DETERMINING ENTREPRENEURIAL SUCCESS:

AN ANALYSIS OF INTERNAL AND EXTERNAL FACTORS

IN RELATION TO CROWDFUNDING

By

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ABSTRACT

The purpose of this study was to determine which internal and external conditions suspend or propel collaboration between borrowers (entrepreneurs/creators) and lenders (donors) that, in turn, explain for successful funding on Kickstarter. Successful funding is defined by a creator reaching full funding status, also known as the “all or nothing” model. Through a sample of 219 projects on Kickstarter and the related entrepreneurs LinkedIn page, regression analysis was conducted to collect data on probable determinants to success. These variables included: gender, level of education, degree type, school research status, major and industry type, and volunteer and entrepreneurial experience. The multiple regression analyses found that level of education (traditional and higher education degree), degree type (Bachelor of Science and Master of Business Administration), school research designation (R1 and R2 status), major and industry type (business-related fields), and experience (philanthropic and entrepreneurial) all significantly predicted success on Kickstarter. Collectively, these findings indicate that an entrepreneur’s background influence higher quality intrinsic skills used to fully develop an idea or product to fruition. These results have the potential to be used in future studies that can perform a higher level of statistical analysis and compare factors that are not limited to an entrepreneurs’ observable LinkedIn page.

1 – INTRODUCTION

The proliferation of technology-enabled innovations continues to transform the financial services industry (Griffiths, 2020). Advances in financial technology (FinTech) are modernizing how people interact with financial services by including both traditional and new financial services, such as online payments, peer to peer lending, and crowdfunding, that were not made available previously. This provides more secure transactions, reduced transportation costs, faster disbursements, and user-friendly interfaces (Adhikary et al., 2018).

Crowdfunding is a category of FinTech which permits many individuals (lenders) to collectively finance new innovative campaigns proposed by an entrepreneur (borrower), through a technology platform, such as Kickstarter. Modern crowdfunding includes three entities: the project proposer and entrepreneur who spearheads the venture, potential investors who lends capital, and an internet platform to display the new business ventures (Ma and Liu, 2017). Crowdfunding connects those with limited access to traditional sources of financial means, such as applying for funds from banks or venture capitalists, to acquire financial resources that does not require any collateral or prior credit history to assess the solvency of fund-seekers (Gerber et al., 2012). The industry is growing and in 2021, the global crowdfunding market was valued at $12.27 billion and was forecasted to double by 2027, growing at a compound annual growth rate of 11% (Statista, 2021).

Crowdfunding has two funding models: (1) the all-and-more approach allows creators to keep all funds even if the funding goals are not achieved, and (2) the all-or-nothing approach which requires all funds to be returned to the investors if the creators do not reach their stated goal (Gerber et al., 2012).

1.1 – KICKSTARTER LOGISTICS

Kickstarter, which is one of the largest for-profit crowdfunding platforms in the world, reports that it has raised over $6.2 billion between 2009 and 2021, has over 20 million investors, and has funded 210,875 projects (Kickstarter, 2021). Kickstarter employs reward-based crowdfunding with the all-or-nothing approach, meaning investors expect to receive a nonfinancial reward (as opposed to equity in equity-based crowdfunding) in exchange for their monetary contributions to the campaign (Tomczak and Brem, 2013). Reward limits intentionally restrict the number of backers allowed per tier with the purpose of enacting a sense of urgency via scarcity. Further, reward limits are concurrent with benefits such as access to a unique limited-edition product, price discount privileges, or early reward delivery (Yang et al., 2020).

Kickstarter relies on existing web-based payment systems, such as Stripe, to seamlessly collect and process payments for campaigns. There are payment processing fees of 3% and $0.20 per pledge. Kickstarter will also charge a 5% fee of the funding total if the campaign is successfully funded, however, if unsuccessful, there are no fees (Kickstarter, 2020).

1.2 - DISRUPTIVE INNOVATION PROCESS

Innovation is paramount for an entity to gain a competitive advantage, but it is often difficult to predict emerging technologies and projects because of the growth of the internet and an unfeasibly high number of new venture ideas. The process of innovation is continuous since people are always looking for a "game-changer" for their industry. The shift from invention to product design to manufacturing processes, and generating enough inventory, requires an understanding of high-quality products, the business environment, the ability to take risk, and a connection with the enterprise (Taheri, 2017).

Table 1

Average Success Rate by Category

	Success Rate
Games	62.65%
Design	61.53%
Technology	59.96%
Film & Video	50.35%
Music	47.05%
Publishing	44.21%
Fashion	40.09%
Food	37.90%
Art	35.28%
Comics	33.74%
Photography	29.92%
Theater	26.27%
Crafts	25.80%
Journalism	23.21%
Dance	21.52%
Total Average Success Rate	**39.97%**

Source: (Kickstarter, 2021)

As shown in Table 1 above with an overall success rate of 40%, there is a significant discrepancy between successfully and unsuccessfully funded campaigns, for reasons this paper aims to address. To note, with data provided by Kickstarter, the success rate was calculated by dividing the number of successfully funded projects by the total number of all projects that have reached their deadline (including successful, unsuccessful, cancelled, and suspended projects).

There is a disconnect between the potential value of a project and its realized value likely from oversight with the ongoing disruptive innovation process. In other words, a creator could be good at the tactical aspects, but at the same time, not a good business manager. In the book *The Innovator's Solution*, Christensen and Raynor (2013) outline a process called the disruptive growth engine, which all organizations can follow to respond to radical innovations more effectively in their industry. These four points include: starting early to become a leader in radical innovation, displaying executive leadership, having a component team of experts, and educating to understand radical innovations.

In applying these points directly to an entrepreneur, rather than an organization, background data gathered via LinkedIn could correspond to and address each point:

- Gender – Female or Male
- Level of Education – Traditional versus Higher Education degree
- Degree Type – Bachelor of Science versus Bachelor of Arts versus Master of Business Administration
- School Name – Research status designation
- Major Type – Business versus STEM related
- Industry Type – Business versus STEM related company experience
- Experience – Philanthropic and entrepreneurial

Prior successes and failures affect endeavors in predictable, counterintuitive ways, on Kickstarter by applying the legitimacy threshold (Soubliere and Gehman, 2020). Thus, there may be reasons from the creator's perspective that explains the low success rates on Kickstarter. Questions within the data that my thesis aims to answer:

- *How does experience in entrepreneurship influence project adoptability and entrepreneurial success?*
- *What conditions (such as educational backgrounds) suspend collaboration between borrowers and lenders that in turn explain for unsuccessful funding?*

2 – LITERATURE REVIEW

There is limited information systems research that identifies the empirical and background factors that influence an entrepreneur's success when using reward-based crowdfunding in the United States. Based on the literature review, it can be noted that most research is focused on the backers or investors perspective, rather than the creator or entrepreneur.

To better understand the discrepancies in project creation, it is essential to identify and evaluate how crowdfunding is adopted and the usage of crowdfunding on platforms such as Kickstarter. It is imperative to extend research about an entrepreneurs' background as it pertains to crowdfunding knowledge; as research shows only 5% entrepreneurs have knowledge of crowdfunding, 84% mentioned they'd intended to use crowdfunding in the future, and 7% didn't want to use crowdfunding in their business (Adhikary et al., 2018). Reasoning for discrepancies in the successful funding rate can be divided into both the characteristics of the individual and characteristics of the environment.

2.1 – MOTIVATIONS & DETERRANTS

Research indicates that crowd investors lack the experience and training to evaluate multifaceted and technical investment details, possibly leading them to place larger weight on factors that appear easy to assess and less weight on factors that are more demanding to assess. Wang et al. (2021) explains that crowdfunding is a huge learning curve with so many unknowns that it requires time, skills, and commitment. It can take time to build trust with backers, articulating a marketing strategy for the product, promotional skills, and the ability to understand details such as costs, components, manufacturing, and logistics processes. Thus, the limitations and high intrinsic barriers to entry for entrepreneurs make it challenging for individuals to participate and understand the demands of crowdfunding.

