



The Economic and Social Effects of Reward Based Crowdfunded Technology Projects on the Metropolitan New York Community

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The economic and social effects of reward based crowdfunded technology
projects on the Metropolitan New York Community

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Abstract

Does reward based crowdfunding provide benefits to the local communities where the crowdfunding projects are based from? Drawing from qualitative data from fourteen interviews with successfully funded Kickstarter projects as well as secondary sources, this research looked to quantify the socioeconomic benefits from local based crowdfunding projects. Financial, social, networking and volunteering data was collected as part of the interviews that were conducted via telephone, email or video conferencing.

Crowdfunding is a relatively new funding platform where projects can raise money from individuals looking to invest in an idea or product in return for rewards. Crowdfunding is emerging as a viable alternative to traditional funding options such as bank loans for startups and new projects. Successfully funded Kickstarter projects with funding raised between \$29,000 to \$1.3M were included as part of this research.

The data shows that crowdfunding provided benefits for the local community across various socioeconomic markers. Eleven of thirteen data points collected as part of this research directly or indirectly support the hypothesis that the positive effects greatly outweigh any negative effects to the local community. Regardless of the amount raised during the crowdfunding campaign, an increase in jobs, volunteering and networking were noted for the local community.

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Chapter I

Crowdfunding Background

Since the emergence of modern day crowdfunding sites such as Artistshare in 2003, the crowdfunding sector has grown to more than 450 global sites,¹ with \$5.1B in expected funding raised for 2013.² The leading reward based crowdfunding site by capital raised is Kickstarter, based in Brooklyn, New York and launched in April 2009. Kickstarter itself reached the \$1B pledge mark from 5.7 million backers across 224 countries in March of 2014 with \$663,316,496 of the funding originating from US backers.³ Typical crowdfunding sites such as Kickstarter integrate online technology platforms, global communities of individual backers or investors and project sponsors looking for financial contributions. The projects span across company startups, innovative products and social and civic causes. In return for money from the financial backers, a project sponsor will typically provide a return in the form of rewards or equity in the company, product or cause (though some charitable projects offer nothing outside of a thank you or email acknowledgment). While growing rapidly, the new and evolving nature of the crowdfunding model has led to a gap in the available academic research in

¹ Hui, Julie S., Michael D. Greenberg, and Elizabeth M. Gerber. 2014. Understanding the role of community in crowdfunding work. Paper presented at Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing.

² Crowdsourcing website. "The crowdfunding Industry Report." [crowdfunding.org
http://www.crowdsourcing.org/editorial/2013cf-the-crowdfunding-industry-report/25107](http://www.crowdsourcing.org/editorial/2013cf-the-crowdfunding-industry-report/25107)

³ Kickstarter website. "Promo Newsletter." [Kickstarter.com. https://Kickstarter.com/1billion](https://Kickstarter.com/1billion) (accessed January 1, 2015).

understanding the post funding impacts of how successfully funded projects and businesses affect the local communities.⁴

A generally accepted principle of business growth is that startups and entrepreneurship help to drive economic growth.⁵ In line with that belief, communities have rolled out the red carpet in the form of incentives, legislation and subsidies to local technology startups and growing businesses in the hopes that their community becomes the next Silicon Valley, Silicon Alley or technology hub. Crowdfunding has purportedly been a catalyst for the economic growth of startups by enabling the successful backing of projects at the inception or seed funding stages, where funding is especially critical for growth. Startups seeking funding from traditional funding establishments such as banks often do not qualify for loans due to having limited financial history. Venture Capital and Angel Investments on the other hand have helped bridge the gap for early stage funding but do so in exchange for equity and some control in the startup. A major advantage of reward based crowdfunding is that there are no loans to pay back and no loss of equity or control. Additionally, having a successful crowdfunding campaign does not preclude the startup from seeking Venture Capital at a later date if desired.

This research seeks to identify if the positive effects for local communities outweigh the negative effects for successful reward based Kickstarter technology projects. Specifically, my thesis will seek to answer the following questions:

⁴ Mollick, Ethan. 2014. The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing* 29: 1

⁵ Macht, Stephanie A. 2014. Reaping Value-Added benefits from crowdfunders: What can we learn from relationship marketing? *Strategic Change* 23 (7-8): 439

1) What are the economic impacts to the Metropolitan New York Community and other local communities from successfully crowdfunded technology projects?

2) Are the funds raised from crowdfunding reinvested in the local community and leading to job creation and innovation?

3) What are the social impacts as a result of successfully funded crowdfunded technology projects on the local community?

4) Are local educational, Not-For-Profits and charitable organizations and institutions supported by successfully funded Kickstarter technology projects?

In order to answer these questions, the crowdfunding effects will be consolidated into three categories: positive, negative and mixed\neutral. Each category will identify criteria that will be used as part of the analysis.

Positive effects of a successfully crowdfunded project include:

- Creation of part time or full time jobs
- Leveraging local businesses, services or contracts
- Development of additional services, product enhancements, new products or innovations
- Intellectual Property created such as patents, trademarks and copyrights
- Owning or leasing office space
- Paying taxes such as corporate or payroll taxes
- Networking with other local businesses or projects
- Donations, volunteering or providing no cost services to local educational institutions, Not-For-Profits or charities

- Local advertising of products or services
- Outside investment beyond the Kickstarter campaign

An example of a successfully crowdfunded project that demonstrates the positive effects on the local community could be a software company that uses the secured funds to reinvest within the local community. The software company leases an office space in Brooklyn, hires a locally based developer, leverages a local restaurant for catering, uses local printers for its printing needs and is a member of a local Not-For-Profit technology startup group. As result of the secured funding through Kickstarter, the company is now paying local rent for office space, paying payroll and other taxes to the local government, supporting local restaurants and print shops as well as participating in a local group that networks with and mentors other local businesses.

Negative effects of a successfully crowdfunded project include:

- A net loss of local community jobs ((Part-time or Full-time employee or contractor)
- Use of outsourced or non-local businesses, services and contracts
- No networking with other local businesses
- No involvement with local charities, donations or volunteering.
- Not paying US or local taxes such as corporate or payroll taxes

An example of a successfully crowdfunded project that demonstrates the negative effects on the local community could be an online based cleaning company that uses the secured funds to displace local workers. The cleaning company maintains a minimal local presence, employees unauthorized workers, pays little to no local taxes and dumps a

recently developed and untested cleaning solvent within the local community. As the cleaning company has lower costs to operate, they secure contracts with other businesses leading to worker displacement at other local cleaning companies, potential health issues for local community members as a result of the solvent dumping and provide no charitable or networking opportunities.

Mixed\Neutral effects of a successfully crowdfunded project include:

- No new hires (part time or full time employee or contractor)
- A virtual based company and does not own or lease office space or office equipment locally

An example of a successfully crowdfunded project that demonstrates the mixed\neutral effects on the local community could be a tech clock company where all coding, product development and manufacturing is done overseas. The clock company employees foreign based workers and maintains a limited local presence. Minimal local taxes are collected and few to no goods or services are procured within the community.

My Hypothesis is that with reward based crowdfunding there are positive social and economic effects that the local community realizes as part of a successful crowdfunding project that outweigh any negative effects. In order to test my hypothesis, successful Kickstarter projects that reached 100% or more of their targeted funding goals will be derived from the Product Design and Technology categories or the corresponding subcategories. Evidence that will be presented includes primary source documents that I will develop from interviews with representatives of successfully funded projects.

The significance of my research is that it will enable local politicians, community leaders, the business community, investors, scholars and the general public to understand the post funding impact of crowdfunding to their local communities as it continues to develop into a mainstream funding platform. Decisions on business subsidies, incentives such as tax breaks and SEC legislation changes could be impacted as a result of findings from this research. Quantifying the social and economic benefits of crowdfunding to local communities such as Metropolitan New York will also demonstrate how global funding can be leveraged and encouraged to support local communities. Additionally, this study will help bridge the gap in academic research around the post funding effects of crowdfunding technology projects.

My expected conclusion is that the positive effects of crowdfunding on the Metropolitan New York Community will greatly outweigh any negative effects. I expect to find an increase in local and Metropolitan New York jobs, consistent use of local services and goods, an increase in local economic benefits, an increase in innovative products and services, and an increase in positive civic activity deriving from crowdfunded projects.

I also expect to identify some negative impact to the local and Metropolitan New York communities for a segment of the projects. I expect to encounter some instances where project funding was primarily kept by the project sponsor with little to no re-investment in their local community. The negative effects associated with crowdfunding however should be significantly less than the positive effects to local communities.

The crowdfunding process for Kickstarter begins with a project sponsor creating a new funding request for a project (i.e. to raise \$10,000) and setting up a reward structure for backers. The project sponsor has fifteen categories within Kickstarter that are available for their project as well as 94 subcategories. The projects categories are: Art, Comics, Crafts, Dance, Design, Fashion, Film & Video, Food, Games, Journalism, Music, Photography, Publishing, Technology and Theater. The subcategories for Design are: Architecture, Civic Design, Graphic Design, Interactive Design, Product Design and Typography. The subcategories for Technology are: 3D Printing, Apps, Camera Equipment, DIY Electronics, Fabrication Tools, Flight Gadgets Hardware, Makerspaces, Robots, Software, Sound, Space Exploration, Wearables and Web.

Once the project is approved by the Kickstarter staff, it is posted on the Kickstarter site within the appropriate main category and subcategory if needed. “Backers” then review the projects and decide if they are going to pledge funds towards the project. Funds are only released to the Creator if the project successfully reaches the full 100% or more of the targeted funding goal- known as the All or Nothing model. Once the targeted funding goal is met, Kickstarter charges a 5% fee from the total funds pledged. Project Creators do not need to pay back the funding as long as they provide the rewards outlined in the original project request. In the event that project Creators do not deliver on the rewards promised, they may be subject to legal action or responsible to return the funds received.

Federal legislation was enacted to enable crowdfunding to serve as a catalyst for creating startup businesses and innovation. In 2012, President Obama signed the

Jumpstart Our Business Startup Act (JOBS) that in part sought to soften registration requirements from the 1933 Securities Act for equity based crowdfunded projects. The complex, onerous and high cost compliance regulations were a major hindrance for crowdfunded companies and startups seeking to attain funding in exchange for equity. The JOBS Act would allow equity based crowdfunding as long as it was through a portal registered with the U.S. Securities and Exchange Commission (SEC) or through a licensed broker dealer. The legislation however was seemingly signed with limited in depth studies of the short or long term effects of successfully funding a crowdfunding project. “Scholars know very little about the dynamics of successful crowdfunding, as well as the general distribution and use of crowdfunding mechanisms”.⁶

A critical aspect of understanding the post funding effects of crowdfunding would be the impact on the local communities for the successfully funded projects. Ethan Mollick and Venkat Kuppaswamy's crowdfunding research show an average increase of 2.2 employees resulting from successfully funded projects in the fields of technology, design, and video games.⁷ What is not clear from the research is if the increase in employees benefited the project sponsor's local community or if the employees were geographically dispersed. It is conceivable that successfully funded projects used the funding raised to spur economic and community growth in a foreign state, while taking advantage of US benefits including the JOBS act. Technology and manufacturing

⁶ Mollick, Ethan. 2014. The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing* 29: 1

⁷ Mollick, Ethan, and Venkat Kuppaswamy. 2014. After the campaign: Outcomes of crowdfunding. 1

projects are especially susceptible to foreign re-investment. For example, it is common for computer programming to be contracted in India or Russia and manufacturing to be contracted in China or Mexico.

