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THREE ESSAYS ON LIKABILITY FACTORS, CROWDFUNDING, AND  
ENTREPRENEURIAL PERFORMANCE

A Dissertation

by

YUANQING LI

Submitted to the Graduate College of  
The University of Texas Rio Grande Valley  
In partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2017

Major Subject: Business Administration



THREE ESSAYS ON LIKABILITY FACTORS, CROWDFUNDING, AND  
ENTREPRENEURIAL PERFORMANCE

A Dissertation  
by  
YUANQING LI

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August 2017



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## ABSTRACT

Yuanqing, Li, Three Essays on Likability Factors, Crowdfunding, and Entrepreneurial Performance. Doctor of Philosophy (Ph.D.), August, 2017, 223 pp., 21 tables, 3 figures, references, 399 titles.

In this dissertation, I conduct three empirical studies exploring the relation between likability factors, crowdfunding characteristics and entrepreneurial performance. Together these studies integrate aspects of major entrepreneurial likability factors including liking of the entrepreneur (source attractiveness, credibility, personal traits) and liking of the message (verbal content and expression), and components of nonverbal and verbal cues. I apply computer-mediated communication (CMC) and persuasion theories, political and marketing literature to provide a more fine-grained understanding of likability on crowdfunding success.

In the first essay, I study how the non-verbal cues of a crowdfunding video influence the crowdfunding success. By employing social presence theory, I argue, hypothesize and test that effective use of non-verbal cues in a pitch video increases funding success. In the second essay, I explore how verbal cues (readability and complexity) and non-verbal cues (smiling and professional attire) interact to influence crowdfunding outcome. Findings of this essay indicate that powerful persuasion results from both expression (verbal cues) and impression (non-verbal cues). The third essay examines the mediating effect of likability between nonverbal, verbal cues and crowdfunding success. According to the likability factors extracted from political and

advertising campaign literature, I conclude five main dimensions of likability in crowdfunding context. The results show that message factors are more influential than source factors in affecting crowdfunding outcome.

Findings of three essays show that entrepreneurs should be careful to deliver a message which is immediate, simple, informative, humorous, storytelling and less complimentary to their target funders. The more their messages are liked, the more likely funders will back their projects, and then the more success their crowdfunding campaign will be.

## DEDICATION

The completion of my doctoral studies would not have been possible without the love and support of my family. My mother, Yongling Mai, my father, Yuqiang Li, my husband, Bohan Fan, and my son, Eric, wholeheartedly inspired, motivated and supported me by all means to accomplish this degree. Thank you for your love and patience.



## ACKNOWLEDGMENTS

I will always be grateful to my advisor, Dr. Sibin Wu, for his excellent guidance, patience, caring, and inspiring me of doing independent research. I would like to thank Dr. Jennifer Welbourne, co-chair of my dissertation committee, for all her mentoring and advice. From theoretical structure building, research design and data processing to manuscript editing, Dr. Wu and Dr. Welbourne encouraged me to complete this process through their infinite patience and guidance. My thanks go to my dissertation committee members: Dr. Michael Minor and Dr. Yanrong Chang. Their advice, input, and comments on my dissertation helped to ensure the quality of my intellectual work.

I would like to thank Dr. Michael Abebe, Ms. Sandy Valadez and my colleagues in the PhD programs who helped me locate supporting documents for my research. Also, I would like to acknowledge Dr. Nan Xiao and Ms. Cindy Ngoc Pham who helped me in the survey design and data analysis. My research would not have been possible without the guidance of my committee members, help from faculties and friends, and support from my family.



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## CHAPTER I

### INTRODUCTION

There is a debate between two social perception dimensions----likability (mainly warmth) and competence in both classic and contemporary social and psychology studies, especially in their roles of impression formation (Asch, 1946; Fiske, Cuddy, & Glick, 1999; Fiske, Cuddy, Glick, & Xu, 2002; Cuddy, Fiske, & Glick, 2007). Likability and competence are also recognized as two essential factors that determine why people pick one person over another when given the choice of whom to work with in the workplace (Casciaro & Lobo, 2005). However, whether and how those two factors matter under certain contexts remains unclear.

The predominant stereotypes of rich people such as business leaders are usually regarded as competent but assertive and cold (Fiske et al., 2002; Cuddy, Fiske, & Glick, 2007; Williams, 2009). However, more and more current literature asserts that social skills especially the likability of a person is critical for leadership and workplace success (Casciaro & Lobo, 2005; Sanders, 2006; Wojciszke, Abele & Barylą, 2009; Kerpen, 2013). Literature towards relationship in marketing and management has shifted the importance from competence to workplace likability (Kleiman, 2014).

Decades of scholars argue that people choose those who they like. Likable people enjoy more advantages in voting, selling, even being selected for marriage (Sanders, 2006). Likeable individuals were believed to have a better chance of being hired (Geys, 2015), be desirable to work with (Casciaro & Lobo, 2005), have an easier time getting support and information from

others (Cialdini, 2009; Shellenbarger, 2014), get less resistance and more enthusiasm from others (ONLINEMBA, 2013), be forgiven for mistakes (Shellenbarger, 2014) as well as be given more opportunities for advancement (Kleiman, 2014). Likability has been argued to benefit various professions such as teachers (Chatelain, 2015), physicians (Jayanti & Whipple, 2008), defendants in court cases (James, 2010) and salespeople (Andaleeb and Anwar, 1996; Doney & Cannon, 1997), but not yet for entrepreneurs. Likability affects the vote preference (Hardy, 2010), final election result (Decker, 2008), purchase intention (Huang, Hsieh & Chen, 2011), advertising effectiveness (Leather, McKechnie, & Amirkhanian, 1994), memory of audiences and brand recognition (Kumar & Balabanis, 2015). Therefore, no matter personally or professionally, likability is a key factor for success (Sanders, 2006). However, this importance has not yet been extended to entrepreneurship field.

Likability is more important under CMC than in face-to-face (FTF) communication. CMC refers to communication via the use of at least two electronic devices (McQuail, 2005). Since the inception of Internet, CMC has caught more and more attention of communication scholars (Cui, Lockee & Meng, 2013). Individuals, entrepreneurs included, may take the advantage of such media for impression management, persuasion or catching attention (Walther, 2011). Ferran and Watts (2008) argued that likability would have a stronger effect through videoconference than through face-to-face communication on information adoption. Under the conditions that CMC tends to cause more confusions (Johnson, Sutton, & Poon, 2000), brings less satisfaction (Ocker & Yaverbaum, 1999), has issues such as privacy, trust, security and social control (Bordia, 1997), and leads to less learning (Aragon, 2003), likability becomes relatively more important to attract the audience and win their supports in the process of persuasion.

Crowdfunding, which collects small contributions from large number of people through Internet (Mollick, 2014), could be an example of applying CMC to entrepreneurship. In crowdfunding platforms, there is no face-to-face communications between project founders<sup>1</sup> and funders<sup>2</sup>. It may cause the issue of information asymmetry that funders would like to access more self-disclosed information from entrepreneurs, while entrepreneurs could not disclose much information due to the concerns of idea protection as well as the online communication limitation. It may also cause moral hazard problems because of the poor regulations towards online investments. The rewards or financial returns of crowdfunding investments may not be guaranteed. Therefore, due to the information asymmetry concerns and moral hazard problems of the CMC, likability of the founders plays an important role in crowd-funder's funding decision.

Crowdfunding has emerged in recent years as an alternative platform to traditional financing sources (Mollick, 2014) and caught lots of researchers' attention. Since Mollick (2014) found that the personal networks, geography and project quality are essential for crowdfunding success, researchers started to search the motivations and reasons for crowdfunding success. Current crowdfunding literatures show several factors that may affect the motivation of crowdfunding investment such as rewards (Gerber et al. 2012; Lee et al. 2015; Ryu & Kim, 2016) or financial incentives (Cholakova & Clarysse, 2015), philanthropic and support causes (Amara et al. 2014; Gerber et al. 2012; Pearson et al. 2016), altruism (Gerber et al. 2012; Bretschneider et al. 2014; Steigenberger, 2017), interpersonal relationship (Amara et al. 2014; Vedantam, 2015), involvement (Steigenberger, 2017) in the community (Gerber et al. 2012), social media (Amara et al. 2014), fun (Bretschneider et al. 2014 ; Ryu & Kim, 2016), enjoyment (Lee et al.

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<sup>1</sup> Also known as entrepreneurs, creators, or initiators in crowdfunding literature. I use these terms interchangeably in this dissertation

<sup>2</sup> Also knows as backers, supporters, or investors in crowdfunding literature. I use these terms interchangeably in this dissertation

2015; Pearson et al. 2016), curiosity (Bretschneider et al. 2014; Vedantam, 2015), recognition (Ryu & Kim, 2016) or identification with the team (Bretschneider et al. 2014) as well as familiarity (Lee et al. 2015).

Crowdfunding success is found to be related with number of backers and percent of early target capital pledged (Colombo et al. 2015), intellectual capital (Ahlers et al. 2015), individual social capital (Giudici et al, 2012; Colombo et al. 2015), entrepreneur's social network ties (Zheng et al. 2014), amount of highest bid (Wu et al. 2015), funding goal and project duration (Cordova et al. 2015), intrinsic motivation (Cholakova & Clarysse, 2015), national culture (Zheng et al. 2014), founder investment and firm size (Eddleston et al. 2015).

However, in spite of the importance of likability in CMC, there is no research found focusing on the likability's effect on crowdfunding success yet. Non-verbal cues, which account for more than 60% of communication in interpersonal interaction, are particularly effective in evoking the perception of social presence in CMC (Short et al. 1976). Language and message (Hosman, 2002) could be a powerful factor in persuasion, and thus affects crowdfunding success (Allison, et al., 2015; Ciuchta & O'Toole, 2016). Therefore, entrepreneurs could potentially increase their crowdfunding performance and effectiveness by emphasizing several factors that increase their overall attractiveness and likability such as nonverbal or verbal cues.

Based on what I stated above, I find that likability has not applied its effect on entrepreneurs yet. Due to its importance in CMC, it would be beneficial to study the impact of likability on entrepreneurs within the crowdfunding context. Hereby, I will discuss five main research questions in this dissertation:

- Q1. What is likability and why it is important for crowdfunding?
- Q2. How do non-verbal cues affect the crowdfunding success?

Q3. How do verbal cues and non-verbal cues interact with each other and affect the crowdfunding success?

Q4. Drawing from mass media campaigns (including advertising and political campaigns), what will be the verbal and nonverbal factors that affect entrepreneurs' likability in crowdfunding campaign?

Q5. How do those likability factors impact an entrepreneur in getting the funding from the crowd (the mediating effect of likability between non-verbal, verbal cues and crowdfunding)?

In sum, by integrating CMC and persuasion theories, in this dissertation, I am going to explore how the antecedents of likability and likable entrepreneurs could influence their probability of being funded. What I want to argue is likability indeed matters in the crowdfunding success, especially in mediating the effect of nonverbal and verbal cues. I further explore what kinds of properties could make a person or product likable. Through a literature review from political and advertising literature, I summarize the likability factors that are essential for crowdfunding campaign success.

The rest of the dissertation will be structured as follows. First, after the review of the factors and definitions of likability, I argue why likability, verbal and nonverbal cues are important for crowdfunding. Second, I explain two communication theories, Social Presence Theory and Elaboration Likelihood Model, as my theoretical foundation. Then the theoretical backgrounds, research models, hypotheses, methods and results of three essays are presented. Next I introduce my three essays and the contributions of each of them below:

In the first essay, I study how the non-verbal cues in the crowdfunding videos influence the crowdfunding project attractiveness and financing success. By employing social presence theory, I argue, hypothesize and test that effective use of non-verbal cues in a crowdfunding

video increases funding success. This essay could make several contributions: First, departing from previous research which mainly focuses on either funders or founders' characteristics, this study is one of the first investigating how non-verbal cues in a pitch video can maximize the campaign success. As pitch videos have been increasingly employed to attract funders and promote crowdfunding campaigns, the understanding of their uses not only helps entrepreneurs to communicate to potential funders more effectively but also enables crowdfunding platforms to design tools facilitating the communication. Second, this research contributes to computer mediated communication research, which primarily focuses on the use of different communication channels (Daft & Lengel, 1986; Dennis & Kinney, 1998). This stream research has found that videos can closely resemble face-to-face communication and create high level of social presence. However, few studies investigate how to use unique features of videos to maximize communication effectiveness. The current research fills this research gaps by studying what non-verbal cues in crowdfunding videos may be able to help entrepreneurs secure financing and enhance persuasion. Third, this study extends literature on non-verbal behaviors by exploring the impact of non-verbal cues embedded in online videos. As the focus of research on non-verbal cues is shifting from face-to-face communication to online communication, most investigations are limited to communication conducted through texts or voices (Allison, Davis, Short & Webb, 2015; Tan et al. 2014).

As verbal expressions also affect the results of crowdfunding projects, hereby in the second essay, I study how syntactic structure (readability and complexity) and non-verbal cues (smiling and professional attire) interact to influence crowdfunding project attractiveness. I employ elaboration likelihood model and social presence theory to argue that powerful persuasion results from both expression and impression.

This study makes the following contributions. First, it contributes to the entrepreneurship literature, specifically, the entrepreneurial persuasion research. Excellent presentation skills are important social skills to ensure entrepreneurial financing (Hoehnweiss, Brush, & Baron, 2004). However, very few of the previous research studies have focused on textual effect and the effect of non-verbal cues (Clark, 2008; Maxwell & Levesque, 2011; Hoehnweiss, Brush, & Baron, 2004). Second, previous persuasion research has been limited to student samples (e.g., Hosman & Siltanen, 2011; Smith, Siltanen & Hosman, 1998; Sparks & Areni, 2002) or has been examined in hypothetical situations (e.g., Chen, et al., 2009). This study extends such research to the crowdfunding phenomenon where real financial decisions are made and where the entrepreneurs' key task is to persuade funders supporting the fledgling business (Mollick, 2014).

My third essay examines the mediating effect of likability between nonverbal, verbal cues and crowdfunding success. I would like to explain the black box in persuasion process: does the source and message directly affect the persuasion outcome or does it miss one step----likability in between? I intend to answer such questions: Why do investors fund some project, but not others? Does likability matter in the persuasion process? What will be the major factors of likability that influence investors' funding decisions? Different from the data collection of the first two essays, essay 3 tests those questions from the investors' perspective. Specifically, I suggest verbal and nonverbal factors influence likability of the entrepreneur and message, and that likability influences funder's judgment of the crowdfunding project and funding intention. The expected contributions of this essay mainly focus on its new research perspective. Most of the data collections towards crowdfunding research are conducted by the secondary data. This essay is designed to test the real investors' concerns and decision making process. This primary data is very precious and hard to obtain. Furthermore, I collect literature related with political

and advertising campaign likability factors into entrepreneurial research. By comparison of political, advertising and crowdfunding campaign, I argue the similarity and differences between them, and concluded the dimensions of likability. Due to the limited research on the relationship between likability and entrepreneurship outcomes, this study could serve as the first attempt of exploring, defining and illustrating this relationship within the crowdfunding context.

Therefore, based on the data collected both from objective sources (crowdfunding platforms) and subjective sources (investors' perspective), results and findings of the three studies became interrelated, mutually supported and more convincing.

## CHAPTER II

### LITERATURE REVIEW

This chapter illustrates the literature related with the major concepts in my dissertation model. In order to figure out what is likability and why it is important within the crowdfunding context, I did several literature reviews in this section. First of all, I review the overall market and definitions and classifications of crowdfunding. Furthermore, I collect articles related to crowdfunding success factors and illustrate the importance of likability factor. The major dimensions, antecedents and consequences of crowdfunding success factors are illustrated. Then I review the literature on nonverbal communication, verbal communication and crowdfunding success. Additionally, I discuss the conceptualization and definition of likability, especially within entrepreneurship and crowdfunding field. Lastly, I summarize the relationship between likability and crowdfunding by reviewing CMC and persuasion theories.

#### **An Overview of Crowdfunding**

##### **The Crowdfunding Market**

Crowdfunding has been growing tremendously over the past decade as an alternative platform to traditional financing sources (Mollick, 2014). This phenomenon is quickly becoming an increasing area of importance for industry. Government agencies have also heeded this phenomenon. On April 5th 2012, President Obama signed the Jumpstart Our Business Startups Act to reduce unnecessary regulations to smoothen capital raising process for entrepreneurs,

especially for founders in Title III. Since then, the industry has been growing at an exponential rate.

Crowdfunding industry grows rapidly with a global fundraising volume of \$34.4 billion and \$17.2 billion of North America in 2015, which is almost 13 times the total funding volume of 2012 (\$2.7 billion) (Massolution, 2015; Crowdsourcing.org, 2015). According to crowdfunding industry report 2015, around 1,250 funding platforms are currently active, compared with 800 crowdfunding platforms in 2013 (Massolution, 2015). An industry report written by Chance Barnett, CEO of Crowdfunder.com, has shown crowdfunding exceeded angel investing in 2015, and probably will surpass venture capital in 2016 (Barnett, 2015). The crowdfunding industry is predicted to reach the total volume of over \$300 billion by 2025 (CFX Alternative Investing Crowdfunding Statistics, 2016).

Most of the industry reports above are based on the data extracted from equity based crowdfunding platforms. The biggest reward-based crowdfunding platform, Kickstarter, shows the upper trend of crowdfunding. Since launched on April 28, 2009, Kickstarter has already reached around \$3 billion of funds with 12.7 million backers and 123,139 successfully funded projects as of April 17<sup>th</sup>, 2017 (Kickstarter Stats, 2017). Based on Lambert and Schwenbacher (2010)'s report, almost 85% of the crowdfunding project founders come from Europe (49%) and United States (35.3%). 80% of the crowd-founders using crowdfunding platforms to build their projects very lately (since 2007). Therefore, based on its rapid growth in United States, crowdfunding is a recent and emerging market that requires attention from both theory and practice.

### **Crowdfunding Definition and Classification**

The earliest definition about crowdfunding could be traced back to an online article in 2006, Howe (2006) defined the phenomenon as “crowdsourcing” by illustrating an image-sharing project----Istockphoto. Following him, Kleemann et al. (2008, Page 6) offered a clear definition of crowdsourcing, which has been made possible by the emergence of Web 2.0, as “takes place when a profit oriented firm outsources specific tasks essential for the making or sale of its product to the general public (the crowd) in the form of an open call over the internet, with the intention of animating individuals to make a contribution to the firm’s production process for free or for significantly less than that contribution is worth to the firm”. Belleflamme, Schwienbacher and Larralde (2010, P.7) believe the concept of crowdfunding is embedded in the crowdsourcing, and could be defined as “crowdfunding involves an open call, essentially through the Internet, for the provision of financial resources either in form of donation or in exchange for some form of reward and/or voting rights.”

More recently, Mollick (2014, P.2) regards crowdfunding as “the efforts by entrepreneurial individuals and groups (cultural, social and for-profit) to fund their ventures by drawing on relatively small contributions from a relatively large number of individuals using the Internet, without standard financial intermediaries”. Through the development of crowdfunding definition, I could see that there is a trend to describe it by its different purposes and goals of crowdfunding effort and investors, for example, whether it is financial resources, donation and reward exchange (Belleflamme et al. 2010) or cultural, social and for-profit (Mollick, 2014).

Some researchers define crowdfunding by its processes. Crowdfunding was categorized by the three parties involved in the process: investors (who make small contributions on crowdfunding), intermediaries (crowdfunding platforms) and entrepreneurs (who seek financing through crowdfunding) (Valanciene & Jegeleviciute, 2013). Macht and Weatherston (2015) did a

literature review on current crowdfunding literature and divided crowdfunding process into two phases: pre-investment and post-investment. Haas, Blohm and Leimeister (2014) regard crowdfunding as a two-side market, which links the investors and entrepreneurs through the crowdfunding intermediary. And they further explained the crowdfunding process as exchanges between capital givers (funders) to project initiators (founders). They stated that through the intermediates on crowdfunding platform, funders support founders for the returns of founders to funders.

In addition, crowdfunding also is categorized by models based on the types of rewards or returns that are distributed to the crowd. Lambert and Schwienbacher (2010) concluded the major three models of crowdfunding investment as pure-donations (22%), passive investments (60%) and active investments (32%). Hemer (2011) limited the forms of crowdfunding terms into crowd donation, crowd sponsoring, crowd pre-selling, crowd lending and crowd equity. Bradford (2012) differentiated crowdfunding platforms in five types: donation, rewards, pre-ordering, lending, and equity from a legal perspective. Based on Bradford (2012)'s classification, Massolution (2013) combined the preordering and rewards and developed them into four types: crowd supporting, crowd lending, crowd investing and crowd donating. Belleflamme et al. (2014) classified two types of crowdfunding: pre-ordering and profit-sharing. Haas et al. (2014) identified three types of crowdfunding— hedonism, altruistic and for profit. To conclude, overall four models---- donation-based, reward-based, lending-based and equity-based model have been mostly mentioned and concluded by scholars (e.g. Giudici et al., 2012; Griffin, 2012; Massolution, 2013).

Donation-based crowdfunding refers to the classic way of fundraising (Kraus et al. 2016), which investors don't contribute for material rewards and just donate for goodwill and

acknowledgement (Giudici et al., 2012). The reward model offers funders with pre-ordering product, services or some incentives as the return of their investments (Kraus et al. 2016). In the lending based model, investors offer funds through small loans (Allison et al. 2015), and earn the returns through interest payment (Giudici et al., 2012). Funders are treated as equity stakeholders with profit sharing in return of their investments (Mollick, 2014).

Kuppuswamy and Bayus (2015) did a review on articles conducted under the four models of crowdfunding. They reviewed the major factors that are driving crowdfunding success for each model and concluded that reward-based crowdfunding grows faster and own more online platforms than other models of crowdfunding (Masssolution, 2015). Studies show that rewards are one of the most important motivations for participating in crowdfunding (Gerber, et al. 2012). 76.5% of the crowd-funders offer a reward to their crowd-funders (Lambert & Schwienbacher, 2010). According to Mollick (2014)'s study, research on reward-based crowdfunding is very rare, especially in the perspective of social information effect (Kuppuswamy & Bayus, 2015). Kickstarter is the most cited, analyzed and the largest reward-based crowdfunding community (Kuppuswamy & Bayus, 2014; Kraus, 2016). Therefore, in this dissertation, I plan to focus on exploring the antecedents of crowdfunding success under reward-based crowdfunding platforms, especially Kickstarter.

Crowdfunding research has seen an upper trend in exploring the drivers of successfully crowdfunded projects, especially under reward-based crowdfunding platforms (Kuppuswamy & Bayus, 2015). Mollick (2013) hypothesized the past successful crowdfunding experiences, third party endorsements and preparedness are positively related to the crowdfunding success, with the moderating effect of geographical location and gender. Extracted 2,101 crowdfunded projects from Kickstarter, he found that the evidence of past success, external endorsements and a

prepared demonstration affect project success. However, crowdfunding seems less subject to gender and geographic biases than venture capital.

Mollick (2014) conducted a study on exploring the current situations of crowdfunding: what factors make the success or failure of a crowdfunding project. Drawing the data collected from more than 48,500 projects, he concluded that personal networks (measured by the numbers of facebook friends of founders), project quality (measured by pitch video, updates within three days of launch and spelling errors in descriptions) as well as geographic factors (examined by Nearstat and Geocode) influence the success of crowdfunding. He also collected the information of post-investment behaviors of the crowdfunding project, and found that majority of the crowdfunded projects delayed in delivering their promised goods.

Cumming, Leboeuf and Schwienbacher (2014) compared the two models in Reward-based crowdfunding campaigns---Keep it all (Indiegogo) and All-or-Nothing (Kickstarter). They propose that All-or-Nothing model has to take more risk but higher chance of success, while Keep it all model has lower chance of success with lower risk. In order to test their propositions, they collected 22,850 projects from the Indiegogo platform from 2011-2013. Indiegogo has both All-or-Nothing (5.2%) and Keep it all (94.8%) models. Their results show that Keep it all model fits the projects that are small and scalable, while All-or-Nothing model are suitable for the projects that are large and non-scalable. Overall, keep it all models are less successful than All-or-Nothing campaigns in achieving their funding goals. Therefore, crowdfunding models affect the funding success, with the moderation of funding goals and project size.

Applying the social psychology theory, Kuppuswamy and Bayus (2015) figured out that backers support crowdfunding projects following a U-shaped pattern, compared with the herding

patterns in equity and lending-based crowdfunding (Agarwal, et al. 2011; Zhang & Liu, 2012) and crowding-out patterns in donation-based crowdfunding (Burtch, et al. 2012). They suggested the social information play an important role in the crowdfunding success. Project creators tend to increase their project updates towards the deadline in order to reach their funding goal. Based on two years (May 2009-February 2012) of daily data of 25,058 projects from kickstarter website, they concluded the reason for U-shaped pattern as the reduced diffusion of responsibility and positive influence of project updates towards the final stages of funding, especially for the projects that already reached their funding goals.

Colombo, Franzoni and Rossi-Lamastra (2015) did an empirical study through 669 Kickstarter projects to test the existence of the self-reinforcing pattern. They found that the number of early backers and the percent of target capital pledged early in the crowdfunding campaign are positively related with the crowdfunding success. Internal social capital is important for the campaign success, but this relationship is mediated the backers and funds collected in the early days of the campaign.

Drawing 78,061 projects from Kickstarter.com created prior to March 2013, Zvilichovsky, Inbar and Barzilay (2015) figured out that project creator's backing history could increase the crowdfunding success. Applying the network exchange theory, they believe that if the entrepreneurs previously supported others, they are going to have higher success rates, attract more backers and funds. They further explained this result with the direct (backing received from the project founders that they supported) and indirect reciprocity (backing received from the online community) forces in the context of crowdfunding.

Analyzed 762 projects (finished as of 10/28/2014) from Kickstarter.com crowdfunding platform, Koch and Siering (2015) examined the factors that influence the success of

crowdfunding projects. Based on the media richness theory and the concept of reciprocity, they propose the project-specific factors such as depth of project description, the utilization of images, the provision of video material, project updates, small pledging goals, as well as founder-specific factors such as project creating experience and reciprocity in funding are positively related with the success of funding, with the control of funding period, number of Facebook friends and project categories. Their results show that description, images and videos on the project and founder's previous backing experience influence their funding success. However, the previous project creating experience of the entrepreneur has no significant influence on the funding result.

Cordova, Dolci and Gianfrate (2015) explored the success factors of crowdfunding through 1,127 technology projects posted on four different reward-based crowdfunding platforms: 97 successful projects on Ulule; 9 projects on Eppela; 597 successful projects on Kickstarter and 424 projects on Indiegogo. Consistent with the reinforcement model, they found that project funding goal is negatively related with the funding success, that is, the higher the funding goal, the lower probability and extent of project success. They measure the success and the overfunding of the projects as dependent variables. Their results show that project duration and the dollar amount contributed per day are positively related with project success. Therefore, the target value, project duration and contribution frequency will affect the crowdfunding success. Contribution breeds contributions.

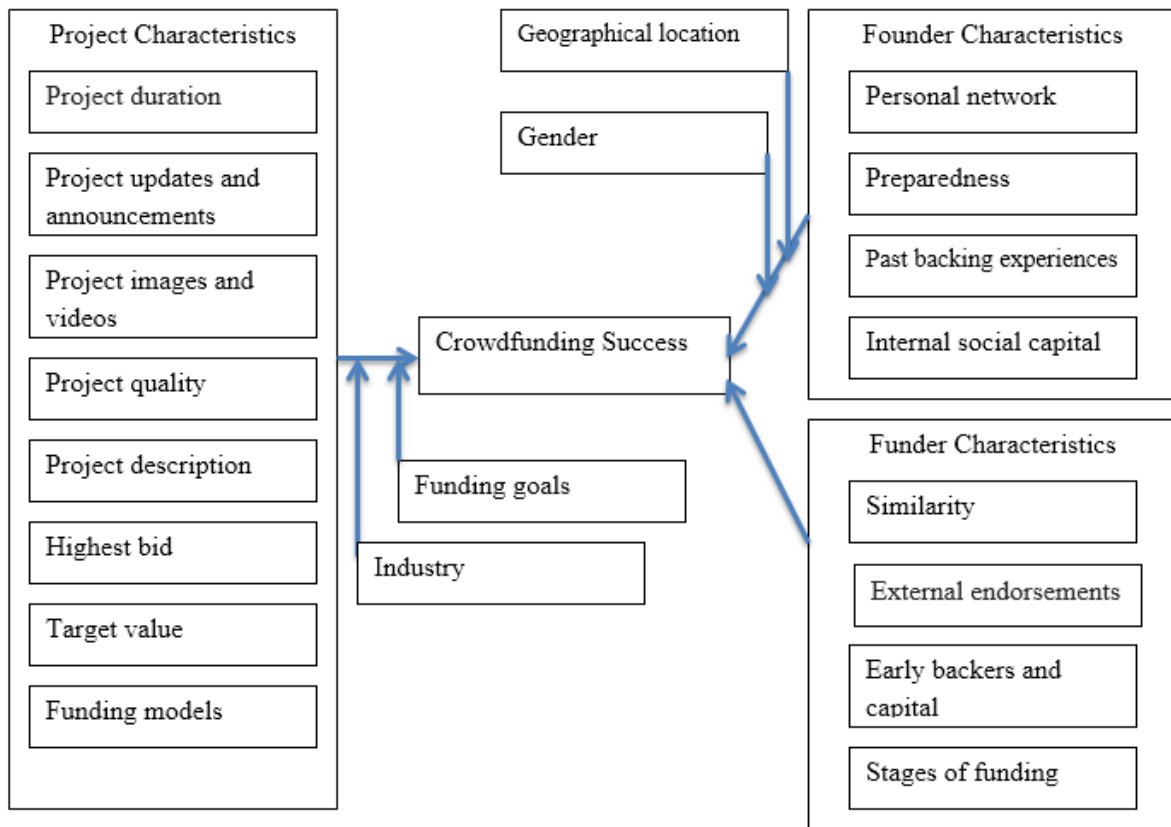
Applying the signaling theory, Wu, Wang and Li (2015) tried to conclude the success factors of crowdfunding under the Chinese context. They collected data from the sample of 192 projects collected from demohour.com----a Chinese crowdfunding platform. They found that frequency of announcements and the amount of the highest bid are positively related to the crowdfunding success. And this relationship is moderated by the industry effect. In details,

highest bid and frequency of announcements affect more on high-tech industry than on movie/music industries.

Greenberg and Mollick (2016) developed the concept of activist choice homophily from theories of choice homophily, based on the comparison of interpersonal choice homophily and induced homophily. Then they explored how the interpersonal choice homophily and activist choice homophily relate to gender in crowdfunding. They propose that individuals are more likely to support people who are similar with them, and this relationship is influenced by the gender and industry effect. This paper argues that like attracts like, which like could be generated from the race, age, education, and occupation of the person. First, they conducted an experiment of 399 students to test the hypotheses 1 and 2, regarding to the similarity and gender effect. Then they collect the real-world data from Kickstarter with 1,250 projects of gaming, technology, film, fashion and children's books five categories. Their results show that female founders prefer to found projects in fashion and publishing than technology and games. The projects created by female have 40% greater success rate than male. Female founders are more succeed in the industries that they are underrepresented and traditionally male-gender-typed, such as technology.

Thus far, I could conclude the major success factors that appear in recent reward-based crowdfunding literature into categories. And I list the success factors filling each category into the following figure:

**Figure 1: Summary of Success Factors in Reward-based Crowdfunding**



Literature reveals that current crowdfunding research suffers two shortcomings. First, most of them focused on how crowdfunding project characteristics such as project quality (Mollick, 2014), project updates (Kuppuswamy & Bayus, 2015), description, images and videos on the project (Koch & Siering 2015), funding goals (Cumming, Leboeuf & Schwienbacher, 2014; Cordova, Dolci & Gianfrate, 2015), project duration and contribution frequency (Cordova, Dolci & Gianfrate, 2015), frequency of announcements and the amount of the highest bid (Wu, Wang & Li, 2015) effect crowdfunding success. Given the importance of entrepreneur in the entrepreneurial process (Shane & Venkataraman, 2000), we need to pay more attention on how entrepreneur's characteristics may affect funding success.

However, current literature focused much on the personal networks (Mollick, 2014), backing experiences (Koch & Siering, 2015; Zvilichovsky, Inbar & Barzilay, 2015) and social capital (Colombo et al. 2015) of the entrepreneurs, rather than the real personality or traits of them. Few researches have examined the actual founders' behavior on crowdfunding success, especially the nonverbal or verbal behaviors of them. Even through Greenberg and Mollick (2016) mentioned liking of the entrepreneurs may generate more crowdfunding success, they limited the liking with similarity effect under gender context. Therefore, the current research proposes relationship between founders' behaviors (nonverbal and verbal behaviors) with the crowdfunding success, and I propose this relationship will be mediated by the likability of the founder. I hypothesize that nonverbal and verbal behaviors of entrepreneurs could generate likability, and thus positively influence the crowdfunding result. In the following, I am going to explain the important roles of those three parts (nonverbal, verbal behaviors of entrepreneurs and likability) in crowdfunding.

### **Non-Verbal Communication**

Non-verbal communication has been defined as behaviors other than words that create meaning in interaction (Hale, 2003). This may include expressions, gesture or symbolic behaviors that convey meaning (Burleson, 2003), intentional behavior that conveys an idea symbolically (Canary, 2003) and actions to which meaning may be attached such as a wink, a wave of hand, facial expression, dress and so on (Adejimola, 2008). The most interpersonal information was communicated by nonverbal communication (Mehrabian & Ferris, 1967).

The characteristics of nonverbal communication make it more influential: nonverbal communication pervades every communicative act (omnipresent); it could be part of every communication purpose (multifunctional); it could be used and understood by world over such as

smiling, crying, etc. (universal); and it is the first form of communication in the history between species (phylogenetic primacy), in the early lifespan of individuals (ontogenetic primacy) and in the opening minutes of human interactions (interaction primacy) (Burgoon, Guerrero, & Floyd, 2016).

Gabbott and Hogg (2001) point out that nonverbal communication transcends the written or spoken word. Nonverbal communication could express what verbal communication cannot. Whenever there is a contradiction between nonverbal and verbal cues, people will believe what's communicated nonverbally rather than the verbal message (Burgoon, Guerrero, & Floyd, 2016). Nonverbal and verbal cues may conjunct with each other during the communication process. Audiences will elaborate on the nonverbal cues before comprehending the verbal message (Sundaram, & Webster, 2000). Affections are communicated faster through nonverbal communication (Noller, 1985). Grahe and Bernieri (1999) concluded that nonverbal behavior would be more important than verbal behavior when expressing a spontaneous affect or rapport and viewing brief slices of an interaction.