Gerber et al. (2012) identified 5 motivations for using crowdfunding as financing are self-affirmation, networking, product awareness, and success story replication. Fundraising success as measured by full funding is most strongly related to attributes of the product and service, then certain aspects of the team, such as founders' motivation and commitment (Shafi, 2019). This research guides my study to explore the connection to the entrepreneur's background and ability to expand his or her awareness of work, connection with others, gain approval, and maintain control in the project. My thesis will be a comparative analysis of various borrower's experience, homing in on the fundamental reasoning behind their motivation and commitment.

Gerber et al. (2013) determined the deterrents to participating in crowdfunding are fear of failure, and for lenders, lack of trust. Moreover, Song and Boeschoten (2015) also describes that trust is a factor relating to how comfortable a funder is with the presence of a founder in a crowdfunding campaign. In other words, scholars of information and computer science find projects more reputable and are more likely to lend money to people if they share reputable hard information, such as a credit score (Lin et al., 2009). Soft information, such as personal information, leads to a more positive view of the creator (Potzch and Bohme, 2010). This begs the question of whether adding soft information, such as education status or degree type, would lead to a more positive view of the borrower for the lender, and if so, what type of information.

2.2 – SELF-EFFICACY

The uncertainty associated with entrepreneurial work requires that the creator believes in one's own ability enough to succeed at required tasks and skillsets, defined as entrepreneurial self-efficacy (ESE). Research shows crowdfunding as a socio-technical system influences the psychological experience of a user, specifically ESE (Harburg et al., 2015). They found that crowdfunding can influence self-efficacy through Social Cognitive Theory and higher levels of self-efficacy to do tasks of networking, marketing, managing, and risk taking, are associated with higher levels of success and motivation in entrepreneurs (Bandura, 1997; Shane, 2003; Harburg et al., 2015).

According to the Social Cognitive Theory by Bandura (1997), it suggests ESE can be developed via experience of mastery (seeing oneself succeed at tasks), modeling (seeing examples of others succeeding at tasks), social persuasion (getting feedback and encouragement from others), and physiological states (physical and emotional response to various situations). An extension from this is which factors would go into having a high experience of mastery, such as schooling to demonstrate the concept of modeling, membership in a large network due to a certain cohort or demographic, a history of receiving feedback or grades, and even the ability to act upon and recover from stress related to academia.

Apart from an academic standpoint, ESE could be developed from the skills and intrinsic takeaways permitted by volunteering. Scarlata et al. (2015) study found that the presence of social and commercial experiences of a philanthropic venture capital firm's founding team positively maximized both social and economic performance. Applying the same logic, I can evaluate if philanthropic experiences can benefit and improve a project creator background, which may make them more apt to align with their prospective organization or projects values.

ESE can significantly influence entrepreneurial intentions, creativity, the ability to reach goals, and to recover from failure. Research shows that failure makes the entrepreneur stronger, my study aims to evaluate if failing is more prevalent with certain degrees or backgrounds (Harbug et al., 2015). There is a gap in research I intend to explore on the influence of varying levels of education on an entrepreneur. For instance, a Bachelor of Science versus a Bachelor of Business Administration degree, no degree versus some degree, Associates versus Bachelors, etc. Thus, I will attempt to determine whether ESE characteristics are more likely to occur with what factors, such as educational level of the campaigner.

2.3 – EDUCATIONAL BACKGROUND

Jiménez et al. (2015) proposes that different levels of education vary in influence by categorization of either formal or informal entrepreneurship. Formal entrepreneurship is defined as the creation of legally registered new firms in a country (Klapper et al., 2007), while informal entrepreneurship categorizes firms that are not legally registered and are unregulated, such as Kickstarter campaigns (Nyström, 2008). My report will explore which types of degrees and backgrounds will transform informal entrepreneurship to formal entrepreneurship the quickest and easiest, measured by success in funding by the deadline.

Jiménez et al. (2015) found that for secondary education, classes completed up to high school, increases awareness of the negative consequences of informal entrepreneurship and have a lack of organizational skills, planning, administrative, bureaucratic, leadership, and human resource skills. There was no effect on formal entrepreneurship for secondary education.

Likewise for tertiary education, courses completed post high school, increases formal entrepreneurship due to lower risk, higher self-confidence, and enhanced human capital.
For informal entrepreneurship, tertiary education had negative effects in that it increased awareness to the negative effects. Thus, informal entrepreneurship should solely be used as a last resort regardless of education levels.

In terms of levels in education, there is limited research. In equity crowdfunding, small businesses with many board members and those with higher levels of education are more likely to attract investments with more backers (Ahlers et al., 2015). However, this study does not consider the amounts raised as reward-based funding would require with Kickstarter. It can be hypothesized that those with higher levels of education would experience more funding success.

SOCIAL NETWORK

Paakkarinen (2016) research indicates that an entrepreneurs' social network was important to the success of their campaign. A large social network would likely be garnered through schooling via cohorts of peers. 90% of school going students currently operate the internet steadily, with more than 75% of teenagers using online networking sites for e-learning (DeBell & Chapman, 2006; Lenhart, Madden, & Hitlin, 2005). In addition, a study focused solely on universities confirmed that the use of social media created opportunities for learning and engagement (Gikas & Grant, 2013).

Moreover, the social network effect is measured by the total number of members on a platform, whereby increased number of people improve the value of a product or service (Saxton et al., 2014). If one has a large social network from school, then it could be inferred that schooling leads to a large network. Thus, the social network effect may explain why an alumni network may be beneficial for an entrepreneur. However, this phenomenon has likely been expedited due to the COVID-19 pandemic and fully virtual learning environments across the globe.

STEM-BASED ENTREPRENEURSHIP

There is a gap in literature on how different degree subjects affect crowdfunding success. While entrepreneurship requires vision, but also a firm understanding of practical realities, science, technology, engineering, and math (STEM) degrees emphasize data-driven decision making and hard facts. Making logistical decisions in business should be rooted in fact, which may be a reason why entrepreneurship endeavors and STEM backgrounds complement one another (Redman, 2017). This study will focus on the skills and information gained from each type of background and how it may affect likelihood of funding.

It is important to note that Kickstarter data puts one of the top successful categories as STEM-related – technology with a 60% success rate (Table 1). I am making the informed assumption that each subject category would be privy to all skills, regardless of degree subject. In other words, certain STEM categories may be most likely to succeed, but all categories utilize STEM *skills*, so it is important to investigate this phenomenon.

2.4 – UNDERREPRESENTATION IN INNOVATION DRIVEN START UPS

Research into the discrepancies of successfully crowdfunded innovations demonstrates that academic literature, specifically using a gendered analysis, is scarce and requires a broader theoretical perspective into the nature of entrepreneurial ecosystems. I hypothesize that the lack of women in entrepreneurship may offset a substantially higher successful funding rate.

According to the GEM Women's Entrepreneurship Report, a country's level of innovation increases with its economic development. Kelley et al. (2017) states that innovation is the indicator with the greatest female-to-male gender ratio; across all 74 economies, women entrepreneurs have a 5% greater likelihood of innovativeness than men. Likewise, a study of 49 economies shows that only six countries show equal engagement in early-stage entrepreneurial activities between men and women, proving especially unequal in North America and Europe (Bosma and Kelley, 2018). A dichotomy exists as economic development in countries increases, the number of established business activities among women declines, and the gender gap increases (Kelley et al., 2017). As a result, even if females do not lack an innovative mindset, systemic hurdles to women's equal participation in entrepreneurship may exist.

An increasing number of jobs are being replaced with technology while there is an increase in women empowerment and education, so logically this result indicates an expected reduction in gender disparities in the labor market. However, projects created by females show higher success rates than those created by male entrepreneurs, yet only a few women in academics spearhead startups and generally face more difficulties (Rosa and Dawson, 2006; Frydrych et al., 2014). As for the reasons why, researchers have pointed out academic backgrounds (Woolley, 2019), gender biases within universities' entrepreneurial ecosystems and infrastructures (Giuri et al., 2018), entrepreneurial financing (Alsos and Ljunggren 2017; Gicheva and Link 2013), and women specific family obligations (Busolt and Kugele, 2009).