Chapter II

Research Methods, Limitations and Definition of Terms

My research methods will consist of qualitative data derived from interviews with successful crowdfunded technology project sponsors as well as data from secondary sources. The post funding data will be grouped into a table matrix across all of the interviewees. Permission for the interviews was approved by the Harvard Committee on the Use of Human Subjects that acts as the Institutional Review Board for interviews. Interviews will be conducted via phone, video conference (Skype), email and in person when possible in Metropolitan New York.

The data collected will include the average number of jobs created per successfully funded Kickstarter project and if any volunteer work, mentoring or networking was undertaken for the local community. Additionally, the data collected will include if local vendors were leveraged for goods and services as well if any networking opportunities with other local based projects or companies were realized. An analysis will be conducted on the data collected, culminating in a summarization of the findings that will be presented as part of this research.

As of June 24, 2015 there were one hundred and eighty-nine projects identified on the Kickstarter website that were successfully funded, based in New York City and listed under the main Kickstarter Technology category or corresponding subcategories since 2009. Some projects may be primarily technology focused or have technology components but may be listed under a Kickstarter category other than Technology such as

Design. An example is the Pebble Watch developed by Pebble Technology that has raised the highest amount of funding as of June 24, 2015 on Kickstarter with over \$20M raised. Despite the project having a heavy technology focus, the campaign is categorized under the Kickstarter Design category. The focus of this study will be on projects with a technology component and will be limited to projects listed under the Kickstarter Technology or Design category and corresponding subcategories.

Additional analysis is needed to confirm if any identified technology project sponsors or representatives are available and willing to be interviewed. Project sponsors may not agree to divulge how their project's funds were used and if they were used for local re-investment. The unavailability of project sponsors or representatives to participate in the interviews may be a limiting factor in the number of sample projects leveraged for this research. In the case of projects that are no longer operational or have moved, the scope of the research will be limited to the time it was operational in Metropolitan New York. Geographic areas outside of Metropolitan New York including a small sample of International locations will be included as part of the study in order to back any Metropolitan New York findings.

Another limitation is the difficulty in separating a local business from a global or national parent business to identify the local benefit. For the purposes of this study, any identified purchase or service contracted with a national or global company (such as a national chain store) will only be considered to be local- if the vendor/facility has a local presence that is engaged as part of the business transaction (i.e. a national manufacturing company with a local office in Brooklyn that was engaged to create a prototype).

“All or Nothing”: The Kickstarter crowdfunding policy whereby a project must be funded 100% before any raised funds are released. If the 100% threshold is not reached for a project, funding is not dispersed to the project sponsor or Creator and all pledged funding is returned to the backers.

“Backers”: The individuals who pledge money toward a project on the crowdfunding site. They can alternatively be known as investors if they are providing money towards a crowdfunding site that provides equity in return for their financial contribution.

“Credit/Debt Based crowdfunding”: A type of crowdfunding where business and project sponsors seek funding in the forms of loans with specific interest and terms to repay the loans. The loans to the sponsors are made by individuals looking to receive a financial return on their investment. Examples are prosper.com and lendingclub.com

“Donation Based crowdfunding”: A type of crowdfunding where individuals pledge donations towards the success of a cause. The range of causes can be extremely varied from research toward the advancement of a cure for Alzheimer’s, to individuals looking to take a second honeymoon. Examples are gofundme.com and crowdrise.com

“Crowdfunding”: A funding mechanism typically leveraging a technology based Internet platform where people provide monetary contributions in order to fund a project or initiative. crowdfunding categories include Credit, Donation, Reward and Equity based crowdfunding.

“Creator”: The person or team responsible for initiating the project. They can also be known as the project sponsor. It is their idea that drives the creation of the project on the crowdfunding platform.

“Equity Based crowdfunding”: Investors provide monetary contributions in return for shares or equity in the company or product. Funds are typically solicited via sites such as crowdfunder.com and angellist.com.

“Reward Based crowdfunding”: Incentives from a Creator that are provided to backers once the project successfully reaches its targeted funding. The incentives are not equity based and the backers have no ownership claims to the project. Examples are Kickstarter.com and Indiegogo.com.

Chapter III

Crowdfunding Research Data

An account and profile was setup on Kickstarter.com to collect the names and contact information for projects that were identified for the research. Initially, the Kickstarter messaging system was leveraged to reach out to Kickstarter campaigns. As a result of reaching out to Kickstarter campaigns through the Kickstarter messaging system, the account was flagged as a spamming account and frozen. Upon guarantees that the no further messages would be sent through Kickstarter, the account was re-activated.

As the internal Kickstarter messaging system could no longer be leveraged, contact information was researched for each campaign and identified through product and company websites as well as corporate and founder Facebook accounts and emails. A Facebook account was created to facilitate contact with Kickstarter project representatives via Facebook Messenger. New requests for interviews with Kickstarter campaign representatives from the Technology and Design Kickstarter categories were initiated and over two hundred total requests were sent. Additional follow up communications including phone calls, emails and instant messages were also sent out. A number of project representatives initially responded to the interview requests and in some cases scheduled interviews before becoming unresponsive or terminating communication. Additionally, a number of Kickstarter campaigns were listed as based in New York on the Kickstarter campaign page when in fact they were based elsewhere.

Ultimately, fourteen interviews were conducted with nine Kickstarter projects based in New York State. Eight projects were based in Metropolitan New York and one in Upstate New York (Troy). Two additional projects were US based with one based in California, and one based in Tennessee. Three international projects including one in Canada, one in France and one in Argentina were also included as part of the study.

The interview questions leveraged were:

1. What is the name of the Kickstarter project and Creator(s)?
2. What was the total project funding amount raised during the Kickstarter campaign and what main category was the project listed under on Kickstarter.com?
3. What U.S. city or town is the Kickstarter project currently or most recently based out of?
4. How long did it take from formulating the project idea to the start of the Kickstarter campaign?
5. How many estimated workers and volunteers were involved with the Kickstarter project from the idea stage to the current or last active state?
6. How many estimated days were spent working on the Kickstarter project from the idea stage to the current or last active state (assuming an 8-hour work day)?
7. What is the current status of the Kickstarter project?
8. What is the estimate of total sales for the project after the end of the Kickstarter campaign? (in U.S. Dollars)
9. What is the estimated yearly amount spent on local advertising for the Kickstarter project? (in U.S. Dollars)
10. How many square feet of office space have been locally rented or leased for the Kickstarter project?
11. Outside of any Kickstarter campaign funding, what other funding types have been leveraged for the Kickstarter project?
12. What is the estimated percentage that the Non-Kickstarter funding accounts for as part of the total project funding?
13. What is the total estimated value of donated goods, services and money from the project team or business created for the project to local charities, educational institutions and Not for Profit organizations since the end of the Kickstarter campaign?
14. Have members of the project team or business created for the project volunteered time to local charities, educational institutions and Not for Profit organizations since the end of the Kickstarter campaign?

15. Is the project team or business created for the project currently a member of any local civic groups or business organizations and does it network with local businesses or other local Kickstarter projects?

16. Were any local products or services spawned as a result of the Kickstarter project?

17. Does the project team or business created for the project leverage other local businesses for goods and services?

18. How many estimated products, licensing agreements, patents and trademarks have been developed as a result of the Kickstarter project?

19. Was a U.S. company created as a result of or to support the Kickstarter project?

The first interview conducted was with Axel Audio's Kickstarter project titled:

Modular headphone with a difference: Soundscapes. The Kickstarter campaign description states: “Personalized Sound. Soundscapes are specifically engineered speaker units designed to match your unique taste. While our headphones all share the same exterior design, the difference between each Soundscape comes down to inner engineering. Based on your listening preferences, you can choose a Soundscape that will reproduce your favorite type of music with the best possible sound. Currently, we have three Soundscapes—Deep, Pure, and Core”.⁸

The Kickstarter campaign raised \$201,169 from 678 backers and was categorized within the Sound category. The funding goal for the campaign was \$180,000 and the funding period was thirty-five days, from Apr 28 2015 - Jun 2 2015. The Axel Audio Kickstarter campaign page shows the company as being based out of New York, NY. The company has a New York City office, a Port Washington, NY office and a warehouse

⁸ Kickstarter website. "Kickstarter campaign site." [kickstarter.com
https://www.kickstarter.com/projects/152157481/axel-modular-headphones-with-a-difference-soundsca/description](https://www.kickstarter.com/projects/152157481/axel-modular-headphones-with-a-difference-soundsca/description)

location in Old Westbury, NY. The Kickstarter Creator and Founder for the Axel Modular Headphone is Sam Oh.

Sam Oh's daughter, Samantha Oh is currently the Creative Director for Axel and the interview was conducted with her on February 25, 2016 via a phone call. The interview was originally scheduled to be in person interview but that was changed due to possible storm damage to Axel's warehouse the morning of the interview. In order to move the campaign forward, Axel enlisted the help of a crowdfunding campaign management company- Vann Alexandra. Vann Alexandra's website states that they have a 100% crowdfunding funding success rate in managing campaigns.⁹

The idea for the project was developed by Sam Oh an estimated two years and three months prior to the launch of the Kickstarter campaign and he began prototyping the product before the formal launch of the Kickstarter campaign as well as developing a patent and launching a US based company. Ten to fifteen non paid family members were involved with Axel as well as nine paid staffers (four-part time and five full time) during and right after the campaign. Currently there are four to five full time employees at any given time with Axel that help oversee approximately \$50,000 in sales since the end of the Kickstarter campaign. Office space in Port Washington, NY currently occupies approximately 1400 sq. ft. with inventory occupying 1600 sq. ft. in the basement of the family home in Old Westbury, NY. The headphones were manufactured and are currently being sold with the product lines expanding to meet demand despite having no local

⁹ Vann Alexandra Website. "Vann Alexandra Services." vannalexandra.com
<https://vannalexandra.com/#services>

advertising. Most recently Axel developed a new white colored over ear headphone as well as six color inserts.

The raised Kickstarter funding accounted for about 40% of the total funding for Axel with the other funding deriving from personal savings and family loans. The Axel team has invested in their local community donating approximately \$1,300 in goods and services to the local charities as well volunteering with after school programs at MS 577 in New York City. In addition to volunteering time as individuals, Axel has also networked with other local Kickstarter businesses such as Priority Bicycles that launched their campaign: Maintenance-Free Bicycles that Make Cycling Easy and raised \$556,286.

The majority of goods and services are handled locally with some being handled by local family friends including a small local printer. Distribution is also handled by a local company that is owned by family friends. They also run events to showcase the product in New York City including three events during the campaign.

