govern how crowdfunding can be used for businesses (Li, 2016). Aside from businesses, there have been regulations that have sprung up to protect consumers from this new form of transaction as well. Due to the possibility of fraud in crowdfunding where rewards that were promised failed to deliver, laws have been developed in recent years to address these issues. A precedence has been created with the legal case between the Federal Trade Commission and a project creator in 2015. The creator was found to be deceptive and had to provide restitution to his backers (Federal Trade Commission, 2015). Similarly, there are consumer protection laws in the European Union acquis that have been made applicable to crowdfunding as well (Armour and Enriques, 2018).

From this, we can easily see that crowdfunding has become entrenched in our society. The growing scope and importance of crowdfunding on business and the world stage and its substantial potential will create new opportunities and challenges for society. To leverage these new opportunities and to resolve challenges that may arise, it is essential for us to have a deeper understanding of crowdfunding. To begin with, we will explore how crowdfunding has disrupted the financing industry and how this disruption may actually be transformative in nature.

- Agrawal, A., C. Catalini, and A. Goldfarb (2014). "Some simple economics of crowdfunding". *Innovation Policy and Economy*. 14(1): 63–97.
- Agrawal, A., C. Catalini, and A. Goldfarb (2015). "Crowdfunding: Geography, social networks and the timing of investment decisions". *Journal of Economics & Management Strategy*. 24(2): 253–274.
- Ahlers, G. K. C., D. Cumming, C. Günther, and D. Schweizer (2015). "Signaling in equity crowdfunding". *Entrepreneurship Theory and Practice*. 39(4): 955–980.
- Allied Market Research (2017). Global Peer to Peer Lending Market by End-User and Business Model Type – Global Opportunity Analysis and Industry Forecast 2014–2022. 4176081. Allied Analytics LLP.
- Allison, T. H., B. C. Davis, J. W. Webb, and J. C. Short (2017). "Persuasion in crowdfunding: An elaboration likelihood model of crowdfunding performance". *Journal of Business Venturing*. 32: 707–725.
- Anglin, A. H., M. T. Wolfe, J. C. Short, A. F. McKenny, and R. J. Pidduck (2018). "Narcissistic rhetoric and crowdfunding performance: A social role theory perspective". *Journal of Business Venturing*. 33: 780–812.

- Armour, J. and L. Enriques (2018). "The promise and perils of crowdfunding: Between corporate finance and consumer contracts". The Modern Law Review. 81(1): 51–84.
- Bagozzi, R. P. and U. M. Dholakia (2006). "Antecedents and purchase consequences of customer participation in small group brand communities". International Journal of Research in Marketing. 23(1): 45–61.
- Bapna, S. (2017). "Complementarity of signals in early-stage equity investment decisions: Evidence from a randomized field experiment". *Management Science*. 65(2): 933–952.
- Berliner, L. S. and N. J. Kenworthy (2017). "Producing a worthy illness: Personal crowdfunding amidst financial crisis". *Social Science & Medicine*. 187: 233–242.
- Bi, S., Z. Liu, and K. Usman (2017). "The influence of online information on investing decisions of reward-based crowdfunding". *Journal of Business Research*. 71: 10–18.
- Bitterl, S. and M. Scherier (2018). "When consumers become project backers: The psychological consequences of participation in crowdfunding". *International Journal of Research in Marketing*. 35: 673– 685.
- Block, J., L. Hornuf, and A. Moritz (2018). "Which updates during an equity crowdfunding campaign increase crowd participation?" Small Business Economics. 50: 3–27.
- Bretschneider, U. and J. M. Leimeister (2017). "Not just an ego-trip: Exploring backers' motivation for funding in incentive-based crowdfunding". Journal of Strategic Information Systems. 26: 246–260.
- Brown, T. E., E. Boon, and L. F. Pitt (2017). "Seeking funding in order to sell: Crowdfunding as a marketing tool". *Business Horizons*. 60: 189–195.
- Burtch, G., A. Ghose, and S. Wattal (2013). "An empirical examination of the Antecedents and consequences of contribution patterns in crowdfunded markets". *Information Systems Research*. 24(3): 499–519.
- Burtch, G., A. Ghose, and S. Wattal (2015). "The hidden cost of accommodating crowdfunder privacy preferences: A randomized field experiment". *Management Science*. 61(5): 949–962.