ACADEMIC BACKGROUND

Women are less likely to possess an academic background, which may play a significant function in fundability. Recent studies show that there are no visible differences in students' persistence in STEM studies, but there are significant gender differences in self-confidence (Eris et al., 2010; Heilbronner, 2013). Research shows that perceived differences in cognitive performance between genders is the likely result of social or cultural factors, such as experience, educational policies, and cultures (Hyde and Mertz, 2009). A paradox takes effect in middle school when peers contribute more substantial in shaping an individual's identity. In other words, a girl's interest in STEM diminishes in middle school and their self-perception of their own mathematical abilities relative to boys diminishes (Kuschel et al., 2020).

The literature supports those subjective experiences might differ by gender and result in women experiencing gender inequalities (Karataş-Özkan and Chell, 2015), since "the processes, structures and discourses of academic entrepreneurship are constructed and gendered" (Fältholm et al., 2010). Interactions at the university level show that there is more support that feminine personality characteristics are helpful in STEM majors, such as positive perceptions of the academic environment, less frequently treated unfairly by professors, received more attention in class, and had a higher number of people in their social network/major (Simon et al., 2017).

Importantly, women have been underrepresented in STEM educational programs, employment, and leadership positions (Mavriplis et al., 2010). Ulvenblad et al. (2011) asserts the existence of gender segregation in innovative learning environments. Authors of the study found that entrepreneurship education programs were male dominated in terms of numbers of faculty members, students, guest lecturers, and examples of success stories used in class. Thus, there has been few women entrepreneurs in the STEM industry.

LEAKY PIPELINE

In conjunction with low levels of women earning STEM degrees, it seems that women are either opting out or being pushed out in varying stages of their career (Kuschel et al., 2020). The leaky ‘pipeline’ metaphor exemplifies this trend by the number of women decreasing in education and labor market as their career advances (Blickenstaff, 2005). According to Fouad et al. (2012), once they graduate from their engineering studies, many females never pursue engineering as a career (10%), others leave (31%) for reasons such as dissatisfaction with the workplace climate (21%), or to spend more time with their family (10%). However, according to Fouad et al. (2012), women who feel more comfortable with an organizations “political landscape” report higher job satisfaction.

82% of women with male-dominated career aspirations (such as entrepreneurship or STEM) in their senior year of high school chose to change career goals by age 25 to a gender-neutral or female dominated career, in part for job flexibility in raising a family (Frome et al., 2006). Additionally, many gendered financing entities discourage hiring females due to an old-age adage that all women must reproduce and are less valuable to society thereof (Balachandra et al., 2019).

ECOSYSTEMS & INFRASTRUCTURES

For a project to come to fruition, there must be a substantial amount of funding to be allocated. When considering the interrelations between the field of STEM and the technological aspect, females must interact with gendered language and attitudes towards financial transactions, weighing decisions, and pushing through the development of an end-product, while networking in a largely male-dominated environment (Kuschel et al., 2020). To add, Poggesi et al. (2020) argues that more women in STEM face double masculinization; by both the masculinization of STEM fields and by the masculinization of entrepreneurship.

Previous conducted research shows that people in occupations that provide opportunities to assist others are disproportionally uninterested in STEM career (Su et al., 2009). The lack of built-in mentorship in conjunction with the low levels of entrepreneurship programs in academia lead to a lack of women pursuing STEM careers. For the network effect to be beneficial, the low number of women in fields led by women to develop mixed gender networks is limited (Hampton et al., 2009). In venture capital and entrepreneurial financing, it is harder for female entrepreneurs to utilize network contacts (Alsos and Ljunggren, 2017).

With interactions in the firm or industry level, the legitimacy obstacle determined by Ezzedeen and Zikic (2012) shows that women entrepreneurs must confront male subordinates who may oppose them or sabotage their initiatives. In other words, this phenomenon known as “thorny floors” demonstrates the difficulties women must face that is in line with existing infrastructure.

Moreover, at the firm level, cultural cognitive institutions (such as supply chain, regulatory agencies, resource providers, and media) shape the cognitive legitimacy of entrepreneurial new ventures positively. If accepted, creators will have a higher chance of success. However, when pitching their ideas to potential customers, if women fail to convey the value of the product, the survival and viability chances plummet and are more resistant to accepting a women’s legitimacy (Balachandra et al., 2019).

We can deduct that women are more likely to use Kickstarter due to the barriers in traditional forms of financing. Kuschel and Lepeley (2016) argue that some investors (public funds, business angels, venture capitalists) will not fund women-led startups because of the potential for the leader to become pregnant and make the startup a lower priority. However, women are more likely to place safer bets and are historically less risky after the 2008 financial crisis (Cowling et al., 2019). Women are found to be more successful at raising money in crowdfunding platforms, in part to communication (Gorbatai and Nelson, 2015).

3 – DATA COLLECTION & METHODOLOGY

To answer the research questions, I will collect a dataset via LinkedIn and Kickstarter with around 200 matches over the past few historical years between creators and their respective projects on Kickstarter. Kickstarter was chosen because it is the world's largest reward-based crowdfunding platform (Mollick & Nanda, 2015).
I will be conducting a multi-level regression analysis that would permit me to identify casual conditions (as listed below) to produce a certain outcome (successful funding):

- Gender – Female or Male
- Level of Education – Traditional versus Higher Education degree
- Degree Type – Bachelor of Science versus Bachelor of Arts versus Master of Business Administration
- School Name – Research status designation
- Major Type – Business versus STEM related
- Industry Type – Business versus STEM related company experience
- Experience – Philanthropic and entrepreneurial

Additionally, it is important to note the specific category of the Kickstarter project of the chosen creators. It may be necessary to focus on one category to augment their comparability, as different categories may skew the results due to its differing nature. The decision to choose technology-related projects is because I hypothesized that the lack of women in entrepreneurship, specifically in STEM related industries, may offset a substantially higher successful funding rate. By focusing on technology, I will be enhancing the comparability between conditions. As shown in Table 2, the technology category has a higher success rate than most categories, but one of the lowest totals of launched projects.

Table 2

Popularity of Projects by Category

Category	*Launched Projects*	*% of Total Launched Projects*	*Successful Dollars (in millions)*	*Unsuccessful Dollars (in millions)*	*Success Rate*
Games	64,304	11.88%	$1,650.00	$96.47	62.65%
Design	47,188	8.72%	$1,290.00	$97.98	61.53%
Technology	47,780	8.83%	$1,030.00	$120.68	59.96%
Film & Video	78,813	14.56%	$436.80	$72.83	50.35%
Music	65,435	12.09%	$245.31	$21.24	47.05%
Publishing	55,747	10.30%	$207.99	$23.76	44.21%
Fashion	35,278	6.52%	$190.76	$24.39	40.09%
Food	32,210	5.95%	$161.41	$26.59	37.90%
Art	45,551	8.42%	$152.10	$15.29	35.28%
Comics	20,246	3.74%	$152.10	$7.50	33.74%
Photography	13,075	2.42%	$49.63	$6.19	29.92%
Theater	12,544	2.32%	$43.01	$4.82	26.27%
Crafts	12,651	2.34%	$19.58	$3.80	25.80%
Journalism	6,049	1.12%	$17.20	$2.38	23.21%
Dance	4,372	0.81%	$14.23	$1.09	21.52%

Source: (Kickstarter, 2021)

3.1 – DATA COLLECTION STEPS

COVID-19 PANDEMIC

The reason being for several years of historical data is due to the COVID-19 pandemic which may produce distorted data. Though seldom research has been performed regarding the pandemic, the effect of COVID-19 on entrepreneurship has been overpoweringly negative, varying due to business characteristics, owner characteristics (such as race), and age of business. Accessing startup and growth financing during COVID-19 conditions was a bigger challenge for entrepreneurs with a new start-up less than 1 year old, compared to entrepreneurs with a young or mature business (Desai, 2020). More emphasis will be placed on the earlier projects data, as 2020 and 2021 will contain more uncertainty unrelated to the research questions.