The second interview was conducted with ADV.SOUND's Kickstarter project titled: M4 : Earphones for Musicians. The Kickstarter site states: "Naturally tuned, extremely durable, audiophile in-ear monitors designed for musicians. M4 is powered by a custom-tuned single dynamic driver. Emphasized midrange brings out the details. Lifelike instrument separation. Tightly controlled sub-bass with minimal bleed. Laid back treble for comfortable listening. Features include a lightweight durable vented-design, never tangle braided cable, built in remote/mic, music playback, answer phone calls".¹⁰

¹⁰ Kickstarter website. "Kickstarter campaign site." [kickstarter.com
https://www.kickstarter.com/projects/991035804/m4-earphones-for-musicians/description](https://www.kickstarter.com/projects/991035804/m4-earphones-for-musicians/description)

The Kickstarter campaign raised \$56,654 from 1,072 backers with an original funding goal of \$7,000. The Kickstarter funding period lasted thirty days from September 29, 2015- October 29, 2015 and was categorized under the Kickstarter Sound category. The M5 Earphones project is based out of Brooklyn in New York City and the Kickstarter Creators are Peter Yoon, Giuseppe Massara and Alex Duncan. In addition to the Kickstarter campaign, ADV.SOUND also launched a parallel crowdfunding campaign on Kickstarter competitor Indiegogo where \$79,029 was raised. A total of \$135,6983 was raised in crowdfunding pledges across Kickstarter and Indiegogo.

The interview was conducted via email with Peter Yoon as the principal contact. The idea for the M4 earphones took about eight months from the formulation of the idea to the start of the Kickstarter campaign. During that period there were five workers involved with the project. Included in the five workers were the three Creators- Peter Yoon, Giuseppe Massara and Alex Duncan. The total estimated number of days spent working on the Kickstarter project was about ninety days with full focus from the Creators.

The Kickstarter project completed its initial production run and delivered on all rewards to the supporters. Currently, ADV.SOUND is producing the second production batch of the M4 earphones expected later in 2016. The office space currently used is in Peter Yoon's basement comprising a total of about 500 sq. ft. The project is not yet profitable, with all Kickstarter funding raised used on the

development and production of the M4 earphones with no additional outside funding. Local advertising was limited to a trial test costing \$50 on Facebook.

The ADV. SOUND company was created and incorporated in New York as a result of the M4 earphone Kickstarter campaign. As the company's Kickstarter campaign recently ended at the end of October 2015, there have been no donations of goods, services or money to philanthropic organizations yet. When asked about donating services, good or money, Peter Yoon stated "None yet. Hopefully in the future when the business starts generating profit". Additionally, ADV. SOUND is not currently part of any local networking, civic or local business organizations.

ADV. SOUND is currently in discussions with local indie musicians to cross promote the M4 earphone product. Additionally, one of the Creators- Giuseppe Massara is in discussions with local musicians in Vicenza, Italy around cross promotions. No patents or trademarks have been filed, though ADV.SOUND is developing a new high resolution wireless speaker product and expecting to launch a new crowdfunding campaign on Indiegogo.

The third interview was conducted with Matter and Form's Bevel 3D product featured on Kickstarter. The Kickstarter campaign site states: "Photograph in 3D using this simple and easy to use attachment for your smartphone or tablet. Bevel is the world's first attachment capable of capturing real 3D photographs on any smartphone or tablet. Other 3D attachments create the illusion of 3D by enhancing the depth of an image, but fail to capture a file that you can actually use. You can even use Bevel for 3D printing. That's why we call it Genuine 3D™ photography. Bevel uses an eye safe laser

light, and the existing camera on your Android or IOS device, to capture photographs in a whole new dimension".¹¹

The Kickstarter campaign raised \$303,292 from 4,148 backers with an initial Kickstarter funding goal of \$200,000. The funding period lasted thirty-one days from July 26, 2015 - Aug 26, 2015 and was listed under the “Gadgets” category in Kickstarter. The Bevel 3D product was developed by the company Matter and Form, that is incorporated in the United States and based in Toronto, Canada. In addition to a successful Kickstarter campaign, the Bevel 3D product was named as an International Consumer Electronics Show (CES) 2016 Innovation Awards Honoree in the Digital Imaging category. A May 2013 crowdfunding campaign by Matter and Form on Indiegogo.com for a 3D Desktop Scanner, raised \$472,570 CAD (approximately \$363,183.24 USD as of 3/20/16).

The interview was conducted via a call with Drew Cox, the CEO of Matter and Form and one of the Creators of the Kickstarter Bevel campaign. The idea for Bevel 3D came about a year and a half ago with actual work on the project taking about a year. As a result of their first successful crowdfunding initiative with the 3D Desktop Scanner on Indiegogo.com, a necessity arose to develop a mobile 3D product. Mr. Cox stated “There were however breakthroughs needed first with software in order to make the Bevel a viable product. The software breakthroughs needed were primarily around computational processing loads as they related to mobile devices”. Approximately six months before

¹¹ Kickstarter website. "Kickstarter campaign site." [kickstarter.com
https://www.kickstarter.com/projects/matterandform/bevel-3d-photography-for-any-smartphone-or-tablet](https://www.kickstarter.com/projects/matterandform/bevel-3d-photography-for-any-smartphone-or-tablet)

the launch of the Kickstarter campaign, the breakthroughs were realized and Matter and Form began full prototyping and video development for Bevel 3D.

The Kickstarter website lists the Bevel 3D campaign as based out of New York, NY though the main office and all current employees are currently based in Toronto. Matter and Form utilizes seven warehouses across the world including two in the United States (Los Angeles and New York) and two in Canada for its products. 1.5 workers (one full time and one shared) worked on the Bevel 3D project during the first six months. Once the software breakthroughs were achieved, the staffing was ramped up to thirteen full time workers until the start of the Kickstarter campaign. A total of two volunteers including Mr. Cox's wife also assisted with Bevel. Once the campaign was completed, the staffing model was re-organized with a focus away from engineering and more toward customer service leading to a net of ten workers remaining today.

As of March 2016, the Bevel 3D product is expected to be in full production in three to four months. Before going to full production, additional revisions are needed around tooling and the app will need to be sent out to customers. Bevel can be pre-ordered directly on matterandform.net as well as on Indiegogo.com. Current pre-order sales are about \$50,000 with no money spent on local advertising though there were two articles in a local Toronto newspaper. All advertising is done via earned media. As a result of having launched a previous campaign on Indiegogo.com, the [Indiegogo](http://Indiegogo.com) platform allows future products on other crowdfunding sites to be sold on their site.

Matter and Form is currently leasing approximately 1700 sq. ft. for its main office. While there is no specific breakdown of square footage attributable as a result of the Bevel 3D product, the company will be moving in the next couple of months to a slightly larger, quieter and more usable space probably in Toronto. In addition to a larger office, one of the drivers for the move is the evolution of the company from a focus on prototyping, cutting resins and working with plastics to one with less dependencies on those tasks. Matter and Form is currently considering opening satellite sites in the U.S. and Europe with no dates set as of March 2016.

In addition to funding raised on Kickstarter and previous funding raised through Indiegogo, Matter and Form raised \$2M in outside investor funding before the launch of Bevel 3D. No personal money or loans were used for the Bevel 3D product, though Mr. Cox did invest \$20,000 of his savings in developing the 3D Desktop Scanner. 75% of the funding raised on Kickstarter was used directly on the Bevel 3D project with approximately \$20-\$30,000 of company money used to launch the Bevel 3D Kickstarter campaign (before any funding was raised on Kickstarter). Specific to the Kickstarter campaign, Mr. Cox stated: “If we were not successful with the Kickstarter campaign, we would have stopped the project”.

Matter and Form is part of the MaRS Discovery District that is sponsored by the Canadian government and based locally in Toronto. The MaRS website describes their mission as “Located in the heart of Canada’s largest and the world’s most diverse city, MaRS is uniquely placed to lead change. We bring together educators, researchers, social scientists, entrepreneurs and business experts under one roof. Founded by civic leaders,

we have a mission that is equal parts public and private — an entrepreneurial venture designed to bridge the gap between what people need and what governments can provide”.¹² In addition to the MaRS group, Matter and Form is part of the Consumer Technology Association that runs the yearly Consumer Electronics Show (CES).

In cooperation with MaRS and through general local networking, Matter and Form has assisted other local companies and individuals seeking information on launching or developing a startup as well as Matter and Form products including the Bevel 3D. Currently, one of the MaRS referred startups sublets office space from Matter and Form. In addition to providing support to local companies, Matter and Form has sponsored or been involved with thirty to thirty-five unpaid industry conferences/talks over the last two to three years to support and foster entrepreneurial growth. Matter and Form is also an honorary Hackerspace member and participates in pro-bono discussions with a Legal Not-For-Profit group in Toronto called TIPG. While the Bevel 3D product has not been released, Matter and Form sponsors free local school shows and demos on 3D technology for their Desktop Scanner product. They would expect to follow a similar route with the Bevel 3D product.

The total cost of donated goods and services to charities, educational institutions and Not-For-Profit organizations are not currently directly tracked. However, Matter and Form offers a 20% discount to educational institutions that purchase their 3D scanner product and will offer a discount as well for their Bevel 3D product when released.

¹² MaRS website. "MaRS about site." marsdd.com
<https://www.marsdd.com/about/story>

Several small local companies are using the Bevel 3D product as a use case to further develop their own products. Local companies are also used extensively for goods and services including local printing, Hacklab hires to assist with software development, local grocers and restaurants to supply food to the staff, local law firms, local computer vendors, local office suppliers, local shipping companies as well as team events and conferences handled by local vendors.

The Bevel 3D product has a trademarked moniker “Genuine 3D” and five to ten patents have been filed. There are licensing agreements in discussion, though no additional information can be shared due to confidentiality agreements. While Matter and Form is primarily a Canadian company, it is incorporated in the United States.

The fourth interview was conducted with Lima, The Brain of Your Devices. Lima is a device used to securely store electronic data across devices and was categorized as a technology project. Lima’s Kickstarter campaign site states: “Lima reinvents the way your devices store data. Find the same files everywhere. Forget size limits. Keep your content private. Today, most people have files everywhere. They have one content, but multiple devices. So they spend a lot of time just figuring out where are their documents. And they keep moving their files to-and-from tiny Cloud folders. So we decided to solve this problem, from its root. We redesigned the way your devices store data, from the ground up. And we’ve built Lima. With Lima, your devices work as a group. They all

contain exactly the same files. Just like if they were one single, unique device. Play with exactly the same content at all times, no matter that device you're using".¹³

The Lima product raised \$1,229,074 from 12,840 backers via Kickstarter and the parent company- CGC is a US based company that was created for Lima. The Kickstarter campaign lasted sixty days from July 10, 2013 - September 8, 2013 with a funding goal of \$69,000 that consisted of a minimum total order of 1000 units. CSC is actually based in Paris, France, though they are expanding operations and opening a US based office in California in 2016. The interview with CSC was conducted via video conference (Skype) with Penelope Liot, the Growth Manager with CSC and for Lima.

The Lima idea was developed by Severin Marcombes and Gawen Arab-Laffon two years prior to the launch of the Kickstater campaign. Approximately a year and a half was spent developing the product between marketing and technology tasks. There were no additional employees involved with the product up to the launch of the Kickstarter campaign. As of April 2016, there are twenty-eight employees based in France with an additional five based in Madagascar. Penelope Liot is currently planning on moving to California to facilitate the opening of a CSC office in San Francisco, CA in May 2016 and expecting to hire ten employees.

Approximately one year was spent focused on the Kickstarter campaign by the founders. Critically important during this time period was the development of a robust email list ahead of the campaign launch according to Ms. Liot. As of April 2016, the

¹³ Kickstarter website. "Kickstarter campaign site." [kickstarter.com
https://www.kickstarter.com/projects/cloud-guys/plug-the-brain-of-your-devices](https://www.kickstarter.com/projects/cloud-guys/plug-the-brain-of-your-devices)

hardware component of the Lima product was completed and shipped to campaign backers though the software component continues to be worked on and further developed. No local advertising was leveraged for the Lima product and total sales after the end of the Kickstarter campaign were approximately \$15,000. Sales are currently handled through the meetlima.com website.