References

- Burtch, G., Y. Hong, and D. Liu (2018). "The role of provision points in online crowdfunding". Journal of Management Information Systems. 35(1): 117–144.
- Caldieraro, F., J. Z. Zhang, M. Cunha Jr., and J. D. Shulman (2018). "Strategic information transmission in peer-to-peer lending markets". *Journal of Marketing*. 82: 42–63.
- Chan, C. S. R., H. D. Park, P. Patel, and D. Gomulya (2018). "Rewardbased crowdfunding success: Decomposition of the project, product category entrepreneur and location effects". *Venture Capital.* 20(3): 285–307.
- Chan, C. S. R., A. Parhankangas, A. Sahaym, and P. Oo (2019a). "Bellwether and the herd? Unpacking the u-shaped relationship between prior funding and subsequent contributions in reward-based crowdfunding". *Journal of Business Venturing*. Retrieved https:// doi.org/10.1016/j.jbusvent.2019.04.002 on 26 June 2019.
- Chan, H. F., N. Moy, M. Schaffner, and B. Torgler (2019b). "The effects of money saliency and sustainability orientation on reward based crowdfunding success". *Journal of Business Research*. In press, 1–13.
- Christensen, C. M., M. E. Raynor, and R. McDonald (2015). "What is disruptive innovation?" *Harvard Business Review*: Dec. 44–53.
- CONSOB (2013). "Raccolta di capitali di rischio da parte di startup innovative tramite portali on-line". Commissione Nazionale per le Societa e la Borsa. 18592: 1–37.
- Conte, J. (2017). "A note to our adult content creators". PatreonHQ, Retrieved https://patreonhq.com/a-note-to-our-adult-content-crea tors-abef831380e3 on 24 June 2019.
- Cox, J., T. Nguyen, A. Thorpe, A. Ishizaka, S. Chakhar, and L. Meech (2018). "Being seen to care: The relationship between selfpresentation and contributions to online pro-social crowdfunding campaigns". *Computers in Human Behavior*. 83: 45–55.
- Cumming, D. J., S. A. Johan, and Y. Zhang (2019). "The role of due diligence in crowdfunding platforms". Journal of Banking and Finance. 108: 105661.
- da Cruz, J. V. (2018). "Beyond financing: Crowdfunding as an information mechanism". Journal of Business Venturing. 33: 371–393.

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- Dai, H. and D. J. Zhang (2019). "Prosocial goal pursuit in crowdfunding: Evidence from Kickstarter". 56(3): 498–517.
- D'Ambrosio, M. and G. Gianfrate (2016). "Crowdfunding and venture capital: Substitutes or complements?" The Journal of Private Equity. 20(1): 7–20.
- Davis, B. C., K. M. Hmieleski, J. W. Webb, and J. E. Coombs (2017). "Funder's positive affective reactions to entrepreneurs' crowdfunding pitches: The influence of perceived product creativity and entrepreneurial passion". *Journal of Business Venturing*. 32: 90–106.
- Du, Z., M. Li, and K. Wang (2019). "The more options, the better?' Investigating the impact of the number of options on backers' decisions in reward-based crowdfunding projects". *Information & Management.* 56: 429–444.
- Dushnitsky, G. and M. A. Fitza (2018). "Are we missing the platforms for the crowd? Comparing investment drivers across multiple crowdfunding platforms". *Journal of Business Venturing Insights*. 10: e00100.
- European Commission (2018). "Commission proposal for a regulation on European crowdfunding services". European Commission. Retrieved https://ec.europa.eu/info/publications/180308-proposal-crowdfun ding\_en on 22 Mar 2019.
- Federal Trade Commission (2015). "Crowdfunding project creator settles FTC charges of deception". Federal Trade Commission. Retrieved https://www.ftc.gov/news-events/press-releases/2015/06/crow dfunding-project-creator-settles-ftc-charges-deception on 22 Mar 2019.
- Federal Trade Commission (2019). "FTC charges operator of crowdfunding scheme". Federal Trade Commission. Retrieved https:// www.ftc.gov/news-events/press-releases/2019/05/ftc-charges-ope rator-crowdfunding-scheme on 16 May 2019.
- Financial Conduct Authority (2014). The FCA's regulatory approach to crowdfunding over the internet, and the promotion of non-readily realisable securities by other media. Financial Conduct Authority. PS14/4, 1–95. Retrieved https://www.fca.org.uk/publication/ policy/ps14-04.pdf on 16 May 2019.