Two-thirds of the meaning of interactions is derived from nonverbal cues (Philpott, 1983). Nonverbal cues largely contribute to the success of communication (Burgoon, Guerrero, & Floyd, 2016). Cook (1971) divides the nonverbal cues into two broad categories: static nonverbal cues, which are related to face, physique, physical appearance, clothes, makeup and so on and dynamic nonverbal cues, which are related to gestures, facial expressions, gaze direction, space, distance, tone of voice, the amount and fluency of speech. Sundaram and Webster (2000) specified nonverbal cues as kinesics (facial and body movements), paralanguages (vocal pitch, loudness, pauses, fluency), proxemics (distance and touch), and physical appearance. Gabbott and Hogg (2001) further categorized non-verbal cues into four broad areas: proxemics (the use of personal

space and distance); kinesics (body postures and movement); oculusics (the communicative aspects of eye behavior such as gaze and movement) and vocalics (para-language such as vocal tone and intonation). In this dissertation, I apply the classification of DeGroot and Gooty (2009) towards non-verbal cues: dynamic cues (facial and body movements), static cues (demographic and physical characteristics) and paralinguistic cues (speech rate and volume, vocal tone, pausing), since they classified almost all the non-verbal cues listed above.

### **Non-Verbal Communication and Crowdfunding**

Previous literature on nonverbal communication mainly appears in sociology, psychology and communication fields (Sundaram, & Webster, 2000). Most of the studies argue nonverbal cues could influence people's first impression and thus persuasion (Webster, 1964). Nonverbal cues have been found to influence the patients' satisfaction of a physician (Mast, 2007); interviewer's perception of applicants' qualifications (Parsons, & Liden, 1984), trust and likability (DeGroot, & Motowidlo, 1999); customers' rapport (Lin et al. 2017) and perceptions of friendliness, credibility, trustworthiness and competence towards the service employees (Sundaram, & Webster, 2000); and student engagement in an online course (Dixson et al. 2017). Cade, Koonce and Ikuta (2017) found that non-verbal cues in the video disclosure associated with investor's judgment of uncertainty. They further suggested that the choice of disclosure medium affects investors' judgment. Specifically, investors react more negatively towards the uncertainty that they perceived through video than through written text.

Videos posted on crowdfunding platforms, as the medium of entrepreneurs' nonverbal behavior disclosure, affect their crowdfunding success. Strickler (2009) mentioned in Kickstarter tips that crowdfunding video is a demonstration of effort from the entrepreneurs and a good

predictor of success. Compared with the projects without videos (39%), crowdfunding projects with videos have a much higher success rate (54%) (Byrom, 2017). The use of video or image could signal the preparedness of the entrepreneurs, mitigate information asymmetry between entrepreneurs and funders, as well as increase investors' perception of project quality and founder credibility in crowdfunding (Courtney, Dutta, & Li, 2017). Mollick (2014) use whether the platform contains a video as the criteria to evaluate the crowdfunding project quality. Project presentation on the crowdfunding platform is positively related to the crowdfunding success (Beier & Wagner, 2015). A video within the project presentation could increase investors' funding motivation and funding success of a crowdfunding project (Kuppuswamy and Bayus 2013).

However, little research has examined how nonverbal cues in the video affect crowdfunding success. Pope and Sydnor (2011) found that race impacts the lending performance. In a peer-to-peer lending based website called Prosper.com, they found that if there are blacks in the picture attached in the loan projects, the possibility of receiving funding will reduce 25-35% compared to whites with similar credit backgrounds. They further explained that the loan postings without pictures or with pictures but contain the image of black or older borrowers and unhappy emotions will be strongly discriminated. Therefore, the characteristics of borrowers displayed in the pictures and descriptions will significantly influence their lending performance.

Duarte, Siegel and Young (2012) tested the relationship between borrowers' appearance and perceived trustworthiness under peer-to-peer lending site. They collected listings of 5,950 loans with 3,291 initial loans photographs, and then they employ Amazon's Mechanical Turk (MTurk) service to rate the trustworthiness and will-pay based on borrowers' photographs. Their

result shows that borrowers will have higher probabilities of receiving a loan with lower interests, if their appearances are perceived as more trustworthy.

Ravina (2012) examined whether personal characteristics and presentation of founders could affect lenders' decision. Based on the data collected from 7,321 borrowers in an online lending market----Prosper.com, they found that borrowers' appearance and race affect lenders' preferences and perception. If the borrowers' appearance is above average, their possibility of getting a loan would increase 1.44% with the interest rate decrease by 81 bps. Black borrowers need to pay 139-146 bps more interest rates than a White borrower. They also argued the similarity effect between borrowers and lenders on their ethnicity, residence, gender, interests and experiences. The results show that lenders prefer borrowers who are similar to them in ethnicity, residence, gender and entrepreneurial experience.

Plummer, Allison and Connelly (2016) tried to explore the effect of entrepreneur's characteristics and actions in pursuing the initial external capital. Borrowing from the sense-making literature, they argue that entrepreneur's characteristics such as managerial experiences, as well as actions such as product introduction and commercial property operation will increase their probability of receiving the external capital. From a sample of 986 startup firms between 1995 and 2010 in Oklahoma, they found that affiliating with a third party is the most essential success factor for early stage financing. Entrepreneur's characteristics and actions will increase the possibility of receiving external capital, only if they were combined with a third-party affiliation.

Anderson and Saxton (2016) argued that facial expression, especially smiling behavior could influence the lending decisions. They collected 323 funding projects by women entrepreneurs from Asia on the Kiva.org crowdfunding platform. They analyzed the smile of

borrowers from their photo using the Facial Action Coding System. Two coders coded whether the smile could be judged as Duchenne smile (genuine happiness) or non-Duchenne smile (no enjoyment). Compared with the previous research finding Duchenne smile could increase trustworthiness, this research did not find statistically significant relationship between Duchenne smile and trust or faster prosocial funding behavior. Therefore, they concluded that genuine enjoyment smile has no impact on increasing of trust.

Concluding the current literature about nonverbal and crowdfunding, it reveals that most of them focused on the entrepreneurs' characteristics especially the physical appearance's effect on crowdfunding outcome. However, as I listed above, physical characteristic is only one part of static cues. Nonverbal communication also contains many other cues such as dynamic cues and paralinguistic cues, which have not been tested yet under crowdfunding context.

Besides, most the nonverbal-crowdfunding research are conducted under the lending-based platforms. Due to the limited literature towards the nonverbal cues' effect under crowdfunding context, especially under reward-based platforms, I thus call for more studies in exploring the relationship between nonverbal communication and reward-based crowdfunding success.

### **Verbal Communication**

Verbal communication has been referred to as speech communication (Adejimola, 2008) or language (Krauss, 2002). Speech communication is regarded as the most effective form of human communications. The speaker's emotion, appearance, posture, competence and confidence could strongly influence his or her speech at social gatherings or business transactions (Adejimola, 2008). Language could be used as a resource for creating social causes of verbal power (Ng, & Bradac, 1993). The semanticity, generativity, and displacement

properties of language generate an unlimited number of meaningful novel messages, which allows the effective and versatile human communication (Krauss, 2002).

Previous research of verbal communication concentrates in the fields of sociology, psychology and communication (Parhankangas & Renko, 2017). They believe that the use of words represents people's mental, social and psychological states (Pennebaker, Mehl, & Niederhoffer, 2003). The use of verbal communication has shown importance in taking care of critically ill patients (Elliott, & Wright, 1999), operating surgical team performance (Dankelman, et al, 2017), motivating students to learn (Downs, Javidi, & Nussbaum, 1988), course performance (Robinson et al., 2013), connecting individual's mood (Zajonc, 2000), appealing to communicator's audience (Parhankangas and Renko, 2017), improving firm performance (Patelli and Pedrini, 2014) and receiving funding from an angel network (Parhankangas and Ehrlich, 2014).

Krauss (2002) diversified verbal communication as two kinds of signals: signs and symbols. Signs are related to the message we convey by nature. Symbols are the implications of social conventions. He believes that both signs and symbols are involved in the verbal communication process. Hosman (2002) specified language as two elements: the structural element and the use element. The structural element focuses on the phonology, syntax and lexicon of the texts or narratives. The use element emphasizes the pragmatics, speech style and language varieties across different region or countries. Derived from the LIWC dimensions, Abe (2011) concluded three types of language cues: psychological distancing, cognitive complexity, and positive emotionality. Psychological distancing related to the distance of leaving or joining the topic being discussed. Cognitive complexity refers to the precise distinction and integration of words. Positive emotionality relates to the negative and positive emotion words.

Based on the previous literature, Toma and D'Angelo (2015) applied two categories of linguistic cues: function words (used for binding sentences, content-free parts with not much meaning) and social and psychological concerns (affection, cognitive and sensory process). Example Parhankangas and Renko (2017) used two kinds of linguistic cues in their research: content words and style words. Content words represent the adjectives, nouns and verbs which contain lots of meaning, while the style words concentrate on how the meaning is expressed. 55% of the words we frequently apply are style words, even they accounts for only 0.04% of the amount of all words (Pennebaker, 2011).

Keyton et al. (2013) concluded that verbal workplace communication behaviors perform four essential functions: information sharing, relational maintenance, expressing negative emotion, and organizing communication behaviors. Robbins and Hunsaker (2012) mentioned that using multiple channels (both verbal and non-verbal), make the message complete and specific, responsible, congruent and simple could generate effective verbal communication.

However, there is still a debate as to whether nonverbal or verbal communication is more important than the other. Verbal communication provides more accurate judgments than nonverbal cues (Archer & Akert, 1977). Berry et al. (1997) argued that verbal content conveyed the same amount of information as nonverbal behavior does. It would be beneficial to know how verbal and nonverbal cues interact with each other in conducting the meaning of the words or messages under different circumstances.

### **Verbal Communication and Crowdfunding**

Previous research has demonstrated the importance role of verbal communication content and styles in crowdfunding success. Herzenstein, Sonenshein and Dholakia (2011) argued that borrower's narratives would influence lender's decision. They collected 1,493 loan listings

posted by borrowers on Prosper in June 2006 and June 2007 and found six identity claims in their narratives: trustworthy, economic hardship, hardworking, successful, moral, and religious. They found that the more identity claims used in narratives, the more funding will obtain, but the less pay back will be received from the borrowers. The logic is higher identity claims usually related with lower credit scores. In addition, they found that narratives emphasized trustworthy or successful identity turns out to be more effective. Therefore, it is important to emphasize several identity claims under uncertain conditions, in order to influence funding decisions.

Allison, McKenny and Short (2013) applied the warm-glow theory (funding motivation for feeling good) to suggest that use of language could influence the speed of funding decision on Kiva----a microleading crowdfunding platform. They collected 6051 narratives from entrepreneurs and used the Diction 6.0 to measure the political rhetoric in them. The results show that narratives with more blame and present rhetoric lead to faster funding, while narratives with more accomplishment, tenacity, and variety rhetoric have slower funding. Therefore, the characteristics of political rhetoric affect the funding success of lending based crowdfunding.

Drawing from cognitive evaluation theory, Allison et al. (2015) argue that the linguistic cues (intrinsic or extrinsic) have impact on funder's funding motivation. They collected data through a lending based crowdfunding platform----Kiva.org. They measured intrinsic language with the rhetorical analysis of human interest language and diversity language, and extrinsic language with the content analysis of profit language and risk taking language. Their results show that the funder will invest more on the projects that they perceive as an opportunity to help others (used more human interest and diversity language) rather than a business opportunity (used more profit and risk taking language).

Gorbatai and Nelson (2015) examined the role of language (linguistic content) on crowdfunding success. More specifically, they believe that the use of vivid language, positive emotion and inclusive (relational) language could increase the crowdfunding success, while money-related language decreases the success. Gender could affect the use of those languages and thus on funding success. Women apply more vivid language, positive emotion and inclusive (relational) language and less money-related language than men do. Collecting the 9,943 campaigns under technology and small business categories from an online crowdfunding platform named Indiegogo, they found that online setting of funding prefer women's communication patterns and thus explained the reason why women are favored than men in receiving funding and support under crowdfunding context.

With the sample of 729 loan requests from an online peer-to peer lending crowdfunding website named Prosper, Ciuchta and O'Toole (2016) suggested that nonverbal cue (physical attractiveness) and verbal cue (positive word) interact with each other in establishing the beauty is good effect and influencing the funding result. The beauty is good effect refers to the situation that attractive people are usually ascribed positive qualities, simply because of their good looking (Dion, Berscheid, & Walster, 1972). They also found the use of positive word is more influential on impression formation and resource acquisition. Therefore, they advise that we need to judge the book both by its cover and its content.

Siering, Koch and Deokar (2016) found that static and dynamic communication is useful in detecting the fraudulent behavior on crowdfunding platforms. After collecting 652 projects (326 projects are suspended because of fraud while 326 are not suspended) on Kickstarter.com, the results show that content based and linguistic cues extracted from static and dynamic communication are important classifiers in analyzing fraudulent behaviors. They concluded that

the linguistic cues based approach is a better way for fraud detection, compared with the machine learning and economic evaluation.

Applying the language expectancy theory, Parhankangas and Renko (2017) argue that the content of entrepreneurs' message on the crowdfunding platform matters. The word they choose and the story they tell will affect the crowdfunding result significantly. In details, with the data extracted from 656 crowdfunding campaigns (411 commercial and 245 social) listed on Kickstarter, they found that linguistic styles which are more understandable and relatable have higher success rate, and this is moderated by the types of campaigns. Social campaigns (new ventures) are influenced by the linguistic styles more than the commercial campaigns (established category).

Compared with the limited literature associated with nonverbal cues and crowdfunding outcome, the studies of verbal cues on crowdfunding are more fruitful and various. It has been studied under both lending based crowdfunding platforms such as Kiva and Prosper, as well as the reward based crowdfunding platforms like Kickstarter and Indiegogo. However, the main theme of those researches still narrowly focused on exploring the effect of the contents of the language (e.g. money-related or human prosocial, negative or positive) on crowdfunding success. Since language acts both in terms of content and expression, it would be beneficial to explore some other aspects of verbal communication such as language styles (e.g. simple or complex; emotional, social or psychological) under crowdfunding context.

## **Likability**

Likability<sup>3</sup> has been defined as a nice and agreeable personality (Hogan, Curphy, & Hogan, 1994), a pleasant perception (Ahearne, Gruen & Jarvis, 1999), a persuasion tactic (Kenrick, Neuberg, & Cialdini, 2002) and the ability to produce positive emotion (Sanders, 2006).

The existing concepts of likability mainly are defined by marketing studies, which related it with advertising likability. Walker and Dubitsky (1994) mentioned that liking can be defined as a global positive response toward an object or idea that has underlying cognitive and affective components. The Advertising Research Foundation's Copy Research Validity Project (ARF and CRVP) concluded that advertisement liking, which may lead to favorable attitude toward a brand or advertiser, is one of the best measurements for predicting advertising effectiveness (Haley & Baldinger 1991). The concept of likability has attracted considerable attention after ARF and CRVP's research, especially as a common way of measuring advertising effectiveness (Hollis 1995). More recently, researchers apply the terminology of brand love to describe brand likability (Batra, Ahuvia, & Bagozzi, 2012; Nguyen, Melewar & Chen, 2013).

Likability are also defined by its dimensions from scholars and practitioners. Alwitt (1987) defined likability as a multidimensional construct with cognitive and affective components. Biel and Bridgewater (1990) categorized five dimensions of liking: ingenuity, meaningfulness, energy, rubs the wrong way (reverse-coded) and warmth. Greene (1992) explored the significant correlation between likability and persuasion and asserted that informational value is more important than the entertainment value in generating ad liking.

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<sup>3</sup> Likability sometimes written as likeability, appears in the literature alternatively. Based on the explanation of Merriam-webster dictionary, both forms are acceptable in spelling and could be used interchangeably. As likability is a preferred spelling in U.S. English, I will unify with this form throughout the dissertation.

Reysen (2005) developed friendliness, approachability, attractiveness, level of knowledge, similarity and agreeableness as main likability dimensions that fill in the Reysen Likability Scale to measure a person's likability.

Here are some more dimensions defined by practitioners: Leo Burnett Company (1990) found that visual effects, degree of activity, high quality production factors and the story of the advertisement are key components of liking. Sanders (2006) who defined likability as an ability to create positive attitudes by delivering the emotional and physical benefits to other people, concluded likability as four main factors: friendliness, relevance, empathy, and realness. Lerferman (2011) illustrated the 11 laws of likability as authenticity, self-image, perception, energy, curiosity, listening, similarity, mood memory, familiarity, giving and patience. Kerpen (2013) mentioned 11 traits of a likeable leader such as listening, storytelling, passion, team playing, surprise and delight, responsiveness, simplicity, authenticity, transparency, adaptability and gratefulness.

The widespread use of likability in both theory and practice implies that it is certainly an important concept. However, the term perception, tactic or ability seems too broad and the diverse components are too vague to figure out what exactly likability is, especially under the business and entrepreneurship context. Based on existing definitions, in this dissertation, I would like to narrow the definition of likability as the property that makes a person or message likeable or to be liked by others. Then I further explore what kinds of properties could make a person or product likable in my three essays.

### **Likability and Entrepreneurship**

Likability factor was believed to be important in the world of business, especially in marketing. Biel and Bridgwater (1990) suggested likability does have a persuasive effect in sales.

All other factors being equal, likable people sell more than others (Stanley, 2012). According to the advertising industry, celebrities sell products based on their likability through peripheral route of persuasion (Kassin et al. 2008). Yale University and the Center for Socialization and Development in Berlin (2000) conducted a study and concluded that leaders gain success not because of being aggressive but because of being nice.

Likability matters a lot in the workplace. Casciaro and Lobo (2005) asked employees in different and various firms to evaluate their coworkers based on likability and competence factors. Their research showed that people prefer to work with lovable fools (high in likability but low in competence) rather than competent jerks (low in likability but high in competence). According to Casciaro and Lobo (2005)'s research, it's almost irrelevant whether people is competent or not if they are dislikable. That is to say, people prefer to work with the coworker who are more likability rather than who are more competence. Singh and Tor (2008) conducted a study of comparing how the high or low in competence and high or low in likability factor affect people in choosing potential future partners and their attraction toward strangers. They verified the preference of lovable fools over competent jerks by finding the effect of likability two times as large as that of competence.

Likability is particularly important in entrepreneurship. Shane and Venkataraman (2000) emphasized the field of entrepreneurship with two important factors: the processes of opportunity discovery, evaluation, and exploitation and individuals who discover, evaluate, and exploit them. They further explained why, when and how some people discover and exploit entrepreneurial opportunities out of others. Based on their conclusion of relevant entrepreneurial research, information and individual perception and cognition properties tend to be two broad categories that affect the particular people in discovering certain opportunity.

People tend to spend more time and talk with likable people (Sanders, 2006) and share more information with them (Shellenbarger, 2014). Fink and Kraus (2009) mentioned in their book that entrepreneur's innovations are based on information sharing and knowledge creation. They regarded entrepreneur as information processor. Information processing is closely related with knowledge creation and opportunity identification (Noteboom, 2000; Ward, 2004). Opportunity requires a combination of creativity, innovation and market information (Vaghely & Julien, 2010). Therefore, likable entrepreneurs tend to have more networking with others and capture more information, thus discover, evaluate, and exploit more opportunities.

To create a successful start-up, entrepreneurs normally require substantial tangible or intangible resources (Erikson, 2002). Information and personal connections discussed above could be considered one of the intangible resources. Investments and financial capitals are considered important tangible resources for entrepreneurs. About 79% small businesses fail because of lacking of financial capitals (Scarborough, 2012).

Previous research has argued that likable people have an easier time getting support (Cialdini, 2009) and are desirable to work with (Casciaro & Lobo, 2005). When there is a limited funding available, and there are so many qualified entrepreneurs out there, investors would be inclined to support the entrepreneurs they like and enjoy working with. Therefore, likability plays a role like the “stepping stone” of entrepreneurs in starting up their businesses. Once they catch the opportunity to be invested, their personal ability and preparations will then come into play.

### **Likability under Crowdfunding**

The setting and contexts of likability influence its effect on entrepreneurs. As I mentioned in introduction, CMC such as email, blogging and instant messaging was increasingly applied as

a trend for interpersonal interactions. CMC has provided new opportunities to study social influence and persuasion (Guadagno, Muscanell, Rice & Roberts, 2013).

Guadagno and Cialdini (2005) conducted a literature review and concluded that some of the social influencing factors such as commitment and consistency tactics are more effective when using CMC, whereas some like authority cues are not. The limited existing literature on the effect of liking under online contexts are conflicting (Guadagno et al. 2013). Guéguen, Jacob, and Morineau (2010) demonstrated that similarity generates liking and enhances a helping behavior under CMC settings. However, Guadagno and Cialdini (2007) demonstrated that liking was not always an effective means of influencing a target via email. Guadagno et al. (2013) found that likability could not influence the compliance (people's willingness of complying with a request) online.

Research shows that likability tends to be more important and influential than other cues such as arguments quality (Ferran & Watts, 2008) under the videoconferencing, social networking and online chatting settings (Shellenbarger, 2014). Due to the controversial results of likability research under CMC, I conclude that the effect of liking varies through different setting and contexts. Here in this dissertation, I would like to examine the likability's effect in a specific online setting----Crowdfunding.

Driven by the trend of CMC, crowdfunding has been increasingly used by entrepreneurs to raise funds for their creative ideas through the mass online community (Kuppuswamy & Bayus, 2013). It represents a novel way for entrepreneurs to raise capital for a wide variety of projects, which are posted on dedicated websites, known as crowdfunding platforms (Giudici, Guerini & Lamastra, 2013). Although crowdfunding platforms provide an easy access to reach

more potential investors, entrepreneurs face more challenges in alleviating investors' information asymmetry and moral hazards concerns.

Besides, crowdfunding isn't easy. Some fail simply because they don't have enough planning or strategy in place before they launch, other campaigns fail because they aren't far enough along in product development to convince people to jump onboard. Unlike traditional financing, crowdfunding project creators rely heavily on social media to allow people to pitch their project and receive financial payments online. In an online environment where there is no interaction between investors and entrepreneurs, the problem of information asymmetry can be magnified. Thus, entrepreneurs in crowdfunding face even more challenges when they seek for financial support. In this case, persuasion and likability factors may become relatively more important.

Crowdfunding could be reviewed as a persuasion process where entrepreneurs could convince and persuade investors of the potential of their opportunities (Chen, Yao, & Kotha, 2009). Cialdini (2009) indicates that likable people are more influential and persuasive. Following this rule, entrepreneurs could increase their crowdfunding performance and effectiveness by emphasizing several factors that increase their overall attractiveness and likability.

As I mentioned in introduction, the effect of likability on crowdfunding has not been drawing enough attention from academics. Even though the crowdfunding phenomenon is emerging and gaining more attentions and popularity, the research of crowdfunding, especially from the business perspective remains limited (Mollick, 2013, 2014). Most of the previous research towards crowdfunding focused on testing one or several factors' effect on the funding success (Colombo et al. 2015; Giudici et al, 2012; Cordova et al. 2015; Cholakova & Clarysse,

2015). There is no article systematically examine how likability of the entrepreneur will influence the attractiveness of the crowdfunding project. Given the potential importance of likability on crowdfunding, I strongly believe there is a need to explore the relationship between likability and crowdfunding outcome.

Therefore, in this dissertation, by integrating several CMC and persuasion theories, I am planning to explore how likability of entrepreneurs could influence their probability of being funded. I would explore the non-verbal and verbal cues' effect in the first two essays and the mediating effect of likability in the third essay. Through a detailed literature review, I attempt to shed light on this area by identifying and concluding the likability factors that are essential for crowdfunding campaign success.

### **CMC Theories**

Since the inception of internet, CMC has caught more and more attention of communication scholars (Cui, Lockee & Meng, 2013). Individuals, entrepreneurs included, may take the advantage of such media for impression management, persuasion or catching attention (Walther, 2011). Different from face-to-face (f2f) communication where likability factors play an important role for communicators, CMC lacks the social context cues and is said to prevent message receivers from comprehending the senders' affection, charisma and other characteristics due to the absence of non-verbal cues (Sproull & Kiesler, 1986). The opposite may also be true because it is hard for the communicators to detect the characteristics of the receivers (Petty & Cacioppo, 1986), thus, reducing the power of persuasion by the information senders.

Earlier research generally regarded CMC as inferior to f2f communication because "there are fewer code systems, less immediacy of feedback, less natural language, and little message personalization" (Walther, 2011, p449). CMC faces more issues such as privacy, trust, security

and social control (Bordia, 1997). Research has found CMC tends to cause more confusions (Johnson, Sutton, & Poon, 2000), brings less satisfaction (Ocker & Yaverbaum, 1999), has less accuracy in understanding the message receiver (Bordia, 1997), and leads to less learning (Aragon, 2003). Therefore, CMC may not be effective compared with f2f communication. In addition, it is easier to lie through online presentations due to lack of interpersonal interactions and modes of verification (Donath, 1999).

### **Social Presence Theory**

According to Walther (2011), social presence theory is one of the major theories under CMC framework. The explosive growth of the Internet and CMC signifies the importance of understanding social presence theory (Gunawardena, 1995). The concept of social presence is originated from the literature of immediacy (Wiener & Mehrabian, 1968) and intimacy (Argyle & Dean, 1965). Both literature argued that nonverbal cues such as eye contact, facial expression or body movements, and verbal cues such as intimacy of topics could lead to intimacy and immediate interaction. Based on those concepts, Short, Williams, and Christie (1976) developed the concept of social presence as “the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships” (p. 65). Short et al. (1976) argued that social present is an important factor that determines the way that people interact with each other, and it would be affected by elements such as physical distance, eye contact, smiling, and personal topics.

After Short et al. (1976)’s research, researchers began to develop and improve the concepts of social presence. They defined social presence as the “extent to which other beings appear to react to you” (Heeter, 1992, p. 2), the ability of “presenting themselves to other participants as ‘real people’” (Garrison, Anderson, & Archer, 2000, p. 89), “the degree of feeling, perception,

and reaction of being connected to another intellectual entity through a text-based encounter” under CMC context (Tu & McIsaac, 2002, p. 140), “sense of being with another in a mediated environment” (Biocca & Harms, 2002, P. 11) or just simply “being with another” (Biocca, Harms, & Burgoon, 2003, P. 1). Therefore, most of those definitions illustrated the essential of social presence as getting connected and being real under the mediated environment. Literatures show that presenters who present online could present themselves as “real” and connect with others by using nonverbal and verbal behaviors (Short et al. 1976; Gunawardena, 1995), storytelling (Lowenthal & Dunlap, 2010) and humor (Gunawardena & Zittle, 1997; Rourke, et al. 2007).

Intimacy (Argyle & Dean, 1965) and immediacy (Wiener & Mehrabian, 1968) are the first two components of social presence (Short et al. 1976). Thereafter, Durlak (1987) suggested three dimensions of social presence including the potential of immediacy, nonverbal cues and the context. Tu and McIsaac (2002) proposed social presence contains social context, online communication, and interactivity in CMC environment. Tu (2001) explained that interactivity includes CMC activities as well as the communication styles like immediate response and the potential for feedback. Biocca et al. (2003) proposed involvement, immediacy, and intimacy as three main components and measurement of social presence. Here I conclude the social presence factors as immediacy (psychological distance such as pausing), intimacy (interpersonal interaction such as smiling) and interaction (interpersonal involvement such as eye contact).

Social presence theory became the most popular construct in describing personal interactions under online environments (Gunawardena, 1995). Most of the studies on social presence theory focused on its impacts on the learning efficiency and satisfaction of students through CMC (Sallnas 2005). Gunawardena and Zittle (1997) did a study showing that social

presence (explained 60% of variance) significantly influences the audience satisfaction. Consistent with their results, Richardson and Swan (2003) found that social presence not only affect the audience satisfaction but also the perceived learning for student under online learning environment. Swan and Shih (2005) further developed this result by finding the perceived presence of instructors as one of the most influential factors determines the student satisfaction. Due to the focus of social presence theory on online education, it would be interesting to explore its effect in the entrepreneurship field.

Short et al. (1976) mentioned that the different communication mediums differ in their effect on personal interactions. Some media was perceived as higher degree of social presence like video, while others with lower degree of social presence such as audio (Short et al. 1976). Sallnas (2005) found that the environment and communication media used could influence the perception of a presenter's social presence. In details, she found that people perceived more social presence under the videoconference than the audio conference and text-chat. People participate more under the Web communication than the collaborative virtual environment. Crowdfunding platform as an online communication medium could have higher degree of social presence in the pitch video.

Compared with face-to-face communication, CMC is extremely low in social presence because of lacking nonverbal cues (Gunawardena, & Zittle, 1997). Some researchers believe that the absence of non-verbal cues could be compensated by strengthening senders' messages (Walther, DeAndrea, & Tong, 2010). In addition, unlike the first wave of CMC systems, which relied heavily on texts, current CMC platforms depend primarily on Internet. Such CMC media are much more sophisticated. For example, they often include photos and videos where some non-verbal cues may be observed (Cui, Lockee, & Meng, 2013; Epley & Kruger, 2005).

Therefore, social presence plays an important role in crowdfunding: Crowdfunding funders are amateur investors and they lack resources, knowledge, time, and incentive to thoroughly evaluate every project (Freedman and Jin 2011), so they are more likely to make decision based on their feelings or impression rather than objective assessment of the projects. Additionally, the motivation of crowdfunding funders, especially those supporting reward-based campaigns, are related with community or relationship building rather than financial returns (Agrawal et al. 2013), so psychological and emotional factors are more salient than financial ones in their funding decisions (Galak et al. 2011). Besides, as I mentioned above, funders suffer the risk of investing under moral hazards and information asymmetry, warmth and interactivity that created by social presence could make them feel more confident and less anxious in funding crowdfunding projects (Hassanein and Head 2007).

### **Persuasion Theories**

Persuasion refers to the “process of trying to move people to a new or changed belief, attitude, value or behaviors, by using credible information, evidence, reasoning and emotional appeals” (Rogers, 2007). Based on the definition, it shows that the objective of persuasion is to change people’s belief, attitude, value or behaviors.

Persuaders follow the persuasion steps that contain multiple persuasion components to change people’s belief, attitude, value or behaviors. Aristotle distinguished two kinds of persuasion: persuasion involving emotions and persuasion involving reason. Kelman (1958) further explained these two kinds of persuasion as internalization (accepting the arguments) and identification (liking the message source). This research leads to the arguments about a duality (cues vs. arguments) in persuasion. McGuire (1984, P.314) applied the Communication-Persuasion Matrix to illustrate the persuasion process. He listed four input variables that

determine the effectiveness of the persuasion: source variables such as credibility (expertise and trustworthiness) and attractiveness (liking, similarity and familiarity); message variables such as language style, type of appeal, argument and information; channel (medium) variables such as verbal and nonverbal cues; and receiver variables such as amount of participation, demographics, personality and abilities. Rogers (2007) concluded the persuasion steps model as three main components: the persuasive message, persuader and receiver.

Research found several variables that could increase or decrease a person's persuasiveness by influencing people's belief, attitude, value or behaviors. Kelman (1958) argued that high source expertise and high source attractiveness could enhance the acceptance of the message arguments and the identification with the message source. Petty and Cacioppo (1986) discussed variables such as source, message, recipient, channel, and context are essential for persuasion effectiveness, especially when the receiver's motivation and ability to think are low. For example, source variables such as source expertise and credibility (Chaiken, 1980; Petty, Cacioppo, & Goldman, 1981) could affect the perception of arguments and argument quality. Nonverbal cues such as head (Tom et al. 1991) and arm movements (Cacioppo, Priester, & Berntson, 1993) may influence the peripheral process. Message variables such as syntactic expressions, the number and quality of arguments (Petty & Cacioppo, 1984) as well as the length of arguments (Wood, Kallgren, & Preisler, 1985) included in a message may lead to the strength or flaws in the persuaders' arguments.

In 1980s, concluding the previous attitude studies in persuasion, the elaboration likelihood model (ELM; Petty & Cacioppo, 1986) and the heuristic-systematic model (HSM; Chaiken, Liberman, & Eagly, 1989) argue the processing of information through dual-process routes or model by which variables could affect attitudes.

The HSM categorized information processing in two modes: the systematic processing (people apply more comprehensive efforts in thinking before making a judgment) and the heuristic processing (people put less and limited effort in thinking before making a decision). In general, people prefer to choose heuristic processing over systematic processing, which requires less effort in information processing (Chaiken, Liberman, & Eagly, 1989). Some of the early applications of this model connect heuristic with likability, named “likability heuristic” (Sniderman et al. 1991). They argued that people could make reliable inferences about political groups, largely based on their likability towards those groups (Sniderman et al. 1991). Under CMC, people are more influenced by heuristic cues such as likability than the quality of the arguments of the speaker (Ferran & Watts, 2008).

### **Elaboration Likelihood Model**

I choose ELM as my primary persuasion theory background in this dissertation, which I believe provides a general framework for “organizing, categorizing, and understanding the basic processes underlying the effectiveness of persuasive communications” (Petty & Cacioppo, 1986, p.125). Basically speaking, ELM assumes that people are motivated to hold correct attitudes. They want to feel rational and right about things that matter to them, and may define the word correct as what is good for them. It argues that different people respond to persuasive messages in one of two ways centrally or peripherally (Rogers, 2007).

Most importantly, the ELM attempts to integrate many conflicting arguments and findings of persuasion together into one theoretical piece. The ELM began with Petty and Cacioppo (1981a)’s research focusing on the differential persistence of communication that leads to attitude change. Consistent with the findings of the research towards attitude, Petty and Cacioppo (1986, p.127) evaluate attitudes as general evaluations that could be originated or

generated from variety of behavioral, affective and cognitive experiences. For example, a person may start to like a new political or marketing candidate because of behavior-initiated change like donation to the his/her campaign, or affect-initiated change like feeling pleasant about the music in a recently heard commercial, or cognitive initiated change like the candidate's issue positions. Similarly, liking of the candidate may also influence the person to donate money (behavioral influence), or feel happy when meeting the candidate (affective influence), or selectively encode the candidate's issue positions (cognitive influence). After reviewing the literature on attitude persistence, Petty and Cacioppo (1986) concluded many different empirical findings and theories in the field might profitably be viewed as emphasizing their two routes of persuasion (Petty, 1977; Petty & Cacioppo, 1978).

### **Two Routes: Central and Peripheral**

Petty and Cacioppo (1986) developed two basic routes for persuasion----central and peripheral routes. The central route of persuasion was resulted from a person's careful and thoughtful consideration of the information presented. This route is used when the receiver is motivated to think about the message or has the ability to think about the message. Receivers usually think favorably about the persuasive message as a kind of elaboration and even actively add their own ideas. Receivers may apply critical thinking to consider the idea or proposal like: Do I like this idea? Whether it is true? Why I like it?