CSC currently leases 1938 sq. ft. (180 Meters) of office space in Paris and is currently looking for larger office space within Paris. In addition to the office space in Paris, CSC has two warehouses, one in the United States and one in France. In order to fund the Lima product development and expansion, CSC has leveraged 0% interest loans from the French Public Investment Bank (amount was undisclosed) as well as raising \$2.5M in Series A venture funding. The Kickstarter funding accounts for approximately one third of the total Lima funding raised as of April 2016.

As a result of the success of the Lima Kickstarter campaign, numerous entrepreneurs and other organizations have sought to network with Lima, especially French based companies. While CSC has not provided direct funding to Not-For-Profits or charities, they have been involved with mentoring other companies and entrepreneurs at no cost. Additionally, Lima has been involved in event sharing and helped launch a French collective known as French Xmas (<http://frenchxmas.com>) comprised of over two hundred French startups showcasing their technology. Additionally, CSC is a member of the Hardware Club (<http://hardwareclub.co>), an organization created to help technology hardware startups build and grow.

The Lima product has also served as an example of successful crowdfunding to other startups while according to Ms. Liot, has also led to French criticism for using the US based Kickstarter platform rather a French based platform. Ms. Liot has countered that the Lima product leveraged a US based crowdfunding platform that has led to local French job generation and the procurement of other local services and products on everything from food to basic services.

The fifth interview was conducted with BioLite BaseCamp Stove. The BioLite BaseCamp Stove Kickstarter project is for a product that has enabled the production of electricity by using a thermoelectric generator built into a wood burning stove. The BioLite BaseCamp Stove Kickstarter campaign site states: “Cooking with wood has never been smarter - get all the flavor and fun of a wood fire, without the smoke. Grill or boil at the flip of a switch - meet all your cooking needs seamlessly. Bring portable power to your backyard or campsite - we turn wood into electricity. You read that right. The BioLite BaseCamp is a complete off-grid cooking and energy solution for groups, powered by wood. Using only fallen branches or small pieces of firewood, you can make wood-fired meals and charge your devices all at the same time. It's a smart alternative to fossil-fueled stoves, creating an elevated cooking fire that burns smarter than any campfire you're used to”.¹⁴

The BioLite BaseCamp Kickstater campaign raised \$1,032,443 through 3,783 backers with an initial goal of \$45,000 and is based in Brooklyn, NY. The funding period

¹⁴ Kickstarter website. "Kickstarter campaign site." [kickstarter.com https://www.kickstarter.com/projects/biolite/biolite-basecamp-stove-turn-fire-into-electricity](https://www.kickstarter.com/projects/biolite/biolite-basecamp-stove-turn-fire-into-electricity)

lasted thirty-two days from May 14, 2014 - June 15, 2014. The Kickstarter founders are Alec Drummond and Jonathan Cedar and the project was listed under the Kickstarter Technology category. The BaseCamp stove partially evolved from another product known as the CampStove that had been originally developed by Biolite in 2009. BaseCamp leverages non US based manufacturing and has a distribution center in California. Total employees number approximately seventy-five to eighty with thirty-five to forty based in Brooklyn and the remainder based in Uganda and Kenya.

The interview on the BaseCamp Kickstarter campaign was conducted via a call with Hayley Samuelson who is the Content & Community Manager at Biolite. Mrs. Hayley stated that it was difficult to specify the amount of time that it took to formulate the BaseCamp idea given the previous CampStove product had already been developed. She did state however that it took about two years to develop the BaseCamp product with the use of full time employees- no volunteers were leveraged. The idea for the BaseCamp was finalized in 2012 and Biolite at the time had approximately twenty employees. As of April 2016, the BaseCamp is being fully manufactured though the sales numbers are kept confidential. No local advertising was leveraged for the BaseCamp though earned media and online advertising is leveraged.

Biolite leases office space in Brooklyn, NY though the total office space leased is not available. In addition to the funding raised in the Kickstarter campaign, Biolite has raised \$5M in Series B equity funding in addition to previous outside investment. As Biolite has a number of products, the outside investment cannot be wholly attributed to be as a result of the BaseCamp project.

Biolite is actively involved with charitable organizations around the world and Mrs. Samuelson confirmed that philanthropy work was provided directly as a result of the BaseCamp. Mrs. Samuelson did state however, that it would be difficult to quantify how much of it was the result of just the BaseCamp campaign. In addition to assisting with Hurricane Sandy through the use of charging stations for phones, lights etc. Biolite has provided speeches for students and tours/demos for day clubs and the Boy Scouts. Volunteering by the Biolite staff has also been provided at the Pratt Institute in New York City for the Design students. Additionally, Biolite is a member of the DUMBO Improvement District, a local neighborhood advocacy group and participates in a number of networking and mentoring events for other businesses and entrepreneurs.

Product enhancements and accessories are continuously being developed as a result of the BaseCamp. In addition to new generations of the BaseCamp being developed, Biolite will be releasing a product that cannot be publicly divulged until May 2016- the Pizza Dome. The Pizza Dome accessory was developed for the BaseCamp and will enable pizza to be cooked efficiently. Biolite has developed fifty issued or pending patents across their product lines including for the BaseCamp product.

While Biolite sells its products in seventy to eighty countries around the globe, a number of goods and services are procured locally in New York. Mrs. Samuelson stated that Biolite leveraged local photographers and videographers to create content for BaseCamp in addition to using local restaurants for events. Biolite also partners with other local organizations including a startup that cleans the office.

The sixth interview was conducted with THE O. THE O: Wearable + App to Never Lose or Forget Anything, was a Kickstarter project that centered on an electronic device that acts as a personal assistant through the use of a mobile app. The Kickstarter campaign page states: “Attach THE O to your most important belongings that you cannot afford to lose or to forget. The moment you are about to leave something behind the app immediately alerts you (unlike other devices that only help you to locate an item once it is lost). THE O also checks and alerts you if you leave your house without something essential for the day. THE O is the first smart accessory that acts as a comprehensive virtual personal assistant through its mobile app. THE O proactively alerts you when you’re about to leave something behind. Never again worry about your belongings”.¹⁵

THE O Kickstarter project raised \$85,000 (£55,850) from ninety-nine backers in thirty days. The funding period lasted from Sep 8, 2015 - Oct 8, 2015 and was listed under the Wearables Kickstarter category. THE O is based in New York City and the parent company is Coverton Inc. The founders for THE O are Christian Zeiler and Rose Wilson. THE O interview was conducted via email with Nina De la Cruz who is the Marketing Manager.

The idea for THE O was originally developed by Mr. Zeiler and Mrs. Wilson and took three to four months to launch the campaign via Kickstarter. Mrs. De la Cruz stated that in addition to the two founders working on the project full time, the full time equivalent of an intern was also involved. A handful of volunteers were also involved

¹⁵ Kickstarter website. "Kickstarter campaign site." [kickstarter.com
https://www.kickstarter.com/projects/owithme/the-o-wearable-app-to-never-lose-or-forget-anythin](https://www.kickstarter.com/projects/owithme/the-o-wearable-app-to-never-lose-or-forget-anythin)

with the project but limited to only a couple of hours. Mrs. De la Cruz estimates that overall preparation for the Kickstarter campaign took about 2400 total hours of work while the campaign itself required about 600 hours of work spread across the team. Product development and fulfillment activities took about 3600 hours of work total.

THE O is currently preparing to ship the devices to the backers with a minimal version of the app included as of April 2016. No local advertising was leveraged by THE O in New York. Office space leasing was limited to space sufficient for three desks in a co-working environment with other companies (approximately 100 sq. ft., under the assumption of 33 sq. ft. per desk).

In addition to the Kickstarter funding, THE O leveraged personal funding that was invested by the founders to create video and picture content for the campaign. An undisclosed amount of money was also raised through Angel investors to as Mrs. De la Cruz states: “not only deliver on the project, but actually build a company”. No additional information was provided on funding though Mrs. De la Cruz did also state: “The project could be entirely funded from the Kickstarter money, but it is usually not possible to build a team and company with that”.

The parent company for THE O- Coverton Inc. was incorporated in the US for the product and a trademark was filed for THE O. While the team at THE O does not currently donate funds or volunteer time to Not-For-Profit, charities or educational institutions due to resource constraints with the project, they are exploring mentoring and partnership opportunities with a local educational institution. Mrs. De la Cruz stated: “We are loosely partnering with a local university and exploring opportunities for

collaboration. And we are always interested to assess opportunities for mutually beneficial relationships”.

THE O team considers the product to be a local product despite the fact that manufacturing is done overseas. Mrs. De la Cruz states: “While manufactured in the far east, we consider the product itself local - concept, design and mobile application stem from here”. In addition, local businesses are leveraged for goods and services as needed.

The seventh interview was conducted with Light Phone. The Light Phone Kickstarter project was a product developed to be able to have basic mobile communication functionality without having to carry your existing cellphone. The Light Phone website states: “The Light Phone- Your phone away from phone. Light is a slim, credit card-sized phone that works with your existing phone. Light enables simple contact without unwanted rings, dings, and pings”.¹⁶

The Light Phone Kickstarter campaign raised \$415,127 from 3,187 backers and lasted forty-five days between the funding period of May 13, 2015 - Jun 27, 2015. The Light Phone was listed under the Kickstarter category Product Design and was created by two founders- Joe Hollier and Kai Tang. The interview was conducted over the phone with Joe Hollier.

Mr. Hollier developed the idea for the Light Phone as part of a Google incubator thirty-week program in New York City where the goal was to see if designers could start companies if provided the guidance and mentorship needed. The focus was on creating

¹⁶ Light phone website. "Light phone main site." [lightphone.com](https://thelightphone.com)
<https://thelightphone.com>

apps but Mr. Hollier stated that “he revolted and developed the Light Phone idea”. He also stated that he “moved away from developing funding based (innovation) to solving a problem for the greater good... This was bigger than monetary reasons and was more about making a tangible difference.”. As Google partnered with Design schools, he met Mr. Tang shortly after joining the program. Kai’s experience in the Mobile device space along with Joe’s experience with a graphic design background created the ideal synergy for the Light Phone product.

The development of the Light Phone took about 1.5 years of full time work by the founders and is currently based out of Brooklyn (Bushwick), New York from previously being based in Manhattan. In the early stages through the launch of the Kickstarter campaign, a number of volunteers- mostly friends also assisted with the Light Phone. In addition to the volunteers, Mr. Hollier and Mr. Tang leveraged the expertise of four part-time engineers, a front end developer and two advisors. Currently, Mr. Tang and Mr. Hollier are working on the project full time while a new CTO and a front end developer are working on the product on a part time basis. The two advisors are also working on the project part time and are being compensated through equity stock. On the manufacturing side in Taipei, Taiwan, there are between fifty to sixty workers actively engaged with the project.

The Light Phone is on target for a June 2016 delivery to Kickstarter backers and pre-sales purchasers who purchased the Light Phone through the Light Phone website. A total of 5000 phones were ordered with about 1400-1500 purchased through sales on the website while the remaining orders were as a result of the Kickstarter campaign. No

advertising was done locally to promote the product. The marketing of the Light Phone was limited to word of mouth or press articles.