- Forbes (2018). "World's most valuable brands #32 Gillette". Forbes. Retrieved https://www.forbes.com/companies/gillette/#1de24da21 0a0 on 23 Apr 2019.
- Gafni, H., D. Marom, and O. Sade (2019). "Are the life and death of an early-stage venture indeed in the power of the tongue? Lessons from online crowdfunding pitches". *Strategic Entrepreneurship Journal*. 13(1): 3–23.
- Gamble, J. R., M. Brennan, and R. McAdam (2017). "A rewarding experience? Exploring how crowdfunding is affecting music industry business models". *Journal of Business Research*. 70: 25–36.
- Gaynor, G., J. Morse, and M. Pevzner (2015). "The crowdfunding effect: The SEC's crowdfunding rule will create new challenges for CFOs". *Strategic Finance*: Oct. 34–39.
- Ge, R., J. Feng, B. Gu, and P. Zhang (2017). "Predicting and deterring default with social media information in peer-to-peer lending". *Journal of Management Information Systems*. 34(2): 401–424.
- Gerber, E. M. and J. S. Hui (2013). "Crowdfunding: Motivations and deterrents for participation". ACM Transactions on Computer-Human Interactions. 20(6): Article 34.
- Givefoward Inc., v. Kena Hodges (2015). United States District Court for the District of Maryland. Civil No. JFM-13-1891.
- Gleasure, R. and J. Feller (2016a). "Does heart or head rule donor behaviors in charitable crowdfunding markets?" *International Journal* of *Electronic Commerce*. 20(4): 499–524.
- Gleasure, R. and J. Feller (2016b). "Emerging technologies and the democratisation of financial services: A metatriangulation of crowd-funding research". *Information and Organization*. 26: 101–115.
- GoFundMe (2019). GoFundMe.org. Retrieved https://www.gofundme. org/ on 16 May 2019.
- Golemis, D. (1997). "British band's U.S. tour is computer-generated". Chicago Tribune. Retrieved https://www.chicagotribune.com/news/ ct-xpm-1997-09-23-9709230071-story.html on 23 Jan 2019.
- Graphtreon (2018). "Patreon statistics". Graphtreon. Retrieved https://graphtreon.com/patreon-stats on 5 Mar 2018.