The peripheral route of persuasion was believed to occur as a result of some simple cue under the persuasion context, such as source attractiveness that influence the scrutiny of the information presented (Petty & Cacioppo, 1986). This path is applied when the receiver is either not motivated or unable to critically examine the message. When going through the peripheral route, receivers usually accept or reject a persuasive message based on the nonverbal cues of the

sender. Therefore, peripheral processing often involves simple judgments with some superficial reasons. For example, receiver may choose to buy something based on the perceived credibility or likability of the sender, message's length in time and words as well as how many persuasive arguments applied. Compared with central processing, peripheral processing may lead to weak changes that could not last long (Rogers, 2007).

To conclude, people take the central route when they think critically about a message. When people focus on other cues rather than think critically, they took the peripheral route. Therefore, the strength of the message matters more in the central route, while surface cues such as non-verbal cues will play a more important role in peripheral route (Rogers, 2007).

ELM plays an important role in likability. Whether the person or message is likable depends much on how they could persuade and influence people to believe that they are likable. Liking is important because peripheral route processing can be more influential in the funder's mind. Funders form a positive attitude toward a crowdfunding project because they like the founder or the message that he/she introduced. Source likability, in turn, also determines the effectiveness of persuasion (Roskos-Ewoldsen & Fazio, 1992).

Based on the review of persuasion theories, I could concluded that persuasion variables including identification and compliance (Kelman, 1958), peripheral route (Petty & Cacioppo, 1986) and heuristic processing (Sniderman et al. 1991) are related or could lead to the liking of the person, while internalization (Kelman, 1958), central route (Petty & Cacioppo, 1986) and systematic processing (Chaiken, Liberman, & Eagly, 1989) are relates the liking of message or product's description and expression. Those are the main variables that will significantly influence a person's likability and then persuasion performance. Therefore, the three essays of this dissertation will first examine cues (nonverbal) and argument factors (verbal) and their

effects on crowdfunding performance. Then I will focus on the mediating effect of likability between those two persuasion components and their persuasive performance in the third essay.

## CHAPTER III

### ESSAY I THE EFFECT OF NON-VERBAL CUES ON CROWDFUNDING SUCCESS

Crowdfunding emerges in recent years as an alternative platform to traditional financing sources (Mollick 2014). While crowdfunding allows entrepreneurs to reach out to a large number of potential funders, it poses some challenges. First, the entrepreneurs have to rely on online media to communicate with funders, but online media are less effective in building trust and reducing uncertainty than face-to-face communication (King & Xia, 1997). Second, most crowdfunding funders are amateur investors and lack resources, knowledge, time, and incentive to thoroughly evaluate every project (Freedman & Jin, 2011). The evaluation and screening of entrepreneurs and their ventures have been studied in previous entrepreneurial financing research, which suggests that entrepreneurs can use signals and cues to influence investors' decisions, particularly in the early-stage of venture when the uncertainty is high and reliable information is limited (Huang and Pearce 2015).

Given the challenges faced by crowdfunding campaigns, the effect of signals and cues is more salient. Previous literature on crowdfunding has identified some cues that have an impact on crowdfunding success, including project duration (Mollick 2014), social capital (Colombo et al. 2015), national culture (Zheng et al. 2014; Burtch et al. 2014), geographical location (Burtch et al. 2014; Agrawal et al. 2013), and peer opinions (Lin et al. 2013).

This study focuses on exploring the signals and cues in the crowdfunding pitch video. A crowdfunding pitch video is a short video clip posted on a crowdfunding campaign page allowing entrepreneurs to introduce themselves, describe their ventures, and appeal to potential funders. While previous research has found a pitch video on the campaign webpage is critical for funding success (Mollick 2014), entrepreneurs have recognized its values, and crowdfunding websites have strongly encouraged its use, studies examining the underlying mechanisms of pitch videos on funding outcomes is still scant and what features in a pitch video are effective remains unclear. Therefore, I attempt to answer the following question: How does a pitch video affect crowdfunding success?

Drawing on social presence theory, I contend that an effective use of non-verbal cues in a crowdfunding campaign pitch video can increase the funding success rate. Social presence refers to the sense of being with another (Biocca et al. 2003), and it is essential in building trust and interpersonal relationship (King and Xia 1997). Because funders in crowdfunding campaigns face risks such as fraud, incomplete projects, product delivery delays, and fund abuses, they are more likely to be attracted by crowdfunding projects presented to them with warmth and interactivity so they can feel more confident and less anxious (Hassanein and Head 2007). Furthermore, many crowdfunding investors, especially those award-based crowdfunding funders, are seeking a sense of community or friendship rather than financial returns (Agrawal et al. 2013), so they are more likely to value the intimacy and closeness (Cui et al. 2013) created by the perception of social presence.

Non-verbal cues, which account for more than 60% of communication in interpersonal interaction, are particularly effective in evoking the perception of social presence in CMC (Short et al. 1976). The effective use of non-verbal cues in a pitch video not only reinforces the verbal

content a founder delivers but also makes the founder's appeal more personal and credible. In this study, I propose that the use of non-verbal cues in a crowdfunding pitch video enhances its persuasiveness and attractiveness, which in turn increases funding success rate. Using campaign data collected from Kickstarter.com, I investigate how funding outcomes could be influenced by five non-verbal cues—eye gaze, smile, speech hesitation, time to appear, and attire. I found that an entrepreneur could improve the funding outcome by gazing less, appearing early, and reducing speech hesitation in a pitch video.

This study makes several contributions. First, departing from previous research that mainly focuses either on funders and founders' characteristics, this study is one of the first investigation towards how non-verbal cues in a pitch video maximize the campaign success. As pitch video has been increasingly employed to attract funders and promote crowdfunding campaigns, the understanding of their uses not only helps entrepreneurs to communicate to potential funders more effectively but also enables crowdfunding platforms to design tools facilitating the communication. Second, this research contributes to computer mediated communication research, which primarily focuses on the use of different communication channels (Daft & Lengel, 1986; Dennis & Kinney, 1998). This stream research has found that videos can closely resemble face-to-face communication and create high level of social presence. However, few studies investigate how to use unique features of videos to maximize communication effectiveness. This study bridges the gap by studying how non-verbal cues can affect the persuasiveness of video messages and in turn enhance the persuasiveness of video presentation. Third, this study extends literature on non-verbal behaviors by exploring the impact of non-verbal cues embedded in online videos. As the focus of research on non-verbal cues is shifting from face-to-face communication to online communication, most investigations are

limited to communication conducted through texts or voices (Allison, Davis, Short & Webb 2015; Tan et al. 2014). This study is one of the first to decode the non-verbal cues used in a much richer medium.

The paper is structured as follows. Following this introduction, I briefly discuss crowdfunding and theoretical foundation. Then hypotheses are developed, followed by methodology and results. Finally, I discuss the findings and their implications.

## **Theoretical Foundation and Hypotheses**

### **Crowdfunding and Its Challenges**

Crowdfunding was defined as “the efforts by entrepreneurial individuals and groups (cultural, social and for-profit) to fund their ventures by drawing on relatively small contributions from a relatively large number of individuals using the Internet, without standard financial intermediaries” (Mollick, 2014). To launch a crowdfunding campaign, entrepreneurs need to create a campaign webpage at crowdfunding websites, briefly describing their projects and setting a funding goal. Funders can view all campaigns and make financial contributions based on their evaluations. Crowdfunding expands entrepreneurs’ reach to potential funders who are otherwise inaccessible. The growth of crowdfunding is at an exponential rate. Billions of dollars have been raised throughout more than 600 worldwide crowdfunding websites (Sannajust et al., 2014).

Despite ease of use, crowdfunding poses challenges to both funders and entrepreneurs. On one hand, funders face uncertainty, information asymmetry and moral hazards (e.g., Schwienbacher & Larralde, 2012). First, most crowdfunding websites only provide limited information on campaigns and funders have to rely on entrepreneurs’ self-disclosed information to assess the quality and risks of the projects (Moss, Neubaum & Meyskens, 2015). Second,

crowdfunding funders might not possess the expertise or knowledge on projects listed on crowdfunding websites, nor do they have resources to conduct a thorough and systematic review on entrepreneurs or their ventures (Colombo, Franzoni, & Rossi-Lamastra, 2015). Third, most crowdfunding websites apply a reward-based model in which funders only receive products or services instead of stock ownership. In this case, there is no legal guarantee that the funded project will be completed, the product will be delivered on time, or even the raised funds will be used appropriately (Bruton, Khavul, Siegel, & Wright, 2015; Cholakova & Clarysse, 2015).

On the other hand, while crowdfunding lowers the bar of reaching out to more funders, it is difficult for a venture to stand out among a large number of campaigns competing for funders' attention and donation. Also, the lack of face-to-face interaction impedes entrepreneurs' efforts in persuading funders and winning their trust (Allison, Davis, Short & Webb, 2015).

To alleviate the issues discussed above, crowdfunding websites provide entrepreneurs a few tools to introduce their ventures to crowdfunding funders. These founders, compared to professional investors, are more likely to form their judgement of a project based on the entrepreneurs' presentation rather than the project/product quality (Mollick and Nanda, 2015). Particularly, subtle non-verbal cues embedded in videos could have a great impact on funders' perception and in turn affect campaign success. I summarize the major differences between the traditional financing and crowdfunding in Table 1 below:

**Table 1: A Comparison of Traditional Financing vs. Crowdfunding**

|                          | <b>Traditional Financing</b> | <b>Crowdfunding</b>         |
|--------------------------|------------------------------|-----------------------------|
| <b>Media</b>             | Face-to-face                 | Internet                    |
| <b># of funders</b>      | Few                          | Many                        |
| <b>Orientation</b>       | Personal                     | Informational               |
| <b>Delivery</b>          | Frequent interactions        | Website designs             |
| <b>Reward to funders</b> | Investment returns           | Products/services/Intrinsic |
| <b>Aim of founders</b>   | Fund raising                 | Fund raising/Promotion      |
| <b>Non-verbal cues</b>   | Not so important             | Very important              |
| <b>Social presence</b>   | High                         | Low                         |
| <b>Task</b>              | Relationship building        | Social presence creation    |

### **Social Presence Theory**

Social presence refers to the awareness of the other person in a communication interaction (Short, Williams, & Christie, 1976) or simply the sense of “being with another” (Biocca, Harms, & Burgoon, 2003). Social presence theory was originally developed to examine the capacities of various communication media (Short et al., 1976). Face-to-face communication is considered to have a high degree of social presence and thus it is more suitable for tasks demanding interpersonal skills, whereas written and text based communication has a low degree of social presence and thus is suitable for routine information exchanges tasks (King & Xia, 1997).

As communication has been moving increasingly to computer-mediated media, social presence theory is extended to understand people’s perception and interpretation of online communication and interaction (Cyr et al., 2009; Hassanein and Head, 2007). Since computer mediated communication (CMC) is usually constrained by long distance and the lack of face-to-face interaction, appropriate social presence level is critical to facilitate the development and maintenance of close personal relationships and interpersonal exchanges (King & Xia, 1997), Such exchanges in turn improve communication effectiveness and persuasiveness. Previous studies have found that the experience of social presence has a positive impact on

communicatees' emotion, attitude, and behaviors, thus leading to engagement (Mollen & Wilson, 2010), feeling of closeness (Gooch & Watts, 2014), mutual understanding (Biocca et al., 2003), satisfaction (Verhagen, Van Nes, Feldberg, & Van Dolen, 2014), and enjoyment (Cyr, Hassanein, Head, & Ivanov, 2007; Hassanein & Head, 2007).

Particularly, previous study has found that social presence is important to foster trust in the context of online marketplaces where shoppers face information asymmetry and moral hazard issues (Pavlou & Dimoka, 2006). For example, Gefen and Straub (2003) found that social presence enables consumers' trust building in e-service providers, which in turn increases consumers' purchase intention. Cyr and associates (2009) discovered that social presence leads users to perceive an e-commerce website as appealing, warmth, and sociable, which consequently results in a high level of trust. Ou and colleagues (2014) argued that social presence builds trust and swift Guanxi, which positively affects the repurchase intention and actual repurchases. Online marketplaces resemble some characteristics of crowdfunding platforms in that buyers also need to decide on online transactions based on limited information provided by the sellers. Similarly, I contend that social presence facilitates the trust and relationship building between founders and funders, which in turn increases a venture's chance of being funded.

### **Pitch Videos in Crowdfunding**

Video is preferred over other media in communication under high uncertainty and equivocality due to its vividness and interactivity that evoke the perception of social presence (Daft & Lengel, 1986). With the development of streaming technologies, increases in network bandwidth, and proliferation of mobile devices, videos are increasingly used for information sharing, knowledge dissemination, and product promotion (Kumar & Tan, 2015; Susarla et al.

2012). Particularly, major crowdfunding websites such as Kickstarter and Indiegogo have adopted video communication and strongly encourage founders to include a pitch video in their crowdfunding campaigns. This practice is supported by some anecdotes that a pitch video could significantly increase crowdfunding success (Mollick, 2014). However, despite its importance, there is little empirical evidence on how a pitch video affects crowdfunding outcomes, nor does any specific guideline exist on how an effective pitch video can be crafted to evoke social presence. As a result, the review of crowdfunding campaigns at Kickstarter reveals that the focus and style of pitch videos vary. While some videos took a project-centered approach that devoted the entire video to promoting the projects without any founder's appearance, others mixed the introduction of founders and projects. The differences in pitch videos could affect funders' viewing experience and impression, which in turn has an impact on funding outcomes. For example, a video focuses exclusively on project descriptions or product features with the founder only as a narrator in the background may be informative, but the lack of personal presence could be felt as unemotional or unsociable, and thus less appealing (Hassanein & Head, 2007). In contrast, a pitch video with the founder speaking directly to the camera could be felt more interpersonal, interactive and trustworthy, and thus more persuasive.

In this study, I argue that although video communication has the potential to create high social presence, simply adopting its format does not guarantee success. Particularly, the crowdfunding pitch video is essentially a one-way communication and funders can only passively view the video, so its effect depends on how founders create and deliver the content. Therefore, to maximize the impact of pitch videos, founders should effectively utilize non-verbal cues, a unique feature in video communication, to increase social presence and funding success.

### **Non-Verbal Cues and Successful Financing**

Non-verbal cues refer to a variety of non-spoken or non-written subtle cues including facial expressions, body movements, gestures, and physical attractiveness. Non-verbal cues are estimated to account for more than 60% of communication and play an important role in interpersonal interaction. The relationship between non-verbal cues and the perception of social presence is highlighted in Short et al. (1976)'s seminal work, which describes social presence as "the capacity of a medium to transmit information about facial expression, direction of looking, posture, dress, and non-verbal cues." Non-verbal cues often signal communicators' emotion and affection, therefore influencing the judgement and evaluation of their traits including creditability, trustworthiness and competence (Sundaram & Webster, 2000).

Non-verbal cues in a crowdfunding pitch video may be equally or more salient than verbal cues such as campaign descriptions. While verbal cues lead to systematic information processing, non-verbal cues elicit heuristic information processing, illustrating, clarifying, and reinforcing the conveyed messages (Bonoma & Felder, 1977). Literature of persuasion theory shows that when people lack the cognitive capability or resources to process the information, they are more likely to adopt a heuristic processing strategy in which the formation of their judgements relies on impression and contextual cues, including non-verbal cues (Tsai 2012). In the context of crowdfunding, due to the lack of interaction with founders and the fact that funders may not possess the resources and knowledge to fully comprehend the project quality in a campaign description, funders would seek non-verbal cues to assess the founder's credibility and competence. As a result, effective use of non-verbal cues by founders in pitch videos to create social presence can increase funding success.

Generally speaking, non-verbal cues can be classified as "dynamic, static and paralinguistic" (DeGroot & Gooty 2009, p181). Dynamic cues refer to body movements

including, but not limited to, gestures, eye contact and smiling. Such non-verbal behaviors can be easily modified to convey powerful messages. Sometimes, they can even supersede verbal communication (Bancio, et al., 2016). Static cues consist of demographic variables (gender and race) and physical attractiveness (attire). Such cues are important in business decision making (Tinsley, 2014). Paralinguistic cues consist of communication cues through the use of time such as when to appear in a video and voice quality-such as pausing (Bonaccio, et. al., 2016). Next I examine the impact of five non-verbal cues from the above three categories on funding outcomes. Specifically, I study eye gaze and smile (dynamic cues), speech hesitation and time for the founders to appear (paralinguistic cues) and professional attire (static cue). I choose the five non-verbal cues because of the followings. First, they have been deemed important in social presence theory (Cui, Lockee, & Peng, 2013) and have been found to have significant impact on communication outcomes (Cyr, et al., 2007; Bonaccio, et al., 2016). Second, these non-verbal behaviors can be easily altered, and hence findings may be used to guide entrepreneurial practices in crowdfunding (Banaccio, et al., 2016). Third, in a pitch video, these non-verbal cues are noticeable to potential funders, whereas other non-verbal cues are either too subtle or inapplicable.”

### **Dynamic Cues-Eye Gaze and Smile**

Eye gaze refers to looking at the other individual’s eyes or faces (Leigh & Summers, 2003). It expresses emotion and intention in communication and has an impact on perception of credibility, confidence, and interactivity. Steady eye gaze is deemed as trustworthy and credible, whereas avoiding eye contact is linked to dishonesty, un-confidence, and deception (Burgoon, Buller, Dillman, & Walther, 1995). Additionally, eye gaze creates proximity when the speaker’s eyes are fixed on the audience (Argyle & Dean, 1965). Such proximity is linked to intimacy and

immediacy, which are the two most important elements of effective communication (Walther, 2011). Eye gaze may also signal passion, a distinction between entrepreneurs and managers (Busenitz & Barney, 1997; Cesario & Higgins, 2008). Furthermore, previous studies on video-mediated communication find that the presence of eye gaze in video conferences increases conversational efficiency, mutual understanding, trust level and impression of personality (Bohannon et al. 2013). Conversely, the absence of eye gaze in video-mediated environment reduces the perceived social presence and quality of interaction (Shahid et al. 2012). Thus, I propose that:

*H1: Eye gaze duration in the crowdfunding video is positively related to successful financing.*

Smiles are often regarded as a positive feeling/emotion (Hecht & LaFrance, 1998) and as one of the universal non-verbal cues for effective communication (Otta, et al., 1994). A smile can give the impression of friendliness, interpersonal attraction, happiness and likability, which in turn leads to positive evaluation about the person as intelligent, nice, pleasant and bright. In business settings, smiling is linked to expertise, confidence, competency and credibility (Leigh & Summer, 2002), and is considered as one of the elements for entrepreneurial passion (Chen et al. 2009). In addition, smiling can increase the level of intimacy between a creator and a funder in a crowdfunding campaign, and funders are more likely to experience personal perception of social interaction (Verhagen et al., 2014). I therefore propose:

*H2: Smiling duration in the crowdfunding video is positively related to successful financing.*

### **Paralinguistic Cues-Speech Hesitation and Time to Appear in Video**

Speech hesitation, defined as interactive silence, often send negative signals to message receivers (Leigh & Summers, 2002). Speech hesitations in a video may imply that the presentation is not persuasive and boring in nature, which reduces likability or ability to convince (Leigh & Summers, 2002). Wirght and Hosman (1987) argued that hesitations and hedges indicate less credibility, less authoritativeness, and less attractiveness. Leigh and Summers (2002) discovered that speech hesitations tend to create social absence and are negatively related to persuasiveness and interestingness. Mehrabian (1969) suggested that speech hesitation may be an indication of anxiety and interpersonal discomfort. Lastly, Degroot and Gooty (2009) stated that unintentional hesitations may distract the audience, hence making the presentation less attractive. In addition, speech hesitations in a campaign video may suggest that the founder is nervous, less confident, and even uncertain and unprepared, which could raises questions about founder's ability and venture's quality. Conversely, less number of speech hesitations enhance funders' confidence in founder' knowledge and competence, which in turn has a positive impact on their perception of the product and venture quality. Based on the above arguments, I have the following hypothesis.

*H3: The number of speech pauses in the crowdfunding video is negatively related to successful financing.*

Entrepreneurial funding decisions are usually made based on proposed product, potential market, and the founding team (Chen, Yao & Kotha, 2009). Among these factors the entrepreneur is considered the most critical in securing successful financing (Brooks and associate 2014). For example, Sandberg, Schweiger and Hofer (1988) found entrepreneurs outweigh products in financing decision. Chen et al. (2009) found some venture capitalists invest in people rather than ideas or products. So if it takes too long for an entrepreneur to appear in the video, it may send a signal that the entrepreneur is less important. It may raise funders' concerns

on the entrepreneur's leadership skills and responsiveness in the project. Additionally, not showing face earlier leaves a vacuum and creates uncertainty and an absence of social presence (Short, 1976). Such lack of social presence could negatively affect attractiveness of the campaign and financing outcomes. I hence provide the following hypothesis.

*H4: The early appearance of an entrepreneur in the crowdfunding video is positively related to successful financing.*

### **Static Cues-Physical Appearance**

Physical appearance as one of the most important static cues is found associated with positive evaluation of the presenters and persuasive outcomes (Baron, Markman, & Bollinger, 2006). Argyle (1988) regarded physical appearance as individuals' self- presentation efforts which affect not only their confidence and self-esteem, but also others' perceptions and evaluations towards them. Particularly, dressing in professional attire may enhance one's trustworthiness, credibility, authoritativeness and social status, because professional attires signal professionalism and maturity (Leigh & Summers, 2002). Furthermore, attire is one of the first cues visible to communicators and it is present throughout the entire communication, thus it could affect their impression and judgement. Therefore, I argue that wearing professional attire in the video presentation sends positive signals to the funders and increases the likelihood of obtaining the required financing. I hence propose:

*H5: Professional attire in the crowdfunding pitch is positively related to successful financing.*

## **Method**

### **Study Context**

In order to test the hypotheses, I collected data from Kickstarter.com, the largest crowdfunding platform. Launched in 2009, Kichstarter serves as one of the most prominent global intermediary platforms between entrepreneurs and funders. As of March 2014, Kickstarter has reportedly received over \$1 billion in pledges from 57 million supporters to fund 135,000 projects.

Kickstarter adopts an “all-or-nothing” funding policy, which allows entrepreneurs to keep the funds they raised only if they reach or exceed the funding goals; otherwise no funds will be collected. Kickstarter uses a reward model to provide incentive to funders in exchange for their financial contribution. Based on the level of funders’ pledges and the thresholds set by the entrepreneurs at the launch of their campaigns, funders are awarded by the entrepreneurs with variety of items, ranging from a small gift such as a T-shirt and signed picture to a more valuable item such as the finished product. Launching a crowdfunding campaign at Kickstarter only takes a few steps. Entrepreneurs need to upload a pitch video, provide a short introduction of the project, set a funding goal and a funding campaign expiration date, and specify the details of rewards and levels of contributions eligible for receiving them. Kickstarter creates a webpage for each campaign to display information and track funding progress.

Kickstarter is ideal to test the hypotheses on non-verbal cues in pitch videos because a video is one of the most important components on a crowdfunding campaign webpage in introducing and promoting the venture (Mollick 2014). Entrepreneurs are warned at Kickstarter’s handbook page that funding projects without a video “have a much lower success rate”. In addition, the pitch video is displayed at the most noticeable position on the project webpage to ensure its visibility to funders.

## **Data Collection**

Kickstarter divides all projects into thirteen categories and the data collection focuses on two of them: technology and film & video. These two categories represent distinct campaigns in the spectrum of crowdfunding in term of themes (science and engineering vs. libel arts) and entrepreneurs (engineers vs. artists). They are the most-funded categories at Kickstarter and have been studied in previous literature (e.g., Mollick 2014; Greenberg and Mollick 2016). Also, limiting the investigation to only two categories reduces the heterogeneity, which may exist across different categories.

I selected the sample by first obtaining links to all ongoing technology and file & video campaigns in the middle of July 2014. I then selected every fourth campaign into the sample (Kickstarter website by default displayed four campaigns at each row of its campaign list at the time of the data collection). If a selected campaign does not have a video or has a video with more than one speaker in the first thirty seconds, the next one was chosen instead. I restricted the sample to those with a single speaker in the pitch video and excludes campaigns with multiple speakers because multiple speakers may have varied communication skills and use diverse non-verbal cues, funders may focus on and be influenced by different speakers when viewing the video, which makes accurate and consistent measuring almost impossible. The final sample contains 206 campaigns. Next, I visited each project webpage to extract data on all independent and control variables. Finally, I waited till the completion of the crowdfunding campaigns and revisited their webpages collecting the data on funding success, the dependent variable. Doing so reduces potential bias and facilitates the inference of causality.

## **Dependent Variables**

I used a dummy variable to measure a project's funding success. A project was considered successful if it reached or exceeded its funding goal set at the beginning of a campaign by the entrepreneur. This measure reflects Kickstarter's all-or-nothing policy and is consistent with previous studies (Mollick, 2014).

### **Independent Variables**

The five independent variables of nonverbal cues were collected through analyzing and coding each pitch video embedded in funding projects' webpages. While the coding of pitch videos is critical to the investigation, it is subjective and prone to errors. Therefore, I took extra effort in enhancing the coding accuracy and reducing the measurement errors. First, two doctoral students with communication and business background were recruited to do the coding. Both of them were also involved in the design of the coding scheme so that they understood what were the constructs intended to be measured.

Second, before coding videos in the sample, I asked the two coders to watch 40 pitch videos at Kickstarter and code them for the training purpose. During the training, the two coders frequently compared their results and resolved their discrepancies through video replays and discussion. Any remaining disagreements between the two coders were resolved by the author. The training ensured that the two coders are familiar with the video format, share the understanding of the coding scheme, and are able to consistently apply it in data collection. After the training, the two coders completed the coding for the sample. As a result of the vigorous training, the final coding yields high correlations between the two coders, ranging from 0.806 to 0.989. For any coding with a significant difference between the coders, they revisited and re-evaluated those videos. This reassessment process was repeated till the coding gap on the video was narrowed to an acceptable range (e.g., the difference between two coders on eye gaze

is less than four seconds). Finally, I took the average of two coders' measures as the independent variables.

The analysis of a pitch video focuses only on its first 30 seconds. I did so for the following reasons: First, the 30 seconds account for significant length of the videos in our sample that are 3.5-minute long on average. Previous studies have found people's impression forms during the first thirty-seconds of interaction and that first impression is persistent (Ambady & Robert, 1992). In addition, examination of some pitch videos reveals that entrepreneurs' use of non-verbal cues is consistent throughout the videos. Therefore, the first 30 seconds represent and capture the full video's non-verbal cues usage pattern. Second, given the amount of videos available at Kickstarter, most funders may not view the full video, especially those that did not impress them in the first few seconds. The first portion of a video is thus more critical in determining the funding outcomes than the rest of video. The use of first thirty-second for data analysis reflects how pitch videos are viewed and used in funders' decision making at Kickstarter. Third, concentrating on the first 30 seconds of the video allows us to have a more accurate measurement and make the data collection manageable. Conversely, analysis of a full video would be more prone to errors due to coders' fatigue. To further validate the consistency of non-verbal cue uses in pitch videos, I randomly selected 20 campaigns (10 in technology and 10 in film & video), coded all five non-verbal cues for the entire video and compared them to those in the first thirty seconds. Between these two groups, I found eye gaze, smile duration, speech pauses are highly correlated, and timing of appearance and professional attires are the same, which confirms that the first thirty-second represents the full video very well.

**Eye gaze.** I considered a speaker directly and straightly looking into the camera as eye gaze because it is similar to the eye contact in a f2f interaction. In the coding I found that some

speakers were wearing sunglasses in the video although they faced the camera during their appearance. I did not count those moments because the speaker's eyes are invisible to video viewers. I measured this variable by dividing the eye gaze length by the total length of a speaker's appearance.

**Smiling duration.** Smiling includes a broad range of facial expressions. Since I treated smiling as a non-verbal cue in this study, I considered the expressions that are noticeable and perceivable to video viewers. As a result, I counted an expression of pleasure in which the speaker had the corners of the mouth turned up or the front teeth exposed as a smile. I also noted that the pronunciation of certain English words (such as "cheese") resembles the expression of a smile, thus I excluded the facial expression associated with those words. I counted the total time a speaker spent on smiling and divided it by the total time of a speaker's appearances as the measure of smiling duration.

**Timing of appearance.** I operationalized the variable of time for the speaker to appear by counting the elapsed time from the beginning of the video until the speaker appeared in the video. I measured a speaker's appearance in the video if any part of his/her body could be seen in the video.

**Speech pauses.** I counted the number of times a pause occurred during a speaker's speech in the first thirty seconds of the video. Following Kheyrandish et al. (2012), I identified three types of pauses including (1) fillers (such as "Uh", "Um", "Eh", "Ah", etc.) that are the results of hesitation and have no efficient information, (2) discourse markers (such as "I mean", "I think", "You know", "Well", "Actually", etc.) that act as prefaces for next utterance and could be removed without affecting the speech, and (3) explicit editing terms (such as "sorry", "no", "oops", etc.) that are neither fillers nor discourse markers. I counted all pauses that lasted more

than one second in the speaker's presentation and had a detectably disruptive impact on his/her speech fluency.

**Professional attire.** I used a categorical variable to measure a speaker's professional attire. A man's professional attire was coded as 2 (formal) if the speaker in the video was wearing a suit with a pure and light color shirt (mainly in white or blue). A Woman's professional attire was coded as 2 when she was wearing long dresses, suits, or light color shirts. Traditional apparels of different countries or cultures such as Kimono and Indian traditional costumes were also considered as formal and coded as 2. A speaker's attire was deemed as semi-formal and coded as 1 if it has collar and sleeves. All other attires were considered informal and were coded as 0.

### **Control Variables**

I included project characteristics, entrepreneur characteristics and video characteristics as control variables to mitigate confounding effects.

**Project characteristics.** First, the *novelty* of a project may affect investors' interest and is critical to campaign success. Therefore, I coded it as a control variable. Two coders read the descriptions of all projects and coded them on a 3-point rating scale (2 represents highly novel; 1 represents somewhat novel, and 0 represents low novel). Projects with a more novel, creative, and innovative idea were assigned with higher scores. Also, those projects whose descriptions include words signaling the novelty of the project, such as "new", "first", "original", "outstanding", "fill the gap", and "differentiate from others", received higher ratings. Second, I controlled for the *clarity* of the project description because it could affect how a project is understood and perceived. Using a 3-point scale, ranging from well communicated, somewhat communicated to poorly communicated, the two coders evaluated all projects based on whether

their descriptions are easy to understand, use any jargons, or include any pictures and diagrams for illustration. After the two coders independently reviewed all project description for novelty and clarity<sup>4</sup>, their results were reconciled to ensure the difference between their ratings on any project is not greater than one. The average of their ratings was used for model estimation. Third, a founder needs to list the funding goal (target value) on the project webpage. Setting an appropriate goal is critical to both raising sufficient funds and achieving funding success (funds raised equal to or greater than funding goals), and it also reflects the project size and founder's expectation. I thus included the logarithm of the project funding *target value* as a control variable. Moreover, Kickstarter uses a reward-based model in which funders could receive different rewards depending on the level of their financial contribution to the projects. In order to account for the impact of the incentive on funding outcomes, I controlled the amount of contributions eligible for *lowest* and *highest rewards* of the project. These two control variables reflect the scope of incentive provided to each project. Since some projects in the sample are located outside of the United States and use a currency other than US dollar, the variables of target value, lowest reward and highest reward were converted to US dollars before data analysis. Lastly, I included a dummy variable to control for the two categories of the sample projects with technology as 1 and films-movies as 0.

**Entrepreneur characteristics.** Previous studies suggest that crowdfunding reduces barriers for female entrepreneurs to raise capital and women outperform men in terms of funding success rates (Marom et al. 2014). Therefore, I included a dummy variable to control for the gender difference. In addition, crowdfunding literature finds that geographic proximity plays a role in crowdfunding and funders are more interested in projects in their regions (Mollick, 2014;

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<sup>4</sup> The two coders were instructed explicitly that their coding of novelty and clarity should focus solely on project description and skip other information on campaign page to avoid any bias.

Agrawal et al., 2015; Burtch et al., 2014). The projects of the sample disperse across 16 countries with majority of them from the US. To control for the geographic diversity, I used a dummy variable to indicate whether the entrepreneur was located in the US. Further, I included the number of previous crowdfunding projects an entrepreneur launched at Kickstarter to control for his/her crowdfunding experience and the learning effect. To account for any reciprocal relationships between entrepreneurs at Kickstarter, who might engage in mutual friend support in order to boost both campaigns (Freedman and Jin 2014), I include the number of other campaigns supported by the founder as a control variable.

**Video characteristics.** I first used two variables to control for the quality of a video. The first variable is video clarity, which was rated by the coders on a three-point scale, with 0 as low clarity videos which have some blurred images due to factors associated with lighting, angle, distance, focus or movement, 1 as medium clarity videos which have only a few blurred images, and 2 as high clarity videos which have clear images throughout the entire video. The second variable is video vividness. This variable was coded 1 if a video was edited to include features such as multiple backgrounds and scenes, music, animations, captions, pictures, and tables; otherwise, it was given a value of 0. I also controlled for the length of a video because it may affect the volume and richness of information delivered. In addition, while in the sample only one single speaker appeared in the first thirty seconds, more speakers might appear later in some videos. To control for any confounding effects it might have on funding outcomes, I counted the number of other speakers after the first thirty seconds and use it as another control variable.

I summarize the operationalization of all variables in Table 2.