PRELIMINARY INFORMATION

Data collection from Kickstarter will follow several steps. The first step is to prepare and clean the data for analysis. A large database with a population of 450 unique crowdfunding projects was obtained from Kickstarter by Professor Lusi Yang in personal communication, that I will be slicing and dicing by way of segmenting the data. This larger database has preliminary information that I will base my data collection from. For each project, the creator's information was found on Kickstarter and on LinkedIn to ensure a match. As displayed in Table 3, the following preliminary attributes were compiled and received:

Table 3

Provided Preliminary Variables and Descriptions

Variable	*Description*
project_id	Unique ID of crowdfunding project on Kickstarter
project_url	URL of crowdfunding project on Kickstarter
name	"Name" = of company/team or project creator
	"NA" = Project did not introduce team members
is_person	0 = Value in "name" column is company/team
	1 = Value in "name" column is person
role	"Creator" = Value in "name" column matches name of project creator on the starter page
	"Contact/Verified person" = Value in "name" column is the person verified with their identity
	"Team" = Value in "name" column is a member of the team
linkedin_url	URL of company/team's or person's LinkedIn Profile
confid	Value = 1-5 confidence level (see Table 4)
	Blank = Null
remarks	"Successful" = Fully funded on time
	"Unsuccessful" = Not funded on time
	"Suspended" = Not to be analyzed
	"Cancelled" = Not to be analyzed

Source: (L. Yang, personal communication, January 2022)

The confidence level was set by several guidelines that forecast and predict the accuracy of the LinkedIn/Kickstarter matches, as if the entire collection method was to be repeated with same, or even better, techniques (Siegle, 2015). In other words, the highest confidence level would reflect relatively high confidence that this is the correct sought out person. The three types of information determining the confidence level are, and as shown in Table 4:

- A: Same person in profile photo
  - "Similar photo" = outline of person is similar
  - "Moderately similar photo" = neither confirm nor deny
- B: Matched company/organization name (assuming the project has a relatively small size)
- C: Matched description in most same aspects (same industry, relevant job/experience/education, same location, matched gender, and age range)

Table 4

Confidence Levels (descending order from most to least confident)

Confidence Level	***Description***
5	At least: A, or B, or Similar photo + C
4	At least: Similar photo, or Moderately similar photo + C
3	At least: C
2	Only 1 or 2 match from C
1	LinkedIn profile is found by process of elimination, little matched.

Source: (L. Yang, personal communication, January 2022)

I drilled down to finer granularities in the "remarks" category by disregarding any projects that were either cancelled or suspended. This way, I can focus on the two conditions to be met, either a successful or unsuccessful project status. Additionally, I filtered out any records with a 0 as a value in the "is_person" attribute, as my analysis is specifically focused on the personal characteristics of the entrepreneurs, rather than company.

Next, all roles will be taken into consideration, but for multi-persons projects, there will be a heaver emphasis on "contact/verified person" and "creator" than "team." I then highlighted duplicate values and removed any data in which the "creator" was additionally labeled as a "contact/verified person" for the *same* project. In other words, data was removed for different people on different roles for the same project and if it was the same people on different roles for the same project. The reasoning behind this is that the role of creator is higher than contact/verified person in the hierarchy of significance, and it would be inaccurate to duplicate their information for the same project. Additionally, this way, there is a unique project ID for each project.

During data collection, any broken links or unavailable information was disregarded so not to create outliers or false data. The purpose of the pre-emptive cleaning of the data was to narrow down the records needing to be collected for the sample and to minimize noise.

QUALITATIVE & QUANTITATIVE DATA COLLECTION
From the provided larger dataset and preliminary information, after adjustments to the preliminary data, I was left with 220 randomly selected "technology" related projects sliced over the past few years (January 1, 2018, to December 31, 2021) as a sample to focus on, while retaining all other information, contingent on the entrepreneur's information presence on LinkedIn. From the narrowed subset of data, the next step is to conduct *further* data collection by adding and searching for the following fields in Table 5 (casual conditions):

Table 5

Collected Variables and Descriptions, Prior to Coding

Variable	***Description***
gender	"F" = Female
	"M" = Male
level_of_education	"ND" = No degree
	"HS" = Currently in high school
	"SD" = Some degree
	"AD" = Associates degree
	"TD" = 4-year traditional degree
	"HE" = Higher education degree
degree	"ND" = No degree
	"BA" = Bachelor of Arts degree
	"BS" = Bachelor of Science degree
	"BSBA" = Bachelor of Science in Business Administration degree
	"MBA" = Master's in Business Administration
	"MS" = Master of Science
school_name	"Name" = University name
	Blank = No alumni information found
major	Blank = No major listed
entrepreneurship_presence	1 = Entrepreneurship program presence at school
	0 = No entrepreneurship program found
industry_type	"Subject" = industry type (i.e., finance, tech, art)
volunteer_experience	1 = Volunteer experience on LinkedIn
	Blank = No volunteer experience
ratio_funding	($ Amount Actually Raised)/($ Pledge Goal) * 100 = %

CODING

After qualitative collection commenced, I further cleaned the data so to remove any noise and prepare the data for regression analysis. Regression analysis can be used to estimate parameters for linear relationships between the dependent variable and one or more independent (explanatory) variables, making it the best way to analyze the data.

The preliminary data collection is categorial, in other words, a set of observations where any single record is depicted as a word or number that represents a class or category. It was necessary to code them for analysis. As shown in Table 6, I transformed the casual conditions collected in Table 3 and 5 into categorial variables by coding them into binary:

Table 6

Total Binary Categorical Dummy Variables, After Coding

Variable	***Description***
remarks	1 = successful
	0 = not successful
gender	1 = female
	0 = male
TD_level_of_education	1 = 4-year TD
	0 = No TD (i.e. all SD, AD, HS, ND)
HE_level_of_education	1 = HE degree (in addition to TD)
	0 = No HE (i.e. potentially TD, but all SD, AD, HS, ND)
BS_degree	1 = BS or BSBA
	0 = Not an BS
BA_degree	1 = BA
	0 = Not an BA
MBA_degree	1 = MBA
	0 = Not an MBA
R1_school_name	1 = Doctoral University, very high research activity
	0 = Not an R1
R2_school_name	1 = Doctoral University, high research activity
	0 = Not an R2
bus_major	1 = Business major
	0 = Not a business major
stem_major	1 = STEM major
	0 = Not a STEM major
bus_industry	1 = Business industry
	0 = Not a business industry
stem_industry	1 = STEM industry
	0 = Not a STEM industry
entrepreneurship_experience	1 = Entrepreneurship experience
	0 = No entrepreneurship experience
volunteer	1 = Volunteer experience
	0 = No volunteer experience
thresh_ratio_funding	1 = % ≥ 75%
	0 = % < 75%

In reference to the “R1_school_name” and “R2_school_name” variables, Carnegie Classifications of Institutions of Higher Education developed a comprehensive list of classifications of research universities in the United States (*List of research universities in the United States* 2022). Schools with any “R” classification means that they offer a full range of baccalaureate programs, are committed to graduate education through the doctorate, give high priority to research, award 50+ doctoral degrees per year, spend at least $5 million on research and development, and receive $40 million or more annually in federal support. R1 schools, with very high research activity, and have *both* aggregate supply and aggregate demand of research. R2 schools, with high research activity, and have *either* aggregate supply or aggregate demand of research.

Majors and industry were split into categories of being either in a business major/industry or not or being in a STEM major/industry or not, based on classifications from the U.S. Department of Homeland Security STEM Designated Degree List and other relevant updates since 2012 (*STEM List 2012*). Business categories included: accounting, banking, business administration, business analytics, economics, entrepreneurship, finance, information systems, marketing, and strategic communications. STEM categories included: actuarial sciences, biology, chemistry, computer science, engineering, information technology and systems, mathematics, and physics.