- Greenberg, J. and E. Mollick (2017). "Activist choice homophily and the crowdfunding of female founders". *Administrative Science Quarterly*. 62(2): 341–374.
- Haas, P., I. Blohm, and J. M. Leimeister (2014). "An empirical taxonomy of crowdfunding intermediaries". In: *Thirty Fifth International Conference on Information Systems*. Auckland, New Zealand.
- Haas, P., I. Blohm, C. Peters, and J. M. Leimeister (2015). "Modularization of crowdfunding services – Designing disruptive innovations in the banking industry". In: *Thirty Sixth International Conference* on Information Systems, Fort Worth. 1–12.
- Han, J.-T., Q. Chen, J.-G. Liu, X.-L. Luo, and W. Fan (2018). "The persuasion of borrowers' voluntary information in peer to peer lending: An empirical study based on elaboration likelihood model". *Computers in Human Behavior*. 78: 200–214.
- Hemer, J. (2011). "A snapshot on crowdfunding". Working Papers "Firms and Region", Fraunhofer Institute for Systems and Innovation Research, R2/201.
- Hong, Y., Y. Hu, and G. Burtch (2018). "Embeddedness, prosociality, and social influence: Evidence from online crowdfunding". *MIS Quarterly*. 42(4): 1211–1224.
- Hornuf, L. and A. Schwienbacher (2018). "Market mechanisms and funding dynamics in equity crowdfunding". Journal of Corporate Finance. 50: 556–574.
- Immen, W. (2012). "Venture capital rejection leads to funding record". The Globe and Mail. Retrieved https://www.theglobeandmail.com/ report-on-business/small-business/sb-money/venture-capital-reje ction-leads-to-funding-record/article4170756/ on 22 Apr 2019.
- Indiegogo (2016). "Restore miami marine stadium". Indiegogo. Retrieved https://www.indiegogo.com/projects/restore-miami-marine-stadi um#/ on 23 Apr 2019.
- Indiegogo (2019). "Guaranteed delivery perk policy for entrepreneurs". Indiegogo. Retrieved https://support.indiegogo.com/hc/en-us/ articles/360025299771-Guaranteed-Delivery-Perk-Policy-for-Entr epreneurs on 16 May 2019.

#### References

- Kamakura, W. A. (2007). "Cross-selling: Offering the right product to the right customer at the right time". Journal of Relationship Marketing. 6: 41–58.
- Kaminski, J., C. Hopp, and T. Tykvovà (2019). "New technology assessment in entrepreneurial financing – Does crowdfunding predict venture capital investments?" *Technological Forecasting & Social Change*. 139: 287–302.
- Kang, L., Q. Jiang, and C.-H. Tan (2017). "Remarkable advocates: An investigation of geographic distance and social capital for crowdfunding". *Information & Management.* 54: 336–348.
- Khavul, S. (2010). "Microfinance: Creating opportunities for the poor?" Academy of Management Perspectives. 24(3): 58–72.
- Kickstarter (2014). "Introducing launch now and simplified rules". Kickstarter. Retrieved https://www.kickstarter.com/blog/introducing-l aunch-now-and-simplified-rules-0 on 24 June 2019.
- Kickstarter (2019). "Stats". Kickstarter. Retrieved https://www.kickstarter.com/help/stats on 24 May 2019.
- Kim, K. and S. Viswanathan (2019). "The 'experts' in the crowd: The role of experienced investors in a crowdfunding market". *MIS Quarterly*. 43(2): 347–372.
- Kleinert, S. and C. Volkmann (2019). "Equity crowdfunding and the role of investor discussion boards". Venture Capital. 21(4): 327– 352.
- Kuppuswamy, V. and B. Bayus (2017). "Does my contribution to your crowdfunding project matter?" Journal of Business Venturing. 32: 72–89.
- Kuppuswamy, V. and B. Bayus (2018). "Crowdfunding creative ideas: The dynamics of project backers". In: *The Economics of Crowdfunding: Startups, Portals, and Investor Behavior*. Ed. by L. Hornuf and D. Cummings. Palgrave Macmillan, Chapter 8.
- Lagazio, C. and F. Querci (2018). "Exploring the multi-sided nature of crowdfunding campaign success". Journal of Business Research. 90: 318–324.
- LendingClub (2018). "Customer success story: Overcome your fears and find your true passion". LendingClub.