**Table 2: Variable Definitions (Essay I)**

| <b>Variable</b>        | <b>Definition</b>  |
|------------------------|--|
| Novelty                | 3-point rating scale (2=highly novel; 1=somewhat novel; 0=low novel)   |
| Clarity                | 3-point rating scale (2=well communicated; 1=somewhat communicated; 0=poor communicated)                                       |
| FinancingSuccess       | Dummy variable; coded as 1 for a project which reached or exceeded its funding goal and 0 otherwise                            |
| NumberOfSupporters     | The number of funders who contribute to the project  |
| TargetValue            | Funding goal set by the entrepreneur for the project (unit: US dollar)   |
| LowestBid              | The amount of contribution qualifies for the lowest reward of a project (unit: US dollar)                                      |
| HighestBid             | The amount of contribution qualifies for the highest reward of a project (unit: US dollar)                                     |
| CampaignCategory       | Dummy variables; 1 for technology category and 0 for film & video category   |
| Gender                 | Dummy variables; 1 for male and 0 for female   |
| NumberPreProjects      | The number of crowdfunding projects an entrepreneur had at Kickstarter previously  |
| Location               | Dummy variables; 1 for US and 0 otherwise  |
| NumberSupportedProject | The number of other campaigns an entrepreneur supported at Kickstarter   |
| VideoDuration          | The total length of pitch video (unit: second)   |
| VideoClarity           | 3-point rating scale (2= No blurred image; 1= a few blurred images; 0=some blurred images)                                     |
| VideoVividness         | Dummy variable; 1 for videos with various features and 0 otherwise   |
| EyeGaze                | Duration of eye gaze in the first 30seconds / entrepreneur's appearance duration in the first 30 seconds                       |
| SmileDuration          | The total time a speaker spent on smiling in the first 30 seconds / entrepreneur's appearance duration in the first 30 seconds |
| TimetoAppear           | The elapsed time before the appeared in the video  |
| SpeechPause            | The number of pauses the entrepreneur had during his/her speech in the in the first 30-second of the pitch video               |
| ProfessionalAttire     | 2 for formal attire, 1 for semi-formal attire and 0 for informal attire  |

## Data Analysis and Results

77 projects in the sample exceeded their target values and were consequently successfully funded, resulting in a 37% of success rate, which was close to the overall success rate reported by Kickstart. The Maximum amount of funding received among all projects was \$1,368,177. Seventeen percent of entrepreneurs in the sample were females and 79% of them were using Kickstarter for the first time. Those entrepreneurs were located in 16 countries and 140 of them came from the United States. The average length of the videos is 3.5 minutes, including an average of 15-second background music and 0.8 pictures during the first 30 seconds. The descriptive statistics of the sample are summarized in Table 3.

### Model Specification

I used a logistic regression model to estimate the effects of non-verbal cues on a project's financing success as follows.

$$\ln \frac{\Pr (Success=1)}{1-\Pr (Success=1)} = X\alpha + Y\beta + \varepsilon \quad (1)$$

Where *Success* is a binary variable with 1 indicating a project was successfully funded and 0 otherwise. *X* denotes a set of five independent variables of interest including eye gaze, smiling duration, professional attire, timing of appearance, and speech pauses. *Y* defines a set of control variables including project, entrepreneur, and video characteristics. To account for heteroscedasticity, robust standard errors were used in the regression.

### Results

The results are summarized in Table 4 Column (1) includes all control variables, and it shows that projects with a more novel idea and clearer description are more likely to reach their funding goals. In addition, projects located in the United States are more attractive and

successful than those in other countries, which might be attributed to the fact that majority of Kickstarter users are Americans and they tend to contribute to projects which are close to them culturally and geographically (Burtch, Ghose, & SunilWattal, 2013). And technology related projects attract more supporters than film & video projects.

Column (2) includes all five independent variables (non-verbal cues), and their impact on crowdfunding campaign are summarized below.

**Dynamic cues.** I hypothesize that eye gaze has a positive impact on financing success of a project (H1). Surprisingly, I find eye gaze negatively affects financing success ( $\beta = -1.8185$ ,  $p < 0.01$ ). I also propose that more smiling is associated with funding success of a project (H2), but the results show impact of smiling is insignificant. ( $\beta = 0.5553$ ,  $p > 0.1$ ).

**Paralinguistic cues.** I find that the number of pauses in a video negatively affects financing success ( $\beta = -0.8436$ ,  $p < 0.01$ ). This indicates reducing speech hesitations could increase a project's chance of being successfully funded. Thus, H3 is supported. In addition, the results reveal that the length of elapsed time before the presenter's appearance in a video has a significantly negative effect on financing success ( $\beta = -12.8424$ ,  $p < 0.05$ ), suggesting presenter's earlier appearance in a video could contribute to the success of fundraising and gain more support. Thus, H4 also receives support.

**Static cues.** I posit that professional attire is associated with better funding outcomes, but the analysis shows that wearing formal ( $\beta = -0.6090$ ,  $p > 0.1$ ) and semi-formal ( $\beta = 0.2036$ ,  $p > 0.1$ ) attire does not have impact on financing success. Thus, H5 is not supported.

## **Robustness Checks**

**Sample selection.** Since the analysis only included campaign videos with single speaker, one concern was that the choice of numbers of speakers appearing in the video could be the

result of self-selection and thus bias the analyses. For example, certain types of projects or products may require a personal demonstration, which results in more exposure of founders in the video. Also, a founder who is shy away from camera or is low-profile may intentionally avoid a presence in the video. Therefore, I estimated a selection model to correct for potential selection bias and endogeneity.

I first constructed a sample including both single-speaker campaigns used in previous analysis and another 207 randomly-selected campaigns with zero or more than one speakers in the video. T tests show that the two sub-samples are comparable in terms of successful rate ( $t=1.384$ ), funding goals ( $t=0.991$ ), raised funds ( $t=0.715$ ), and lengths of funding period ( $t=0.206$ ). I then specified a two-equation selection model. The first equation (selection equation) is a probit model predicting whether only one speaker appeared in the campaign video, and the second equation (outcome equation) is another probit model the same as equation (1), estimating the impact of non-verbal cues on funding success. The first equation includes variables that may have a direct impact on the numbers of speakers. In addition to those variables discussed previously, including funding goal, video duration, and funding period, I added two new variables in the first model to control for product type and founders' camera shyness. The variable of product type was created by coding all campaign products into one of the four categories based on their descriptions: software (including mobile and desktop applications), hardware (including gadgets and tools), fictional movie (including drama, action, horror and comedy movies), and documentary movie (including all non-fictional movies) Founders' camera shyness was captured by the type of photo a founder used at Kickstarter. Kickstarter has a feature to allow founders to upload their photos along with their brief biographies. I created a proxy variable by classifying the photos into one of the three types: (1) a formal headshot portrait photo

showing the founder' top shoulder up to the head with their faces as the focus; (2) a casual full-body photo with the face not clearly seen; and (3) a landscape or cartoon used by founders to fill the webpage space rather than their own photos. This variable reflects the willingness of a founder to make a public appearance. I note that these two variables are not included in the outcome equation, because I do not have theoretical support that either product type or the uploaded photo has a direct impact on campaign outcome. It also meets exclusion restriction requirement for the selection model to be accurately estimated.

I used full information maximum likelihood estimation (MLE) to jointly estimate the two equations of self-selection model<sup>5</sup>, and the results are similar to those in Table 4 and summarized in Table 5 column (1).

**Alternative measures and specifications.** I also conducted robustness checks on the results with alternative measures and specification. I re-estimated the model with a linear probability model, and the results remain the same and are shown in Table 5 column (2). I then used the ratio of raised funds to targeted funding goals as another alternative dependent variable. This variable measures the extent of campaign success. I re-estimated the model with a Tobit model<sup>6</sup> and the results remain largely unchanged as reported in Table 5 Column (3). In addition, I used the number of supports who made financial contribution to a project as an alternative dependent variable. Crowdfunding is considered as a promotion opportunity to reach out to more potential consumers and raise publicity, so the numbers of supports reflect the attractiveness of a

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<sup>5</sup> I used maximum likelihood estimation (MLE) instead of a two-step method for estimation because the dependent variables of both equations in our model are binary. MLE is also considered more efficient than the two-step method (Tucker 2010).

<sup>6</sup> Tobit model is used because the dependent variable of funding ratio is left-censored. Due to herding effect (Herzenstein 2011), an unsuccessful campaign receives less funds than it would do, because potential funders are reluctant to support campaigns with less chance to reach their funding goals. As a result, the funding ratio for unsuccessful campaigns is suppressed and its true value could not be observed. Therefore, following previous studies on crowdfunding (Lin and Viswanathan (2015); Burtch et al. (2016)), I use a Tobit model for estimation.

project and could affect its long-term success (Mollick and Nanda 2015). Because the number of supporters is a count variable, I used a negative binomial model for estimation<sup>7</sup>. The results are similar to those when the dependent variable is financing success. I summarized the results in Table 5 column (4). Finally, I used the number of days it took a campaign to achieve its founding goal as an alternative dependent variable. This variable reflects the effectiveness of a campaign in raising funds. I collected data from Kicktraq.com, which achieves data on all campaigns at Kickstarter, including the amounts of their daily-accumulated funds. I counted the duration between the day when the campaign was launched and the day when the funding goal was reached. I then used a Cox proportional hazards model<sup>8</sup> to estimate the impact of non-verbal cues on the duration. The results are reported in Table 5 Column (5) and are consistent with those in Column (1).

Additionally, previous research suggests that culture and distance proximity, which is determined by entrepreneurs' geographical locations, could affect the crowdfunding outcomes (Agrawal et al. 2015, Burtch et al. 2014). While I already included a control variable of entrepreneurs' location in the model estimation, I further explored its impact on the results by clustering the standard errors at the state level for campaigns in the United States or at the continental level for campaigns outside of the United States. As shown in Table 5 column (6), the results do not change with the new standard error estimation method.

**Sub-samples.** I also repeated the regression analysis using different groups of sub-samples. First, although I have included a control variable, the number of previous Kickstarter campaigns the founder created, to control for a founder's experience, it may not be able to fully

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<sup>7</sup> I chose the negative binomial model due to the over-dispersion presented in the data, i.e., the variance of number of supporters is much greater than its mean. A likelihood-ratio test confirms that the dispersion parameter is significantly greater than zero.

<sup>8</sup> Cox proportional hazards model was used because the dependent variable is duration/survival type data.

account for the knowledge, confidence, or attention the entrepreneur gained from previous crowdfunding campaigns, which could affect the pitch video performance and funding success in sequent campaigns. To further address this concern, I re-estimated the model using a subsample that only includes entrepreneurs' first campaigns at Kickstarter. The results remain similar to those in Table 5 and are summarized in Table 6 column (1).

Second, previous study shows that founders' friends and family may be among the early funders of a crowdfunding campaign (Agrawal et al. 2015). If a campaign is driven by friends and family' donation, the pitch video will have little impact on the funding outcome because friends and family are more likely to use other channels to communicate with founders and gather information (Agrawal et al. 2015). However, the analyses show that the findings are unlikely to be affected by friends and family's supports. First, the average number of supporters is 140 for all campaigns in the sample and is 335 for successfully funded campaigns. Thus, the friends and family of a founder may only account for a small portion of funders. Second, friends and family's donations are more likely to make a difference for those small campaigns with low funding goals. Therefore, following Greenberg and Mollick (2016), I excluded campaigns whose funding goals were less than \$5,000 and re-estimate the model. As reported in Table 6 Column (2), the results remain the same.

Third, to make it more professional, it is possible that some founders choose to have an actor in the pitch video to introduce the project on their behalf, but such videos may create different perceived social presence than those in which founders speak by themselves. To investigate the impact it may have on the results, I first determined if the speaker in a video is the founder in two ways: (1) I compared the speaker to the photo of founder posted on campaign webpages, and (2) I checked if the speaker used pronouns such as "I", "We", "My", or "Our" to

imply an ownership when describing his/her relationship with the campaign. The screening of all campaign videos reveals that only eight of them used a speaker other than the founder. I re-estimated the model after removing those campaigns and the results do not change, as reported in Table 6 Column (3).

**Table 3: Descriptive Statistics of Variables (Essay I)**

| Variable           | Mean       | Standard deviation | Minimum | Maximum  |
|--------------------|------------|--------------------|---------|----------|
| FinancingSuccess   | 0.3684     | .4835346           | 0       | 1        |
| NumberofSupporters | 139.0096   | 360.2827           | 0       | 2253     |
| TargetValue        | 37236.6400 | 65645.2600         | 200     | 410000   |
| LowestReward       | 9.2633     | 19.6520            | 0.8793  | 256.5750 |
| HighestReward      | 3459.5350  | 3636.6920          | 5       | 10000    |
| CampaignCategory   | 0.4976     | 0.5012             | 0       | 1        |
| Gender             | 0.8325     | 0.3743             | 0       | 1        |
| NumberPreProjects  | 0.4067     | 1.2217             | 0       | 9        |
| location           | 0.6683     | 0.4720             | 0       | 1        |
| VideoDuration      | 209.9187   | 132.1827           | 40      | 867      |
| Music              | 15.4665    | 9.3531             | 0       | 30       |
| Photo              | 0.8565     | 1.6923             | 0       | 13       |
| EyeGaze            | 0.7469     | 0.3197             | 0       | 1.0769   |
| SmileDuration      | 0.0721     | 0.1548             | 0       | 0.9286   |
| TimetoAppear       | 0.0295     | 0.0457             | 0       | 0.3269   |
| SpeechPause        | 0.5144     | 1.0852             | 0       | 6        |
| ProfessionalAttire | 0.2392     | 0.4276             | 0       | 1        |

**Table 4: Logistic Regression Results**

| <b>Variables</b>       | <b>Model (1)</b>       | <b>Model (2)</b>       |
|------------------------|------------------------|------------------------|
| Novelty                | 1.6342***<br>(0.3671)  | 1.9527***<br>(0.4024)  |
| Clarity                | 0.7086**<br>(0.3326)   | 0.9246**<br>(0.4321)   |
| TargetValue            | -0.6062***<br>(0.1917) | -0.6628***<br>(0.2473) |
| LowestReward           | 0.2033<br>(0.1808)     | 0.4505**<br>(0.2030)   |
| HighestReward          | 0.0164<br>(0.1512)     | -0.0096<br>(0.1638)    |
| CampaignCategory       | -0.6571<br>(0.5039)    | -0.5243<br>(0.6084)    |
| Gender                 | -0.2383<br>(0.6118)    | -0.0626<br>(0.7471)    |
| NumberPreProjects      | -0.0866<br>(0.1640)    | -0.1198<br>(0.1663)    |
| location               | 1.0987**<br>(0.4430)   | 1.6047***<br>(0.5174)  |
| VideoDuration          | -0.0033<br>(0.0021)    | -0.0036<br>(0.0022)    |
| FundingPeriod          | -0.0347*<br>(0.0184)   | -0.0368*<br>(0.0219)   |
| VideoClarity           | 0.9836***<br>(0.3233)  | 1.1672***<br>(0.3868)  |
| VideoVividness         | 0.5029<br>(0.4291)     | 0.3690<br>(0.4563)     |
| NumberOtherSpeakers    | 0.1082<br>(0.1299)     | 0.0888<br>(0.1280)     |
| NumberSupportedProject | 0.0843<br>(0.0853)     | 0.0866<br>(0.0919)     |
| EyeGaze                |                        | -1.8185***<br>(0.6465) |
| SmileDuration          |                        | 0.5553<br>(1.2265)     |
| TimetoAppear           |                        | -12.8424**<br>(5.8946) |
| SpeechPause            |                        | -0.8436***<br>(0.2453) |
| Attire (formal)        |                        | -0.6090<br>(0.6550)    |
| Attire (Semi-formal)   |                        | 0.2036<br>(0.4652)     |
| Log pseudolikelihood   | -91.3426               | -81.2063               |

|                  |        |        |
|------------------|--------|--------|
| Pseudo R-squared | 0.3265 | 0.4013 |
|------------------|--------|--------|

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**Notes. Robust standard errors are in parentheses.**

**\*p<0.1; \*\*p<0.05; \*\*\*p<0.01**

**Number of observations=206**

**Table 5: Robustness Checks with Alternative Dependent Variables and Specifications**

|                          | (1)<br>DV=Funding<br>Success                  | (2)<br>DV=Funding<br>Success   | (3)<br>DV=Ratio of<br>funded to<br>funding goal | (4)<br>DV=Number<br>of Supporters | (5)<br>DV=Number of<br>day for reaching<br>the funding goal | (6)<br>DV=Funding<br>Success   |
|--------------------------|---|--------------------------------|---|-----------------------------------|---|--|
| Variables                | Logit<br>model<br>with<br>sample<br>selection | Linear<br>Probability<br>Model | Tobit Model                                     | Negative<br>Binomial<br>Model     | Cox<br>Proportional<br>Hazards Model                        | Logit model<br>with standard<br>error clustered<br>at regional level |
| <b>Novelty</b>           | 0.9930***<br>(0.2369)                         | 0.2092***<br>(0.0371)          | 2.3846***<br>(0.8253)                           | 0.7364***<br>(0.1483)             | 3.1930***<br>(0.8825)                                       | 1.9527***<br>(0.4201)  |
| <b>Clarity</b>           | 0.4544**<br>(0.1979)                          | 0.0989**<br>(0.0502)           | 0.0797<br>(0.5432)                              | 0.3909**<br>(0.1953)              | 1.7502**<br>(0.3938)  | 0.9246***<br>(0.2957)  |
| <b>TargetValue</b>       | -<br>0.3365***<br>(0.1276)                    | -0.0831***<br>(0.0217)         | -0.9993**<br>(0.4294)                           | 0.0541<br>(0.0941)                | 0.6695***<br>(0.0842)                                       | -0.6628**<br>(0.2852)  |
| <b>LowestReward</b>      | 0.2087**<br>(0.1010)                          | 0.0476*<br>(0.0261)            | 0.3130<br>(0.2588)                              | 0.1128<br>(0.1071)                | 1.1634<br>(0.1186)  | 0.4505**<br>(0.2065)   |
| <b>HighestReward</b>     | 0.0036<br>(0.0770)                            | 0.0002<br>(0.0199)             | 0.4329<br>(0.2668)                              | 0.2861***<br>(0.0781)             | 0.8921<br>(0.0906)  | -0.0096<br>(0.2081)  |
| <b>CampaignCategory</b>  | -0.2569<br>(0.2671)                           | -0.1124<br>(0.0730)            | 1.3558<br>(0.8944)                              | 1.1346***<br>(0.3405)             | 0.9742<br>(0.3177)  | -0.5243<br>(0.4991)  |
| <b>Gender</b>            | -0.0328<br>(0.3127)                           | -0.0082<br>(0.0856)            | -0.0771<br>(0.6585)                             | -0.1444<br>(0.3029)               | 1.1826<br>(0.3404)  | -0.0626<br>(0.6656)  |
| <b>NumberPreProjects</b> | -0.0579<br>(0.0811)                           | -0.0192<br>(0.0195)            | -0.0226<br>(0.2192)                             | -0.0544<br>(0.0807)               | 0.9648<br>(0.1007)  | -0.1198<br>(0.1568)  |
| <b>Location</b>          | 0.7933***<br>(0.2779)                         | 0.2188***<br>(0.0685)          | 1.3240**<br>(0.5757)                            | 0.4452<br>(0.2805)                | 2.6325***<br>(0.8033)                                       | 1.6047***<br>(0.4570)  |
| <b>VideoDuration</b>     | -0.0014<br>(0.0010)                           | -0.0005**<br>(0.0002)          | -0.0041*<br>(0.0024)                            | 0.0013<br>(0.0011)                | 0.9987<br>(0.0010)  | -0.0036<br>(0.0026)  |
| <b>FundingPeriod</b>     | -0.0183*<br>(0.0108)                          | -0.0042<br>(0.0032)            | 0.0325<br>(0.0443)                              | -0.0094<br>(0.0092)               | 0.9091***<br>(0.0216)                                       | -0.0368<br>(0.0260)  |

|                               |                            |                        |                       |                        |                       |                         |
|-------------------------------|----------------------------|------------------------|-----------------------|------------------------|-----------------------|-------------------------|
| <b>VideoClarity</b>           | 0.6122***<br>(0.1872)      | 0.1182***<br>(0.0456)  | 1.1803***<br>(0.4458) | 0.5434***<br>(0.1601)  | 1.6798**<br>(0.3735)  | 1.1672***<br>(0.3717)   |
| <b>VideoVividness</b>         | 0.1450<br>(0.2192)         | 0.0559<br>(0.0673)     | 0.1490<br>(0.6952)    | -0.2833<br>(0.2718)    | 1.4210<br>(0.3978)    | 0.3690<br>(0.4323)      |
| <b>NumberOtherSpeakers</b>    | 0.0421<br>(0.0629)         | 0.0065<br>(0.0227)     | 0.2398<br>(0.1776)    | 0.1683**<br>(0.0817)   | 1.0499<br>(0.0714)    | 0.0888<br>(0.0985)      |
| <b>NumberSupportedProject</b> | 0.0413<br>(0.0297)         | 0.0110<br>(0.0073)     | 0.0769<br>(0.0588)    | 0.0940***<br>(0.0351)  | 1.0015<br>(0.0182)    | 0.0866<br>(0.0895)      |
| <b>EyeGaze</b>                | -<br>0.9047***<br>(0.3268) | -0.1921**<br>(0.0914)  | -1.4763**<br>(0.6719) | -0.6689*<br>(0.3590)   | 0.2576***<br>(0.0993) | -1.8185***<br>(0.5818)  |
| <b>SmileDuration</b>          | 0.2860<br>(0.5465)         | 0.1231<br>(0.2001)     | 1.0303<br>(1.2519)    | -0.1353<br>(0.5504)    | 2.0365<br>(1.0099)    | 0.5553<br>(1.2729)      |
| <b>TimetoAppear</b>           | -5.4246*<br>(2.8240)       | -1.2886**<br>(0.5349)  | -15.1795*<br>(7.7811) | -6.3213***<br>(1.6865) | 0.0002***<br>(0.0008) | -12.8424***<br>(4.4864) |
| <b>SpeechPause</b>            | -<br>0.4453***<br>(0.1386) | -0.0715***<br>(0.0206) | -0.8767**<br>(0.3845) | -0.2313*<br>(0.1234)   | 0.5750***<br>(0.1063) | -0.8436***<br>(0.2938)  |
| <b>Attire (formal)</b>        | -0.3014<br>(0.3127)        | -0.0870<br>(0.0906)    | -0.7238<br>(0.8023)   | -0.3152<br>(0.3305)    | 0.7665<br>(0.3175)    | -0.6090<br>(0.6342)     |
| <b>Attire (Semi-formal)</b>   | 0.1012<br>(0.2310)         | 0.0327<br>(0.0654)     | 0.9833<br>(0.7513)    | 0.3440<br>(0.2841)     | 1.0298<br>(0.2455)    | 0.2036<br>(0.4747)      |
| <b>R-squared</b>              |                            | 0.3888                 | 0.1137                | 0.0554                 |                       | 0.4013                  |
| <b>Log pseudolikelihood</b>   | -348.8609                  |                        | -240.23793            | -1056.7532             | -305.73111            | -81.206308              |
| <b>Observations</b>           | 413                        | 206                    | 206                   | 206                    | 206                   | 206                     |

Notes. Robust standard errors are in parentheses, except for column (6), in which standard errors are clustered at the regional level.

Column (5) reports hazard ratios.

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

**Table 6: Robustness Checks with Sub-samples**

| <b>Variables</b>       | <b>(1)<br/>Sub-sample of<br/>founders' first<br/>campaigns</b> | <b>(2)<br/>Sub-sample of<br/>campaigns with a<br/>funding goal greater<br/>than \$5000</b> | <b>(3)<br/>Sub-sample of<br/>campaigns with no<br/>professional actors as<br/>a speaker</b> |
|------------------------|--|--|---|
| Novelty                | 1.6489***<br>(0.4203)  | 3.3618***<br>(0.9522)  | 1.9707***<br>(0.4195)   |
| Clarity                | 1.0166*<br>(0.5438)  | 1.5780*<br>(0.8637)  | 0.9605**<br>(0.4457)  |
| TargetValue            | -0.5344**<br>(0.2394)  | -0.8360**<br>(0.3763)  | -0.6507***<br>(0.2412)  |
| LowestReward           | 0.2005<br>(0.2489)   | 0.7863***<br>(0.2882)  | 0.4235**<br>(0.2032)  |
| HighestReward          | -0.0934<br>(0.1875)  | 0.1235<br>(0.2125)   | -0.0200<br>(0.1649)   |
| CampaignCategory       | -0.9669<br>(0.7032)  | 0.1534<br>(0.6837)   | -0.6027<br>(0.6111)   |
| Gender                 | -0.2577<br>(0.6998)  | -0.1151<br>(1.1160)  | 0.0427<br>(0.7684)  |
| NumberPreProjects      | -  | -0.1613<br>(0.2767)  | -0.1291<br>(0.1649)   |
| location               | 1.2751**<br>(0.5282)   | 1.6366***<br>(0.6120)  | 1.6433***<br>(0.5346)   |
| VideoDuration          | -0.0059**<br>(0.0027)  | 0.0007<br>(0.0024)   | -0.0036<br>(0.0022)   |
| FundingPeriod          | -0.0304<br>(0.0301)  | -0.0871***<br>(0.0338)   | -0.0399*<br>(0.0223)  |
| VideoClarity           | 0.6556<br>(0.4129)   | 2.1644***<br>(0.5881)  | 1.1897***<br>(0.3881)   |
| VideoVividness         | 0.8493<br>(0.5375)   | -0.0554<br>(0.6864)  | 0.4203<br>(0.4753)  |
| NumberOtherSpeakers    | 0.2388*<br>(0.1413)  | 0.2751*<br>(0.1608)  | 0.1010<br>(0.1286)  |
| NumberSupportedProject | 0.1264<br>(0.6755)   | 0.3926***<br>(0.1120)  | 0.0794<br>(0.0877)  |
| EyeGaze                | -1.7355***<br>(0.6755)   | -1.92781***<br>(0.7375)  | -1.9874***<br>(0.6465)  |
| SmileDuration          | 0.2979<br>(1.1571)   | -0.0010<br>(1.5969)  | 0.3427<br>(1.2719)  |
| TimetoAppear           | -12.5341**<br>(5.9063)   | -24.9782***<br>(9.4040)  | -12.3269**<br>(5.8996)  |
| SpeechPause            | -1.2605**<br>(0.5268)  | -1.8311***<br>(0.6380)   | -0.8349***<br>(0.2460)  |

|                      |                     |                    |                     |
|----------------------|---------------------|--------------------|---------------------|
| Attire (formal)      | -0.7075<br>(0.7060) | 0.0104<br>(0.7584) | -0.6935<br>(0.6629) |
| Attire (Semi-formal) | 0.8348<br>(0.5895)  | 0.1936<br>(0.6621) | 0.1728<br>(0.4747)  |
| Log pseudolikelihood | -62.987365          | -48.5322           | -78.84454           |
| Pseudo R-squared     | 0.4030              | 0.4897             | 0.3975              |
| Observations         | 163                 | 155                | 198                 |

**Notes. Robust standard errors are in parentheses.**

**\*p<0.1; \*\*p<0.05; \*\*\*p<0.01**

**The variable NumberPreProjects is not included in column (1).**

## **Discussion and Implications**

Successful entrepreneurial financing requires entrepreneurs' powerful persuasion ability (Chen, Yao, & Kotha, 2009). Entrepreneurs who demonstrate their preparedness and passion about their venturing have high probability of obtaining needed funding (Mitteness, Sudek & Cardon, 2012). The entrepreneurial persuasion research has been fruitful, but has failed to examine the effect of non-verbal cues in an online communication setting (Brookes, et al., 2014). I conducted a study to examine how non-verbal cues in crowdfunding video presentations may affect the attractiveness of the projects and the final financing outcome. While I received confirmation that reducing speech hesitations and early appearance in the video increase the chance of getting the needed funding, I also have found a few surprises.

First, against our prediction and contradicting with f2f research findings, eye gaze reduces crowdfunding success. Although eye gaze may positively affect credibility and trustworthiness in f2f setting (Leigh & Summers, 2003), because of the nature of one-way communication from founders to funders in a crowdfunding pitch video, eye gaze may be interpreted differently due to the lack of personal contact and interaction. While eye gaze conveys entrepreneurial confidence in a traditional f2f setting, in a crowdfunding video where the presenter seeking the audience's financial support is expected to show respect and modesty, staring at the audience might be perceived as excessively intense, aggressive and less friendly. While research shows that eye gaze correlates with trustworthiness and overall impression of salespeople, it is also found to be associated with aggressiveness (Leigh & Summers, 2003). In addition, because Kickstarter allows people from many countries to launch or fund a campaign at its website, its users have diversified culture and background. Consequently, they may use and interpret eye gaze differently. For example, in some Asian countries, modest eye gaze is linked

to humility, whereas intensive eye gaze is considered intimidating and offensive (Akechi et al. 2013).

Second, different from what I predicted, professional attire has no impact on funding success. The explanation is that in a less interactive environment, informal attire in a crowdfunding project creates casual and relaxing atmosphere and close psychological distance between the audience and the presenter (Walther, 2011). Further, fundraising videos might be considered less formal than a business meeting, and thus professional attire could be perceived as overdressed and dull or even becomes a distraction (Galbraith, et al., 2014). Moreover, crowdfunding is designed for those who have limited access to capital through traditional means (Greenberg & Mollick, 2016). Hence, those dressed in professional attire may be regarded as rich individuals by funders, who should seek financing through traditional means. Lastly, entrepreneurs have been increasingly seen wearing informal attire in their public appearances, as in the case of Steve Jobs and Mark Zuckerberg. Nowadays, wearing informal attire might be perceived as acceptable or even considered a new norm for entrepreneurs.

Third, contradicting with the prediction, smiling has a positive but not significant impact on crowdfunding success. I attribute this finding to two possibilities. One is that this research studies two categories of crowdfunding campaigns: technology and film/video. The latter category includes some documentaries and reality movies, which are intended to cover serious social issues and have a suppressive style. Hence smiling in the pitch video may not always be proper for them. The second possibility is that although smiling is generally viewed as positive, excessive smiling can be considered as unnatural or even perceived as shallow or deceptive (Leigh & Summers, 2003).

## **Theoretical Contributions**

The current paper makes a few contributions to both theory and practice. First, some scholars have viewed entrepreneurial financing as a process of persuasion (Chen, Yao & Kotha, 2009; Galbraith, et al., 2014), which requires entrepreneurs' excellent communication skills and social competence (Baron & Brush, 1999). With majority of the meaning in communication being conveyed via non-verbal cues, this study expands the entrepreneurial financing research by showing the effect of those important communication cues on the persuasiveness of the messages (Burgoon, 1994; Galbraith, et al., 2014). The results also suggest more research is needed to understand the use of non-verbal cues in entrepreneurial financing decisions, especially the differences in traditional venture capital financing and crowdfunding.

This research contributes to crowdfunding literature that increasingly focuses on the impact of subtle contextual or social cues on funding success. For example, Burtch et al. (2014) finds cultural and geographical distances influence lenders' financial support decisions. Duarte et al. (2012) discovers borrowers' appearances play a role in determining their chances of being funded. However, the cues discovered in previous studies are more static and persistent, and borrowers or founders have little control of them in a crowdfunding campaign. In contrast, this study includes some dynamic cues which founders can adjust or change in a short period of time, suggesting that entrepreneurs can influence their funding outcomes by strategically and effectively utilizing non-verbal cues in pitch videos.

This study is also related to the debate on information technology's capacity in transmitting "soft" information. Finance literature on small business lending (Petersen & Rajan, 2002) argues that soft information (information collected over time through personal relationships and interactions) is hard to be collected by information technology (IT), although IT facilitates the transmission of hard information (quantitative information that could be

documented or recorded). In contrast, recent IS literature on peer to peer lending (Lin et al., 2013) shows that information technology can develop and deliver new sources of soft information, such as information on friendship, to support lenders' funding decision making. This study adds new evidence in supporting IT's soft information collection capability, showing non-verbal cues embedded in crowdfunding pitch videos can inform funders and affect funding outcomes.

Lastly, this study contributes to a growing body of literature on user-generated content, which largely focuses on text based media such as posts, blogs, and tweets, using text mining or sentiment analysis techniques. However, with the improved network speed and widespread mobile technology, an increasing number of users are using videos to share information and communicate. Therefore, there is a need to understand how this content-rich medium affects viewers' perception and in turn influences their behaviors. This study takes a step toward this direction by proposing a new lens to analyze videos, showing that non-verbal cues have an impact on communication effectiveness.

### **Practical Contributions**

The current research has some practical implications. First, this research provides actionable suggestions to entrepreneurs on launching a successful crowdfunding campaign. Unlike traditional financing in which entrepreneurs may only have one opportunity to present their ideas in front of venture capitalists, crowdfunding campaign founders can record their pitch video presentations multiple times and choose the best one to use. While there is no formula for generating a creative idea or inventing a novel product, this study shows that entrepreneurs can follow some guidelines to communicate more effectively with funders by carefully preparing their video presentations, improving their non-verbal skills, regulating non-verbal behaviors, and

paying attention to the details and format of their pitch videos More specifically, entrepreneurs have to show up in the video as early as possible, have a human image presented, and have a natural eye contact and be fluent in the video. This study also implies that a prepared founder with a genuine, confident but less aggressive manner could have a higher success rate in their crowdfunding campaigns

The crowdfunding platform should help facilitate the effective communication between founders and funders by establishing an intimate communication channels. Most crowdfunding platforms focus their design of campaign webpages on the description of campaigns rather than on the introduction of creators. This study reveals that the perceived social presence of creators leads to better funding outcome. Therefore, platform may consider allowing creators to display more personal content on their campaign webpage including a longer biography and more casual photos.

### **Limitations and Future Research Directions**

This research is limited in several aspects. First, I made the assumptions that some of the non-verbal cues have underlying meanings. For example, I argued smiling is associated with likability, intelligence, and niceness. However, I did not test such mediating effect. Future research may examine more complicated models where credibility, confidence, trustworthiness may mediate the relationship between non-verbal cues and entrepreneurial financing. Second, Fichten and associates (1992) listed more than 50 non-verbal cues that may influence a person's communication effectiveness, but I studied only five of them in this study. Future researchers can build on this research to conduct more in depth investigations by examining the effect of other non-verbal cues. Third, this research focuses on non-verbal cues. As most crowdfunding websites also support verbal expressions, such as a short text introduction of the ideas, I call for

future research to study the impact of verbal messages on funding outcomes as well as the interaction effect between non-verbal cues and verbal messages. Fourth, this study focuses on videos with a single entrepreneur. As the implementation of creative ideas becomes increasingly complex and requires collaboration among entrepreneurs, it would be interesting to study how multiple entrepreneurs with distinct non-verbal cues could collectively deliver a convincing video message. Fifth, although the analyses show that donations from founders' friends and family do not affect findings, I am unable to control for other social ties due to data availability. Sixth, the analysis only includes two out of fifteen categories available at Kickstarter, thus the generalization of the results to other categories should be cautious. Future research could systematically examine the effect of non-verbal cues across different categories. Finally, I call for researchers to conduct controlled experiments to further validate the results and assumptions by randomly exposing funders to pitch videos with various levels of non-verbal cues.

## CHAPTER IV

### ESSAY II THE EFFECT OF VERBAL CUES ON CROWDFUNDING SUCCESS

Acquisition of startup capital is a fundamental step in the entrepreneurship process. However, startups find it difficult to obtain needed financial backing because traditional funding sources, such as banks and equity financiers, give intense scrutiny to entrepreneurial proposals or even stay away from business venturing in order to mitigate risk (e.g., Chen, Yao, & Kotha, 2009; Mitteness, Sudek, & Cardon, 2011).