3.3 – RESULTS: DATA VISUALIZATION AND OBSERVATIONS

The overall success rate of the data sample was 45.21%, computed by 99 successful projects over the total 219 projects. In comparison, the overall total average success rate of all projects on Kickstarter in Table 1 is 39.7%. The frequency statistics are shown below in Table 7:

Table 7

Independent Variables Frequency Statistics

Independent Variable Categories	Variable Names	Frequency of 0's (Unsuccessful)		Frequency of 1's (Successful)	
		Frequency	*% of Total*	*Frequency*	*% of Total*
Gender	Female	20	51.28%	19	48.72%
	Male	101	55.80%	80	44.20%
Level of Education	TD_level_of_education	86	48.86%	90	51.14%
	HE_level_of_education	30	37.97%	49	62.03%
Degree Type	BS_degree	66	46.81%	75	53.19%
	BA_degree	22	68.75%	10	31.25%
	MBA_degree	6	18.75%	26	81.25%
Research School Status	R1_school_name	40	38.83%	63	61.17%
	R2_school_name	14	32.56%	29	67.44%
Major Type	STEM_major	62	63.92%	35	36.08%
	bus_major	16	28.07%	41	71.93%
Industry Type	STEM_industry	57	44.88%	70	55.12%
	bus_industry_type	9	13.85%	56	86.15%
Experience	entrepreneurship_presence	33	37.93%	54	62.07%
	volunteer_experience	24	30.00%	56	70.00%

GENDER

Single regression analysis was used to test if the gender of the creator significantly predicted success by complete funding. The fitted regression model was: Success = 0.4420 + 0.0452(gender). The results of the overall regression indicated that the predictor of gender explained -0.3378% of the variance (Adjusted R^2 = -0.0034, F(2, 217) = 0.2627, p = <0.0000). It was found that gender did not significantly predicted success (β = 0.0452, p = <0.6088).

LEVEL OF EDUCATION

Multiple regression analysis was used to test if the level of education significantly predicted success by complete funding. The fitted regression model was: Success = 0.2045 + 0.2181(TD) + 0.1976(HE). The results of the overall regression indicated that the two predictors (traditional degree, TD, and higher education, HE) explained 8.4% of the variance (Adjusted R^2 = 0.084, F(2, 217) = 11, p = <0.0000). It was found that having a traditional degree significantly predicted success (β = 0.2181, p = <0.0123). It was found that having a higher education degree significantly predicted success (β = 0.1976, p = <0.0068).

Table 8

Results of ANOVA for Regression: Education Level

ANOVA

Model		*Sum of Squares*	*df*	*Mean Square*	*F*	*Significance F*
1	Regression	5.01321106	2	2.506605531	11.00260377	2.80984E-05
	Residual	49.4367889	217	0.227819304		
	Total	54.45	219			

a. Dependent Variable: Remarks

b. Predictors: (Constant), Higher Education (HE), Traditional Degree (TD)

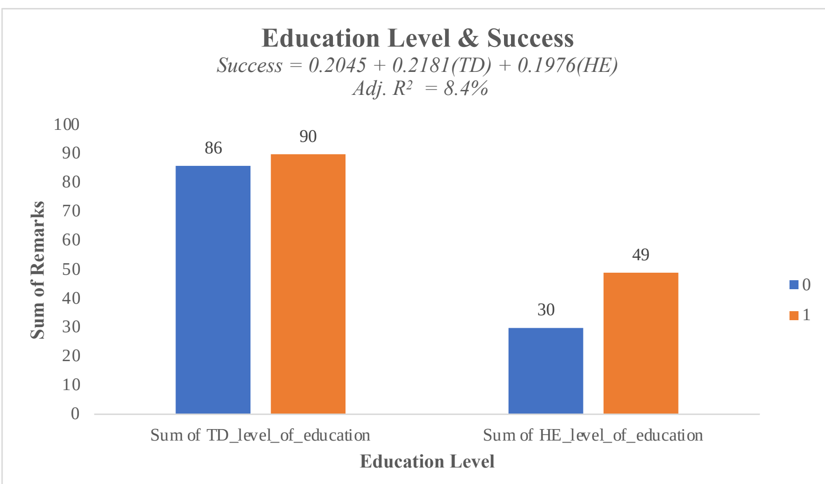

Figure 1

Independent Variable Frequency: Education Level

DEGREE TYPE

Multiple regression analysis was used to test if the degree type significantly predicted success by complete funding. The fitted regression model was: Success = 0.2945 + 0.1589(BS) + 0.369(MBA). The results of the overall regression indicated that the two predictors (Bachelor of Science, BS, and Master of Business Administration, MBA) explained 10.42% of the variance (Adjusted R^2 = 0.1042, F(2, 217) = 13.73, p = <0.0000). It was found that having a Bachelor of Science degree significantly predicted success (β = 0.1589, p = <0.0214). It was found that having a Master of Business Administration degree significantly predicted success (β = 0.3690, p = <0.0000). It was found that Bachelor of Arts did not significantly predict success (β = 0.2282, p = <0.8962).

Table 9

Results of ANOVA for Regression: Degree Type

ANOVA						
Model		*Sum of Squares*	*df*	*Mean Square*	*F*	*Significance F*
2	Regression	6.11661048	2	3.058305242	13.73071999	2.42693E-06
	Residual	48.3333895	217	0.222734514		
	Total	54.45	219			

a. Dependent Variable: Remarks

b. Predictors: (Constant), Bachelor of Science degree (BS), Masters of Business Administration (MBA)

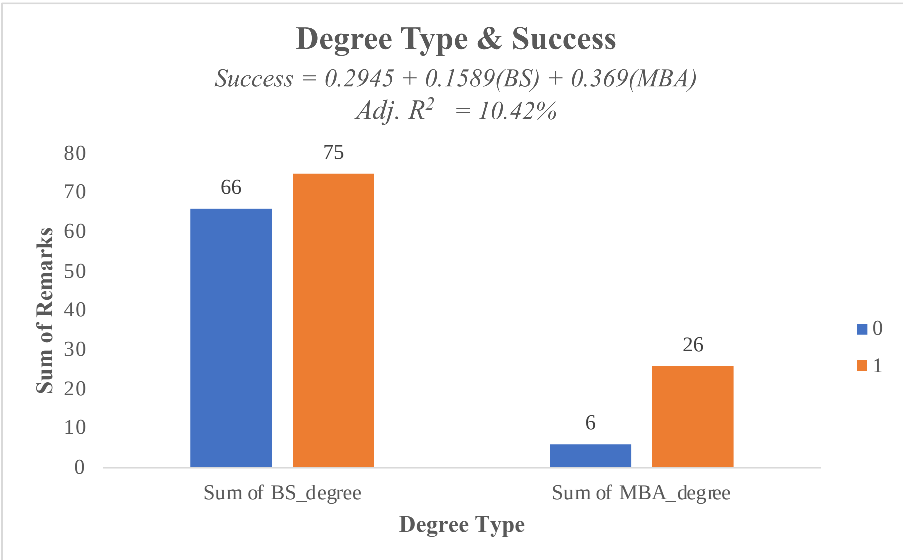

Figure 2

Independent Variable Frequency: Degree Type

SCHOOL RESEARCH STATUS

Multiple regression analysis was used to test if the research status of the school significantly predicted success by complete funding. The fitted regression model was: Success = 0.1823 + 0.3965(R1) + 0.418(R2). The results of the overall regression indicated that the two predictors (R1 Status, R1, and R2 Status, R2) explained 18.79% of the variance (Adjusted R^2 = 0.1879, F(2, 217) = 26.34, p = <0.0001). It was found that coming from an R1 status school significantly predicted success (β = 0.3965, p = <0.0000). It was found that coming from an R2 status school significantly predicted success (β = 0.4180, p = <0.0000).