Currently, the Light Phone team leases about 60 sq. ft. in Brooklyn to support two desks. Initial funding for the development of the Light Phone was through credit card lines of credit as well as some personal savings. In addition to the Kickstarter funding, \$2.4M was raised through their manufacturing partner in Taiwan. The \$2.4M encompasses both cash as well as work in lieu of cash by the manufacturer.

The Light Phone team is involved with both local and global philanthropic causes including working on improving working conditions in Taiwan and working to provide free phones with the homeless in New York. In Taiwan, they have worked with their manufacturing partner to personally buy better gas masks for the assembly line in order to exceed the Taiwan work environment standards. They have also worked to increase pay for the workers. Mr. Hollier stated: “Our goal is to change how businesses interact with workers”. Formally, the Light Phone team is also part of the Paris based Hardware club.

A US based company was created to support all of the Light Phone activities and currently has one patent pending. According to Mr. Hollier, there is a significant opportunity for local companies and entrepreneurs to develop accessories for the Light Phone. As an example, Mr. Hollier discussed the not yet released pouch that will be released for the Light Phone later in 2016. In addition to the opportunities that are spawning from the Light Phone, Mr. Hollier re-iterated his support for the local businesses and communities. In addition to leasing local space, the Light Phone team

leverages local legal services, local restaurants and local print shops in addition to other local goods and services.

The eighth interview was conducted with an Anonymous Project. A Kickstarter project based in Brooklyn, NY agreed to participate in the study and be interviewed but requested that they remain anonymous. The project was listed under the Kickstarter Project Design and the interview was conducted with a representative of the company. The product is able to provide lighting and device charging through the use of renewable energy. The idea was originally formulated during Hurricane Sandy as a way to provide backup lighting and still be able to communicate with loved ones. A prototype was developed and the Kickstarter campaign was launched in 2015. One of the challenges that was raised during development was how to make the device waterproof.

A total of ten people were involved with the Kickstarter project with the bulk of the work being completed by five alternating paid staff members. At any given time, three staff members were dedicated to the project for a year working on marketing and design. An additional five other volunteers assisted with the project video creation and acted as extras for the videos. No additional volunteers or full time staff were used.

The project is in manufacturing with fulfillment completed for the first Kickstarter backers. The team is waiting on the last production run to arrive via ocean freight by early May 2016 to provide the devices to the remaining Kickstarter backers. Pre-sale of the device is being offered via the company website though there have been no new sales deriving from the website as of yet.

The funding raised during the Kickstarter accounts for all of the product funding and no external funding has been raised as of yet. Approximately 200 sq. ft. of office space has been leased and a warehouse in New Jersey is rented for deliveries. The total amount of donated goods, services and money is hard to calculate though about 160 devices were donated as part of the Kickstarter campaign. The donations were part of a buy one, give one promotion and were donated both locally as well as around the world. Currently the team has partnered with a company in Central America to work with needy communities in order to setup the devices.

In addition to donating devices, the team is extensively involved with supporting local businesses in New York. Office space is currently part of a co-working space in Brooklyn and the team leverages local businesses for hardware, shipping, printing as well food, especially coffee. They have participated in outdoor events for NYC retailers including the OutdoorFest NYC, have donated goods for emergencies and participated in mentorship talks with other companies. As a result of the Kickstarter project, new generations and designs are being formulated for the device though no trademarks or patents have been submitted as of April 2016.

The ninth interview was conducted with Gi FlyBike. The Gi FlyBike is an electric bicycle that can be folded up in one second. The Kickstarter campaign site states: “We built Gi FlyBike in the pursuit of one big idea: to transform the way millions of people commute around the world. Gi FlyBike is an electric, smart, maintenance-free, folding bicycle with full size, 26” wheels that we created for the future of urban commuting. Crafted from ultra-lightweight aircraft grade aluminum, Gi FlyBike can be

taken anywhere—bus, train, office, elevator, or locker—without compromise. Gi FlyBike gives people exactly what they need. Freedom to ride without excess or restraint”.¹⁷

The Gi FlyBike was founded by Lucas Toledo who is the current CEO based in Cordoba Argentina, August Augustinoy who is the CTO based in Cordoba & Eric Sevilla who is the current CFO based in New York. Gi FlyBike raised \$426,980 from 311 backers during the funding period that lasted thirty-five days from Sep 29, 2015 - Nov 3, 2015. The product is listed under the Kickstarter Product Design category. The Kickstarter campaign page shows Gi FlyBike being based out of New York. However, the project is actually based out of Cordoba, Argentina though a US company- Bignay Inc. that was incorporated in Delaware to support the Kickstarter product and campaign.

The interview with Gi FlyBike was conducted with Gabriel Nudel who is the Director of Communications. Mr. Nudel is also the first hire for Gi FlyBike and was previously based in Connecticut. Mr. Nudel moved to Cordoba about two years ago and is currently working out of the Cordoba office. Gi FlyBike currently has eight employees in Cordoba including Mr. Nudel and one in New York.

Gi FlyBike leases approximately 200-250 sq. ft. of leased space in Cordoba but is part of a co-working space that includes additional shared space. Gi FlyBike also leverages Amazon fulfillment with distributors in Europe and the US. All software is developed in Cordoba but manufacturing for the Bicycle is done in China. Mr. Nudel stated that the politics of Argentina have made it extremely difficult to affordably

¹⁷ Kickstarter website. "Kickstarter campaign site." [kickstarter.com
https://www.kickstarter.com/projects/227461008/gi-flybike-the-first-electric-bike-that-folds-in-o](https://www.kickstarter.com/projects/227461008/gi-flybike-the-first-electric-bike-that-folds-in-o)

manufacture the bicycle in Argentina due in part to existing import and export laws. Mr. Nudel feels that this may change with the current president of Argentina- Mauricio Macri who Mr. Nudel feels is more business friendly to startups and entrepreneurs. Mr. Nudel also stated that Argentina President Macri had requested a Gi FlyBike to present to US President Obama on his recent visit, but one was unfortunately not available at the time.

The period from the when the idea was formulated to the start of the Kickstarter campaign was about 3.5 years of full time work for the founders with limited help from volunteers. A previous crowdfunding campaign was unsuccessful, though a number of improvements were made as a result. Gi FlyBike was one of the first Cordoba based companies to successfully leverage crowdfunding and the company is paving the way for other Cordoba and Argentine startups to leverage crowdfunding by providing mentorship and advice. Mr. Toledo is actively involved with several Cordoba entrepreneurs in advising their companies at no cost. Free talks are given by the Gi FlyBike team on a regular basis and the team participates in local events and networking. The Gi FlyBike team also shares their existing network with other entrepreneurs and there is even another Cordoba based startup on Kickstarter showcasing a Smart Desk.

Gi FlyBike actively focuses on using local goods and services whenever possible including the use of an Attorney and Accountant. Despite full manufacturing being done overseas, prototyping, 3D printing and machine parts are still done locally. Almost all purchases including food, Wi-Fi service and cell phones are local. Educational services including English lessons and digital marketing training are also done locally. Business taxes are also paid to the local government. Mr. Nudel stated they will at times promote

the bicycle around Cordoba and despite the fact that few people can afford it, it gives the residents a sense of pride that a globally known product was created in Cordoba.

A number of volunteers were involved with Gi FlyBike and at times they were paid as contractors. A video is being shot in May and Gi FlyBike is leveraging the Film Department and students at the National University of Cordoba. Gi FlyBike networks with other local businesses and is currently part of the Hackers and Founders Cordoba, as well as Startup Cordoba and several Facebook groups in Cordoba. The bicycle folding mechanism is patent pending in the US and GiFly is trademarked in the US as well.

Product testing is expected by June 2016 and if the tests are successful, mass production can begin shortly after. The company is at a critical juncture with manufacturing and the timelines should be more concrete in May 2016. A total of \$706,294 has been raised through Kickstater and pre-sales on the crowdfunding site Indiegogo with no local advertising. In addition to the funding raised through Kickstarter and pre-sales on Indiegogo.com, \$1.5M was raised in Angel investment. An additional \$50,000 Argentine pesos (roughly \$4,000USD) was also won in a government Entrepreneur competition in Cordoba. \$100,000 was leveraged across the founders for the prototype before the Kickstarter campaign through personal savings and loans from parents. The founders also sold computers and cars in order to pay for prototyping costs.

The tenth interview was conducted with Artiphon INSTRUMENT 1. The Artiphon INSTRUMENT 1 allows any instrument to play on a single device connected to your mobile device, tablet, phone or computer. The Artiphon INSTRUMENT 1 Kickstarter campaign site states: “Strum a guitar, bow a violin, tap a piano, loop a beat –

on a single instrument. An intuitive way to create music and play any sound. Play any instrument, style, and sound with a single device that connects directly to your smartphone, tablet, or computer. Our patented multi-instrument technology transforms the INSTRUMENT 1 into a guitar, violin, bass, piano, drum machine...it's any instrument you want it to be. Plug in and play 100's of apps like GarageBand with universal musical gestures: strumming, tapping, bowing, sliding, and more. Digital string-like interface works with any MIDI-compatible software".¹⁸

The Artiphon INSTRUMENT 1 raised \$1,319,672 from 3,391 backers during the forty-day funding period between March 3, 2015 - Apr 12, 2015. The product was listed under the Kickstarter Hardware category and was designed and engineered in Nashville, Tennessee. Jacob Gordon and Mike Butera are Co-founders of Artiphon and a US based company was created to support the Artiphon activities. The interview was conducted via a call with Jacob Gordon who is also the Artiphon CMO.

The idea for the Artiphon INSTRUMENT 1 originated several years ago with the first prototype being put together four years ago. The first year the project was worked on part time and the following three years the project was worked on full time. Mr. Gordon stated it would be difficult to estimate how many volunteers worked on the project since the idea stage. "A lot of folks.. scrappy.. contractors, pro bonos... hard to estimate". However, at the time of the Kickstarter campaign, there were eight people and an additional ten who volunteered. Currently there are nine people in the national office in

¹⁸ Kickstarter website. "Kickstarter campaign site." [kickstarter.com
https://www.kickstarter.com/projects/artiphon/introducing-the-artiphon-instrument-1](https://www.kickstarter.com/projects/artiphon/introducing-the-artiphon-instrument-1)

Nashville, Tennessee, two in Los Angeles and Mr. Gordon who splits his time between New York City and Nashville.

Pre-orders for the Artiphon INSTRUMENT 1 are expected to enter into manufacturing around May 2016 with a possible shipping timeline of June 2016. No local advertising was leveraged and current sales numbers were asked to be kept confidential. In addition to the funding raised during the Kickstater campaign, an additional \$700,000 was raised in Angel Investment. Total office space leased at the time of the Kickstarter campaign was about 800 sq. ft. A year later, Artiphon has taken over the full 1800 sq. ft. of office space in Nashville.

While no monetary donations have been made directly to charitable, Not-For-Profit or educational institutions, Mr. Butera is a member of the Jump Start Foundry in Nashville that invests in or connects startups with investment for innovative products. Additionally, the founders participate in informal free discussions with other entrepreneurs and startups. Artiphon also partnered with Vanderbilt undergrad engineering students. Senior undergraduates from Vanderbilt worked on the Artiphon hardware engineering component as part of their school project.