In contrast, crowdfunding has emerged in recent years as an alternative platform, allowing individuals to launch an online campaign to raise funds directly from the public for any ideas or products, and it has been increasingly used by entrepreneurs to seek financial support. Therefore, it is not surprising that crowdfunding research has also seen an uprising trend. Quite a few factors have been proposed to be associated with crowdfunding success. They include frequent updates and video inclusion (Mollick, 2014), Internal social capital (Colombo, Franzoni & Rossi-Lamastra, 2015), intellectual capital (Ahlers, Cumming, Gunther & Schweizer, 2015), intrinsic motivation (Cholakova & Clarysse, 2015), national culture (Zheng, Li, Wu & Xu, 2014), founder investment and firm size (Eddleston, Ladge, Mitteness & Balachandra, 2015), and early stage capital (Colombo, et al. 2015).

A few scholars have viewed entrepreneurial financing as a persuasion process where entrepreneurs convince potential investors of the merits of their opportunities (Chen, Yao, & Kotha, 2009). While one critical element of persuasion is language and the presentation of one's

message (Hosman, 2002), I have only identified very few studies thus far which examines how language affects crowdfunding (Allison, et al., 2015; Ciuchta & O'Toole, 2016). However, their research only examines the effect of textual content, but not that of the linguistic styles and non-verbal cues.

I employ elaboration likelihood model (ELM) and social presence theory to argue that powerful persuasion results from both expression and impression. This study makes the following contributions. First, I contribute to the entrepreneurship literature, especially, the entrepreneurial persuasion research. Excellent presentation skills are important social skills to ensure entrepreneurial financing (Hoehnweiss, Brush, & Baron, 2004). However, very few of the previous research studies have focused on textual effect and the effect of non-verbal cues (Clark, 2008; Maxwell & Levesque, 2011; Hoehnweiss, Brush, & Baron, 2004). Second, previous persuasion research has been limited to student samples (e.g., Hosman & Siltanen, 2011; Smith, Siltanen & Hosman, 1998; Sparks & Areni, 2002) or has been examined in hypothetical situations (e.g., Chen, et al., 2009). I extend such research to the crowdfunding phenomenon where real financial decisions are made and where the entrepreneurs' key task is to persuade funders supporting the fledgling business (Mollick, 2014).

The paper is structured as follows. Following this introduction, I will briefly discuss crowdfunding, language and persuasion, and video communication. Then hypotheses are developed, followed by methodology and results. Finally, I discuss the findings and draw conclusions.

## **Relevant Literature Review**

### **Crowdfunding vs. Traditional Financing**

As stated above, crowdfunding is quite different from traditional financing. First, traditionally, entrepreneurs obtain financing through personal savings (including friends and relatives), debt (e.g., banks), or equity (e.g., venture capitalists). No matter which means of financing, traditional fundraising requires face-to-face communication through conversations, meetings, and social events. However, crowdfunding occurs online. Second, because crowdfunding is delivered over the Internet, it targets donors worldwide. A person from India may be able to attract investors in the United States. However, traditional financing often limits its targeted financial sources to only a few. Third, traditional financing has a focus on long-term relationships. Entrepreneurs who seek traditional financing engage in frequent interactions with investors to build trust and erase doubt about their venturing. On the other hand, investors aim to find a long-term investment. They want to settle not only with a good deal, but also with a succeeding company. Most of the time, crowdfunding project founders have a very narrow focus obtaining the needed financial resources. They do not know their investors and therefore, they focus on the content delivery. Fourth, crowdfunding has a distinct payout format when compared to traditional financing. For example, entrepreneurs who borrow from banks have to pay interest in addition to the amount the bank lends to them while venture capitalists are interested in the entrepreneur's venture ownership. However, crowdfunding can be multifaceted. It can be either debt, or equity, or even donation based where donors simply support the projects by donating without expecting any returns. Currently, most entrepreneurs adopt a reward-based approach that they promise to deliver products/services when they complete the projects.

### **Language and Persuasion**

Scholars have generally agreed that language has two elements: the structural element and the use element (Hosman, 2002). The structural element consists of four components with

phonology describing the sound system, syntax dealing with the construction of sentences, lexicon focusing on the vocabulary, and texts or narratives providing a frame of references for the other three components. The use element addresses pragmatics where message receivers make inferences about the senders' meaning, power of speech style that defines the speakers' power, and standard/non-standard language varieties that depict the language differences across regions or countries. In the crowdfunding setting, language is supposed to be standard, receivers are not accessible, and text study does not involve a sound system. Therefore, I only summarize key findings relating syntax, lexicon, and the language power style to persuasion and thereafter crowdfunding success.

Speech and persuasion literature suggests that language enhances persuasion through several mechanisms, credibility, competence and attractiveness (Hosman, 2002). For instance, syntactically, sentences can be classified into simple and complex sentences (Shen & Bigsby, 2011). Research has shown that complex sentences and messages may be negatively related to persuasion because comprehending and reading such messages may require more attention and labor from the receivers. Complex text structure may be disliked (McGuire, 1969). Lowrey (1998) found simple syntax creates better recalls compared with complex text structure. However, in the lexicon context, complexity may be viewed as positive. Message receivers may prefer senders who can use complex words because using such words indicates the competence of the speaker or the message sender and such expression tends to be more interesting and attractive (Bradc, Desmond, & Murdock, 1977). This in turn increases the message's credibility and attractiveness. Lastly, language intensity has also been found to affect persuasion in that intense language may catch message receivers' attention and interest more easily which may help increase the message's clarity that in turn makes the message sender more trustworthy and

competent (Hamilton & Hunter, 1998). Briefly, text readability and complexity may be related to competence, credibility and likability that are highly related to persuasion. In the current research, I will study the effect of readability and complexity on crowdfunding success.

## **Theoretical Development and Hypotheses**

### **Elaboration Likelihood Model (ELM)**

ELM is an important theoretical framework that can be used to understand persuasion. Elaboration refers to the intensity of thinking that message receivers tend to engage in about a message (Rogers, 2007). How much thinking or elaboration that may be activated depends on two important factors, the receivers' motivation and ability to process the information (O'Keefe, 2015). This research focuses more on the motivation factor even though the ability factor will also be considered.

Liking is important to advertisers because peripheral route processing can be "more true" in the consumer's mind. Elaboration motivation can be defined as the desire to engage in issue-relevant thinking. Two main categories may increase the motivation of elaboration, involvement and need for cognition. Fenwick and Rice (1991) stated that by concentrating on creating affective advertising executions, firms can "innoculate" a brand against competitors with superior product attributes. Consumers form a positive attitude toward the brand because they like the advertising. Online likability measurement offers insight into fleeting emotional responses that occur during message viewing especially useful, given that emotions form and change quickly. Advertisers gain insight into where, and how, to fine-tune their ad messages, requiring excessive verbal interpretation from viewers.

Talking with the involvement, Feeley and Young (2000) examined high and low capacity participants and found that low capacity receivers reported using fewer verbal cues to detect

deception than did high capacity receivers. Forrest and Feldman (2000) manipulated involvement in a study in which participants attempted to detect deception. They argued that individuals with low levels of involvement would engage in processing of nonverbal cues but not verbal content. Contrariwise, it was posited that highly involved participants would process verbal content while ignoring nonverbal cues. Byron and Baldrige (2007) found that interaction with the sender reduces a receiver's capacity to process verbal cues. If the content is inconsistent, the receiver must compare the content of the statement at different points to recognize the inconsistency.

### **Social Presence Theory**

Social presence theory focuses on the degree of awareness of the other person on the speaker, which is called social presence in a communication interaction (Sallnäs, Rasmussen-Grohn, & Sjoström, 2000). According to social presence theory, communication is effective only if the communication medium has the appropriate social presence level of interpersonal involvement required for a task (Muhlbach, Bocker, & Prussog, 1995). Any interaction involving two parties who have the appropriate social presence level can develop or maintain better personal relationship and interpersonal exchanges (Short, Williams, & Christie, 1976). Among different types of communication channels, f2f communication is considered to have the most social presence, whereas written, text-based communication the least (Muhlbach, Bocker, & Prussog, 1995).

Generally speaking, social presence is demonstrated by how the messages are posted and how those messages are interpreted by others (Sallnas, Rasmus-Grohn, & Sjoström, 2000). Nowadays, more and more communication tends to be CMC. Thus, a more relational view of social presence has occurred. Social presence has been given a novel meaning that individuals represent themselves under the online environment. It is crucial that the information senders

should be available and willing to engage and connect with the receivers in the online communication environment (Muhlbach, Bocker, & Prussog, 1995).

Social presence defines how participants express themselves to one another, which affect their communication effectiveness and persuasion (Kehrwald, 2008). The term social presence refers to how well a communications medium transmits verbal and nonverbal cues as well as the apparent distance or "realness" of the communicators (Short, Williams, and Christie, 1976). Here in this study, I recognize social presence as the degree to which viewers of a crowdfunding video get the impression of speakers who are at a remote physical site.

### **Text Readability**

Readability can be defined as the ease with which readers can read and understand the text or message (Oakland & Lane, 2004). Language style can have a significant influence on readability. For example, too many difficult words and too long a sentence may decrease the readability of a text. How text is organized also has an impact on readability. Complex sentences tend to be less readable than simple sentence and long sentences tend to have lower readability.

According to ELM model, readability may cause more joy in reading, and hence give the readers positive feelings (O'Keefe, 2015). In addition, readability may also enhance involvement by the readers. Petty, Cacioppo and Schumann (1983) showed that more involvement by readers leads to more attention to the message, and eventually more liking of the message. Further, readability can bring the reader and the write closer. A readable text may reduce social absence so that the readers form a positive image about the message by the sender or writer. Message clarity has been shown to positively relate to sender's competence, which in turn boosts the trustworthiness of the message senders (Hosman, 2002).

In the crowdfunding setting, the founders are like the writers and the funders are the readers. As writers, founders need to write texts in a readable way so that the funders develop positive feelings about the projects. As stated earlier, the majority if not all the crowdfunding supporters are amateur investors. They either do not have time or do not want to spend a lot of time carefully examining each project. Hence readability may be even more relevant for crowdfunding projects.

*H1A: Text readability is positively related to the attractiveness of the crowdfunding project.*

### **Text Complexity**

Text can be simple and complex (Shen & Bigsby, 2011). ELM depicts that readers' ability to comprehend the senders' message determines if they like the message or not (O'Keefe, 2015). According to ELM, complex text or messages require the readers to possess more human capital, such as prior knowledge so as to better understand the text. Text complexity therefore leads to unfavorable outcomes. Indeed, McGuire (1969) found that complex text structure is negatively related to persuasion. Lowrey (1998) discovered that recall on complex text is much lower than simple syntax. Better recalls often indicate more attention and thinking about the messages. Therefore, messages with high recalls are more powerful. Further, Lowrey (1998) found that complex text also requires the readers to be more involved which is not the case for crowdfunding. Those amateur investors obviously like less complex readings. Lastly, complex text may increase the perception of social absence by the readers about the project founders.

*H1B: Text complexity is negatively related to the attractiveness of the crowdfunding project.*

### **Non-verbal Cues and Successful Financing**

Non-verbal communication accounts for at least 2/3 of communication meanings in social encounters (Hogan & Stubbs, 2003; Leigh & Summer, 2003). They are essential in conveying the right messages to the receivers, and are important for political dignitaries, business leaders, and entrepreneurs. As stated above, entrepreneurial financing is a process of persuasion (Chen, Yao, & Kotha, 2009). Entrepreneurs undergo the process to convince investors to provide the needed financial capital to them so as to realize business potential. However, crowdfunding as an internet platform lacks the social contexts where entrepreneurs and investors can interact with each other so that investors would make the right investment (Walther, 2011). In such a setting, entrepreneurs have to create social presence and send signals to reduce the moral hazard concerns by investors (Denis, 2003). Non-verbal cues may serve as the presence creator and signal senders (Leigh & Summer, 2002). Next I examine how the two categories of non-verbal cues, dynamic and static, influence entrepreneurial financing success.

Dynamic non-verbal cues involve changes and moving in an interaction and they often are related to activities or positions (Leigh & Summers, 2003). Such cues include, but are not limited to, gazing behaviors (stare and looking down), facial expressions (smile, blush, and wink), body movement (hand gestures and head nod), and touching (hug and kiss) (Fitchen, et al., 1992). In this essay, I examine only the effect of smiles.

## **Smiles**

Smiles are often regarded as a positive feeling/emotion (Hecht & LaFrance, 1998) and as one of the universal non-verbal cues for human beings (Otta, et al., 1994). Researchers have long associated smiling with various positive outcomes. A smile may indicate friendliness, interpersonal attraction, happiness and hence it enhances liking (Lau, 1982). In addition, a smile often leads to positive evaluations about a person. Lau (1982) found that smiling makes a person

more likeable, which in turn leads positive evaluation about the person as intelligent, nice, pleasant and bright. In business settings, smiling may be associated with expertise, competency and credibility (Leigh & Summer, 2002). Chen et al. (2009) included smiles as one of the elements for entrepreneurial passion, a fundamental characteristic of entrepreneurship (Cardon, 2008). In addition, smiling can increase intimacy that may create social presence in the online environment (Argyle & Dean, 1965; Cui, Lockee, & Meng, 2013). Therefore, founders who smile more in the crowdfunding video presentation may be viewed as likeable, credible, competent, and passionate. I propose the hypothesis below:

*H2A: A smiling facial expression is positively related to the attractiveness of the crowdfunding project.*

### **Professional Attire**

Physical attractiveness as one of the most important static cues is often associated with positive evaluation and outcomes (Baron, Markman, & Bollinger, 2006). Argyle (1988) regarded physical appearance as a person's self- presentation efforts that may influence social attributions. It exerts influences on not only the perceptions and evaluations of others, but also self-perception. Research finds that dressing in professional attire may enhance one's confidence, credibility, expertise and status because professional attire may signal professionalism that can lead to more trustworthiness (Leigh & Summers, 2002). Research also shows that without information, physical appearance may be more salient in determining the likability of the person. This applies very well in the crowdfunding environment where information is limited (Leigh & Summers, 2002). I argue that entrepreneurs in professional attire in the video presentation send positive signals to the investors, and hence positively affect the project's attractiveness and likelihood of obtaining the required financing. I hence propose:

*H2B: Professional attire in the video pitch is positively related to the attractiveness of the crowdfunding project.*

Ragins (2015) argued that to win the readers' approval, a writer needs to focus on more expression rather than impression. Chen and associates (2009) found that it is the preparation rather than entrepreneurial passion that wins the venture capitalists' heart. I contend that both expression and impression are important. If entrepreneurs show both preparation and passion, they may be more effective in entrepreneurial financing. That is, the interaction of expression and impression should be examined.

As stated earlier, text readability makes reading the text more enjoyable. When the crowdfunding entrepreneurs smile, it can be argued that the relationship should be strengthened. The same can be said for professional attire. Similarly, I have hypothesized that text complexity negatively relates to crowdfunding projects. I propose that smiling and professional attire may weaken the relationship.

Therefore, I have the following.

*H3A: A smiling facial expression moderates the relationship between text readability and the attractiveness of crowdfunding project.*

*H3B: A smiling facial expression moderates the relationship between text complexity and the attractiveness of crowdfunding project.*

*H4A: Professional attire in the video pitch moderates the relationship between text readability and the attractiveness of crowdfunding project.*

*H4B: Professional attire in the video pitch moderates the relationship between text complexity and the attractiveness of crowdfunding project.*

## **Method**

### **Sampling**

I collected data from 209 crowdfunding projects from Kickstarter.com to test the hypotheses of this study. As I explained in Essay I, Kickstarter is currently the first and most prominent reward-based crowdfunding platform (Mollick, 2014). That's why I focused my data collection and analysis on this platform.

Kickstarter uses a reward-based model and adopts an "all-or-nothing" funding policy. In Essay I, I illustrated that under "all-or-nothing" policy, entrepreneurs will not get funding only if the funds they collected reach or exceed their target value. Kickstarter provides rewards such as products or services to investors in return for their financial support. In order to attract the supports from backers, project founders need to upload a video, provide a project description of the project, set a target value and funding period, and specify the low bid and high bid for each category as well as the possible rewards. The rewards could differ from a thank you letter to the actual product or service presented in the project. The amount of contributions may also different from even \$1 to \$10,000 or above. Therefore, Kickstarter fits the context of this study, because of its reward-based characteristics, and the availability of collecting both nonverbal and verbal cues through its platform.

### **Data Collection**

I randomly selected 780 links from the ongoing projects on Kickstarter.com website in both technology and the film & video industry, and then waited till the end of those projects to access the final results. The data collection was carried out in two steps: in the first step, I randomly selected new or ongoing crowdfunding projects meeting certain requirements. I visited project webpages to collect data on the independent and control variables. In the second step, I

waited till the completion of the crowdfunding campaigns and revisited their webpages collecting the data on dependent variables for the project attractiveness. Doing so reduces potential social desirability bias in the coding. 209 crowdfunding projects are collected from the 780 links following the criteria below:

First, the sample is restricted to the videos with single speaker. Two or more speakers will be confused in collecting variables such as gender, eye gaze, smile, etc. Multiple speakers may have varied communication skills and use diverse non-verbal cues. Hence, the investors may focus on and be influenced by different speakers when viewing the video, which makes accurate and consistent measuring almost impossible.

In addition, the observation length is the first 30 seconds of the crowdfunding video. Ambady and Rosenthal (1992) conducted a research on the accuracy of predictions of various objective outcomes in the areas of social and clinical psychology from short observations of expressive behavior (under 5 min). Their results showed that predictions based on observations less than 30 seconds in length did not differ significantly from predictions based on 4 and 5 min observation (Ambady & Robert, 1992).

In order to be objective, I assigned two doctoral students in business to collect the variables of the same 209 projects separately. Before the actual data collection, I asked the two coders to assess the first 10 projects of each industry and then I compared their results. For ratings that were different, they further discussed and revisited the projects until they reached an agreement. In order to make sure that they were collecting variables under the same criteria, I did this again and added more requirements after they collected 20 projects of each industry. After I collected all the data, I compared the data entirely. I went back to the original links of

mismatched data and corrected the data that didn't meet the determined requirements. The final data I used for the analysis was calculated by the average of these two students' data collection.

Finally, I selected the text analysis data through the "risks and challenges" column of each project. I found that every crowdfunding project has different columns in their web page descriptions. The "Risks and Challenges" column is the only column that most of the crowdfunding projects have in common. By selecting the text under this same column, I could reduce the effect of content bias on text analysis.

### **Dependent Variable**

The attractiveness of the crowdfunding project is used as the dependent variable here. I treat the projects that received more attention as more attractive. Therefore, I consider the number of supporters that indicates how many people made contributions to the project as one dependent variable. I then run the analysis according to the amount of number of supporters collected from the Kickstarter.com website.

### **Independent Variables**

**Smile.** Smile is the cornerstone of social interaction and impacts a person's perceived attractiveness (Krishnan, Daniel, Lazar, & Asok, 2008). LaFrance, Hecht and Paluck (2003) suggest that individuals trust smiling people more than non-smiling ones. In order to measure smiling, Hack (2014) did a study of 138 participants which explored how smiling and gender influence impressions. In order to compare the results, some of the participants viewed the faces displaying a smiling expression; others viewed the faces displaying a neutral expression. Krishnan, Daniel, Lazar, and Asok (2008) used a modified form of smile index called the MSI to rating the smile image, which developed from the smile index proposed by Ackerman et al. (1998) and Ackermann and Ackermann (2002). Following their methods of measuring the smile,

I collected the length of smile (count in seconds) in the first 30 seconds of the video. Smiling is defined as a facial expression characterized by upward curving of the corners of the mouth, is often used to indicate pleasure, amusement, or derision (Roget's II, 2006). Based on this definition, I decided only the obvious corners of the mouth turned up or the front teeth exposed as an expression of pleasure could be counted as smiles. After collecting 20 projects and comparing the results, I figured out that some of the speakers smile when they speak. I then decided to exclude those words which when pronounced resonate a smile from the data collection.

**Professional attire.** Personal appearance norms are found to be attributed to self-presentation efforts (Berscheid & Walster, 1978) and affect social attributions (Argyle 1988; Reingen et al. 1980; Ronkainen & Reingen 1979). Employees who are well dressed are believed to form better impressions with colleagues, clients, and customers (Cardon & Okoro, 2009). So I use whether the speakers' clothes are informal or formal to judge their physical attractiveness in this article. There are various categories of clothing that employees might wear in a work setting (Peluchette & Karl, 2007). Franz and Norton (2001) found that categories of traditional, business casual and casual attire were identified as the typical styles of workplace attire for men and women. The traditional style contains suits, sports coats, jackets, ties, and dress shoes. Business casual included khakis and polo shirts. The casual style consisted of jeans, flannel shirts, and sweatshirts (Peluchette & Karl, 2007; Lee, 2003; Lindeman, 2004; Podmolik, 2003). Leigh and Summers (2002) believe that professional dress should be considered in terms of a light beige, three-piece suit and conservative shirt and tie combination, while casual dress was operationalized with a colorful plaid sport coat and tie.

In the data collection, I code formal clothes as 1 while informal as 0. Based on the literature that I searched, I combined the formal and semiformal clothes as formal in judging the dressing of the video speakers. Traditional garments or folk costumes expressing an identity could also be counted as formal clothes. Therefore, I consider men wearing suits, white, blue or pure and light colored shirt, with or without a tie as formal. I consider women wearing a long dress, non-revealing tops, or suits, pure and light colored shirt as formal. For those who wear their traditional clothing of their nation, like kimono, Indian traditional costumes, etc. as formal. All other clothes except those types listed above are considered as informal.

**Readability.** I use the online text analysis tool---Textalyser to calculate readability score. Textalyser is an online software that allows entry of text or a website and displays readability analysis, including reading level, sentence length and word counts. After entering the content from the crowdfunding website in this software, complexity and readability scores are yielded.

The readability factor was calculated by the Gunning-Fog Index. In linguistics, the Gunning Fog index measures the readability of English writing. The index was developed by an American businessman Robert Gunning in 1952. It is used to estimate the years of formal education needed to understand the text on a first reading (William, 2004).

The fog index is commonly used to confirm that whether the text can be read easily by the intended audience. Texts for a wide audience generally need a fog index less than 12. Texts requiring near-universal understanding generally need an index less than 8. A fog index of 12 requires the reading level of a U.S. high school senior (around 18 years old). It is a simple way to measure the level of reading ease or difficulty for any piece of writing (Smith, 2016). Please see Table 3 for the formula.

**Complexity.** Complexity factor was measured by its lexical density through Textalyser. Lexical density is a term used in text analysis. It measures the ratio of content words to grammatical words. Textalyser explains that lexical density helps people know how many different words are used in a text. Lexical density is simply the percentage of words in written (or spoken) language, which gives us information about what is being communicated. With regard to writing, lexical density is simply a measure of how informative a text is (Johansson, 2008).

In computational linguistics, lexical density constitutes the estimated measure of content per functional (grammatical) and lexical units (lexemes) in total. It is used in discourse analysis as a descriptive parameter that varies with register and genre. For instance, spoken texts tend to have a lower lexical density than written ones (Ure, 1971). The analyzed lexical density may be determined by 100 times the number of lexical word tokens (nouns, adjectives, verbs, adverbs) in the analyzed text divided by the number of all tokens (total number of words) in the analyzed text. Please see Table 3 for the formula.

### **Control Variables**

I included several control variables in the analysis, in order to control some possible effects of different gender and industries and make the data more standardized. The first control variable is the gender of the speaker, as some studies suggest that crowdfunding reduces barriers for female entrepreneurs to raise capital and women outperform men in terms of funding success rates (Dan Marom et al. 2014). Gender is coded as 1 (male) and 0 (female).

The second one is the industrial category of each crowdfunding project. Kickstarter divides all projects into thirteen categories and the data collection focuses on two categories: technology and film/video. These two categories present distinct features in terms of ideas and

entrepreneurs. They are also the most-funded categories at Kickstarter and have been studied in previous literature. The industry is labeled as 1 if a project is in the technology industry and 0 if a project is in the film & video industry.

Third, a founder needs to list the funding goal (target value) on the project webpage. Setting an appropriate goal is critical to both raising sufficient funds and achieving funding success (funds raised equal to or greater than funding goals), and it also reflects the project size and founder's expectation. The target value may affect the investors' decision, thus, the attractiveness of the project. Therefore, I included the project funding *target value* as a control variable.

Moreover, Kickstarter used a reward-based model in which investors could receive different rewards depending on the level of their financial contribution to the projects. In order to account for the impact of the incentive on funding outcomes, I controlled the amount of contributions eligible for *lowest* and *highest bids* of the project. These two control variables reflect the scope of incentive provided to each project.

Finally, some crowdfunding videos contain background music and pictures to improve its vividness and quality. I therefore included both the length of background music played and number of pictures displayed during the first thirty-second of a video as control variables.

I summarize the operationalization of all variables in Table 7.

**Table 7: Variable Definitions (Essay II)**

| Variable           | Definition   |
|--------------------|--|
| Readability        | Gunning fog index formula: $0.4 \left( \left( \frac{\text{words}}{\text{sentence}} \right) + 100 \left( \frac{\text{complex words}}{\text{words}} \right) \right)$ |
| Complexity         | Lexical density formula: $L_d = (N_{\text{lex}}/N) \times 100$   |
| NumberOfSupporters | The number of investors who contribute to the project  |
| Target             | Funding goal set by the entrepreneur for the project (unit: US dollar)   |
| LowestBid          | The amount of contribution qualifies for the lowest reward of a project (unit: US dollar)  |
| HighestBid         | The amount of contribution qualifies for the highest reward of a project (unit: US dollar)   |
| Industry           | Dummy variables; 1 for technology category and 0 for film & video category   |
| Gender             | Dummy variables; 1 for male and 0 for female   |
| Music              | The length of background music played during the first 30-second of the pitch video (unit: second)   |
| Photo              | The number of pictures displayed during the first 30-second of the pitch video   |
| Smile              | The length of smile during the first 30-seconds of the pitch video (unit: second)  |
| ProfessionalAttire | 1 for formal attire and 0 for informal attire  |

### Data Analysis and Results

Table 8 shows the descriptive statistics of the sample. Table 9 summarizes the results. As the number of supporters is a count dependent variable, I use the Poisson regression to analyze how project attractiveness is influenced by verbal and nonverbal cues.

Column (1) only includes control variables, and it shows that although significant, target value and high bid amount don't have much effect on project attractiveness. Low bid is negatively related with crowdfunding attractiveness, which means the lower the lowest bid is, the more attractive the project is. I also find technology related projects attract more supporters than film & video projects. Women attract more supporters than men. Music and photos used in the videos are negatively related with project attractiveness.

**Verbal cues.** Column (2) includes verbal main effect variables. I hypothesize that text readability has a positive impact on the attractiveness of a crowdfunding project (H1A). As predicted, text readability positively affects the number of supporters ( $\beta = 0.05$ ,  $p < 0.01$ ). Therefore, H1A is supported. I also propose that complexity is negatively associated with the attractiveness of a project (H1B). It is confirmed that complexity has a negative and significant impact on the number of supporters ( $\beta = 1.15$ ,  $p < 0.01$ ). That is to say, the more complex the text is, the less attractive the project will be.

**Non-verbal cues.** Column (3) includes non-verbal main effect variables. I find that smiles positively affect the number of supporters ( $\beta = 0.03$ ,  $p < 0.01$ ), indicating smiling more could increase a project's attractiveness of being funded. Thus, H2A is supported. In addition, I hypothesize that professional attire has a positive impact on the attractiveness of a crowdfunding project (H2B). However, the results reveal that the formal clothing has a negative effect on number of supporters ( $\beta = -0.0013$ ,  $p < 0.1$ ), suggesting the presenter's professional attire does not affect the attractiveness of the project. Therefore, H2B is not supported.

**Interaction effects.** Column (4) is used to test the interaction effects between verbal and nonverbal variables. The results show that smiling facial expressions moderate the relationship between text readability and project attractiveness ( $\beta = 0.0083$ ,  $p < 0.01$ ), i.e., smile strengthens the relationship between text readability and the attractiveness of crowdfunding project. Thus, H3A is supported. What makes the results interesting is smiling facial expressions moderate the relationship between text complexity and project attractiveness ( $\beta = 0.004$ ,  $p < 0.01$ ), such that smiles strengthen the negative effect of text complexity on project attractiveness. Therefore, H3B is supported. Results also supported H4A which states professional attire moderates the relationship between text readability and the attractiveness of crowdfunding project ( $\beta = 0.0273$ ,

$p < 0.01$ ). H4B is also confirmed. More importantly, I found that professional attire in the video pitch negatively moderates the relationship between text complexity and the attractiveness of crowdfunding project ( $\beta = -0.0417$ ,  $p < 0.01$ ). Therefore, formal attire weakens the negative effect of text complexity on project attractiveness.

**Table 8: Descriptive Statistics of Variables (Essay II)**

| Variable             | Mean       | Standard<br>Deviation | Minimum | Maximum |
|----------------------|------------|-----------------------|---------|---------|
| Number of supporters | 139.0096   | 360.2827              | 0       | 2253    |
| Readability          | 9.9082     | 5.3257                | 0.7     | 68.7    |
| Complexity           | 88.1178    | 7.2751                | 65.3    | 100     |
| ProfessionalAttire   | 0.2584     | 0.4388                | 0       | 1       |
| Smile                | 1.1962     | 3.0579                | 0       | 20      |
| Lowestbid            | 7.7416     | 12.8036               | 1       | 150     |
| Highestbid           | 3218.7300  | 3496.2500             | 5       | 10000   |
| Target               | 33838.6400 | 59963.4900            | 170     | 410000  |
| Gender               | 0.8325     | 0.3743                | 0       | 1       |
| Music                | 16.0526    | 13.8116               | 0       | 30      |
| Photo                | 0.8086     | 1.6704                | 0       | 12      |

**Table 9: Poisson Regression Results**

| Variable                       | Number of Supporters<br>(Poisson regression) |                       |                        |                        |
|--------------------------------|--|-----------------------|------------------------|------------------------|
|                                | (1)  | (2)                   | (3)                    | (4)                    |
| Target                         | 0.0000***<br>(0.0000)                        | 0.0000***<br>(0.0000) | 0.0000***<br>(0.0000)  | 0.0000***<br>(0.0000)  |
| LowestBid                      | 0.0454***<br>(0.0012)                        | 0.0466***<br>(0.0012) | -0.0462***<br>(0.0012) | -0.0441***<br>(0.0012) |
| HighestBid                     | 0.0000***<br>(0.0000)                        | 0.0000***<br>(0.0000) | 0.0000***<br>(0.0000)  | 0.0000***<br>(0.0000)  |
| Industry                       | 1.0490***<br>(0.0141)                        | 1.0231***<br>(0.0142) | 1.0548***<br>(0.0146)  | 1.0503***<br>(0.0146)  |
| Gender                         | 0.2087***<br>(0.0163)                        | 0.1815***<br>(0.0168) | -0.1209***<br>(0.0178) | -0.1777***<br>(0.0181) |
| Music                          | 0.0149***<br>(0.0005)                        | 0.0122***<br>(0.0005) | -0.0120***<br>(0.0005) | -0.0110***<br>(0.0006) |
| Photo                          | 0.1377***<br>(0.0067)                        | 0.2168***<br>(0.0072) | -0.2214***<br>(0.0073) | -0.2409***<br>(0.0077) |
| Readability                    |  | 0.0463***<br>(0.0010) | 0.0475***<br>(0.0011)  | 0.0427***<br>(0.0012)  |
| Complexity                     |  | 0.0185***<br>(0.0009) | -0.0194***<br>(0.0009) | -0.0155***<br>(0.0011) |
| Smile                          |  |                       | 0.0311***<br>(0.0024)  | -0.4116***<br>(0.0305) |
| ProfessionalAttire             |  |                       | -0.0013*<br>(0.0143)   | 3.2670***<br>(0.2033)  |
| Readability×Smile              |  |                       |                        | 0.0083***<br>(0.0008)  |
| Readability×ProfessionalAttire |  |                       |                        | 0.0273***<br>(0.0053)  |
| Complexity×Smile               |  |                       |                        | 0.0040***<br>(0.0004)  |
| Complexity×ProfessionalAttire  |  |                       |                        | -0.0417***<br>(0.0022) |

Notes. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Number of observations=209

## **Discussion and Implications**

Successful entrepreneurial financing requires entrepreneurs' powerful persuasion ability (Chen, Yao, & Kotha, 2009). Entrepreneurs who demonstrate their preparedness and passion about their venturing have high probability of obtaining needed funding (Mittens, Sudek & Cardon, 2011). Language and the presentation of one's message as well as non-verbal behaviors are believed to be the critical elements of persuasion (Hosman, 2002). The entrepreneurial persuasion research has been fruitful, but has failed to sufficiently examine how the verbal and non-verbal cues would affect crowdfunding (Allison, et al., 2015; Brookes, et al., 2014).

I conducted a study to examine how syntactic structure (readability and complexity) and non-verbal cues (smiling and professional attire) interact to affect the attractiveness of the crowdfunding projects. Based on the results, I could conclude that smiling and readability could positively influence the attractiveness of the project and that professional attire and complexity negate the chance of being funded, I also have several interesting findings:

First, consistent with the results of essay I, professional attire negatively affect the project's attractiveness. As I explained in essay I, crowdfunding as an online platform has less interactive environment. Professional attire may create pressures and more psychological distance between the audience and presenter, while casual attire could make the audience more relax (Walther, 2011). Crowdfunding videos might be considered less formal than a business videoconference, and thus professional attire could be perceived as overdressed and dull or even becomes a distraction (Galbraith, et al., 2014; Goldstein, 2003). In addition, crowdfunding is designed for ordinary people who have limited access to capital through traditional methods, professional attire may be interpreted as rich people and thus reduce the funder's funding intention (Greenberg & Mollick, 2014). Lastly, according to the results from this essay, we could

see that formal expression usually matches with formal impression. Therefore, funders may interpret professional attire as something complicated and hard to understand. Dressing casually may make them feel easier to communicate and build close relationships. It also matches better with intimacy and informal expressions such as smiling.

Second, smile turned out to strengthen the positive effect of text readability or negative effect of text complexity on the attractiveness of a crowdfunding project. It is easy for us to understand smiling strengthens the positive effect of text readability on project attractiveness. Results showed that smiling facilitate the negative effect of text complexity. The primary reason may be the inconsistency between impression and expression of the entrepreneur. The consequences of inconsistency between the verbal and non-verbal symbols are huge and harmful. When the words appear to contradict the feelings that are expressed in the faces, voices, and bodily movements, the perceived inconsistency tends to reduce the trust of verbal symbols (LaFrance & Mayo, 1978). Haberstroh (2010) did a pairwise analysis which revealed that counselors who used informal language following formal expressions were perceived as having less expertise. During the communication, I can use the exact same words but communicate a whole host of varied messages just by using different forms of non-verbal communication (Mehrabian & Wiener, 1967).