Table 10

Results of ANOVA for Regression: School Research Status

ANOVA						
Model		*Sum of Squares*	*df*	*Mean Square*	*F*	*Significance F*
3	Regression	10.6359179	2	5.317958937	26.33849743	5.74537E-11
	Residual	43.8140821	217	0.201908213		
	Total	54.45	219			

a. Dependent Variable: Remarks

b. Predictors: (Constant), R1 Status, R2 Status

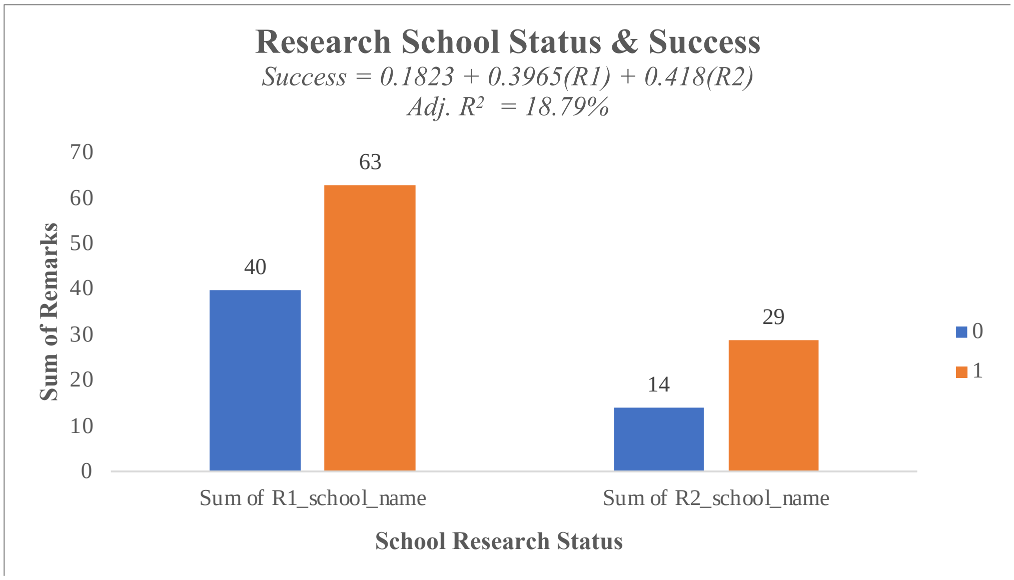

Figure 3

Independent Variable Frequency: Research School Status

MAJOR TYPE

A single regression analysis was used to test if the major type of the degree significantly predicted success by complete funding. The fitted regression model was: Success = 0.3558 + 0.3635(bus_major). The results of the overall regression indicated that the predictor business major explained 9.83% of the variance (Adjusted R^2 = 0.0983, F(1, 218) = 24.88, p = <0.0000). It was found that having a business degree significantly predicted success (β = 0.3635, p = <0.0000). It was found that STEM degree did not significantly predict success (β = -0.0299, p = <0.6745) and was thus excluded from the regression.

Table 11

Results of ANOVA for Regression: Major Type

ANOVA						
Model		*Sum of Squares*	*df*	*Mean Square*	*F*	*Significance F*
4	Regression	5.57926488	1	5.57926488	24.88769078	1.2406E-06
	Residual	48.87073512	218	0.224177684		
	Total	54.45	219			

a. Dependent Variable: Remarks

b. Predictors: (Constant), Business Major

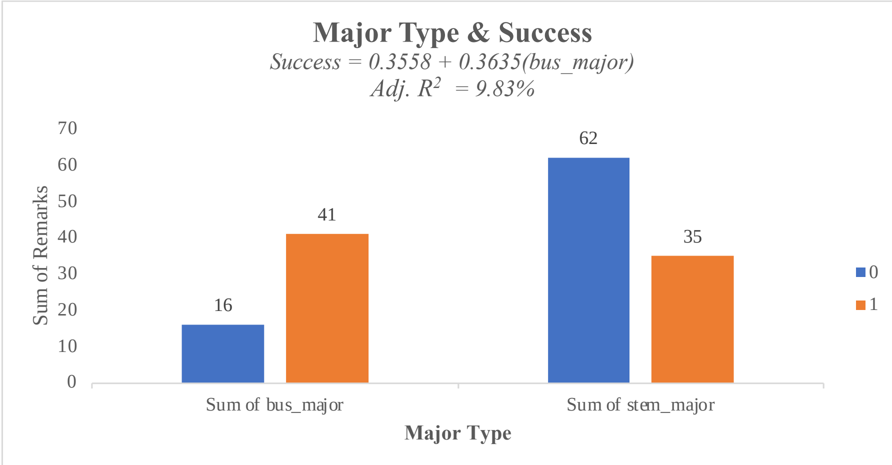

Figure 4

Independent Variable Frequency: Major Type

INDUSTRY TYPE

A single regression analysis was used to test if the industry type of creator significantly predicted success by complete funding. The fitted regression model was: Success = 0.2774 + 0.5841(bus_industry). The results of the overall regression indicated that the predictor business industry explained 28.40% of the variance (Adjusted R^2 = 0.2840, F(2, 217) = 87.73, p = <0.0000). It was found that coming from a business industry significantly predicted success (β = 0.5841, p = <0.0000). It was found coming from a STEM industry did not significantly predict success (β = 0.0066, p = <0.9195) and was thus excluded.

Table 12

Results of ANOVA for Regression: Industry Type

ANOVA						
Model		*Sum of Squares*	*df*	*Mean Square*	*F*	*Significance F*
5	Regression	15.6251861	1	15.6251861	87.7348847	9.72027E-18
	Residual	38.8248139	218	0.178095477		
	Total	54.45	219			

a. Dependent Variable: Remarks

b. Predictors: (Constant), Business Industry

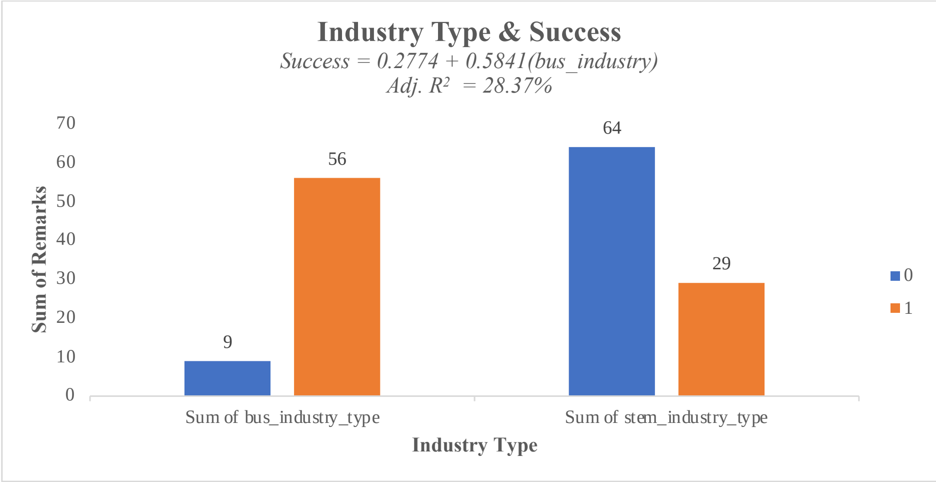

Figure 5

Independent Variable Frequency: Industry Type

EXPERIENCE

Multiple regression analysis was used to test if the background experience of the creator significantly predicted success by complete funding. The fitted regression model was: Success = 0.2021 + 0.2723(entrepreneurship) + 0.3856(volunteer). The results of the overall regression indicated that the predictors entrepreneurship experience and volunteer experience explained 20.87% of the variance (Adjusted R^2 = 0.2087, F(2, 217) = 29.87, p = <0.0000). It was found that having entrepreneurship experience significantly predicted success (β = 0.2723, p = <0.0000). It was found that having philanthropy experience significantly predicted success (β = 0.3856, p = <0.0000).