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- Leone, D. and F. Schiavone (2019). "Innovation and knowledge sharing in crowdfunding: How social dynamics affect project success". *Technology Analysis & Strategic Management.* 31(7): 803–816.
- Li, J. (2016). "Equity crowdfunding in China: Current practice and important legal issues". *The Asian Business Lawyer*. 18: 59–131.
- Lin, M., N. R. Prabhala, and S. Viswanathan (2013). "Judging borrowers by the company they keep: Friendship networks and information asymmetry in online peer-to-peer lending". *Management Science*. 59(1): 17–35.
- Lin, Y., W. F. Boh, and K. H. Goh (2014). "How different are crowdfunders? Examining archetypes of crowdfunders and their choice of projects". Academy of Management Proceedings. 2014(1): 13309.
- Lin, M. and S. Viswanathan (2015). "Home bias in online investments: An empirical study of an online crowdfunding market". *Management Science*. 62(5): 1393–1414.
- Lukkarinen, A., J. E. Teich, H. Wallenius, and J. Wallenius (2016). "Success drivers of online equity crowdfunding campaigns". *Decision Support Systems*. 87(July): 26–38.
- Mahmood, A., J. Luffarelli, and M. Mukesh (2019). "What's in a logo? The impact of complex visual cues in equity crowdfunding". *Journal* of Business Venturing. 34: 41–62.
- Manning, S. and T. A. Bejarano (2017). "Convincing the crowd: Entrepreneurial storytelling in crowdfunding campaigns". *Strategic Organization*. 15(2): 194–219.
- Massolution (2013). "2013CF: The crowdfunding industry report". Massolution. 1–88.
- Massolution (2015). "2015CF: The crowdfunding industry report". Massolution. 1–158.
- Medium (2017). "12 key moments in the history of crowdfunding (so far)". Medium. Retrieved https://medium.com/@ImpactGuru/12-k ey-moments-in-the-history-of-crowdfunding-so-far-3f614273d95 on 26 June 2019.
- Mollick (2013). "Swept away by the crowd? Crowdfunding, venture capital, and the selection of entrepreneurs". SSRN. Retrieved https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2239204 on 26 June 2019.

References

- Mollick, E. (2014). "The dynamics of crowdfunding: An exploratory study". *Journal of Business Venturing*. 29(1): 1–16.
- Monzo (2016). "Invest in Mondo". Monzo Blog. Retrieved https://monzo.com/blog/2016/02/15/invest-in-mondo/ on 24 Apr 2019.
- Moye, J. (2018). "Coke North America uses Indiegogo for test-and-learn pilot of valser mineral water". Coca-Cola Innovation. Retrieved https://www.coca-colacompany.com/stories/coke-north-america -uses-indiegogo-for-test-and-learn-launch-of-v on 24 Apr 2019.
- Mukherjee, A., C. L. Yang, P. Xiao, and A. Chattopadhyay (2017). "Does the crowd support innovation? Innovation claims and success on Kickstarter". HEC Paris Research Paper No. MKG-2017-1220, 1–23.
- Neff, J. (2017). "Why clorox turned to Kickstarter to help fund venture with startup". AdAge. Retrieved https://adage.com/article/cmo-st rategy/clorox-kickstarter-fund-venture-startup/308014 on 24 Apr 2019.
- Nguyen, T., J. Cox, and J. Rich (2019). "Invest or regret? An empirical investigation into funding dynamics during the final days of equity crowdfunding campaigns". *Journal of Corporate Finance*. 58: 784–803.
- Nicoletti, B. (2018). "FinTech and Procurement Finance 4.0". Procurement Finance: The Digital Revolution in Commercial Banking. Palgrave Studies in Financial Services Technology, Palgrave Macmillan. 155–248.
- Nitani, M., A. Riding, and B. He (2019). "On equity crowdfunding: Investor rationality and success factors". Venture Capital. 21: 243– 272.
- Nucciarelli, A., F. Li, K. J. Fernandes, N. Goumagias, I. Cabras, S. Devlin, D. Kudenko, and P. Cowling (2017). "From value chains to technological platforms: The effects of crowdfunding in the digital game industry". *Journal of Business Research*. 78: 341–352.
- OneRagtime (2019). "Investing has never been easier". Retrieved https://www.oneragtime.com/invest/ on 16 May 2019.