Third, I found professional attire enhances the positive effect of text readability on the attractiveness of crowdfunding project, while weakening the negative effect of text complexity on project attractiveness. Therefore, the right nonverbal signals should be selected and matched properly in sending out the verbal message. Entrepreneurs should package and market their message for maximum impact (Kello 2007). Formal impressions such as the complexity of the

project should be related with formal expressions (professional attire). Informal expressions (smiles) will enhance the effect of informal impressions.

The current paper makes a few contributions to both theory and practice. First, I contribute to the entrepreneurship literature, specifically, the entrepreneurial persuasion research. Excellent presentation skills are important social skills to ensure entrepreneurial financing (Hoehnweiss, Brush, & Baron, 2004). Because persuasion requires excellent communication and social skills, entrepreneurs who seek financing need to have good command of communication and possess social competence (Baron & Brush, 1999). However, very few of the previous research studies have focused on textual effect and the effect of non-verbal cues (Clark, 2008; Maxwell & Levesque, 2011; Hoehnweiss, Brush, & Baron, 2004). While more than 60% of the meaning in communication may be conveyed via non-verbal cues, entrepreneurship research has ignored the effects of such signals on entrepreneurial financing. I expanded the stream of entrepreneurial persuasion research by comprehending the effect of those important communication cues (Burgoon, 1994; Galbraith, et al., 2014).

Indeed, I found non-verbal and verbal cues are crucial to entrepreneurial financing success. Based on the insufficient research related with those cues, especially the non-verbal ones, I opened up an area of study on non-verbal cues in the entrepreneurial financing process by conducting this research. In addition, I extended the persuasion studies by conducting the research via crowdfunding where I have been given a more complete picture of the entrepreneurial financing process: from application to presentation and to financing outcome.

Second, this article is one of the few research studies that empirically test the interaction between impression variables (such as readability and complexity) and expression variables (such as smile and professional attire) and their effect on the financing attractiveness. In Chen, et

al. (2009)'s article, they argued that passion and preparedness are two critical elements that effect the venture capital investment decisions. They described passion through facial expressions, body movement, tone of voice, and other nonverbal cues, and regard preparedness as the verbal content and substance of a presentation. Their main findings showed that the perceived preparedness significantly influenced the investment decisions rather than the passion of the entrepreneur. This study could be considered as an extension of Chen, et al. (2009)'s research. The findings of this article are consistent with Chen, et al. (2009)'s research about the significant positive effect of preparedness. However, I extend Chen, et al. (2009)'s article by pointing out that passion may strengthen or weaken the positive or negative effect of preparedness on venture capital investment decisions. Results also supported our assumption that facial expressions such as smiling would strengthen the positive effect of preparedness on financing outcomes.

Third, previous persuasion research has been limited to student samples (e.g., Hosman & Siltanen, 2011; Smith, Siltanen & Hosman, 1998; Sparks & Areni, 2002) or has been examined in hypothetical situations (e.g., Chen, et al., 2009). I extend such research to the crowdfunding phenomenon where real financial decisions are made and where the entrepreneurs' key task is to persuade funders to support the fledgling business (Mollick, 2014).

Lastly, the current research has some practical implications. Simply put, crowdfunding founders, please smile! That should attract the crowds to fund your project. It is especially true when your project descriptions and texts are readable. Unlike in the real business plan competition, crowdfunding founders have plenty of time to plan for the video presentation. A video showing an unconfident founder certainly disqualifies the entrepreneurs from getting financed. In addition, entrepreneurs in crowdfunding should keep textual description of their

projects simple and easy to understand, and should dress less formally. In a crowdfunding project where funders own high social motivations, making the project too miscellaneous and being too professional may not be that welcome. In addition, entrepreneurs should pay attention to the consistency between their impression and expression. Smiling in a complex and serious project may make people feel weird instead of attracting them. Similarly, wearing professional attire may fit the theme of a complex project, thus enhance the chance of being funded.

### **Conclusion**

In this research, I attempt to fill a research gap by studying how syntactic structure (readability and complexity) and non-verbal cues (smiling and professional attire) interact to influence crowdfunding outcome. By employing the elaboration likelihood model (ELM) and social presence theory, I argued, hypothesized and tested that powerful persuasion (project attractiveness) results from both expression (smile and professional attire) and impression (readability and complexity).

## CHAPTER V

### ESSAY III THE MEDIATING EFFECT OF LIKABILITY IN CROWDFUNDING

The financial supports from the funders are essential for a crowdfunding success, especially under the context of Kickstarter all-or-nothing policy (Mollick 2014). Therefore, it is critical to understand why funders and what components drive them into making investments in a crowdfunding project (Bretschneider, Knaub, & Wieck, 2014).

As I mentioned in the two essays above, nonverbal and verbal cues are important factors that affect crowdfunding success. However, how they affect founder's performance and funders' decision-making process remains unclear. Isen et al. (1992) mentioned that positive affect such as liking could influence individual's cognitive process. For example, if the raters like or have a positive feeling towards their ratees, they may recall more positive behaviors and messages of them. Thus, liking influences how the messages or behaviors are processed in people's mind.

Several scholars have tested the mediation effect of likability. Allen and Rush (1998) suggested that likability mediates the relationship between the organizational citizenship behavior (OCB) and reward recommendations, as well as the relation between OCB and performance evaluations. Johnson et al. (2002) investigated the mediating role of liking on the effect of participants' reputation and helpfulness on rater's reward decision. Alicke and Zell (2009) found that likability mediates the actor's social attractiveness on blame ratings. Lin, Lendry and Ebner (2016) did a study on the face likability's mediating effect between face

attractiveness and memory. From the above literature, I conclude that likability mediates the relationships between verbal/nonverbal cues and funders' decision to invest.

Bhargava (2012) mentioned in his book that people decide who to trust and build relationship with mainly based on whom they like. How to be more likable becomes one basic step towards achieving success. Based on the comparison between traditional financing and crowdfunding in the literature review of essay 1, certain verbal/nonverbal behaviors were linked with crowdfunding success, but did not demonstrate that this was due to likability. What are factors related with likability under crowdfunding context and how they affect crowdfunding outcome still need to be examined.

Therefore, in this essay, I examine the mediating effect of likability between nonverbal, verbal cues and crowdfunding success. Applying the literature from advertising campaign and political campaign, I concluded likability as one of the most important factors that affect campaign success. In this article, I apply several persuasion theories to explore how the likability of entrepreneurs could influence their probability of being funded. Specifically, I suggest likability influences funder's judgment towards the crowdfunding project and the founder, which in turn, affect the crowdfunding performance.

I would like to explore the black box in crowdfunding's persuasion process and test whether the founder and his/her message directly affect the persuasion outcome or they went through likability in between. I intend to answer the following questions: What is crowdfunding likability? What factors affect crowdfunding likability? And how does crowdfunding likability influence investors' funding decisions and thus affect crowdfunding performance? Different from the data collection of the first two essays, this essay tests those research questions through investors' perspective and directly measures the role of likability acts in crowdfunding success.

The expected contributions of this essay mainly focused on its new angle of research. Most of the data towards crowdfunding research collected from the secondary data on the crowdfunding platforms. This essay designed to test the funders' decision-making process. Primary data of crowdfunding is valuable as a rich source of information and hard to obtain, due to the lack of information for funders. Therefore, based on the data collected both from objective sources (crowdfunding platforms) and subjective source (investors' perspective), results and findings of this dissertation could be mutually convinced. Furthermore, I shed light on the comparison between crowdfunding and mass media campaigns. I incorporate literature related with political and advertising campaign likability factors into entrepreneurial research. By comparison of political, advertising and crowdfunding campaign, I argued the similarity and differences between them. Based on the likability factors extracted from political and advertising campaign, I concluded the five main dimensions of likability. Due to the limited research on the relationship between likability and entrepreneurship outcomes, this study could serve as the first attempt of exploring, defining and illustrating this relationship within crowdfunding context.

In this article, I propose that in current social context, entrepreneurs should not only have capability, but also have likability. I investigate the factors make the political and advertising campaign likable and suggest that likability as a mediator between the main effect factors on campaign success. I examine that what would be the most influential likability factors that crowdfunding creators could learn from. In sum, the findings propose that entrepreneurs should pay more attention to deliver an informative, humorous and less storytelling message to their potential funders, rather than their personal traits or attractiveness. The more their messages are liked, the more likely funders will back their projects and the more success their crowdfunding campaign will be.

The rest of the paper is structured as follows. First, I view crowdfunding as a persuasion process, which shares similarity with political and marketing campaigns. Then I review the literature on likability and explore major dimensions of likability in crowdfunding, and this is followed by the review of likability factors through political and advertising campaign. Third, I explain some persuasion theories such as Elaboration Likelihood Model, Balance theory and the Liking-Similarity effect as the theoretical foundation. Based on the literature review of likability factors, the research model is drawn, and six hypotheses are presented. Then I discuss the contribution and implications. Lastly, I conclude by pointing out the research limitations and future research directions.

### **Literature Review**

As stated in Essay I, crowdfunding is different from traditional financing, especially in the sense of persuasion. In this section, I will build an argument for why persuasion processes, particularly the influence of likability, is stronger in crowdfunding.

Compared with traditional financing, crowdfunding connects with its target mass through mass media. Mass media plays an important role in delivering information to large majority of population (World health organization, 2017). It usually delivers advertising and health information and contains much more than just news. Nowadays, mass media are widely used to expose messages to a large proportion of population through a diversified collection of media technologies, and this could include newspapers, radio and television (Wakefield, Loken, & Hornik, 2010). One medium could be more effective than the others under different culture and countries' contexts (World health organization, 2017).

Mass media campaign usually applies passive messages through pervasive marketing strategy and powerful social norms to change people's behavior (Wakefield, Loken, & Hornik,

2010). Mass media could be applied for various purposes including advocacy for business or social concerns through advertising, marketing, propaganda, public relations, and political communication; entertainment and performance as well as public service announcements (Smith, 2011). Similar with crowdfunding, political and advertising campaigns all communicate their ideas through mass media.

Among all the mass media campaigns, political campaign shares much in common with advertising campaigns within the business world. Scholars found political campaign share several similarities with advertising or marketing campaign (Powell & Cowart, 2015). In marketing, sellers distribute goods or services through advertising to the target market, in exchange for information or profit. In political campaigns, candidates deliver speech with their political promises and personalities to their target voters, in return for voting preferences and election outcome (Kotler & Kotler, 1999). Kotler (1975) summarized the similarity between political and marketing campaign. He concluded that the whole process of communication and information flow is the same between seller and buyers, candidates and voters. In business marketing, buyers pay money to seller in return of goods and services. In political marketing, voters vote candidate in exchange of promises and favors. Both campaigns value information and communication that flow between supporters and campaign leaders. Therefore, political and marketing campaign shares the common purpose: how to attract more buyers to put money and voters to vote, by communicating the goods and services, promises and favors effectively.

However, political campaign is different from crowdfunding and advertising campaigns in the following aspects: First, political campaign focuses on the political candidate versus advertising campaign focuses on a specific commercial product. The product characteristics of advertising campaign is fixed during the advertising period, which political campaign shows

more flexibility in changing its talking and acting characteristics (Kotler, 1975). Therefore, the political campaigns target more on the political candidates' personality traits rather than the functions or market needs of products or services in advertising campaign. Crowdfunding campaigns actually combined the focuses of both political campaign and advertising campaign. It shows importance and emphasizes on both the function of the product or service as well as the personality traits of the project founder.

Second, messages travel in political and advertising campaigns differently. The messages in advertising campaigns have more controls and hard to get feedback or comments from the audience. Political campaigns usually got free media coverage from the news media and interact with the public easily, but it is hard for candidates to control the message that they would like to express (Kotler, 1975). Crowdfunding is similar with advertising campaigns, especially for the limits of interaction and difficulties of involving their target audience.

Third, the timing of those campaigns is different. Compared with the one-day, one-time event of political campaign, advertising campaigns usually lasts for days or months (Powell & Cowart, 2015). Political campaigns are held only once in four years. However, marketing products are available all years long (Kotler, 1975). Same as advertising campaigns, crowdfunding campaigns usually last for more than one day (one to two months).

Fourth, the purpose of those campaigns is different both for the campaign initiator and supporters. The main aim of the political campaign is seeking power, while seeking sales and profits is the main purpose of advertising campaign (Kotler, 1975). The purpose of buyers of the advertising campaign usually expects to receive short-time personal benefits from buying a certain product or service. However, voters of the political campaign barely target on personal goods or short-term returns. They target more on the future benefits of the society as a whole.

Lastly, the success of political campaign based on majority amount of the target audience instead of the significant market share and return in advertising campaign (Powell & Cowart, 2015).

The major purpose of crowdfunding campaign is similar with political campaign as attracting as many target audience as they can.

Based on the comparison of those three campaigns, crowdfunding campaign shares similarities with political and advertising campaigns in different perspectives. All of those three campaigns emphasize the way of delivering messages to their target audiences. Due to the same purpose of convincing target crowds, political, advertising and crowdfunding campaigns could be considered as the processes of persuasion. The core of politics is persuasion (Mutz et al., 1996). Political campaign usually uses television advertisements as an important instrument to affect voting decisions through persuasion (Ridout & Franz, 2011). Same thing happens in advertising campaign. Effective advertising campaign is always persuasive. The effectiveness of the persuasiveness determines how well we could establish and reach the product visibility and target consumer (O'Shaughnessy & O'Shaughnessy, 2004).

Similarly, entrepreneurial financing like crowdfunding is reviewed as a persuasion process where entrepreneurs convince potential investors of the merits of their opportunities (Chen, Yao, & Kotha, 2009). Compared with the face-to-face communicating in traditional financing, crowdfunding occurs online. It targets the crowd and worldwide. Most of the time, crowdfunding project founders have a very narrow focus obtaining the needed financial resources. They have no idea or information about their investors and therefore, they could only focus on how to deliver their message more effectively. In this case, persuasion becomes relatively more important for founders searching for funds.

Therefore, persuasion variables are important for all those three campaigns in achieving success. From the statements above, I could conclude that political campaign, advertising campaign and crowdfunding campaign share lots of similarities. Both of them start with a clear plan through mess media. The purpose of those campaigns all targets on establishing social influence toward people's attitudes or behavior. Communication skills are essential for all political, advertising and crowdfunding campaigns. Both campaigns may have the problems of information asymmetry and selection bias between supporters and campaign leaders.

Since all those campaigns are involved in the persuasion process and emphasize on communication, I apply the persuasive model of communication and attitude change literature (Hovland, Janis, & Kelley, 1953; McGuire, 1968) to compare them in answering the essential question in persuasion: who says what in which channel to whom with what effect.

I apply the Linear (Action) Model of communication rather than other communication models because it fits the context of my study and the characteristics of crowdfunding better. Under this communication model, entrepreneurs who create the crowdfunding project are active senders. They send out their message through online platforms to their receivers. However, because of the computer-mediated characteristic of crowdfunding communication, the interactions between senders (entrepreneurs) and receivers (funders) are very limited. The role of sender and receiver could not be changed under this communication event. Receivers could not interactively involve in the communication process. Therefore, the traditional Action Model of Communication well explained the crowdfunding based CMC phenomenon.

I hereby summarize the key similarities between political, advertising campaigns and crowdfunding campaign in Table 10.

**Table 10: A Comparison of Advertising & Political VS Crowdfunding Campaign**

| <b>Model of communication</b> | <b>Advertising campaign</b>   | <b>Political campaign</b>   | <b>Crowdfunding campaign (reward-based)</b>                              |
|-------------------------------|---|---|--|
| Who and to whom               | Advertiser and consumers  | Political candidates and voters   | Founder and funder   |
| What                          | Product and services  | Promises and favors   | Project ideas and rewards  |
| Why                           | Seeking sales and profits   | Seeking power   | Seeking funds  |
| When                          | All years round;<br>Ongoing sales                                       | Once every four years;<br>Usually one day, one time (in U.S.)           | Usually 1-2 month  |
| Which (Channel)               | Mass media, usually television, radio, newspaper and online             | Mass media, usually television, radio, newspaper and online             | Mass media, usually through online platforms                             |
| How                           | Persuade consumers through mass communication skills to buy the product | Persuade voters through mass communication skills to vote the candidate | Persuade investors through mass communication skills to fund the project |

Due to the similarities between political, advertising and crowdfunding campaigns, I decided to review the literature related with political and advertising campaigns and the relationships between both, in order to generalize useful implications from political, advertising literature into crowdfunding research. Specifically, I argue that political candidates, advertiser or entrepreneurs need to apply proper verbal and non-verbal cues to deliver the information in a powerful way to enhance persuasion.

### **Political Campaign**

Political campaign is a process of exchanging messages, which voters support the candidate based on their acceptance or rejection of the presented message (Powell & Cowart, 2015). Communication is so important in political campaign that it was considered the way by

which the campaign begins, proceeds, and concludes (Trent & Friedenberg, 1983). Without communication, there is no political campaign (Trent & Friedenberg, 2008). O'Day (2006) mentioned that the golden rule of politics is repeatedly communicating a persuasive message to people who will vote. Three critical elements of political campaigns are essential for election success: a persuasive message, a reasonable persuasion plan and a direct contact with voters (O'Day, 2006). Therefore, a political campaign is a communication process of three steps: find the right message, target that message to the right group of voters, and repeat that message again and again. Likewise, communication skill is also important for entrepreneurs, as they need to persuade potential investors through powerful communication in achieving financial resources (Hoehn-Weiss, Brush, & Baron, 2004).

In political campaigns, candidates offer promises, policy preferences, and personalities in exchange for their voter's votes and supports (Kotler and Kotler, 1999). In crowdfunding campaigns, most of the funders invest the project in exchange of possible rewards and financial return. However, there is an information asymmetry in political campaign. Politicians want trust and commitments (Henneberg, 2004) and maximized electoral support (Wring, 1997). Voters, however, want political information and facts, credible and honest leader (Newman, 2001). Similarly, most crowdfunding websites only provide limited information on campaigns and funders have to rely on entrepreneurs' self-disclosed information to assess the quality and risks of the projects (Moss, Neubaum & Meyskens, 2015).

Voters are faced with the need to make a choice among a list of unknown candidates, especially in low-information elections. By examining a set of low-information elections, which displaying candidates' photographs on the ballot, first impressions of candidates turn out to significantly influence the election outcomes (Banducci et al. 2008). Banducci et al. (2008)'s

research suggested that physical characteristics, age, race and ethnicity of the candidates are associated with the attractiveness of the candidates, which may lead to some positive trait inferences.

Scher (1997) mentioned in his book that the purposes of the modern political campaign include marketing the candidate and entertaining the crowd. Based on the campaign perspective, voters are not regard as rational thinkers but emotional involvers. Therefore, campaigns need to focus on candidates and their images. First impressions that influenced by facial appearances and physical characteristics of the unknown candidates can be important determinants of election outcomes. Similarly, because investors of crowdfunding do not have enough information about the founders, they may make investment decision largely based on the facial appearances and physical characteristics of the entrepreneurs.

Besides focusing on political candidates, we also need to understand the target audience as well as what kinds of candidates and messages are likely to be appealed (Scher. 1997). Here I did a summary about what factors that make political campaign successful in the table below:

**Table 11: Antecedents of Political Campaign Success**

| <b>Year</b> | <b>Author</b> | <b>Journal</b>       | <b>DV (dependent variable)</b> | <b>ID (independent variable)</b>                                     | <b>Theory</b>                       | <b>Methodology</b>   | <b>Links with likability</b>  | <b>Key findings</b>   |
|-------------|---------------|----------------------|--------------------------------|--|-------------------------------------|--|---|---|
| 1993        | Pierce        | Political Psychology | Candidate preference           | Political sophistication, Leadership, competence, integrity, empathy | Political sophistication literature | Archival data with the levels-of-conceptualization measure | Leadership and empathy are important factors for candidate likability | Four major candidate traits, which related with political sophistication, affect the Candidate preference. Competences usually applied by candidates with higher level of political |

|      |  |                                   |                                   |  |  |   |  |  |
|------|--|-----------------------------------|-----------------------------------|--|--|---|--|--|
|      |  |                                   |                                   |  |  |   |  | sophistication versus integrity with lower level. Leadership and empathy are important for candidate no matter the level.  |
| 2002 | Smith, & Voth                          | Argumentation and advocacy        | Political campaign outcome        | Comic acting, Humor  | The comic frame                        | Conceptual  | Humor could create connections and thus likability                   | This article explained the impact of "Saturday night live (SNL)" on the 2000 presidential debates. They argued that late-night shows like SNL provide officials to exhibit humor and comic acting, which created a connection with the populace that would have been impossible. |
| 2007 | Capra, Veccihion, Barbanelli, & Fraley | Political Psychology              | Political Preference              | Likely extraversion, agreeableness, conscientiousness, emotional stability, openness | Similarity-attraction relationship     | Longitudinal study  | Similarity in likable personality traits effect political preference | Perceived similarity in traits between voters and political candidates are associated to political preference  |
| 2008 | Van Aelst, Maddens, Noppé, & Fiers     | European Journal of Communication | Television and newspaper coverage | Celebrity status, party, position of candidate on the list, gender                   | Traditional party logic vs media logic | Logistic regression analysis/multinomial logistic regression analysis | Party size and candidate position generate media coverage likability | The article tested the impact of media attention on the number of preferential votes. They found that size of their party and positions on the electoral list determines the amount of media attention for a candidate.  |

|      |                           |  |                             |  |  |                                       |  |  |
|------|---------------------------|--|-----------------------------|--|--|---------------------------------------|--|--|
| 2010 | Hardy                     | Publicly Accessible Penn Dissertations | vote preference             | Perceptions of candidate traits (strong leader, erratic and inspiring)       | Agenda-setting, Priming and framing theories | Archival data with empirical analysis | Presidential candidate character traits will affect likability           | The dissertation focused on the presidential candidate character traits on vote preference. He found that specific traits, interactions and frame with media affect vote preference.   |
| 2015 | Ben-Bassat, Dahan, & Klor | Electoral Studies                      | Election results            | Candidates' expenditures   | Institutional framework                      | Quasi-natural experiment              | The characteristic of target population may effects likability           | Candidates' campaign spending did not substantially affect votes. Campaign spending appears to be more effective in developing countries than in developed ones, because poor population are more impressionable about media advertisements. |
| 2015 | Bevan, & Krewel           | Electoral Studies                      | Responsiveness of campaigns | Popularity of candidates, focus on the public opinion and opponent campaigns | Agenda-setting                               | Rolling cross-section survey          | Likability differs in targeting the response on the party or individuals | The focus of personal versus issue oriented campaigning directly affects the responsiveness of the electoral campaigns. The electoral campaign that focused on the party rather than individuals turns out to be more responsiveness.        |

## **Advertising Campaign**

Borden (1964) mentioned advertising as one of the twelve elements of a marketing program. Public relations, media planning, product pricing and distribution, sales strategy, customer support, market research and community involvement are all parts of comprehensive marketing efforts (McCall, 2002).

Egan (2007) defined advertising as a way to communicate information and influence consumer behavior through a paid form of mass communication. Advertisers develop communication strategies or use agencies to spread out their ideas (Parente & Strausbaugh-Hutchinson, 2014). Therefore, compared with other marketing campaigns, advertising campaign focuses more on integrated marketing communication and spreading out the word. Targeting and delivery of messages is important for marketing communication strategy (Parente & Strausbaugh-Hutchinson, 2014). As I mentioned above, communication skill especially in how to spread out the word through mass communication is also an important part of crowdfunding.

Persuasion is important in advertising business, because it is the way of wining over consumer to another point of view (Parente & Strausbaugh-Hutchinson, 2014). In order to evaluate campaign's effectiveness, researchers usually pay attention to whether the consumer could recall the visual and verbal elements of an ad in their own words (Haskins & Kendrick, 1993). Likability measures appear to be increasingly applied in evaluating campaign's effectiveness (Parente & Strausbaugh-Hutchinson, 2014).

Gerber and Hui (2013) consider crowdfunding as a type of market, where creators produce and market their ideas or products and supporters consume them. They believe that we could understand the phenomenon of crowdfunding through the aspects of marketing and consumer research. Therefore, the key drivers of advertising campaign success and consumer decision process may be similar to the factors that lead to crowdfunding success. In order to

figure out what factors make advertising campaign likable and successful, I did a literature review from marketing and advertising literature and summarized them in the table below:

**Table 12: Antecedents of Advertising Campaign Success**

| <b>Year</b> | <b>Author</b>     | <b>Journal</b>                               | <b>DV (Dependent Variable)</b> | <b>ID (Independent Variable)</b>  | <b>Theory</b>                                | <b>Methodology</b>                                       | <b>Links with likability</b>  | <b>Key findings</b>  |
|-------------|-------------------|--|--------------------------------|---|--|--|---|--|
| 1977        | Baker & Churchill | Journal of Marketing Research                | Advertising Evaluation         | Physical attractiveness (attractive versus unattractive), type of product advertised (coffee versus perfume/cologne/aftershave lotion), gender                                  | Attribution Theory                           | Experiment 2*2 randomized block factorial design         | Gender and physical attractiveness are important determinants of the attention-getting value and likability of the advertisement. | Sex and physical attractiveness of an advertising model influences the evaluation of the advertisement. If the product type is non-romantic to males, unattractive female model may be more persuasive.  |
| 1980        | Chaiken           | Journal of personality and social psychology | Opinion change                 | Perceived consequences, communicator likability, number of arguments, message topic, subject sex, and message rendition (nested within levels of topic and number of arguments) | Systematic and heuristic processing strategy | Two-session experiment on opinions and group discussions | Compliment breeds likability  | Praising leads to likability. The message contains more arguments (six vs. two) are more persuasive. The involvement level of the subjects mediates persuasion: the high involvement may leads to systematic information processing strategy with message-based cognitions, while the low involvement leads to a heuristic processing strategy with the simple |

|      |                               |                                      |   |   |   |  |   |  |
|------|-------------------------------|--------------------------------------|---|---|---|--|---|--|
|      |                               |                                      |   |   |   |  |   | decision rules.  |
| 1990 | Aaker & Stayman               | Journal of Advertising Research      | Commercial effectiveness                | Amusing/clear, informative/effective, irritating/silly, dull, warm, lively, familiar, believable, and confusing | Perception factors review                             | Mail-questionnaire, commercial-testing method    | Informative, silly and humorous of a commercial are important factor of ad likability | This research identified nine audience perception factors, which could explain part of the variance. Only three of them are significant: informative/effective, irritating/silly, and entertaining/humorous                    |
| 1990 | Biel & Bridgewater            | Journal of Advertising Research      | Likeable television commercials         | Ingenuity, meaningfulness, energy, rubs the wrong way, and warmth   | Commercial likability and persuasion                  | Factor analysis and multiple regression analysis | Meaningfulness and energy are important to generate liking.                           | The authors deconstructed liking into five underlying dimensions: ingenuity, meaningfulness, energy, rubs the wrong way, and warmth. Of these five factors, meaningfulness and energy emerged are the two most important ones. |
| 1994 | Walker & Dubitsky             | Journal of Advertising Research      | Evaluation of advertising effectiveness | ASI Related Recall and True-Share[R] Persuasion measurements  | Commercial Liking and Brand Preference                | Questionnaire                                    | Liking is highly related with the entertainment value, relevance and information      | They did an empirical study about what factors related with liking and reasons for liking. Specific elements of the commercial--the characters, action, storyline, music, visual elements are the main reasons of liking       |
| 1994 | Leather, McKelvie, & Amirkhan | International Journal of Advertising | Advertising Effectiveness               | Advertising likability  | Advertising theory, comparison with American research | Empirical study on FMCG commercials              | Likability is related with the evaluations of advertising effectiveness and           | This article identified the constituents of likability within a British context and examined the relationship between likability, its  |

|      |                     |                                 |                                    |   |  |                                |   |   |
|------|---------------------|---------------------------------|------------------------------------|---|--|--------------------------------|---|---|
|      | nian                |                                 |                                    |   |  |                                | purchase intention  | constituents and evaluations of advertising effectiveness and purchase intention  |
| 1995 | Callcott & Lee      | Advances in consumer research   | Advertising spokes-characters      | Physical Appearance of the character, the Medium it appears in, advertising or non-advertising Origin, and spokes-character Promotion of the product (AMOP) | A multidimensional framework for spokes character definition | Conceptual                     | The physical appearance, medium, advertising or non-advertising origin, spokes-character promote likability             | This article made a clear definition about advertising spokes-character towards the physical appearance, medium, advertising or non-advertising origin and AMOP aspects. It contributes to consumer behavior research with the areas of source credibility, product involvement, nostalgia and symbolism.   |
| 1996 | Callcott & Phillips | Journal of Advertising Research | Advertising likability             | Personality, physical characteristics, humor, and consumer experience   | Spokes-character s and liking                                | In-depth interviews            | Personality, physical characteristics, humor and cultural and character experience factors could influence brand liking | They applied a qualitative method in exploring what makes spokes-characters likable and the spokes-character likability effect on advertising effectiveness. Four primary dimensions of spokes-character likability were discovered: (a) personality, (b) physical characteristics, (c) humor, and (d) consumer experience factors (cultural and character) |
| 2003 | Priester & Petty    | Journal of Consumer Psychology  | Advertising effectiveness Attitude | Endorser trustworthiness, Argument quality  | Elaboration Likelihood Model of                              | 2×2 (Endorser Trustworthiness: | Familiarity and trustworthiness are associated  | Source trustworthiness influenced the extent of elaboration. Endorsers who are  |

|      |                                     |  |   |  |  |   |   |   |
|------|-------------------------------------|--|---|--|--|---|---|---|
|      |                                     | ogy  | measure<br>s,<br>Cognitiv<br>e<br>response<br>s |  | persuasio<br>n and the<br>Heuristic<br>-<br>Systemati<br>c Model | High or<br>Low ×<br>Argume<br>nt<br>Quality:<br>Strong<br>or<br>Weak)<br>factorial<br>experim<br>ent                                      | with<br>likability  | low in<br>trustworthiness will<br>have greater<br>elaboration of the<br>product-related<br>information than<br>endorsers who are<br>high in<br>trustworthiness.<br>Source<br>trustworthiness<br>served as a simple<br>cue for high<br>trustworthiness.<br>Endorsers who are<br>high in<br>trustworthiness will<br>generate a relatively<br>non-thoughtful<br>acceptance even<br>when those endorsers<br>are familiar. |
| 2004 | Garr<br>etso<br>n &<br>Nied<br>rich | Journal<br>of<br>advertisi<br>ng                                 | Brand<br>attitude                               | Specific<br>spokes-<br>character<br>features:<br>expertise,<br>relevancy,<br>and nostalgia | Spokes-<br>Character<br>Trust                                    | Empiric<br>al study<br>with<br>moderat<br>ed<br>mediatio<br>n<br>model/C<br>onfirmat<br>ory<br>factor<br>analysis<br>and path<br>analysis | Relevance,<br>expertise,<br>nostalgia<br>will<br>favorably<br>affect trust<br>and thus<br>likability                            | This research<br>identified 37 different<br>types of spokes-<br>characters. They<br>found that the<br>relationship between<br>spokes-characters<br>effect and brand<br>attitude was mediated<br>by the spokes-<br>character trust and<br>moderated by brand<br>experience.  |
| 2006 | Fam                                 | Internat<br>ional<br>Journal<br>of<br>Business<br>and<br>Society | Likabilit<br>y/Dis-<br>likabilit<br>y           | Different<br>types of<br>commercials   | Force-<br>process-<br>outcome<br>model                           | Telepho<br>ne<br>intervie<br>w  | Entertainin<br>g like<br>funny and<br>interesting<br>as well as<br>warmth are<br>the most<br>important<br>likability<br>factors | This article illustrated<br>seven likeable<br>attributes and one<br>dislikeable attribute<br>between two<br>countries (Hong<br>Kong and Bangkok).<br>Entertaining and<br>Warmth are ranked as<br>the top two likable  |

|      |                     |   |  |  |   |   |   |  |
|------|---------------------|---|--|--|---|---|---|--|
|      |                     |   |  |  |   |   |   | attributes, while boring as the most dislikeable attribute.  |
| 2006 | Fam & Waller        | Qualitative Market Research: An International Journal | Advertising Likability                                 | Hong Kong: Fun/Escape; Shanghai: Warmth/tea spirit; Jakarta: Charming/Aspiring; Bangkok: Slice of life; Mumbai: Entertaining/tradition bound | Consumer attitudes towards advertising likability | Cross-cultural qualitative research                     | Funny, humorous or interesting is the most common reason for advertising likability among five Asian cities | This article tried to compare the differences of likeable attributes between five Asian cities, depend on a number of factors like cultural values, country of origin and market-related factors. The qualitative findings indicate that funny, humorous or interesting are the common reasons for advertisement liking. They then conclude that the foundation for liking a television commercial is "Entertainment". |
| 2009 | Polegato & Bjerke   | Journal of Promotion Management                       | Advertising liking                                     | Colors, logo, people/models, and situation, culture difference   | Likability and Advertising Elements               | 328 Questionnaires in three European cities             | Situation (the content of the ad) is the dominant explanatory variable across culture for ad liking.        | They indicate that there is a cultural difference in the perception of print ad likability. Situation (the content of the ad) has the most explanatory power, followed by the colors and people factors.   |
| 2011 | Huang, Hsieh & Chen | African journal of business management                | Purchase intention/advertisement communication effects | Animated spokes-characters   | Elaboration likelihood model (ELM)                | Questionnaire and structural equation modeling analysis | Animated spokes-characters such as joyful, cute appearance and lovely personality increase consumers'       | This study suggests that consumers are affected by animated spokes-characters. Animated spokes-characters could enhance brand impression but not guaranteed on purchase intention.   |

|      |                                 |   |                               |  |  |  |  |  |
|------|---------------------------------|---|-------------------------------|--|--|--|--|--|
|      |                                 |   |                               |  |  |  | liking   | They then consider liking mediated the effect of spokes-characters on purchase intention.  |
| 2012 | Choi & Lee                      | Cyber psychology, Behavior, and Social Networking | Persuasiveness of advertising | Character presence, animated spokes-characters: facial expressions, bodily motions and verbal encouragement, product types | Product type moderation                                  | 2×2 between-subject design, ANOVA analysis | Product type moderates the spokes-character's effect on likability | They found an interaction effect between character presence and product type on brand attitude and purchase intention. The effect of spokes-character on purchase intention is much stronger on hedonic product than utilitarian product.  |
| 2012 | Gazley, Krisjanous, Fam & Grohs | Asia Pacific Journal of Marketing and Logistics   | Asian consumers' attitudes    | Liked and disliked ads   | Standardize or adapt advertising within the Asian region | Multiple and logistic regression           | Offering something to talk about lead to higher ad likability      | This article focused on the antecedents and consequences of liked and disliked ads with the moderation of cultural differences. They found that if the advertising provides something to talk about, it would increase the ad likability. Annoying advertisement was rated the most dislikeability. The consequence of liked ads closely correlated with the purchase intention. |

## **Campaigns and Likability**

Based on the literature review of political campaign and advertising campaign success factors above, I could conclude that most of those success factors are related with likability. Literature shows that likability has been developed in advertising literature as the advertisement liking (Callcott & Phillips, 1996; Fam & Waller, 2006) or purchase intention (Leather, McKechnie, & Amirkhanian, 1994; Huang, Hsieh & Chen, 2011) and in political literature as candidate appeal (Pierce, 1993; Bevan, & Krewel, 2015) or vote preference (Hardy, 2010; Caprar, Vecchion, Barbaranelli, & Fraley, 2007). Therefore, likability could be considered one of the essential factors for both political campaign and advertising campaign success.