Artiphon leverages a number of local businesses for goods and services including a local printer for business cards and signage, a local law firm for legal services as well as a local Accounting firm. Artiphon was awarded a US utility patent for their product and additional products like Tote bags and T-shirts were created through a local screen shop. While the final product is being manufactured overseas in plastic, the prototyping was done with a local wood milling company. Local food services are leveraged for events

such as the wrap-up Kickstarter party and tradeshow that are catered. Artiphon participates in the National Association of Music Merchants (NAMM) show and even built the trade show booth with a local vendor.

The eleventh interview was conducted with blink blink Creative Circuit Kits for Girls! The blink blink Creative Circuit Kits for Girls! site states: “blink blink designs Creative Circuit Kits that provide the tools to engineer DIY arts, crafts, and fashion projects with circuits, electronics, and eTextiles”.¹⁹ The blink blink Creative Circuit Kits for Girls raised \$29,012 of a \$25,000 goal and was listed under the Kickstarter DIY Electronics category. The funding period was for thirty-one days from May 17, 2015 - Jun 17, 2015. The founders were Nicole Messier, Alex Tosti and Joselyn Macdonald. As of April 2016, Ms. Macdonald was no longer involved with the project.

The interview with blink blink was conducted with Nicole Messier via a call. Mrs. Messier confirmed that blink blink is based in Long Island City in New York City and that a US based company was created to support the project. The idea was formulated two years prior to the launch of the Kickstarter campaign but work did not start on the idea until one year prior to the Kickstarter launch. Mrs. Messier worked on the project full time as part of her studies at the Parsons School of Design in New York.

A total of thirteen unpaid volunteers have been involved with blink blink from the idea to the current state outside of the founders. Three unpaid interns have also been involved. Full manufacturing is expected to begin later in 2016 and 1000 kits have been

¹⁹ Kickstarter website. "Kickstarter campaign site." [kickstarter.com
https://www.kickstarter.com/projects/65794654/blink-blink-creative-circuit-kits-for-girls](https://www.kickstarter.com/projects/65794654/blink-blink-creative-circuit-kits-for-girls)

sold or fulfilled as of April 2016. Agreements with seven retail stores are in place in addition to sales through the website. No local advertising was leveraged.

blink blink leverages about 100 sq. ft. of office space but they do not pay for the space as part of a NY program for Economic Development. No additional funding has been procured outside of the Kickstarter funding except for \$10,000 procured from New York's Next Top Makers- a local community based incubator. While blink blink has not donated money directly to local Not-For-Profits or charitable organizations, they have assisted local community organizations with numerous talks such as with the Girl Scouts. Additionally, blink blink has donated kits to about twenty schools for use by the schools for fundraising and they are informally involved with networking with other local startups and businesses. Use of local goods and services including food are limited as Mrs. Messier mentioned that she often brings her own lunch to the office.

Product development and expansion of products continues since the end of the Kickstarter campaign. Initially, the Kickstarter campaign was launched with two kits and blink blink now offers six kits. A US trademark application is in the process of being submitted and currently there are no patents associated with the blink blink products.

The twelfth interview was conducted with FlyInside FSX. The FlyInside FSX Kickstarter campaign is a software development project that integrates Virtual Reality into flight simulation. The Kickstarter campaign site states: "FlyInside places you inside the cockpit of your favorite airplanes and lets you fly! Oculus Rift support for FSX and

Prepar3D! FlyInside FSX takes Microsoft Flight Simulator X off of your monitor and into virtual reality! It's a plugin for FSX that adds Oculus Rift DK2 support".²⁰

FlyInside FSX raised \$30,350 from 479 backers during the thirty-day funding period lasting from June 30, 2015 - July 30, 2015. The founder and developer for FlyInside FSX is Dan Church with whom the interview was conducted via a call. The Kickstarter campaign launched in June 2015 and was his second attempt at raising funding through crowdfunding. Mr. Church's previous attempt to raise funding was unsuccessful. FlyInside is based in Troy, New York out of a home office and he has two business partners- one based in New York City and one based in Massachusetts.

Mr. Church spent about six months developing the software on a part time basis prior to the release of the Kickstarter campaign in addition to creating the video website. Mr. Church estimates that he spent five to twenty hours per week developing the software over the six-month time period. There were no additional workers or volunteers who assisted with the project outside of Mr. Church's wife. Mr. Church's wife assisted with the rewards for the Kickstarter backers such as fulfillment of T-shirts.

As of April 2016, the software has been released and is being sold via the FlyInside website. 1000 software packages have been sold and new versions are expected to be released later in 2016. No local advertising has been leveraged though Mr. Church has used reddit.com to promote the site. No outside funding has been leveraged

²⁰ Kickstarter website. "Kickstarter campaign site." [kickstarter.com
https://www.kickstarter.com/projects/1232710074/flyinside-fsx](https://www.kickstarter.com/projects/1232710074/flyinside-fsx)

for the project outside of minimum injections of personal cash. Mr. Church will be shifting to full time work on the project later in 2016.

FlyInside has not made any direct monetary donations to local Not-For-Profits or charitable institutions but portable setups with goggles have been used in local Veteran's homes to simulate flight via Virtual Reality. FlyInside is not currently part of any formal organizations but do participate on reddit.com. In addition to major releases being planned, FlyInside is working with research companies to review different applications of the software for possible partnerships and licensing.

Local services are leveraged if needed and an attorney in Massachusetts where Mr. Church was previously based was used. Additionally, FlyInside has filed a US patent application on the technology and a US Trademark application is pending.

The thirteenth interview was conducted with JUMP Cable by Native Union. The Jump Cable by Native Union is a Kickstarter campaign for a phone charging device. The Native Union Kickstarter site states: "best: Cable + Battery + Intelligent Circuitry = JUMP. The first charging solution that fits your lifestyle".²¹ The JUMP Cable by Native Union raised \$372,039 from an initial goal of \$40,000 during the thirty-six-day funding period lasting from January 7, 2014 - February 13, 2014. The project was listed under the Kickstarter Design category and is based out of Hermosa Beach, CA. The Kickstarter campaign was led by Arthur Maitre and Chris Place and the interview was conducted via

²¹ Kickstarter website. "Kickstarter campaign site." [kickstarter.com
https://www.kickstarter.com/projects/nativeunion/jump-the-first-charging-solution-that-fits-your-li](https://www.kickstarter.com/projects/nativeunion/jump-the-first-charging-solution-that-fits-your-li)

email with Mr. Arthur Maitre. Native Union was already a pre-existing company prior to the launch of the Kickstarter campaign.

The time from the idea stage to the start of the Kickstarter campaign for the Jump Cable took about twelve months and involved a team of ten workers and volunteers. Mr. Maitre stated that it would be hard to say how many exact days were spent working on the Kickstarter project itself from the idea stage to the current stage but estimates that it was “about sixty business days pre-launch; forty-five business days during the campaign; thirty business days after the campaign was over”.

Sales after the end of the Kickstarter campaign are estimated to be about \$200,000 from online sales and no local advertising was leveraged. No additional outside funding was raised and no specific office space was leased for the Kickstater project as the team worked from the Native Union Headquarters. There was however a room dedicated to the Kickstarter team of about 200 sq. ft.

The JUMP Cable team did not make any direct donations to Not-For-Profits or charitable organizations and were not involved with any networking or volunteering work. Additionally, the Jump Cable team and Native Union are not part of any local civic groups or business organizations. Mr. Maitre stated that they do not leverage local business in the US but do leverage local businesses in Hong Kong and China where their production partners are located.

In regards to spawning new products, Mr. Maitre stated that the “The success of the JUMP Cable spawned an entire line of charging cables for our company”. Seven

additional products were created as result of the JUMP cable. Additionally, two patents and two trademarks were files as a result of the JUMP cable.

The fourteenth interview was conducted with TRIBUTE: The Most Meaningful Gift On Earth. The Tribute Kickstarter project enables digital and online video presentations. The Kickstarter site states: "Tribute makes it easy to build beautiful, collaborative video montages that celebrate the people you care about on special occasions... Whether it is a birthday, wedding or simple thank you, we have all spent precious time, money and effort trying to find an awesome gift for the people we care about. That's why we created tribute".²²

The Tribute Kickstarter campaign raised \$34,762 from 366 backers during the funding period lasting from thirty-one days from Nov 25, 2014 - Dec 26, 2014. The project is based in Brooklyn, NY and is listed under the Kickstarter Apps category. The Founder of Tribute are Andrew Horn and Rory Petty. The interview was conducted via telephone with Andrew Horn.

The time from the idea for the Kickstarter project to the start of the Kickstarter campaign was under two months. Mr. Horn and Mr. Petty worked full time on the project along with a full time intern. Additionally, Mr. Horn identified family and friends as volunteers on the project. The project is fully available online though no sales figures were disclosed. No local advertising was leveraged for the project.

²² Kickstarter website. "Kickstarter campaign site." [kickstarter.com
https://www.kickstarter.com/projects/1761204261/tribute-the-most-meaningful-gift-on-earth](https://www.kickstarter.com/projects/1761204261/tribute-the-most-meaningful-gift-on-earth)

Currently, the team occupies approximately 400 sq. ft. of office space in Williamsburg, Brooklyn and approximately \$30,000 of personal savings was initially used. Outside Angel Investment of \$800,000 was obtained for the Tribute project. Mr. Horn confirmed a small monthly amount is donated to a local Not-For-Profit. Additionally, the Tribute team is involved with a number of organizations including the Sandbox Network, New York Tech and the Global Shapers. The Tribute team also donates to hospitals and veterans as well as other Not-For-Profits and is involved with a networking program at Virginia Tech. Additional video products are being developed and Mr. Horn confirmed that local businesses are leveraged for goods and services including food and legal counsel.

Chapter IV

Crowdfunding Data Analysis

The interview information in Table 1 describes communication methods used to setup and conduct the interview as well as the interviewee and role. The Project name is the Kickstarter project name; the Interviewee is the person with whom the interview was conducted; the Position is what the interviewee's role is with the project (i.e. Founder, Marketing Director, CEO); the Initial Contact is how communication was initially established with the project representative (i.e. website contact form, Facebook, email) and the Interview Conducted is the mechanism that was leveraged for the interview (i.e. Phone, Video Conferencing-Skype, email).

Table 1- Interview Information

Project Name	Interviewee	Position	Interview
Axel Headphones	Sam Oh	Creative Director	Telephone
ADV.SOUND M4	Peter Yoon	Co-Founder	email
Matter and Form Bevel 3D	Drew Cox	Founder/CEO	Telephone
Lima	Penelope Liot	Growth Manager	Skype
BaseCamp Stove	Hayley Samuelson	Community Manager	Telephone
THE O	Nina De la Cruz	Marketing Manager	email
Light Phone	Joe Hollier	Co-Founder	Telephone
Anonymous	Anonymous	Anonymous	Telephone
Gi FlyBike	Gabriel Nudel	Director of Communications	Skype
Artiphon INSTRUMENT 1	Jacob Gordon	Chief Marketing Office/Co- Founder	Telephone
blink blink Creative Circuit Kits	Nicole Messier	Co-Founder	Telephone
FlyInside FSX	Dan Church	Founder	Skype
JUMP Cable	Arthur Maitre	E-Commerce Manager	email
TRIBUTE	Andrew Horn	Co-Founder	Telephone

The data from Table 1 shows fourteen interview sessions with 50% (seven) of the interviews involving a Founder or Co-Founder. Eleven of the interviews were conducted either via telephone or Video Conferencing (Skype). One in-person interview was changed the morning of the interview to a phone interview by the interviewee due to possible storm damage to a warehouse. The remaining three interviews were conducted via email. One interviewee requested that the company and project name remain anonymous and is identified as “Anonymous” in the Project Name field. Any specific identifying information for the project requesting anonymity will be either left out or set to generic ranges whenever possible to limit possible identification. Additionally, other interviewees requested specific information to remain anonymous. In those cases, the information will not be included as part of this study.