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- Oo, P. P., T. H. Allison, A. Sahaym, and S. Juasrikul (2019). "User entrepreneurs' multiple identities and crowdfunding performance: Effects through product innovativeness, perceived passion, and need similarity". *Journal of Business Venturing*. 34(5): 105895.
- Parhankangas, A. and M. Renko (2017). "Linguistic style and crowdfunding success among social and commercial entrepreneurs". *Journal* of Business Venturing. 32(2): 215–236.
- Parker, G. G., M. W. V. Alstyne, and S. P. Choudary (2016). "Disruption: How platforms conquer and transform traditional industries". *Platform Revolution*. W.W. Norton & Company.
- Patreon (2017). "We're updating Patreon's fee structure. Here's why". Patreon Blog. Retrieved https://blog.patreon.com/updating-patreons-fee-structure on 24 June 2019.
- Patreon (2018). "Amanda Palmer is creating with no intermission". Patreon. Retrieved https://www.patreon.com/amandapalmer on 26 March 2018.
- Patreon (2019). "Chapo trap house is creating Chapo trap house podcast". Patreon. Retrieved https://www.patreon.com/chapotraphou se on 20 May 2019.
- Petty, R. E. and J. T. Cacioppo (1986). "The elaboration likelihood model of persuasion". Advances in Experimental Social Psychology. 19: 123–205.
- Ryu, S. and Y.-G. Kim (2018). "Money is not everything: A typology of crowdfunding project creators". *Journal of Strategic Information* Systems. 27: 350–368.
- Schmitz, C., Y.-C. Lee, and G. L. Lilien (2014). "Cross-selling performance in complex selling contexts: An examination of supervisoryand compensation-based controls". *Journal of Marketing*. 78: 1–19.
- Schneor, R. and Z. H. Munim (2019). "Reward crowdfunding contribution as planned behaviour: An extended framework". *Journal of Business Research*. 103: 56–70.
- Security Exchange Commision (2015). "Crowdfunding: Final rule". Federal Register, Release 33-9974; 34-76324, 1–667.

- Siering, M., J.-A. Koch, and A. V. Deokar (2016). "Detecting Fraudulent behavior on crowdfunding platforms: The role of linguistic and content-based cues in static and dynamic contexts". *Journal of Management Information Systems*. 33(2): 421–455.
- Signori, A. and S. Vismara (2018). "Does success bring success? The postoffering lives of equity-crowdfunded firms". Journal of Corporate Finance. 50: 575–591.
- Statista (2020). "FinTech report 2019 Alternative financing". *Statista*: 1–22.
- Steigenberger, N. (2017). "Why supporters contribute to reward-based crowdfunding". International Journal of Entrepreneurial Behavior & Research. 23(2): 336–353.
- Stemler, A. R. (2013). "The JOBS act and crowdfunding: Harnessing the power – and money – of the masses". Business Horizons. 56: 271–275.
- Stevenson, R. M., M. P. Ciuchta, C. Letwin, J. M. Dinger, and J. B. Vancouver (2019). "Out of control or right on the money? Funder self-efficacy and crowd bias in equity crowdfunding". *Journal of Business Venturing.* 34: 348–367.
- Strähle, J. and L. Bulling (2018). "Case study: Marillion". In: Fashion & Music. Springer Series in Fashion Business, Ed. by J. Strähle, Springer Nature Singapore Pte Ltd.
- Tan, Y.-H. and S. K. Reddy (2016). "Backer networks and their Impact On project outcomes in crowdfunding digital platforms". In: 39th Annual ISMS Marketing Science Conference, Los Angeles. 1–50.
- Tan, Y.-H. and S. K. Reddy (2019). "Funding platforms for digital content: The determinants of persistent contributions". In: *Frontiers* in Service Conference, Singapore. 1–50.
- Thies, F., M. Wessel, and A. Benlian (2016). "Effects of social interaction dynamics on platforms". Journal of Management Information Systems. 33(3): 843–873.
- Thomas, L. B. (2006). Money, Banking and Financial Markets. Mason, OH: South-Western, Thomson Learning Inc. 69–71.