A closer look into relevant studies reveals that the effect of likability on the campaign performance has received scant attention. Especially, theory and research in support of the link between the antecedent of likability factors, likability and campaign outcomes is relatively rare. Table 12 shows that most of the articles focused on likability and campaign performance are related with advertising campaigns. However, the majority of those studies were published almost ten years ago. That is to say, likability has caught marketing researcher's attention long time ago with well-established concepts and frameworks. And recently, more research has been found targeting on the link between political campaign leader's likability and campaign success.

In addition, most of the literature I reviewed is empirically tested by primary or archival data, which demonstrates the potential of this research area in generating more fruitful empirical results. Furthermore, a large amount of those studies are published in well-respected journals, which represents the promising article quality within this topic. Besides, these political and advertising studies have some beneficial contributions and findings of likability that can be

developed and applied in future research. All these elements supported the promising value of applying this topic into management research field.

However, compared to other research topics in management field, especially the entrepreneurship field, the impact of likability factors is still underestimated and barely explored. Therefore, I have the motivation to explore what specifically is likability in entrepreneurship and how it affects entrepreneurs in achieving campaign success. Next, I will have a detailed review of the conceptualization and components of likability, and then define it within the context of entrepreneurial likability under crowdfunding campaign.

### **Dimensions of Likability**

Based on the potential and promising value of likability research, I would like to explore more about how it affects entrepreneur's performance. Dale Carnegie (1936) implied in his book that being likable and being persuasive are essential for a communicator to win friends and influence people. Therefore, the next question is what factors make a communicator likable?

As I mentioned above, most of the definitions and dimensions of likability came from marketing and communication area. Due to the similarity of crowdfunding campaign and mass media campaign, I expect to illustrate the dimensions of likability campaign factors from the mass media communication literature. Based on the advertising literature review, I conclude that antecedent factors of likability from the aspect of person are: sex and physical attractiveness (Baker & Churchill, 1977; Callcott & Lee, 1995; Reinhard et al. 2006), spokes-character (Callcott & Lee, 1995; Choi & Lee, 2012), personality (Callcott & Phillips, 1996; Huang, Hsieh & Chen, 2011), cultural and character experience factors (Callcott & Phillips, 1996), common bonds (Philippou, 2014), familiarity and trustworthiness (Priester & Petty, 2003), expertise and

nostalgia (Garretson & Niedrich, 2004), warmth (Fam, 2006; Fam & Waller, 2006), character presence and product types (Choi & Lee, 2012).

In addition, liking of message variables such as compliments (Claiken, 1980), informative (Aaker & Stayman, 1990; Gazley, Krisjanous, Fam & Grohs, 2012), humorous (Aaker & Stayman, 1990; Callcott & Phillips, 1996; Huang, Hsieh & Chen, 2011; Fam, 2006; Fam & Waller, 2006), meaningfulness and energy (Biel & Bridgewater, 1990), entertainment, relevance and information (Walker & Dubitsky, 1994; Garretson & Niedrich, 2004), medium, advertising or non-advertising origin (Callcott & Lee, 1995) are related with likability.

In the political literature, I found that the likability factors related with the candidate include: leadership and empathy (Pierce, 1993), emotion, authenticity, similarity (Caprar, Vecchion, Barbaranelli, & Fraley, 2007), celebrity status (Van Aelst, Maddens, Noppe, & Fiers, 2008), first impressions which influenced by facial appearances, physical characteristics and personal traits of the candidates (Banducci et al. 2008), presidential candidate character traits (Hardy, 2010), candidates' expenditures (Ben-Bassat, Dahan, & Klor, 2015). Here are some message variables that also affect campaign likability such as: storytelling, brief and easy to understand and share (Hector, 2011), humor (Smith, & Voth, 2002), popularity of candidates and message focus (Bevan, & Krewel, 2015).

In addition to political and advertising literature, previous researchers demonstrated that attractive communication (Chaiken, 1979), perceptions of similarity (Rosenbaum, 1986; Smeaton, Byrne, & Murnen, 1989; Mackie et al. 1990; Kassin et al., 2008), physical attractiveness (Kassin et al., 2008), nonverbal behavior (Macrae & Quadflieg, 2010) such as frequent smile and nodding, steady gaze, open and inviting postures (Gifford, 1994; Bernieri, Gillis, Davis, & Grahe, 1996) could increase likability.

Later research extended those factors into several more dimensions. For example, here are some recent articles studied the dimensions of likability: Nguyen, Melewar and Chen (2013) investigated the concept of likability and argued what caused a firm or brand to be perceived as likable. They listed several factors from the previous literature that were likely to increase likability such as physical attractiveness, similarity and compliments (Cialdini, 1993; Reysen, 2005) as well as friendliness, relevance, empathy and realness (Sanders, 2005). After an extensive literature review, they defined brand likability as “a perception of appeal to a brand that is based on defining characteristics of the source stimuli, including credibility, attractiveness, similarity, familiarity, likability, expertise, trustworthiness, and fairness, and it was determined by the psychological evaluation processes attributed to the exchange, including fairness, inferences, cognitive dissonance, equity, entitlements, justice, and norms.” (Nguyen et al. 2013, P.44). Based on the brand likability effect, they believe brand likability will influence the brand love, satisfaction, reputation, preferences and favorable attitudes. They also suggested that firms could increase their likability through fairness, socially accepted marketing approaches, added value, transparent communication and building a good reputation.

Weiss and Schoenenberg (2014) studied the effect of conversational structures as verbal predictors of likability. They mentioned that similarity, verbal and nonverbal alignment of interlocutors affect likability and the success of interaction. They tried to connect the relationship between first impression and interaction behavior as conversational structures with likability. Therefore, they recorded the verbal interaction of three unacquainted persons according to prepared scenarios. After a training session and the actual conference, 39 participants in this experiment are asked to rate the likability of each other. Participants will first be asked to have a telephone conference with the speakers to gain the first impressions of each other. Then they

asked two students of linguistics conducted the annotation under supervision. By doing this, they collected the verbal contribution, pauses and back channels of each participant. Their results show the dominating role of first impression on interpersonal attraction. Besides, they found that conversational structure such as turn number and turn duration could significantly complement the description of a person's likability.

Collisson and Howell (2014) argued that similarity breeds liking of others. People like the person who shares similar personality, beliefs, attitudes or status with them. Applying the balance theory, this article examined the liking-similarity effect by conducting two studies. They did a survey on participants who viewed an interview with a likable nonverbal behavior in study one. And then ask them to generate their inferences towards the nonverbal behavior. In the second study, they examined several moderators in the liking-similarity effect, such as self-esteem, preference for consistency and self-concept clarity. Their findings show that people perceive greater similarity with the people they like in first impression. A person who has high self-concept clarity demonstrates greater liking-similarity effect.

In Wallis (2015)'s dissertation, he compared the perception of likability under face-to-face and text chat contexts, and built a relationship between the use of information communication technology, level of social skills and perceived likability. He did an experiment with 120 undergraduate participants in the medium sized public rocky mountain university. He applied 11-item Reysen Likability Scale (RLS; 2005) to assess the perceived likability in the communication interaction. He found that there is no significant relationship between social skills and likability. Participants are rated more likable in text chat rather than face-to-face communication. He believes that factors like non-verbal behaviors, physical appearance,

attractiveness, gender and age could have more opportunities to garner negative impressions in face-to-face interactions.

Kumar and Balabanis (2015) did a study of how the popularity of a celebrity and their character's likability in the movie could influence audience's memory and brand recognition. They collected data from 200 real consumers through a survey after showing the movie. They found that the popularity of the celebrity impacted the recognition of the brand. They also argued that using likable characters which audience could relate with works more effectively than the brand placement strategies.

Chatelain (2015) regards clothing as a form of non-verbal communication, which transmits information from the wearer to the viewer. She tried to build the relationship between students' perceptions of academics' dress and gender on their perceived instructor approachability and likability. She did a survey of the students enrolled in a southeastern career-arts institute in the United States. They were asked to provide feedback on six separate instructors' (three women and three men) photograph. One dressed in casual, one in business casual and one in professional. Their results show that students perceive female teachers as less approachable and likeable than male teachers. Teachers dressed in casual attire are less likeable than the ones in business casual or professional attire. Therefore, professional attire and gender influence person's likability, especially for male teachers.

Lynn, Walker and Peterson (2016) did a research in testing whether the popularity or product quality or the interaction of both effect likability. They conducted a large-scale test from the Columbia Music lab and found that popularity's effect on likability is limited only for songs of lower quality. However, being popular could not boost the perceptions of likability for songs that are in higher quality. This result explained why the "bad" songs could sometimes become

more successful than the songs that are intrinsically more appealing. However, the successful factors for intrinsic appealed songs remain unclear. Their study shows quality interacts with popularity which impacts on likability.

Applying the social relations model, Gallardo and Weiss (2016) did an experiment of 30 participants on speech's different effects on likability. Following a round-robin approach, their voices were recorded and then they need to rate other's voices through two different communication channels (narrowband and wideband). Result shows that acoustic relates with likability. People who are perceived as extrovert and agreeable were rated with higher likability. Compared with narrowband, wideband voices have higher and more accurate rating of likability. Therefore, speech voice is related with the speech likability, which influenced by the effect of speaker's personality and communication channels.

Lin, Lendry and Ebner (2016) did a study on the face likability's mediating effect between face attractiveness and memory. They also argued that age moderated this relationship. A face-trait experiment was conducted with 50 young and 51 older participants. Then participants will be tested and rate the likability of each face. Findings show that the age and social motivations impact the effect of face attractiveness on likability and memory. In details, face attractiveness and memory will be positively related with face likability and memory of young adults who has higher social motivations. However, face likability could not affect the memory of older adults who have low social motivations. In conclusion, face likability partially mediate the relationship between face attractiveness and memory, with the moderation of age.

Applying the self-disclosure-liking effect, Kashian et al. (2017) explored the positive relationship between self-disclosure and liking under the context of CMC. After an experiment on participants' liking towards their partners and their behaviors, they conclude the results that

self-disclosure leads to people's interpersonal attributions, which generate the liking of their partners. Therefore, they suggest that people like those who disclose to them online, and people's attributions mediate the relationship between self-disclosure and likability.

After a detailed literature review, I found there is also a strong practitioner interest in likability, as demonstrated in several recent books. Lerferman (2011) mentioned the 11 laws of likability as the law of authenticity, the law of self-image, the law of perception, the law of energy, the law of curiosity, the law of listening, the law of similarity, the law of mood memory, the law of familiarity, the law of giving and the law of patience in her book. According to Tim Sanders, former staff leadership coach at Yahoo! and author of the book, *The Likability Factor: How to Boost your L-Factor and Achieve Your Life's Dreams*, likability factor could be categorized as the following four points: friendliness (the ability to communicate liking and openness to others); relevance (the capacity to connect with others' interests, wants and needs); empathy (the ability to recognize, acknowledge, and experience other people's feelings); and realness (the integrity and guaranteed authenticity). He distinguished people as either likeable or unlikeable with different L-factors. Here are also 11 traits of a likeable leader listed in Kerpen (2013)'s book, *Likeable Leadership: A Collection of 65+ Inspirational Stories on Marketing, Your Career, Social Media & More as: Listening, Storytelling, Passion, Team playing, Surprise and delight, Responsiveness, Simplicity, Authenticity, Transparency, Adaptability and Gratefulness*.

To conclude all the dimensions of that listed in the above-mentioned literature, I found five main aspects of likability that were mentioned most frequently by researchers. They are source attractiveness, source credibility, source personality traits, verbal expression and verbal content. Carefully reviewed all those five factors, I found them fall in two main categories: liking

of the source and liking of the message. Here I summarized the factors of each category in the table below:

**Table 13: Top Five Likability Factors**

|                       |                        |   |
|-----------------------|------------------------|---|
| Liking of the Source  | Source attractiveness  | <ul style="list-style-type: none"> <li>Physical attractiveness (Baker &amp; Churchill, 1977; Callcott &amp; Lee, 1995; Reinhard et al. 2006; Banducci et al. 2008)</li> <li>Similarity (Rosenbaum, 1986; Smeaton, Byrne, &amp; Murnen, 1989; Mackie et al. 1990; Caprar, Vecchion, Barbaranelli, &amp; Fraley, 2007)</li> </ul> |
|                       | Source credibility     | <ul style="list-style-type: none"> <li>Expertise (Garretson &amp; Niedrich, 2004)</li> <li>Trustworthiness (Priester &amp; Petty, 2003)</li> </ul>  |
|                       | Source personal traits | <ul style="list-style-type: none"> <li>Warmth (Fam, 2006; Fam &amp; Waller, 2006)</li> <li>Friendliness (Sanders, 2005; Reysen, 2005)</li> </ul>  |
| Liking of the Message | Verbal expression      | <ul style="list-style-type: none"> <li>Humor (Aaker &amp; Stayman, 1990; Callcott &amp; Phillips, 1996; Huang, Hsieh &amp; Chen, 2011; Smith, &amp; Voth, 2002; Fam, 2006; Fam &amp; Waller, 2006)</li> <li>Storytelling (Hector, 2011; Kerpen, 2013)</li> </ul>  |
|                       | Verbal content         | <ul style="list-style-type: none"> <li>Compliments (Claiken, 1980; Cialdini, 1993; Reysen, 2005)</li> <li>Informative (Aaker &amp; Stayman, 1990; Gazley, Krisjanous, Fam &amp; Grohs, 2012; Biel &amp; Bridgewater, 1990)</li> </ul>   |

In the following sections, I will illustrate and explore seven hypotheses based on those five likability dimensions in my current essay, with the explanation of Elaboration Likelihood Model, Balance theory and the Liking-Similarity effect).

## **Theoretical Foundation and Hypotheses**

### **Elaboration Likelihood Model (ELM)**

Elaboration motivation can be defined as the desire to engage in issue-relevant thinking. Two main categories may increase the motivation of elaboration, involvement and need for cognition. Involvement indicates that if a matter is relevant to the message receiver, s/he may get more involved with thinking, and such thinking may have an impact on persuasion (Petty, Cacioppo, & Schumann, 1983). Need for cognition refers to the degree of how the receivers engage in thinking. When there is a strong need to participate in thinking, the message may be more carefully examined to influence persuasion.

ELM also theorizes that elaboration motivation may be related to persuasion through central route or peripheral route. Central route occurs when elaboration is high and peripheral route applies when elaboration is low. Central route was taken when receivers are persuaded by the arguments of the message, while peripheral persuasion occurs through cues that are not central to the message. Even though it seems the two routes are different, similarities also exist. For example, both routes require the senders to present a positive image to create liking, credibility and favorable thoughts by the receivers in order to create powerful persuasion. However, people could be persuaded by a message even they don't understand it well through peripheral route. In this way, likability becomes relatively more important because it largely influence the investor's mind and decision. Because of the liking of the message or the entrepreneur, investors are willing to change their attitudes and make investments. Likability matters more when involvement and need for cognition is low. Those characteristics under ELM describe crowdfunding context well.

### **Balance Theory and the Liking-Similarity Effect**

The Liking-Similarity effect suggests that people like others to the extent that others are similar to themselves (Montoya, Horton, & Kirchner, 2008). Newcomb (1956) found that similarity could be a predictor of interpersonal attraction. From then, similarity is considered to be a major determinant of likability. Perceived similarity could lead to positive evaluations and attitudes. Similar strangers are evaluated as more moral, intelligent, and knowledgeable than dissimilar ones (Byrne, 1961). People tend to follow and help the people who have the similar traits with them such as birth date, name and fingerprint (Burger et al. 2004). Strangers are attracted to the person who shares the similar personality characteristics (Byrne, Griffit, & Stefaniak, 1967). People vote for the political candidates who have similar attitudes with them (Byrne, Bond, & Diamond, 1969). Similarity enhances the helping behavior even under computer-mediated context without face-to-face interactions. Guéguen, Pichot and Draffy (2005) did an online survey and found out that the response time and compliance for the request is significantly faster and higher for the people with the same-surnames with participants. In short, strangers would like to help, interact and spent time more with the person who is similar to them.

Balance theory explains why people like similar others and dislike dissimilar others (Heider, 1958). It is built on the premise that people would like to regulate their attitudes in order to keep balance and achieve cognitive consistency. When people feel that they don't have the pressure or need to change their attitudes, they keep the balance. By liking or disliking others who share the similar or dissimilar attitudes with them, people achieve their cognitive consistency. Balance theory also predicts that people agree with the people they like and disagree with the people they dislike. The balance achieved when the sender and receiver both positively evaluated the message and the receiver like the sender, or the sender and receiver think differently towards the message (one positive and one negative) and the receiver dislike the

sender. Otherwise, there will be a cognitive inconsistency between the sender and the receiver. However, if the receiver likes the sender, the sender may be able to convert their message into a persuasive change in the receiver's attitude (Rogers, 2007). That is to say, similarity breeds liking, liking may also breed perceived similarity. People may like others because of the similar attitudes, but they may also perceive similarity and try to achieve balance with others because they like the person (Amodio & Showers, 2005).

### **Source Attractiveness**

The source attractiveness model of McGuire (1985) concluded the literature from social and psychology to argue that the similarity and attractiveness of the source could significantly influence the effectiveness of a message. Similarity and physical attractiveness are two factors that spark attention and persuasion (Kassin et al. 2008). Cialdini (2009) listed in his book that physical attractiveness and similarity are two importance reasons that people like others. Nguyen, Melewar and Chen (2013) investigated the concept of likability and listed several factors from the previous literature that will increase the likability such as physical attractiveness and similarity. Therefore, similarity and physical attractiveness seem to be the most influential factors under source attractiveness that could affect the persuasion effectiveness.

The relationship of similarity and attraction has long been established by researchers (e.g., Byrne, 1961; Newcomb, 1961). Kassin et al. (2008) identified that similarity in attitude, similarity in demographics (e.g. education, race, socioeconomic status, age, religion, height), similarity in physical attractiveness as well as similarity in experience could significantly enhance attraction. Controlled the effects of appearance and personality factors, Byrne (1971) demonstrated the importance of similarity in attitudes. Evans (1963) found that customers prefer to buy insurance from a salesperson, which is similar in age, religion, politics and smoking habits.

Caprar et al. (2007) found that people tend to vote for the political candidates whose traits are more similar to their own. Similarity and relevance has a stronger persuasive power over other cues such as weak and strong arguments (Mackie et al. 1990). Barrik, Swider, and Stewart (2010) stated that interviewers' perceived similarity of a candidate could influence their degree of likability for employment. According to Simmonds (2010)'s doctoral dissertation, similarity may lead to the satisfaction of relationships.

Due to the positive outcomes generated from similarities, many sale training programs even require trainee to learn and imitate the similar verbal style, body posture or facial expression of their customers (Cialdini, 2009). People tend to like the people who are similar to them (Burger et al., 2004). They are willing to help and support the person who shares common with them. Hereby, I propose that if there are similarities between funder and founder, funder will like the founder and thus invest and support founder's project. Based on the arguments of Balance theory and statements above, I hypothesize:

*H1: The similarity between the founder and the funder is positively related to the liking of the source.*

First impressions are important and it is highly related with the way people look. People draw inferences about others' traits and underlying characteristics from their appearance (Hall et al. 2009). Banducci et al. (2008) showed that there is a strong relationship between attractiveness and electoral outcomes. People relate physically attractiveness to leadership, qualification and credibility of the candidate. Physically attractive candidates received more than two and a half times as many votes as unattractive candidates (Efran & Patterson, 1976). People usually propose that good-looking equals good (Cialdini, 2009). They automatically regard good-looking person such favorable traits as talent, kindness, honesty and intelligence (Cialdini, 2009).

In general, physically attractive people are thought to possess more desirable advantages than others. Chaiken (1979) showed in her research that attractive communicators were able to get higher support and response rate than less attractive ones. Reinhard et al. (2006) illustrated that attractive male and female salespersons receive more positive attitudes and purchasing intentions from customers. Physically attractive people have an advantage in social judgments and interaction (Olson & Marshuetz, 2005). People like who are physically attractive and they tend to comply with the ones who are physically attractive. Therefore, being an entrepreneur, especially a candidate in the campaign, physical attractiveness proves to be very important. Having favorable physical traits would be very beneficial for entrepreneurs because they often provide positive impressions to the investors.

Experimental evidence shows that physically attractive candidates are preferred especially under low-information elections (Banducci et al. 2008). The attractiveness effect took place before voters getting enough information about a candidate, and they use good looking to infer other good qualities, which is called the “halo effect” (Copeland, 2012). With many funders being poorly informed of entrepreneurs, as well as the online settings of crowdfunding campaign, physically attractiveness of the founder would be crucial to the success of the campaign. A snap judgment influenced by the founder’s appearance can potentially related with the likability of the entrepreneur, which cause earning or losing of a crowdfunding campaign. Hereby I have the second hypothesis that:

*H2: The physical attractiveness of the founder is positively related to the funder’s liking of the source.*

## **Source Credibility**

Several studies show by experiments that high credibility sources are generally more persuasive than the low credibility ones in communication (Hovland & Weiss, 1951; Pornpitakpan, 2004; etc.). Source credibility is significantly related with the receivers' attitudes towards the source (Hovland & Weiss, 1951). Callcott and Alvey (1991) stated that the effectiveness of a speaker is significantly determined by credibility. Kassin, et al. (2008) mentioned that in order to be seen as credible, the communicator should have two characteristics: expertise and trustworthiness. This dimension is commonly identified by previous literature (Pornpitakpan, 2004).

Speaker's expertise is more related with his or her ability. Hass (1981) mentioned that knowledgeable, smart and well-spoken speakers are considered to possess more expertise and are persuasive. People tend to follow those speakers more because they believe what they are saying and recognize them as authority. High source expertise tends to receive more positive attitudes towards him/her and the advertisement (Braunsberger, 1996). Regardless of the product types, celebrity's perceived expertise is positively related with the product purchase intention (Ohanian, 1991). Garretson and Niedrich (2004) illustrated source expertise as one of the three most important spoke-characters that impact the trust and attitude of the target audience. Therefore, I propose that founders with higher expertise will be liked more by investors:

*H3: The perceived expertise of the founder is positively related to the funder's liking of the source.*

Expertise alone is not enough because people would have to choose among many experts' arguments (Kassin, et al. 2008). Therefore, the source also needs to be trustworthy. Trustworthiness refers to the degree that audiences believe a communicator's arguments to be valid (Hovland, Janis, & Kelley, 1953). Priester and Petty (2003) found out that source trustworthiness will influence the extent of elaboration, which is related with the advertising

effectiveness. Speakers with high trustworthiness will generate non-thoughtful acceptance from their audience. The best leaders always are trustworthy (Kerpen, 2013). They have the ability to structure the message in a way that people understand and believe in it. Teven (2008) established the positive relationship between candidates' credibility (perceived competence and trustworthiness) and the perception of likability.

Source trustworthiness differs in its influence under different circumstances. McGinnies and Ward (1980) revealed that the trust-worthy communicator is more influential to their target audience than others. Political candidate will be considered as less credible and get less support if they are not perceived as trustworthy (Peters & Welch, 1980). Trustworthiness also is influenced by situations. If a celebrity endorses many products, the trustworthiness of him/her will be low (Tripp et al., 1994). The audience will be influenced more if they believe they are accidentally overhearing a sales pitch rather than intentionally being instilled (Walster & Festinger, 1962). I propose that under the situation of online crowdfunding, the more trustworthy the audience has perceived from the founder, the more likability they will feel. Therefore, I have the fourth hypothesis that:

*H4: The perceived trustworthiness of the founder is positively related to the founder's liking of the source.*

### **Source Personal Traits**

Anderson (1968) conducted an experiment with 100 students rating 555 personal traits on likableness. Warmth and friendliness were both rated as top 20 personality-traits that enhance likableness. Peabody and Goldberg (1989) summarized factor loadings of 40 primary scales of measuring personal traits across seven data sets. They found out that being friendly and warm were two of the most influential scale items to measure affiliation. Warmth and friendliness were

captured as the important characteristic in the traits of likability. They are the two most important variables to measure likability (Reysen, 2005).

Aaker, Stayman and Hagerty (1986) related warmth with the purchase likelihood and product recall. Political campaign regards warmth as an important personal quality (Brown et al., 1988). Aaker and Stayman (1990) argued warmth as an important factor effecting commercial effectiveness. Biel and Bridgewater (1990) deconstructed liking into five underlying dimensions, which generate likeable television commercials, and warmth was considered as one of those dimensions. Warmth was ranked as the top two likable attributes for a marketing commercial (Fam, 2006). Sanders (2006) mentioned in his book that friendliness like the ability to communicate liking and openness to others is one of the most important likability factors. Therefore, it is necessary for founders to communicate to their investors or funders that they care about them, in order for investors or funders to perceive them as likable and build affiliation.

Here I have the following hypotheses:

*H5: Founder's warmth is positively related to the funder's liking of the source.*

*H6: Founder's friendliness is positively related to the funder's liking of the source.*

## **Verbal Expression**

Speaking style is part of identity (Coupland, 2007). The way people speak and broadcast things about themselves represents their region, gender, socioeconomic level, or ethnicity (Holmes, 2013). Styles and accents are related with prestige, which could lead to social attractiveness and reputation (Holmes, 2013). Therefore, the way that people talks, sometimes are more influential than the content of the message. The best way of expressing ourselves under a competitive campaign is to build a connection between you and your target audience. Being humor and storytelling are two important ways of expression in connecting people.

Callcott and Phillips (1996) found that humor plays a large role in spokes-character likability, which effect advertising effectiveness. All types of humor are appreciated by the audience. The importance of humor shows significantly in political and advertising campaigns. Numerous studies and arguments have recognized the importance and necessity of humor in those areas (Aaker & Stayman, 1990; Callcott & Phillips, 1996; Huang, Hsieh & Chen, 2011; Fam, 2006; Fam & Waller, 2006). They concluded that humor as one of the most influential factors that affect the voting preference and ad attractiveness. Kloer and Jubera (2000) even mentioned that humor could potentially be the valid form of campaign argument.

In political campaign literature, a number of researchers have concluded the power of humor as a rhetorical tool in developing arguments (Speier, 1998). Rhea (2012) recognized humor as a type of argument, which could appeal voters powerfully and influentially. In the advertising industry, firms have applied funny advertisements to make their customers memory long-lasting (Bachorowski & Owren, 2001). Morkes, Kernal and Nass (1999) conducted two experiments and suggested that humor could enhance likability under CMC. As pointed out in Kerpen (2013)'s book, injecting a little humor into the workplace makes for a better working environment. Findings like this suggest that the significant relationship between campaign leaders and humor in their arguments. In an effort to reach undecided supporters, campaign leaders should spend substantial effort in applying humor as a form of competitive argument to increase their likability. Therefore, I have the following hypothesis:

*H7: Founder's humor expression is positively related to the funder's liking of the message.*

A huge part of persuasive communication is storytelling. Pearce et al. (1994) provides three rules for powerful leadership communication: select topics that you care about, incorporate with personal experiences and beliefs, and structure the speech as a story. Storytelling could be

regarded as a powerful leadership tool. Leaders need to tell great stories in order to sell their products and ideas. Take politicians as examples, stories could connect them with their voter with a personal touch. Voters love to hear stories. Therefore, even though voters could not fully understand the candidate's political opinions, they will remember their narratives if likable (Martinuzzi, 2015).

In business, for example, Nike maybe considered one of the best storytelling companies. They even renamed their corporate officers as brand storytellers (Randall-Reilly, 2015). When your brand tells its story, it becomes more relatable and when consumers relate to your brand, you make sales. When you tell a story, people connect with you emotionally and want to get to know you, you become likable (Kerpen, 2013). Storytelling makes a brand connected emotionally with its consumers, which will be more likely to receive the acceptance of their message. No matter when and where, face-to face or through an online video, storytelling wins customers (Kerpen, 2013). Storytelling are related with likability, reliability and engagement, which affect the purchase intention (Bae, & Oh, 2015). Thus, storytelling could be regarded as the most effective means of delivering a message. An effective campaign leader should know how to tell a great story to attract and get approvals from their target audience. Hereby, I propose the following:

*H8: Founder's storytelling is positively related to the funder's liking of the message.*

### **Verbal Content**

Verbal contents of the crowdfunding project are related with funders' perceived liking of the message, especially for the projects with meaningful and informative verbal descriptions and compliments. Chaiken (1980) concluded through two experiments that message cue contains more arguments (six vs. two) are more persuasive. From a data set of 80 commercials and 24,000 observations, Aaker and Stayman (1990) found that informative factor is the most important

factor that impacts the commercial effectiveness. Walker and Dubitsky (1994) concluded five factors that may lead to commercial liking, and they argued that meaningfulness of the content emerged as one of the strongest predictors of liking. Gazley et al. (2012) focused on the antecedents and consequences of liked and disliked ads with the moderation of cultural differences. They found that if the advertising provides something to talk about, it will increase the ad likability.

Compared with the traditional sources of capital, crowdfunding projects need to provide more information to reduce the information asymmetry and the uncertainty caused by lacking face-to-face communication. Ahlers et al. (2012) suggested that the information sending from entrepreneur to the crowd is crucial. Applying the data collected from an Australian platform----ASSOB, they concluded that compared with the social capital and intellectual capital, providing more detailed information towards the risks and quality of the project impacts the crowdfunding success stronger. Agrawal, Catalini and Goldfarb (2014) stated that informative projects might increase the funders' willingness to invest and decrease the cost of capital. Information is more important for the projects that are introducing a new design of product through crowdfunding. Funders are unsure about the function of the new products, thus they are willing to know more information. Informative projects not only show the caring of entrepreneurs for their projects, but also more details about their ideas and products for potential users, which attracts the interest and likability from investors. Therefore, I have the following hypothesis:

*H9: Founder's informative content is positively related to the funder's liking of the message*

Research suggests that compliments or praise will increase likability (Reysen, 2005). Analyzing the data collected from 207 undergraduate subjects, Chaiken (1980) figured out that the communicator who praised the audience was rate more likable. Compliments play an

important role in attracting people's likeness (Cialdini, 2009). Nguyen, Melewar and Chen (2013) investigated the concept of likability and listed compliments as one of a few factors from the previous literature that will increase likability.

Compliments affect more through text-based communication via CMC (Guadagno, Muscanell, Rice, & Roberts, 2013). They argued that compliments could be effective of increasing liking through online settings. Factors that are considered as producing liking such as physical attractiveness or similarity may be less powerful via CMC, due to the lack of visual and social cues. Therefore, I believe the complimentary content in crowdfunding project descriptions or interactions with investors will increase the likability of the message. Here I propose:

*H10: Founder's complimentary content is positively related to the funder's liking of the message*

As I concluded in the literature of political and advertising campaigns, likability is an important factor impacts advertising effectiveness (Callcott & Phillips, 1996; Fam & Waller, 2006), vote preference (Hardy, 2010; Caprar et al., 2007), and purchase intention (Leather, McKechnie, & Amirkhanian, 1994; Huang, Hsieh & Chen, 2011). Walker and Dubitsky (1994) mentioned that commercial liking is highly related with the brand preference and sale performance. They concluded likability translate into advertising effectiveness as two reasons: the audience will pay attention and listen to the message they like and likability could pass their positive feelings to the brand. Therefore, liking of an advertisement may directly transfer into liking of product or brand (Biel, 1990). Likability could be considered as one of the best indicators of advertising effectiveness (Brown and Stayman, 1992).

However, some research mentioned that likability could act as a mediator between the source and message variables and the speaker's performance. Celebrity endorsements could

induce likability, which lead to positive associations towards the brand, capture customer's attention and build brand loyalty (McGracken, 1989). Allen and Rush (1998) found that likability mediates the relationship between the helpful behaviors and performance evaluations as well as reward recommendations. Huang, Hsieh and Chen (2011) found liking mediated the effect of spokes-characters on purchase intention. Schudson (2013) argued that advertisement indirectly affect consumer's buying decisions. Thus, I propose that likability may affect funding intention through the efforts of the hypothesized antecedent factors.