Table 2- Project Category, Kickstarter Amount Raised and Location

Project Name	Project Category	Kickstarter Amount Raised	Location
Axel Headphones	Sound	\$201,169	Port Washington, NY
ADV.SOUND M4	Sound	\$56,654	Brooklyn, NY
Matter and Form Bevel 3D	Gadgets	\$303,292	Toronto, CA
Lima	Technology	\$1,229,074	Paris, France
BaseCamp Stove	Technology	\$1,032,443	Brooklyn, NY
THE O	Wearables	\$85,000	New York, NY
Light Phone	Product Design	\$415,127	Brooklyn, NY
Anonymous	Anonymous	\$50,000-\$250,000*	New York, NY
Gi FlyBike	Product Design	\$426,980	Cordoba, AR
Artiphon INSTRUMENT 1	Hardware	\$1,319,672	Nashville, TN
blink blink Creative Circuit Kits	DIY Electronics	\$29,012	Queens, NY
FlyInside FSX	Software	\$30,350	Troy, NY
JUMP Cable	Design	\$372,039	Hermosa Beach, CA
TRIBUTE	Apps	\$34,762	New York, NY

*Information was set as to a range in order to not provide specific information that could easily identify the Kickstarter project that requested to remain anonymous.

The Project Category is the Kickstarter Category for the project and may be either the Design or Technology category or corresponding subcategories. The Kickstarter

Amount Raised category is the total amount raised by the project during the Kickstarter campaign. The Location category is the principal location where the project is based out of. In several cases, the projects leverage multiple locations such as for a warehouse. The secondary locations will not be identified as part of the Location field.

The Table 2- Project Category, Kickstarter Amount Raised and Location show all projects included as part of this study to be either in the Kickstarter Technology or Design categories or subcategories. Five projects raised \$100,000 or less; five raised more than \$100,00 but less than \$600,000 and three raised more than \$600,000 but less than \$1.5M in Kickstarter funding. The anonymous project was not included in the Kickstarter funding breakdown as a result of a range being used. Nine projects were based out of New York State with eight based out of Metropolitan New York. The Metropolitan New York projects excluding the Anonymous project raised a total of \$ 1,854,167 in Kickstarter funding with an average raised of \$264,881 per project. The total funding raised across all the projects excluding the Anonymous project is \$5,535,574. Three projects were based internationally across three continents- North America, South America and Europe and the final two were US based out of California and Tennessee.

Table 3- Current Status, Idea Time and Local Advertising

Project Name	Current Status	Time from Idea to Start of Campaign	Local Paid Advertising
Axel Headphones	Active- In Production	1.5 to 2 years	No
ADV.SOUND M4	Active- In Production	8 months	No
Matter and Form Bevel 3D	Active 3-4 months away from full production	1.5 years	No
Lima	Active- Hardware in Production. Software still in Development	2 years	No
BaseCamp Stove	Active- In production	2 years	No
THE O	Active- Pre-Production	1 year. About 4 months to launch	No
Light Phone	Active- Pre-Production	8 Months	No
Anonymous	Active- Pre-Production	3 Years	No
Gi FlyBike	Active- Pre-Production	3.5 Years	No
Artiphon INSTRUMENT 1	Active- Pre-Production	4 Years	No
blink blink Creative Circuit Kits	Active- Pre-Production	1 Year	No
FlyInside FSX	Active- Production	6 Months	No
JUMP Cable	Active- Production	1 Year	No
TRIBUTE	Active- Production	1.5-2 Months	No

The Current Status category is if the project is in an Active or Inactive state and if the product is currently being fully manufactured. In cases of pending manufacturing

activities or limited manufacturing runs, the state is listed as “Pre-Production”. In cases where the product is fully being manufactured or ready for download, the state is listed as “In Production”. The Time from Idea to Start of Campaign category is the amount of time from the idea for the project to the launch of the Kickstarter campaign. The Local Paid Advertising category is if the project used traditional local advertising such as newspapers, circulars, television commercials, radio spots and billboards.

The Table 3- Current Status, Idea Time and Local Advertising shows that all fourteen projects are active with 43% (six) being in a production/manufacturing state and the remaining eight (57%) in a pre-production or mixed state between the two. Four project were developed and launched on Kickstarter in less than a year; five projects took between one to two years; three projects took two to three years and two projects took more than three years. None of the fourteen projects included as part of this study leveraged any local advertising. Of the eight Metropolitan New York projects, four of the eight are in active production.

Table 4- Project Workers involved with the project

Project Name	Local Volunteers	Total Local Paid Workers	Current Local Paid Workers	Net Gain or Loss of Paid Workers
Axel Headphones	Yes, 10-15	Yes, 9	4-5	+ 4
ADV.SOUND M4	None identified	Yes, 5	3	+3
Matter and Form Bevel 3D	Yes, 1-2	Yes, 13	10	+10
Lima	None identified	Yes, 28	28	+28
BaseCamp Stove	None Identified	Not Identified*	Not Identified*	Not Identified*
THE O	Yes, 5-8 (estimate-identified as handful)	Yes, 2	2	+2
Light Phone	Yes, 5-15 (estimate-identified as “a lot”)	Yes, 4	4	+4
Anonymous	Yes, 5	Yes, 5	5	Not Identified*
Gi FlyBike	Yes, 5-15 (estimate-identified as “constant influx”)	Yes, 9	9	+9
Artiphon INSTRUMENT 1	Yes, 10	Yes, 12	9	+9
blink blink Creative Circuit Kits	Yes, 13	Yes, 3	2	+2
FlyInside FSX	Yes, 1	Yes, 1	1	+1
JUMP Cable	Yes, 1	Yes, 10	10	Not Identified*
TRIBUTE	Yes, 3-5 (estimate-identified as “friends and family”)	Yes, 2	2	+2

*These numbers were not identified as a result of the difficulty in identifying net gains for specific products for new positions at companies that already exist and have existing products. The interviewees were unable to identify the exact number hired

specially for, or as a result of the Kickstarter project. Employees often work across multiple products in a company. As an example with the BaseCamp stove and the Biolite company, there were twenty employees in 2012 prior to the launch of the Kickstarter campaign supporting other products. Today there are thirty-five to forty local employees with an additional thirty-five to forty-five globally.

The Local Volunteers category lists the number of estimated volunteers who worked on the project from the idea stage to the current stage. In event of a range of numbers, the lowest number is used for any totals. The Total Local Paid Workers category lists the estimated number of paid workers including the founders if applicable that worked on the project from the idea stage to the current stage. The Total Local Paid Workers category includes all local part time and full time workers who ever worked on the project and who were paid via cash, check, and electronic payment. This does not include any workers who were only compensated via equity shares, stocks or bartered goods or services. The Current Local Paid Workers category lists the estimated number of paid part time and full time workers currently working on the project. The Net Gain or Loss of Paid Workers category lists the current (as opposed to ever) estimated number of part time and full time jobs/positions that were created or lost as a result of the Kickstarter project. The + (plus) indicates a gain in jobs/positions and – (loss) indicates a loss of jobs/positions.

The Table 4- Project Workers involved with the project shows eleven of the projects in this study leveraged volunteers. Volunteers include family and friends, acquaintances as well as interns. An estimated fifty-nine volunteers were used across the

eleven projects that leveraged volunteers with an average of 5.4 for each project. Averaged across all fourteen projects the number of volunteers is 4.2. The average number of volunteers leveraged across all eight Metropolitan New York projects is 6.8 per project. Thirteen projects identified the number of paid workers that worked on the project with the average number of workers being leveraged from the time of the idea to the current state as 7.8. The current net of jobs across the eleven projects that did not already have a company in place with other products was an increase of 6.7 paid positions per project. The average net gain of paid positions for Metropolitan New York is 2.8, excluding Biolite that hired an additional fifteen to twenty employees since 2012.

Table 5- Office Space, Total Sales and Additional Funding

Project Name	Office Space Leased (sq. ft.)	Estimated Total Sales (excluding Kickstarter)	Additional Funding
Axel Headphones	1400 sq. ft. Office	\$50,000	\$250,000 Savings/Loans
ADV.SOUND M4	500 sq. ft. (Home Office)	Kickstarter and Indiegogo Funding only	None Identified
Matter and Form Bevel 3D	1700 sq. ft. (moving to larger space)	\$50,000	\$2M
Lima	1938 sq. ft. (180 SQ Meters)	\$15,000	\$2.5M
BaseCamp Stove	Not Disclosed	Not Disclosed	\$5M*
THE O	100 sq. ft.	Kickstarter Funding only	Yes, Undisclosed
Light Phone	66 sq. ft.	\$150,000	\$2.4M
Anonymous	200 sq. ft.	Kickstarter Funding only	None Identified
Gi FlyBike	200-250 sq. ft.	\$ 252,020	\$1.5M
Artiphon INSTRUMENT 1	800 sq. ft. (expanding to 1800 sq. ft.)	Not Disclosed	\$700,000
blink blink Creative Circuit Kits	100 sq. ft. **	\$48,000 (1000 kits were sold-\$48 mid-priced kit used as an average)	\$10,000
FlyInside FSX	Home Office	\$45,000 (1000 kits were sold- \$45 mid-priced kit used as an average)	None Identified
JUMP Cable	200 sq. ft. part of existing office	\$200,000	None Identified
TRIBUTE	400 sq. ft.	Not Disclosed	\$800,000

*As Biolite has multiple products, the additional funding cannot be attributed solely as a result of the BaseCamp project.

** Current space is paid for by NY Program for Economic Development

The Office Space Leased category lists the primary local leased space by the project. Warehouses and secondary office spaces are not included in this table. Wherever applicable, Sq. m has been converted to sq. ft. The Estimated Total Sales category includes any sales outside of the Kickstarter funding and outside of any additional funding or investment. The Additional Funding category includes additional funding beyond sales and Kickstarter funding including savings, loans and outside investment that have been disclosed.

The Table 5- Office Space, Total Sales and Additional Funding shows that total sq. ft. of office space for the twelve disclosed projects is 7604 sq. ft. The average across the twelve project is 634 sq. ft. The total disclosed sq. ft. of office space for the Metropolitan New York projects is 2766 sq. ft. with 400 sq. ft. part of a home office and another 100 sq. ft. paid for by a NY Program for Economic Development. 2266 sq. ft. of office space is currently leased and paid for directly by the Metropolitan New York projects. Overall sales of the Kickstarter products not including rewards provided as part of the Kickstarter campaign range from \$0 to a high of \$ 252,020.

Outside investment excluding savings or loans was provided in 57% (eight of the fourteen) of the projects and in 50% of the Metropolitan New York projects. Of the disclosed amounts for the seven projects, \$14.9M was raised with an average of \$2.2M. Of the disclosed amounts for the three Metropolitan New York projects a total of \$8.2M was raised with an average of \$2.7M in outside investment.