Table 13

Results of ANOVA for Regression: Experience

ANOVA

Model		*Sum of Squares*	*df*	*Mean Square*	*F*	*Significance F*
6	Regression	11.75560086	2	5.877800428	29.87470765	3.46316E-12
	Residual	42.69439914	217	0.196748383		
	Total	54.45	219			

a. Dependent Variable: Remarks

b. Predictors: (Constant), Entrepreneurship experience, Volunteer experience

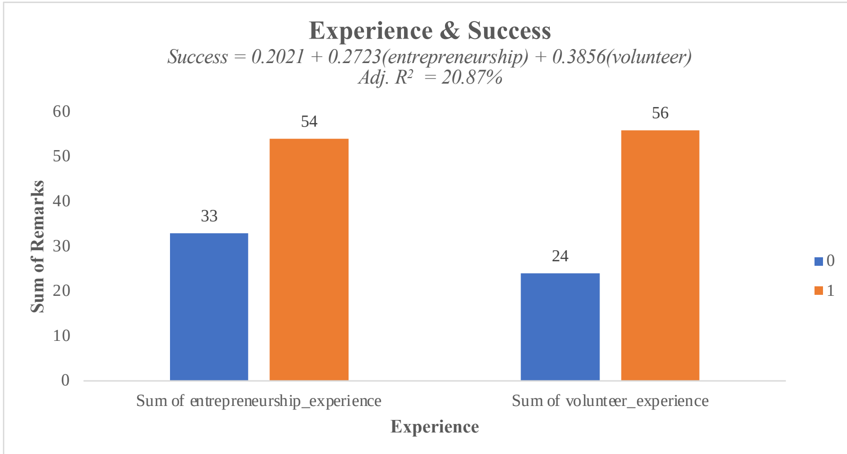

Figure 6

Independent Variable Frequency: Experience

THRESHOLD RATIO

Threshold ratio was calculated (in reference to Table 5) by $\frac{\$\ Amount\ Actually\ Raised}{\$\ Pledge\ Goal}$. As shown below in Table 14, when the variables are equivalent to 1; for example, the entrepreneur has a traditional degree over not having one. The maximum percentage raised was 27,100% because the project creator asked only $1, but raised $271, making it an outlier. The next highest percentage raised was 5,784%, collecting $1,1569,992 out of an asked $20,000. The lowest threshold percentage was 0%. The average ratio of funding of the entire set was 309.54%.

During data collection, the threshold ratio funding remark (Table 6) measured a 1 if the project's ratio was over 75%. As it turns out, this variable was identical to the remark's variable. It was observed that all projects over 75% threshold ratios had fully funded success. This makes sense because if they do not reach the goal, they get all their pledge money back. As a result, once a creator reached 75%, it is likely that they would self-pay the remaining balance to reach the fully funded mark and not lose all other pledge money raised.

Table 14

Threshold Ratio Metrics by Variable

Variable Categories	Variable (=1)	Average Threshold Ratio	Maximum Threshold Ratio
Level of Education	TD_level_of_education	340.81%	27100.00%
	HE_level_of_education	173.54%	2294.90%
Degree Type	BS_degree	208.14%	2884.36%
	BA_degree	374.60%	27100.00%
	MBA_degree	160.88%	2294.10%
Research School Status	R1_school_name	457.59%	27100.00%
	R2_school_name	211.88%	1551.64%
Major Type	STEM_major	643.63%	27100.00%
	bus_major	155.32%	2363.50%
Industry Type	STEM_industry	722.46%	27100.00%
	bus_industry_type	167.99%	5784.96%
Experience	entrepreneurship_presence	472.35%	27100.00%
	volunteer_experience	681.46%	27100.00%

MULTIPLE REGRESSION ANALYSIS

The last regression takes into account all independent variables and aspects studied: gender, level of education, degree type, research school status, major, industry, and experience. The fitted regression model was: Success = 0.165 + 0.264(TD_level_of_education) – 0.381(BA_degree) + 0.287(BS_degree) + 0.212(R1_school) + 0.269(R2_school) + 0.107(bus_major) - 0.119(STEM_major) + 0.427(bus_industry) + 0.288(volunteer).

The results of the overall regression indicated that the predictors explained 46.44% of the variance (Adjusted R^2 = 0.4644, F(14, 219) = 12.7, p = <0.0028). It was found that having a traditional education significantly predicted success (β = 0.02642, p = <0.09221). It was found that having a Bachelor of Arts degree negatively correlates to success (β = -0.3856, p = <0.02558). It was found that having a Bachelor of Science degree significantly predicted success (β = 0.2869, p = <0.0632). It was found that having a R1 status school significantly predicted success (β = 0.2124, p = <0.0003). It was found that having a R2 status school significantly predicted success (β = 0.2689, p = <0.0000). It was found that having a business major significantly predicted success (β = 0.1073, p = <0.0484). It was found that having a STEM major negatively correlates to success (β = -0.1191, p = <0.07761). It was found that having a business industry background significantly predicted success (β = 0.4278, p = <0.0000). Lastly, it was found that having a volunteer experience significantly predicted success (β = 0.2878, p = <0.0000).

The variables gender, higher level of education, MBA degree, STEM industry, and entrepreneurship experience were found to have no significance to the overall model. This indicates that each of these independently are found significant enough to produce a relationship to success but is weighted much lower when aggregated to interact with other independent relationships. In multiple regression, the betas are proportional to the partial correlation which is the correlation between y and the considered x controlled for the other regressors. Thus, it is important to consider which relationships to test. If looking for a category's relationship to success (such as degree level or experience), then it may be beneficial to look at each category's multiple regressions. If looking for a holistic view of how the variables correlate with one another once aggregated, then it may be best to view which variables were not found significant enough once weighted together.

Table 15

Results of ANOVA for Regression: All Variables

ANOVA

Model		*Sum of Squares*	*df*	*Mean Square*	*F*	*Significance F*
1	Regression	25.28930933	14	1.806379238	12.69886739	3.36867E-21
	Residual	29.16069067	205	0.142247272		
	Total	54.45	219			

a. Dependent Variable: Remarks

b. Predictors: (Constant), Traditional Degree (TD), Bachelors of Arts (BA_Degree), Bachelors of Science (BS_Degree), Research Status (R1), Research Status (R2), Business Major (bus_major), STEM Major (stem_major), Business Industruy (bus_industry), Volunteer Experience (volunteer)

4 – CONCLUSION

4.1 - DISCUSSION

The purpose of this study was to determine which conditions suspend collaboration between borrowers (entrepreneurs/creators) and lenders (Kickstarter donors) that in turn explain for unsuccessful funding. Part of the challenge that suspends collaboration stems from entrepreneurs possessing private information about their own skills and abilities that is not observable by the Kickstarter donors and it is difficult for donors to generate an objective assessment of the project. As a result, creators struggle in demonstrating the legitimacy and potential return on investment of their projects.

Through a creators LinkedIn and Kickstarter project pages, I collected data on several probable determinants regarding the entrepreneur's background and how successful they were. These variables included: gender, level of education, degree type, school research status, major and industry type, and volunteer and entrepreneurial experience.

GENDER

The original hypothesis regarding gender was that women are underrepresented in entrepreneurship; in other words, even if women do not lack an innovative mindset, there are systematic hurdles that appear in women's participation. The literature review regarding gender, specifically the findings of Bosma and Kelley (2018), were congruent with my findings in this study. Out of 219 total projects, women accounted for only 17.75% of the total. It was found that gender did not significantly predict success and the regression was disregarded, likely since there are not many women in start-ups. This finding is parallel with Fältholm et al. as "the processes, structures, and discourses of academic entrepreneurship are constructed and gendered" (2010). This underrepresentation of women in innovation-driven startups draws attention to existing gender prejudices and systematic disadvantages in societal systems, highlighting the double masculinity that occurs at the junction of STEM and entrepreneurship.

Women were found to be less risky than men, which may mean that they make smarter business decisions. Once the quantitative data was common sized for men and women to have equal participation, it turns out women have a 49% success rate, compared to men which was 44%. However, this 5% comes from the 20 unsuccessful projects done by women versus 19 successful projects. Compared to men, they had 101 unsuccessful projects but 80 successful projects (Table 7). This corresponds to the original hypothesis in that women would be more successful at raising money in crowdfunding. Additionally, it supports the data that was observed by both Rosa and Dawson (2006), as well as Frydrych et al. (2014), thus, it may be concluded that women are more likely to be successful, but the underrepresentation is critical to the success of the project.