- Vizard, S. (2019). "How Coca-Cola, Lego and Gillette tapped into the wisdom of crowds". Marketing Week. Retrieved https://www.marke tingweek.com/2019/02/13/coca-cola-lego-gillette-crowdfunding/ on 23 Apr 2019.
- Wallmeroth, J. (2019). "Investor behavior in equity crowdfunding". *Venture Capital.* 21: 273–300.
- Walthoff-Borm, X., A. Schwienbacher, and T. Vanacker (2018a). "Equity crowdfunding: First resort or last resort?" *Journal of Business Venturing.* 33: 513–533.
- Walthoff-Borm, X., T. Vanacker, and V. Collewaert (2018b). "Equity crowdfunding, shareholder structures, and firm performance". Corporate Governance: An International Review. 26(5): 314–330.
- Wang, Z. and X. Yang (2019). "Understanding backers' funding intention in reward crowdfunding: An elaboration likelihood perspective". *Technology in Society.* 58: 101149.
- Wei, Z. and M. Lin (2017). "Market mechanisms in online peer-to-peer lending". *Management Science*. 63(12): 4236–4257.
- Wessel, M., F. Thies, and A. Benlian (2016). "The emergence and effects of fake social information: Evidence from crowdfunding". *Decision Support Systems*. 90: 75–85.
- Wessel, M., F. Thies, and A. Benlian (2017). "Opening the floodgates: The implications of increasing platform openness in crowdfunding". *Journal of Information Technology*. 32: 344–360.
- Wessel, M., M. Adam, and A. Benlian (2019). "The impact of soldout early birds on option selection in reward-based crowdfunding". *Decision Support Systems.* 117: 48–61.
- Wilmoth, J. (2018). "Indiegogo's first security token ICO listing raised \$18 million". CNN. Retrieved https://www.ccn.com/indiegogos-firs t-security-token-ico-raised-18-million on 16 May 2019.
- World Bank (2013). "Crowdfunding's potential for the developing world". *infoDev.* Retrieved https://openknowledge.worldbank.org/handle/ 10986/17626 on 3 Jan 2020.
- World Bank (2015). "Crowdfunding in emerging markets: Lessons from East African startups". *infoDev*. Retrieved http://www.infodev.org/ CrowdfundingAfrica on 3 Jan 2020.

- World Bank (2019). "Regulating alternative finance: Results from a global regulator survey". University of Cambridge Judge Business School. Retrieved https://www.jbs.cam.ac.uk/fileadmin/user\_uplo ad/research/centres/alternative-finance/downloads/2019-10-29-c caf-regulating-alternative-finance-report.pdf on 3 Jan 2020.
- Xu, J. J. and M. Chau (2018). "Cheap talk? The impact of lenderborrower communication on peer-to-peer lending outcomes". Journal of Management Information Systems. 35(1): 53–85.
- Zaggl, M. A. and J. Block (2019). "Do small funding amounts lead to reverse herding? A field experiment in reward-based crowdfunding". *Journal of Business Venturing Insights*. 12: e00139.
- Zhang, J. and P. Liu (2012). "Rational herding in microloan markets". Management Science. 58(5): 892–912.
- Zvilichovsky, D., Y. Inbar, and O. Barzilay (2013). "Playing both sides of the market: Success and reciprocity on crowdfunding platforms". In: *Thirty Fourth International Conference on Information Systems*, Milan. 1–18.