Table 6- Donation of Services, Networking and Leveraging Local Business

Project Name	Donate Local Products, Services, Time or Money	Local Networking	Leverage Local Businesses
Axel Headphones	Yes	Yes	Yes
ADV.SOUND M4	No	No	Yes
Matter and Form Bevel 3D	Yes	Yes	Yes
Lima	Yes	Yes	Yes
BaseCamp Stove	Yes	Yes	Yes
THE O	No	Yes	Yes
Light Phone	Yes	No	Yes
Anonymous	Yes	Yes	Yes
Gi FlyBike	Yes	Yes	Yes
Artiphon INSTRUMENT 1	Yes	Yes	Yes
blink blink Creative Circuit Kits	Yes	Yes	No
FlyInside FSX	Yes	No	No
JUMP Cable	No	No	No
TRIBUTE	Yes	Yes	Yes

The Donate Local Products, Services, Time or Money category identifies if the project has donated products, services, money or volunteered time to local educational institutions, Not-For-Profits or charities. The Local Networking category identifies if the project has networked with other local startups, businesses or organizations. The Leverage Local Businesses category identifies if the project spends money with and leverages local businesses for goods and services.

The Table 6- Donation of Services, Local Networking and Leveraging Local Business shows that 79% (eleven of fourteen) projects that are part of this study donate local products, services, time or money to educational institutions, Not-For-Profits or charitable organizations. 75% (six of eight) of Metropolitan New York projects donated local products, services, time or money to educational institutions, Not-For-Profits or charitable organizations. 71% of the projects were involved in a form of local networking while 88% of the Metropolitan New York projects were involved in local networking. 79% of projects leveraged local businesses for goods and services while 88% of the Metropolitan New York projects leveraged local businesses.

Table 7- New products, Patents and Trademarks and US company

Project Name	New Products	Patents or Trademarks	US Company Created
Axel Headphones	Yes	Yes, Patent	Yes
ADV.SOUND M4	Yes	No	Yes
Matter and Form Bevel 3D	Yes	Yes 5-10 patents, 2+ trademarks	Yes
Lima	Yes	Yes. Number is undefined	Yes
BaseCamp Stove	Yes	Approximately 50 patents	Already Pre-Existing
THE O	Yes	Yes, Trademark	Yes
Light Phone	Yes	Yes, Patent	Yes
Anonymous	Not Disclosed	Not Disclosed	Already Pre-Existing
Gi FlyBike	No	Yes, 1 Patent and 1 Trademark	Yes
Artiphon INSTRUMENT 1	Yes	Yes, Patent	Yes
blink blink Creative Circuit Kits	Yes	Yes, Trademark	Yes
FlyInside FSX	Yes	Yes, Trademark	Yes
JUMP Cable	Yes	Yes, 2 Patents, 2 Trademarks	Already Pre-Existing
TRIBUTE	Yes	Not Disclosed	Already Pre-Existing

The New Products category lists if any, new products or functions that have been locally developed as a result of the Kickstarter product. The product could be developed by another company, partner, mentee, or by the same company that developed the Kickstarter project. The Patents or Trademarks category lists the pending or issued patents or trademarks for the project along with the number if identified. The US Company category identifies if a US based company was created for the project.

The Table 7- New products, Patents and Trademarks and US Company category shows that of the thirteen projects that disclosed information on new products, 92% (twelve of thirteen) were involved with or aware of new local products being developed as a result of the Kickstarter product. 100% (seven of seven) of Metropolitan New York projects that disclosed information were actively involved in expanding products or functionality beyond the initial Kickstarter product. 79% (eleven of fourteen) projects were in the process of applying for or were already issued Patents or Trademarks. 63% of Metropolitan New York projects were in the process of applying for or were already issued Patents or Trademarks. Regardless of the geographic location, 100% of projects were part of a US based company with 71% of companies created specifically as a result of or for the Kickstarter project.

Chapter V

Conclusion

The two economic questions this study looks to answer are: 1) What are the economic impacts to the Metropolitan New York Community and other local communities from successfully Crowdfunded technology projects? and 2) Are the funds raised from crowdfunding reinvested in the local community and leading to job creation and innovation? The analysis from this study identifies eight of ten economic data points that support the hypothesis that local benefits from successfully funded crowdfunding projects greatly outweigh any negative effects to the local community.

The ten economic data points captured as part of the interviews that serve as indicators with the economic questions include:

- Net Gain or Loss of Paid Workers
- Total Local Paid Workers
- New Products
- Current Status
- Local Paid Advertising
- Office Space Leased
- Leverage Local Businesses
- Additional Funding
- US company created (adheres to tax and reporting laws)

- Production facilities

One of the most critical factors in understanding economic benefits to the local community are the number of jobs created. Jobs help fuel the economy and create tax bases for the local communities. The data for the Total Local Paid Workers positively shows that an average of 7.8 paid workers were leveraged across all disclosed projects and 4.3 paid workers were leveraged for Metropolitan New York projects from the time of the idea state to the current project state. The Total Local Paid Workers is typically higher than the Net Gain or Loss of Paid Workers as the number of paid workers may have fluctuated based on temporary need. An example would be if a video team was needed to put together the Kickstarter campaign video but were no longer needed once complete. The Net Gain or Loss of Paid Workers shows the net current paid workers for the projects from the time of the Kickstarter idea. The data positively shows that averaged across all fourteen projects, the net gain is 5.4 paid jobs per successfully funded Kickstarter campaign. Across Metropolitan New York projects, the net gain of paid jobs is 2.8 per successfully funded Kickstarter campaign. While not specifically captured as part of this study, the local tax benefits are implied through payroll taxes and other taxes that are paid as a result of the creation of jobs.

The data shows that for New Products, 100% of Metropolitan New York projects that disclosed information were actively involved in expanding products or functionality as well as 92% across all the projects. Based on the trends of this study, this continued investment in future innovation and development translates into additional jobs and funding being spent in part locally to fuel future growth.

Current Status is important as a positive economic gauge for the local community as it shows the amount of growth still possible for the Kickstarter products. All products included as part of this study are in an active state but at varying stages in the production/manufacturing process. Of the New York Metropolitan projects only 50% are in a full production state and only 43% across all projects are in a full production/manufacturing state. Once a full production/manufacturing state is reached, additional sales can be achieved that can further the benefits to the local communities

One negative effect on the local community is the lack of local advertising by the crowdfunding project. 100% of projects included in this study did not engage in traditional local paid advertising regardless of geographic location. This included newspapers, local radio, television and billboards. Some of the projects did receive non paid press from local newspapers but this did not translate into advertising sales for the newspapers. The lack of paid local advertising highlights in part the challenges traditional local newspapers continue to face in securing advertising revenue and for the local workers dependent on that revenue.

Another economic indicator for local communities is the amount of leased office space. Leased office space shows a longer term commitment to the local community as office lease contracts typically require a set minimum time commitment (i.e. three months, one year etc.). In addition to the financial benefits of lease payments, higher occupancy rates help make local offices more competitive and desirable as well as consolidate workers into one local location. Workers will often have to travel to the office location and that will help fuel the local economy by purchasing mass transit

tickets, paying for local parking and/or other local travel expenses such as taxis or tolls.

Office space occupied by the Metropolitan New York projects in this study averaged 453 sq. ft. per project, not including home offices or office space paid for by local incubators. Leased office space across all the projects that disclosed office space averaged 634 sq. ft. per project. Additionally, three of the projects- Artiphon, Lima and Bevel 3D were looking to move to a larger space locally. As part of the expansion, two of the three international projects- Lima and Bevel 3D were looking to not only expand their local office space but also potentially lease office space in the United States in 2016.

Another positive consistent theme seen across the projects in this study was the leveraging of local businesses for goods and services. Workers will often purchase items such as coffee, food and other drinks near the office on a regular basis helping to drive local business benefits. Projects also used local legal, accounting and printing services. Local prototyping, local video, content production and local catering of events were also identified as being leveraged with local businesses and vendors. In total, 88% of the Metropolitan New York projects leveraged local businesses for goods and services and 79% of all projects that are part of this study leveraged local businesses.

Additional funding in the form of outside investment helps to fund new products, product enhancements, expansion of local office space and hire new workers. Outside investment was provided in 57% of the projects and in 50% of the Metropolitan New York projects with a total of \$14.9M raised across all disclosed projects. In addition, the creation of a US company for, or as a result of, the Kickstarter project has an indirect benefit to the local community. US company regulations require adherence to US tax and

reporting laws or face the risk of fines and/or legal action. The US corporate regulations help ensure that if any taxes are due locally, that they are identified and paid. 100% of projects in this study either had an existing US based company or one created for the Kickstarter campaign or product.

While not specifically targeted by the interviews, production facility locations followed a consistent negative local theme across the interviews. In projects that were part of this study that required and identified production facilities, 0% of manufacturing was done locally. This was consistent across the Metropolitan New York projects, other US based projects as well as the international based projects. The vast majority of manufacturing was being done in Asia. As a result, additional job creation, financial benefits and local re-investment specific to manufacturing and production was being done outside of the local communities.

The two social questions this study looks to answer are: 1) What are the social impacts as a result of successfully funded Crowdfunded technology projects on the local community? and 2) Are local educational, Not-For-Profits and charitable organizations and institutions supported by successfully funded Kickstarter Technology projects? The analysis from this study identifies three of three data points that further support the hypothesis that local benefits from successfully funded crowdfunding projects greatly outweigh any negative effects to the local community.

The three data points captured as part of the interviews that serve as indicators with the social questions include:

- Donate Local Products, Services, Time or Money

- Local Networking
- Local Volunteers

In addition to economic benefits, social benefits were identified as part of this study. 79% of all projects in this study and 75% of Metropolitan New York projects donated local products, services, time or money to educational institutions, Not-For-Profits or charitable organizations. Identified discussions with local organizations such as the local Girl Scouts and Boy Scouts can help to inspire younger generations to launch businesses and crowdfunding campaigns as well as volunteer work and discussions within their local communities. Educational discussions and product donations such as in the case with the blink blink Creative Circuit Kits not only facilitate fundraising but also teach young girls how to work with electronics and circuitry.

Local networking provides a critical link between the Kickstarter projects and the local community. 88% of the Metropolitan New York projects and 71% across all projects were involved in local networking. Networking allows for opportunities for connections to future jobs, volunteer opportunities, education and learning opportunities, as well as sharing of knowledge that can lead to future partnerships and innovation. Local networking also enables a sense of social connectivity and responsibility.

Local volunteering provides a manner where local community members, workers and students can learn about a particular business or product and directly impact the success of the product or project. Volunteers include family and friends, acquaintances as well as interns. A conservative estimate of fifty-nine volunteers were used across the eleven projects that leveraged volunteers with an average of 5.4 for each project. The

average number of volunteers leveraged across all eight Metropolitan New York projects was 6.8 per project. Volunteering including internships provide a critical reciprocal relationship in providing professional experience, educating, exposure to new products and innovation as well as enabling the success of the business.

The findings of this study support the overall hypothesis that reward based crowdfunding provides significant social and economic benefits that the local community realizes as part of a successful crowdfunding project. Eleven of thirteen data points directly or indirectly support the findings that the positive effects greatly outweigh any negative effects to the local community.

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