LEVEL OF EDUCATION

It was hypothesized that those with higher levels of education would experience more funding success. For secondary education, classes completed up to high school, there was a lack of a skills that could contribute to formal entrepreneurship. For tertiary education, courses completed post high school, increases formal entrepreneurship. The results agreed with the hypothesis, validating the social network effect, making it more likely to be successful if a degree was obtained versus not. Additionally, being in a like-minded community of people in school can motivate creators to advance personal growth, which influences the social network effect. Simon et al. states that interactions at the university level had a higher number of people in their social network (2017). As a result, there were only 9 cases total where the project was successful, but there was no level of education.

This study found that obtaining either a traditional 4-year degree or a higher education degree after college significantly predicted success. The traditional degree had a coefficient of 0.22, while having a higher education had a coefficient of 0.20, which makes sense because you must have a traditional degree to have a higher education degree. However, the regression only predicted 8.4% of variance, meaning there are other factors that contribute to the overall success rate. Ahlers et al. (2015) found that higher levels of education are more likely to attract investments and have more investors in equity crowdfunding, which was demonstrated to also be true for Kickstarter funding.

DEGREE TYPE

I hypothesized that Bachelor of Science would be privier to success over a Bachelor of Arts because a Bachelor of Science would be more likely to experience failure, which the literature review proved would significantly impact the self-efficacy and achievement of an entrepreneur. A Bachelor of Science degree would imply more tasks like networking, managing, marketing, and making data driven decisions. A Bachelor of Science would entail degrees like business and STEM majors; therefore, it would be a reasonable assumption that it would be more successful. A Master of Business Administration was included in this degree type, as it is highly correlated to a higher education.

Results showed that obtaining a Bachelor of Arts would have a creator being 69% unsuccessful and 31% successful. However, a Master of Business Administration and/or Bachelor of Science would permit an 81% and 53% success rate, respectively (Table 7). This was congruent with the findings of Ahlers et al (2015) in those higher levels of education are more likely to garner funding. Bachelor of Arts was not found to predict success, but a Bachelor of Science or Master of Business Administration did significantly predict success (Figure 2). The notion of learning by doing in the respective degree type can increase levels of preparedness for an entrepreneur. Additionally, STEM degree attrition rates are significantly higher, which means that successful STEM degrees may have experienced higher failure rates (which is positively correlated to success). In fact, the National Center for Education Statistics finds that those in the STEM fields have a 56% to 62% attrition rate, while business and social behavioral sciences degrees have attrition rates of 50% to 45% (2013).

SCHOOL RESEARCH STATUS

The research regarding entrepreneurial success is scant, however, it could be implied that being privy to research skills may make researching a business model to fruition more effective. After collection of the school names and locations, it was found that their research status would be most correlated. The school status explains 19% of the variations in success rate, which is higher than degree level, degree type, and being a business major. R1 status had a coefficient of .4, while R2 status had a coefficient of .42 (Figure 3). This miniscule difference in betas may mean that a school with any form of formal research designation may be more likely to be successful.

As stated in the literature review, failure experience can either replace the lack of prior success experience by demonstrating a track record of learning or it can enhance prior success experience by producing a more realistic picture of the entrepreneurs (Huang et al., 2022). Research schools may have a better foundation of how to recover from failure and how to use failed research as a learning opportunity. Additionally, I observed during data collection that a more prestigious school name correlated to a higher education degree, and more prestigious school names are more likely to have a research designation. Though there is not specific research on R1 and R2 status schools and their effects on entrepreneurial success, Saxton et al. (2014) explains the value of social network built at an entrepreneur's school to the viability of their operation. It is reasonable to assume, a social network from a prestigious university may have more capital and resources to influence success rates of their peers.

MAJOR AND INDUSTRY TYPE

The gaps in literature regarding business versus a STEM-based degree formed the inferred hypothesis that STEM degrees may be more likely to do well due to the overall Kickstarter success rate on STEM related categories being higher than non-STEM related categories (Table 1). As it turns out, business majors were more likely to be successful than STEM majors. Additionally, business majors tend to go into a business-related industry, while STEM majors are more likely to go into a STEM related industry. The category of project correlated more to how effectively a creator was able to utilize their business skills than to what their degree was in. The crowd may perceive new projects launched by entrepreneurs who have success experience in their respective industry as more credible and trustworthy (Harbug et al., 2015). Industry experience also implies entrepreneurs can leverage established relationships with suppliers and key stakeholders in the industry. This is contradictory to the findings of Redman (2017), which may indicate that, on crowdsourcing platforms at least, marketing and management abilities may be more valuable than the actual product itself.

Business categories that were included were courses such as accounting, banking, business administration, entrepreneurship, and more. These courses may be more likely to increase success because they show a creator how to budget and market for a business plan in a professional way. It was also found that the business major category was highly correlated with entrepreneurship experience. STEM majors were 64% more likely to be unsuccessful, while business majors were 28% more likely to be unsuccessful. STEM industry type was 45% more likely to be unsuccessful, while business industry types were 14%. Thus, it can be concluded that business related majors and industries are more likely to be successful, partially due to ESE characteristics (Bandura, 1997). Relevant industry experience of entrepreneurs allows creators to deepen their understanding of their industry. Industry experience in business could also suggest a better understanding of crowdfunding knowledge, as only 5% of entrepreneurs have knowledge of crowdfunding (Adhikary et al., 2018).

EXPERIENCE

It was hypothesized that the skills and intrinsic takeaways of philanthropic experience can maximize social and economic performance on gaining venture capital. Likewise, having entrepreneurial experience could garner ESE that positively reflects on crowdfunding success.

These hypotheses agreed with the results, in fact, the regression reflects the second highest adjusted R^2 value of 20.87% to explain the variations in success rate (Figure 6).

Philanthropy experience reaped the highest coefficient out of all regressions at 0.39 (Figure 6). Entrepreneurship experience was highly correlated to a traditional education, Bachelor of Science, and industry experience in business. Experience in entrepreneurship and philanthropy can be imperative to the success of a project, as prior experience entails a higher quality understanding of people and of the business manufacturing process. Research in entrepreneurial finance has shown that experienced entrepreneurs have a higher chance of raising venture capital than novice entrepreneurs. While there is not specific prior research into how philanthropic exercise affects entrepreneurial success, Potzch and Bohme (2010) suggests that if potential backers have a positive perception of the entrepreneur, they are more likely to back their project. It would be reasonable to conclude that the average backer would view philanthropic experience as a positive trait, thus causing them to be more likely to back their project.

4.2 - CONCLUSION

The main research question that this study aimed to answer was what external and internal factors influence an entrepreneur's success on Kickstarter via observable variables on LinkedIn. It was concluded that for gender, women are underrepresented in financing and could not be formally deducted to have an influence on predicting success. In terms of level of education, obtaining a 4-year traditional degree and higher education degree entice investors to funding a project. Degree types of a Bachelor of Science and a Master of Business Administration predict success. Obtaining a degree from a research designated schools can increase probability of fully funding. A major in a business-related field followed by a business-related industry are more likely to be successful because of leveraged credibility and a deeper understanding. Lastly, entrepreneurship experience and philanthropic involvement develop intrinsic skills that aid in the viability of the project. It was observed that unrealistic goals on Kickstarter (asking for obscenely high funding) resulted in small ratio funding percentages and would most likely be unrealized funding.

This study contributes to the world of crowdfunding as there has been little research done on *why* certain Kickstarter projects are successful over others. The motivation behind choosing this topic is due to the disconnect between the potential value of a project and its realized value, likely from oversight with the ongoing disruptive innovation process. Educational experience interacts with entrepreneurial background because prior entrepreneur exposure may be garnered from schooling.

The articles referenced in this study highlight the gaps in literature regarding Kickstarter project viability. The biggest discrepancy in data that was noted by this study regarded gender. I had predicted that women would be more successful, however, the small sample size of women skewed results. Although many reasons exist for the lack of female representation, it would be beneficial to dive deeper to define the characteristics of women's entrepreneurship and the gender gap in launching new ventures (Kuschel et al., 2020). There needs to be more research concerning the gendered nature of technological entrepreneurial ecosystems and policy, as this analysis lacked the weight of gendered equal footing.

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