*H11a: Liking of source is positively related to funding intention.*

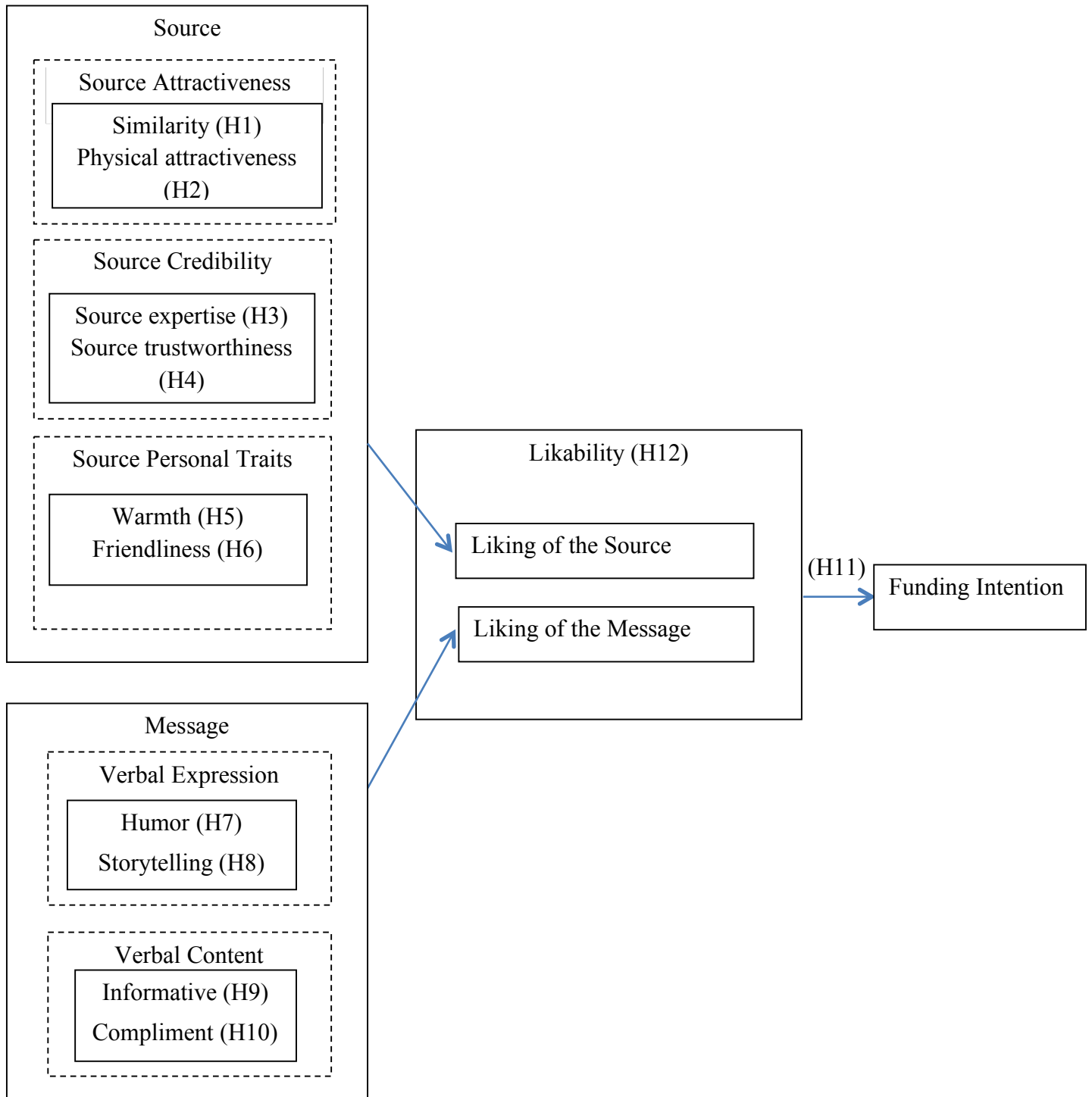
*H11b: Liking of message is positively related to funding intention.*

*H12a: The effect of source variables on funding intention will be mediated by liking of source.*

*H12b: The effect of message variables on funding intention will be mediated by liking of message.*

To conclude all my hypotheses, I listed them in the research model below:

**Figure 2: Research Model (Essay III)**



## Methodology

### Sampling

The paper aims to explore the factors that funding intentions through funders' perspective. For this reason, I conduct a survey for funders to explore the key factors that may influence their decision of investing and the mediating effect of likability. Compare with other models of crowdfunding, such as donation-based platforms and equity-based platforms that focus on pure philanthropy and financial returns, reward-based funders care both entrepreneurs' needs and project return. As I mentioned in crowdfunding overview, Kickstarter is the biggest reward-based crowdfunding platform, where funders receive rewards instead of financial return for their contributions (Kuppuswamy & Bayus, 2014). Therefore, I choose Kickstarter as the main crowdfunding platform tested in this study.

Following the sampling approach used by Smith (2013), I did a power analysis follow the equation  $\frac{(Z\text{-score})^2 * \text{StdDev} * (1 - \text{StdDev})}{(\text{margin of error})^2}$ . The population size is unknown in this dissertation, so I propose the margin of error is 5%, the confidence interval is 95%, with the standard of deviation of 0.5 and Z Score as 1.96. I calculate the necessary sample size as 387 following this equation. Due to my complicated model with 55 items under 13 variables, I collected 582 samples that are larger than the necessary sample size (roughly 10 participants per item scale). From the descriptive statistics shown in Table 14 and frequencies of the samples, 42% of the participants are female, while 58% of them are male. Majority of them are between 26-35 years old (43.2%), White (82.5%), Never married (53.1%), Employee (62.2%) instead of managers, with \$25,000-79,999 annual income (58%) and with High school (37.8%) and Bachelor (44.5%) education level. Most of them don't have experiences in backing crowdfunding before (63.8%).

## **Data Collection**

I collect the data through Amazon Mechanical Turk (MTurk) designed by Amazon.com Company. MTurk is an online labor marketplace that aims to collect data for businesses and developers in accessing the on-demand and scalable workforce (MTurk, 2017). Data collected through MTurk are demographically diverse than college students and as reliable as other traditional methods (Mason & Suri, 2012; Chan & Parhankangas, 2017). According to the requirement of institutional review board (IRB), I limited the participants who could take the online survey as 18 years or older and U.S. citizens or legal permanent residents.

The MTurk participants who met the selection criteria are directed to a Qualtrics survey that introduced the purpose and brief information of the study. In the survey, I include a video from Kickstarter.com with an entrepreneur presenting his/her project. Then participants are randomly and separately assigned to watch one out of six actual Kickstarter campaign pitch videos. There are instructions that lead the participants to open the video and go to the evaluation questions. They are required to rate their likability of the entrepreneur and his/her message from 1 to 7 Likert scale (ranging from strongly disagree to strongly agree) and likelihood of investing the project (ranging from extremely unlikely to extremely likely). If they would like to invest the project, they will have the option to fill out how much they would like to invest (in dollars). Those six videos are randomly selected from the 206 campaign links in the first two essays. Three of them are in technology industry while three of them are selected from film industry. More detailed information about those videos is listed in Table 15.

Furthermore, to find out what makes the entrepreneur or message likable, participants are asked to rate their evaluations towards source attractiveness (similarity and physical attractiveness), source credibility (source expertise and source trustworthiness), source

personality traits (warmth and friendliness), verbal expression (humor and storytelling) and verbal content (informative and compliment) contained in the pitch video. All the participants follow the same steps of evaluating the pitch videos. Although there is no time limit of completing this online survey, the approximately time to take this survey is between 15-20 mins. Once participants finished all evaluations, they were directed to fill their demographic information such as gender, race, age, income and education levels, etc. The participants receive \$2 as an appreciation of their participation. The data collection lasts three days from June 23rd-June 25th, 2017. Total 582 surveys are collected with 503 completed and valid responses (completion rate=86.4%).

### **Pilot Study**

To test the validity and reliability of my survey items, before the large scale of data collection, I conducted a pilot study with 90 samples collected through Mturk between May 25th-26th 2017. Then based on the preliminary analysis and results from the pilot study, I revised some parts of my survey. Most of my measurement scales are reliable with Cronbachs Alpha over 0.7 except the measurement of informative verbal content (Cronbachs Alpha=0.588). I figured out the reason for this is probably related to the combination of Puto and Wells (1984)'s informational and transformational items into one measurement scale. Therefore, in order to make the scale consistent, I deleted the two transformational items and replace with two informational items "this video is very informative", "there is something special about this product that makes it different from the others".

In addition, I found some of the Mturk participants did not pay much attention and effort in taking the survey, which may result with inaccurate data. To solve this problem, I added several screening questions and attention traps in the survey. I inserted two objective questions

for each video by asking some contents of the video (for instance, whether the presenter is female/male and whether the project belongs to film or technology industry. Participates who did not answer the video content questions correctly will be terminated from taking the survey. I also included two attention traps to check whether participants pay attention while answering the survey. One item "answer somewhat agree for this item if you are paying attention" was added about a third of the way through my survey and the other one "answer somewhat disagree for this item if you are paying attention" at two-thirds of the way. If the participants clicked the wrong items for these two attention traps, they will be led directly to the end of the survey. Lastly, I applied two screening options in Mturk to control the quality of my samples. I limited the participants who are qualified to take the survey as being located within the U.S. with an approval rate above 95%. Therefore, only participants who met my two Mturk qualifications, responded to the video content questions in a satisfactory manner, correctly answered the attention traps, took enough time and effort in taking the survey were included in the final dataset.

## Measures

**Dependent variable.** I applied the funding intention to measure the funding performance of a crowdfunding project. Based on Roe (2016)'s crowdfunding intention scale, I developed four items scale to measure the funding intention. The scale includes two motivation items "I would like to back this project", "I would like to recommend this project to my friends and family" and two performance items "How likely do you feel the project will be successful?", "How much would you like to invest?" The price range is an open question.

**Independent variables.** *Source attractiveness* as mentioned in the hypotheses, source attractiveness usually contains two variables: similarity and physical attractiveness. Similarity

enhances likability (Byrne, 1971; Carli, Ganley, & Pierce-Otay, 1991). I apply McCroskey, McCroskey, and Richmond (2006)'s measurements in four items to measure similarity: "The presenter in the video thinks like me", "The presenter in the video shares my values", "The presenter in the video has a lot in common with me" and "The presenter in the video treats people like I do". Eagly et al. (1991) show that physically attractive individuals could generate beauty-is-good effect. They will be reviewed as more talented, kind and intelligent. Physical attractiveness was measured by Ohanian (1990)'s five item scale measurements on source attractiveness (Unattractive----Attractive, Not classy----Classy, Ugly----Beautiful, Plain----Elegant, Not sexy----Sexy).

***Source credibility.*** Source expertise and source trustworthiness are used to measure the construct of source credibility. Concluding eight measurements of perceived expertise and trustworthiness from previous literature, Ohanian (1990) developed a 10-item semantic differential scale to measure perceived expertise and trustworthiness. I apply those 10 items such as "dependable", "honest", "reliable", "sincere" and "trustworthy" as the measurement of source trustworthiness and "expert", "experienced", "knowledgeable", "qualified" and "skilled" as the measurement of source expertise.

***Source personal traits.*** Warmth and friendliness are applied in the measurements of source personal traits. Warmth is defined as "a positive, mild, volatile emotion involving physiological arousal and precipitated by experiencing directly or vicariously a love, family, or friendship relationship" (Aaker, Stayman, & Hagerty, 1986, p. 366). They introduced a "warmth monitor", which could objectively monitor the warmth overtime. Most of the measurement of warmth is experimental based and measured with one item "the person is warm or not". Similar to warmth, friendliness was mainly measured by one item "the person in the experiment is

friendly” (e.g. Mattila, & Wirtz, 2008). In this dissertation, I decide to extend the measurement of warmth into six items as “warm”, “approachable”, “kind”, “attentive to others”, “tender”, “easy-going”. I apply three items in Argyle, Alkema and Gilmour (1971)’s measurement of friendly such as “I would enjoy meeting the presenter in the video”, “I think I could get on well with the presenter in the video”, and “I think the presenter in the video could be a friend of mine”.

**Verbal expression.** Verbal expression is measured by humor and storytelling. I measure humor with four items selected from Schlinger (1979)’s entertainment scale. The four items are “This video was lots of fun to watch and listen to”, “I thought the video was clever and entertaining”, “The enthusiasm of the video is catching---it picks you up” and “The video keeps running through my mind after seen it”. Storytelling is defined as an “all kinds of combined action of delivering a destination’s story by appealing a vivid story persuasively trough using senses such as vision, hearing and smell” (Choi, 2016, p.1). According to Choi (2016)’s factor analysis of tourism storytelling measurement, he concluded five factors that could be used to measure storytelling as “understandable”, “interesting”, “educable”, “unique” and “sensible”. Based on the confirmative factor analysis, I delete the item “unique” because of the low factor loading ( $< .07$ ).

**Verbal content.** Informative and compliment are two variables used for measuring verbal content. Based on the results of my pilot study, I revised the informative scales into five items from Puto and Wells (1984)’s informational and transformational scale. Those five items are “I learned something from this video that I didn’t know before”, “This video is very informative”, “This video teaches me what to look for when investing (this project)”, “There is something special about this video that makes it different from the others”, “This video was meaningful to me”. Compliments or praise could increase likability (e.g. Drachman, deCarufel, & Insko, 1978).

I apply one item from Chaiken (1980)'s persuasion research and three designed items to measure the importance of compliments in the content. The four items are "the message in the video encouraged me", "the message in the video praised me", "I am in a positive mood after listening to the video" and "I feel complimented by the video".

***Likability.*** Likable communicators are more effective in achieving attitude change than unlikable ones (Chaiken & Eagly, 1983). Likability has been measured in various ways through different research fields. Applying a 7-point Likert-type scale, Drachman, deCarufel, and Insko (1978) used two items "how likeable a person was" and "how compatible they were" to measure likability. Byrne (1971) used two items with a 7-point scale to rate the perceived likability by "I feel I would probably like this person" and "I would like working with this person in an experiment". Chaiken and Eagly (1983) used a 15-point scale and found out that attractiveness and expertise are the two main variables to measure likability. Reysen (2005) concluded the previous measurements, and developed the measure of likability as 11 items: friendly, warm, approachable, physically attractive, similar, knowledgeable, likable, willing to ask for advice and willing to be coworker, roommate and friend. As the first six items of his measurement were considered as antecedents of likability in my dissertation, I only apply the last four items as the measurement of likability towards the source: "The presenter in the video is likable", "I would like this presenter as a coworker", "I would like to be friends with this presenter", "I would ask this presenter for advice". Then I design four items in judging the liking of the message: two for liking of the expression: "I like how the presenter expressed his/her ideas in the video", "I like the way the person talks", and two for liking of the content: "I like the content of the project", "I like the description of the project".

**Control variables.** I included several control variables in this essay to make the data more standardized and representative. The first groups of control variables are the *gender, age, race, education, employment and income level of the MTurk participants*. Under the contexts of CMC, different gender, age, race, education, employment and income level of the participants may generate different funding intentions (Mollick, 2013). For example, liking is more important for women than men in the persuasion of arguments (Guadagno & Cialdini, 2002; 2007). Humor was more accepted as sexier and friendlier for women than men (Bachorowski & Owren, 2001). Therefore, I collect the gender information from the audience and code it as 1 (women) and 2 (men), age ranging from 1 (<25) to 7(>61), race from 1 (white) to 5 (other), marriage from 1 (married) to 5 (never married), employment from 1(employee) to 5 (other), annual income level from 1(<\$24,999) to 5 (>\$120,000) and education level from 1 (high school) to 5 (other).

The second one is the *industrial category* of the crowdfunding project. Kickstarter divides all projects into fifteen categories and this data collection focuses on two categories: technology and film/video, which is consistent with my previous two studies. I select six video links three from technology industry and three from film/video industry. These two categories are the most-funded categories at Kickstarter and have been studied in previous literature. The industry is labeled as 1 if a project is in the technology industry and 2 if a project is in the film & video industry.

Third, I control the backer's characteristics such as past funding experience and geographic locations. Previous literature (Koch & Siering, 2015; Zvilichovsky, Inbar & Barzilay, 2015) shows the *backing experiences* are important for crowdfunding success. In this study, I code the participants with the crowdfunding backing experiences as 1, others as 0. Research shows *geographic locations* could affect funders' motivation to make investments (Mollick,

2013). I controlled the geographic location through Mturk request that participants who are qualified to take the survey should be located within U.S.

Finally, I control other video characteristics that may affect funders' funding decision. Crowdfunding videos contain *background music and pictures, nonverbal cues such as smile and professional attire* to improve its vividness, preparedness and quality. I therefore ask MTurk participants to rate how the background music, pictures, nonverbal cues will affect their decisions by rating "I like the music played in this video", "I like the pictures shown in this video", "I was attracted by the nonverbal cue such as smile in the video clip", "I was attracted by the nonverbal cue such as professional attire in the video clip". Additionally, I control the MTurk participants' likability of the product (Product appeal) by asking them to rate "I like the product presented on the video clip" and "The product on the video clip is appealing" (Chan & Parhankangas, 2017). I then summarize the operationalization of all variables in the Table 16 below.

### **Data Analysis and Results**

To test my hypotheses, I applied the covariance based structural equation modeling (CB-SEM). CB-SEM estimates "model parameters so that the discrepancy between the estimated and sample covariance matrices is minimized" (Hair et al. 2011, P. 140). Compared with the partial least square based structural equation modeling (PLS-SEM), CB-SEM is ideal for confirming whether the data fits the model and theory testing (Hair et al. 2011). It is more suitable for a model with large sample size (Grégoire et al. 2010) and it provides the overall model fit (Chin 1998). Because of these advantages, I decided to choose CB-SEMs conducted by SPSS AMOS for testing the hypotheses.

### **Measurement Model**

The measurement model in SEM is evaluated through the confirmatory factor analysis (CFA). As recommended by Gefen, Rigdon and Straub (2011)'s validation procedures, the measurement model shows an acceptable and appropriate level of fit:  $\chi^2 = 3546.7$  [df=1286,  $p < .001$ ], CMIN/DF=2.758, CFI=0.921, TLI=0.912, RMSEA=0.059, SRMR=0.057) (Marsh et al. 2004; Gefen et al. 2011). Before testing the model, I also tested the reliability of my measurement scales. Cronbach's alpha for each scale should be higher than .70 (Cortina, 1993). A review of Cronbach's alpha and composite reliability for each scale reveals a high construct reliability and validity of my measurement model (see Table 17). Based on the factor loadings shown in Table 18, I removed several items that are lower than 0.7 (Compliment\_4, Humor\_5 and Storytelling\_4). The final items that are used for each variable in this study are listed in Table 18.

### **Direct Effects and Controls**

I tested the hypothesized direct and mediated effects specified above. Table 19 shows the descriptive statistics of the sample. As shown in Table 19, the AVE values of all 13 variables are above .50. The square root of the AVE value for each variable is greater than its correlations with other variables. Therefore, by computing the average variance extracted (AVE) value for each variable, I achieve the convergent validity and discriminant validity of all 13 variables (Fornell & Larkcer, 1981). I controlled for age, gender, education, and work experience. I also controlled for the differences between videos by using dummy coding. I tested a common latent factor under structural equation modeling. Due to the fact that the common latent factor only extracted of the variance, my findings through results should not be biased by the common method variance. Results of the structural equation model are shown in Figure 3.

Majority of my hypotheses were supported. However, H2 (attractiveness), H4 (trustworthiness), H10 (compliment) and H11a (liking of source) were not supported (see Figure 4). Similarity (H1), expertise (H3), warmth (H5) and friendliness (H6) show a positive effect towards liking of the source. However, trustworthiness (H4) and attractiveness (H2) don't have a significant impact on the source likability. Humor (H7), storytelling (H8), informative (H9) and compliment (H10) did influence the liking of message. But compliment (H10) effects in a negative way. Liking of the message (H11b) positively affect the funding intention, while liking of the source (H11a) don't have a significant impact on funding intention.

Seven controls had a significant effect on funding intention. Age (-.07,  $p=.018$ ), backing experience (-.069,  $p=.009$ ), industry (-.081,  $p=.007$ ), marriage status (-.082,  $p=.008$ ), education (-.061,  $p=.025$ ) which approached statistical significant level of 95% ( $P<0.05$ ) had a negative effect on funding intention. Gender has a negative effect while product appeal has a positive effect on funding intention at the 90% significance level. The other control variables such as music, picture, smile, professional attire, race, employment and income level did not approach a significant effect on funding intention.

### **Mediation Effects**

To test the mediation effects of likability on the relationship between source and message variables and funding intention, I applied the bootstrapping method mentioned by Preacher and Hayes (2008) under SEM context to check this effect. First, according to all the mediation methods that Preacher and Hayes (2008) tested in their research, bootstrapping provides the most accurate and powerful way of obtaining confidence limits for indirect effects under most of the conditions. Second, because of the great flexibility of model specification and estimation options that SEM programs offered, mediation models are best estimated in a SEM context (Preacher &

Hayes, 2008). Therefore, I choose the bootstrapping method under SEM through AMOS to test the mediation of liking of the source and message.

I set 2000 of bootstrap samples to perform bootstrap in the analysis properties of AMOS. And I set the percentile confidence intervals at the 95% level. Then I ran a direct effect model from the source and message independent variables on the dependent variable. Compliment ( $P=.302$ ), attractive ( $P=.772$ ), warmth ( $P=.937$ ) and friendliness ( $P=.949$ ) don't have a significant direct effect on funding intention. Trustworthiness (.101,  $P=.076$ ), similarity (.109,  $P=.052$ ), expertise (.100,  $P=.071$ ), informative (.411,  $P<.001$ ), storytelling (-.150,  $P=.084$ ) and humor (.196,  $P=.008$ ) significantly affect the funding intention. After that, I added the liking of the source and liking of the message into the model to test whether there is a mediation effect between those variables and the outcome variable. Liking of message turned out to be significantly related to funding intention (.458,  $P=.006$ ). However, liking of source has no significant effect on funding intention (-.111,  $P=.439$ ). Thus, H11B is supported. However, H11A is not supported.

I then analyzed the relationship between mediator, independent variable and dependent variable to confirm the significant effect of the mediator. After the calculating the significance of the indirect effects in SEM using the bootstrap method, results supported Hypothesis 12B. It shows that the indirect effect of storytelling, informative, humor and compliment on funding intention through liking of message are all significant (at the  $P<0.1$  level). Shown in Table 20, when the mediators are added to the model, the direct effects of informative, compliment and humor on funding intention are insignificant. Therefore, the relationship between informative, compliment and humor and funding intention are fully mediated by liking of the message. When liking of message added into the model, the significant indirect effect of storytelling on funding

intention has been reduced but the direct effect is still significant. Therefore, liking of the message partially mediated the relationships between storytelling and funding intention. To conclude all the results of my hypotheses, I listed and concluded them in a summary table of hypothesis testing results in Table 21.

**Table 14: Descriptive Statistics of Control Variable**

|                    | N   | Range | Minimum | Maximum | Mean | Std. Deviation | Effect on DV       |
|--------------------|-----|-------|---------|---------|------|----------------|--------------------|
| Age                | 503 | 6     | 1       | 7       | 3.38 | 1.780          | -.07*              |
| Gender             | 503 | 1     | 1       | 2       | 1.58 | 0.494          | -.052 <sup>+</sup> |
| Race               | 503 | 5     | 1       | 6       | 1.43 | 1.120          | n.s.               |
| Marriage           | 503 | 4     | 1       | 5       | 3.30 | 1.895          | -.082**            |
| Employment         | 503 | 4     | 1       | 5       | 2.05 | 1.566          | n.s.               |
| Income             | 503 | 4     | 1       | 5       | 2.54 | 1.200          | n.s.               |
| Education          | 503 | 4     | 1       | 5       | 1.92 | 1.017          | -.061*             |
| Backing experience | 503 | 1     | 1       | 2       | 1.64 | 0.481          | -.069**            |
| Industry           | 503 | 1     | 1       | 2       | 1.51 | 0.500          | -.081**            |
| Product appeal     | 503 | 6     | 1       | 7       | 4.63 | 1.615          | .088 <sup>+</sup>  |

\*\*\*p < .001, \*\*p < .01, \*p < .05, <sup>+</sup>p < 0.1, n.s. = not significant

**Table 15: Detailed Information of Videos Selected**

| Project Name                                   | Target Value | Total Funded | Backers | Location           | Industry   | Project Link  |
|--|--------------|--------------|---------|--------------------|------------|---|
| Ask Nurse Janice                               | \$18,000     | \$0          | 0       | Savannah, GA       | Technology | <a href="https://www.kickstarter.com/projects/1051314971/ask-nurse-janice?ref=discovery">https://www.kickstarter.com/projects/1051314971/ask-nurse-janice?ref=discovery</a>   |
| SYNEK-Any beer ever made fresh on your counter | \$250,000    | \$648,535    | 2191    | St. Louis, MO      | Technology | <a href="https://www.kickstarter.com/projects/1620669801/synek-any-beer-ever-made-fresh-on-your-counter?ref=discovery">https://www.kickstarter.com/projects/1620669801/synek-any-beer-ever-made-fresh-on-your-counter?ref=discovery</a> |
| App4ACause                                     | \$55,000     | \$0          | 0       | Virginia Beach, VA | Technology | <a href="https://www.kickstarter.com/projects/xcodemadeeasy/app4acause?ref=discovery">https://www.kickstarter.com/projects/xcodemadeeasy/app4acause?ref=discovery</a>   |
| Food First Film                                | \$3000       | \$3204       | 39      | Indianapolis, IN   | Film       | <a href="https://www.kickstarter.com/projects/hannahlindgren/food-first-film?ref=discovery">https://www.kickstarter.com/projects/hannahlindgren/food-first-film?ref=discovery</a>   |
| Second Sunrise Movie Project                   | \$350,000    | \$12,677     | 49      | Santa Fe, NM       | Film       | <a href="https://www.kickstarter.com/projects/secondsunrisemovie/second-sunrise-movie-project?ref=discovery">https://www.kickstarter.com/projects/secondsunrisemovie/second-sunrise-movie-project?ref=discovery</a>                     |
| MEN OF BRUTUS: A Documentary                   | \$18,221     | \$18,451     | 183     | Brooklyn, NY       | Film       | <a href="https://www.kickstarter.com/projects/nickhouy/men-of-brutus-a-documentary?ref=discovery">https://www.kickstarter.com/projects/nickhouy/men-of-brutus-a-documentary?ref=discovery</a>   |

**Table 16: Variable Definitions (Essay III)**

| <b>Variable</b>           | <b>Measurement</b>   |
|---------------------------|--|
| Source attractiveness     | Four items of similarity (McCroskey, McCroskey, & Richmond, 2006)                        |
|                           | Five items of physical attractiveness (Ohanian, 1990; Callcott & Phillips, 1996)         |
| Source credibility        | Five items of source expertise (Ohanian, 1990)   |
|                           | Five items of source trustworthiness (Ohanian, 1990)                                     |
| Source personality traits | Six items of warmth (Aaker, Stayman, & Hagerty, 1986)                                    |
|                           | Four items of friendliness (Argyle, Alkema, & Gilmour, 1971)                             |
| Verbal expression         | Four items of humor (Schlinger, 1979)  |
|                           | Five items of storytelling (Choi, 2016)  |
| Verbal content            | Five items of informational and transformational scales (Puto & Wells, 1984)             |
|                           | Four items of compliment (Chaiken, 1980)   |
| Likability                | Four items for liking of the source (Reysen, 2005); Four items for liking of the message |
| Industry                  | Dummy variables; 1 for technology category and 2 for film & video category               |
| Demographic variables     | Gender, age, race, education, marriage, income, employment                               |
| Backing experience        | Dummy variables; 1 for has experiences, 2 for no experiences                             |
| Music                     | Participants rate their likability of the music played                                   |
| Photo                     | Participants rate their likability of the photo shown                                    |
| Smile                     | Participants rate their likability of smile in the video clip                            |
| Professional Attire       | Participants rate their likability of professional attire in the video clip              |
| Product appeal            | Two items of product appeal (Chan & Parhankangas, 2017)                                  |

**Table 17: Construct Reliability and Validity**

| Variables         | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|-------------------|------------------|-------|-----------------------|----------------------------------|
| Attractive        | 0.888            | 0.904 | 0.917                 | 0.689                            |
| Compliment        | 0.856            | 0.888 | 0.911                 | 0.774                            |
| Expertise         | 0.949            | 0.954 | 0.961                 | 0.831                            |
| Friendliness      | 0.917            | 0.918 | 0.947                 | 0.857                            |
| Funding Intention | 0.898            | 0.899 | 0.936                 | 0.831                            |
| Humor             | 0.93             | 0.933 | 0.95                  | 0.827                            |
| Informative       | 0.895            | 0.904 | 0.923                 | 0.705                            |
| Liking of Message | 0.907            | 0.909 | 0.935                 | 0.783                            |
| Liking of Source  | 0.844            | 0.846 | 0.906                 | 0.763                            |
| Similarity        | 0.924            | 0.925 | 0.946                 | 0.815                            |
| Storytelling      | 0.868            | 0.876 | 0.91                  | 0.716                            |
| Trustworthiness   | 0.945            | 0.946 | 0.958                 | 0.822                            |
| Warmth            | 0.947            | 0.951 | 0.958                 | 0.793                            |

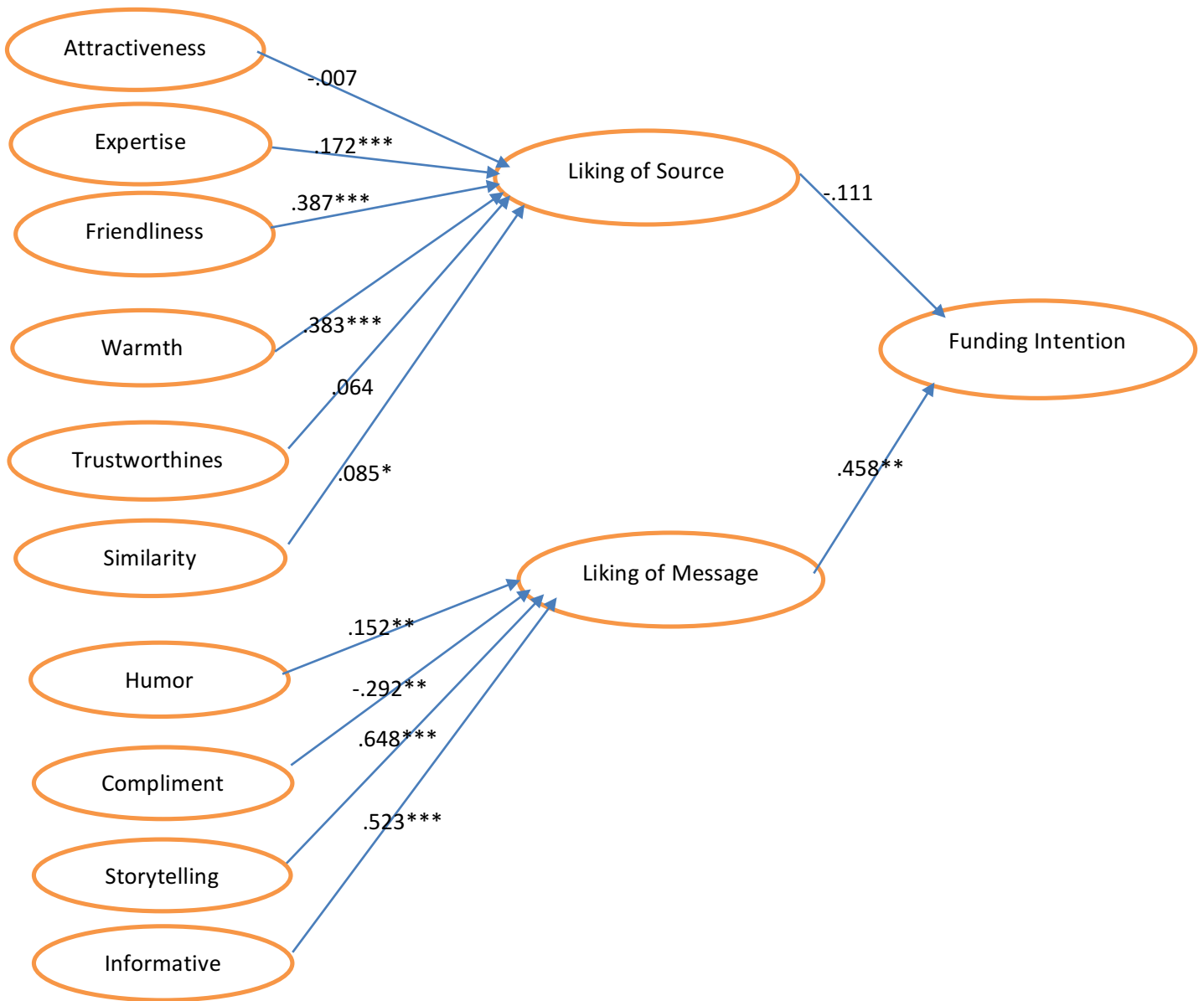
**Table 18 : CFA Factor Loadings**

|                    | Attractive | Complim | Expertise | Friendly | Funding | Humor | Informative | Liking of M | Liking of S | Similarity | Storytelling | Trustworthy | Warmth |
|--------------------|------------|---------|-----------|----------|---------|-------|-------------|-------------|-------------|------------|--------------|-------------|--------|
| Attractiveness_1   | 0.845      |         |           |          |         |       |             |             |             |            |              |             |        |
| Attractiveness_2   | 0.827      |         |           |          |         |       |             |             |             |            |              |             |        |
| Attractiveness_3   | 0.878      |         |           |          |         |       |             |             |             |            |              |             |        |
| Attractiveness_4   | 0.863      |         |           |          |         |       |             |             |             |            |              |             |        |
| Attractiveness_5   | 0.730      |         |           |          |         |       |             |             |             |            |              |             |        |
| Compliment_1       |            | 0.920   |           |          |         |       |             |             |             |            |              |             |        |
| Compliment_2       |            | 0.907   |           |          |         |       |             |             |             |            |              |             |        |
| Compliment_3       |            | 0.809   |           |          |         |       |             |             |             |            |              |             |        |
| Expertise_1        |            |         | 0.887     |          |         |       |             |             |             |            |              |             |        |
| Expertise_2        |            |         | 0.892     |          |         |       |             |             |             |            |              |             |        |
| Expertise_3        |            |         | 0.921     |          |         |       |             |             |             |            |              |             |        |
| Expertise_4        |            |         | 0.934     |          |         |       |             |             |             |            |              |             |        |
| Expertise_5        |            |         | 0.923     |          |         |       |             |             |             |            |              |             |        |
| Friendly_2         |            |         |           | 0.922    |         |       |             |             |             |            |              |             |        |
| Friendly_3         |            |         |           | 0.941    |         |       |             |             |             |            |              |             |        |
| Friendly_4         |            |         |           | 0.914    |         |       |             |             |             |            |              |             |        |
| Fundingintention_1 |            |         |           |          | 0.913   |       |             |             |             |            |              |             |        |
| Fundingintention_2 |            |         |           |          | 0.887   |       |             |             |             |            |              |             |        |
| Fundingintention_3 |            |         |           |          | 0.934   |       |             |             |             |            |              |             |        |
| Humor_1            |            |         |           |          |         | 0.925 |             |             |             |            |              |             |        |
| Humor_2            |            |         |           |          |         | 0.931 |             |             |             |            |              |             |        |
| Humor_3            |            |         |           |          |         | 0.927 |             |             |             |            |              |             |        |
| Humor_4            |            |         |           |          |         | 0.852 |             |             |             |            |              |             |        |
| Informative_1      |            |         |           |          |         |       | 0.777       |             |             |            |              |             |        |
| Informative_2      |            |         |           |          |         |       | 0.888       |             |             |            |              |             |        |
| Informative_3      |            |         |           |          |         |       | 0.874       |             |             |            |              |             |        |
| Informative_4      |            |         |           |          |         |       | 0.868       |             |             |            |              |             |        |
| Informative_5      |            |         |           |          |         |       | 0.786       |             |             |            |              |             |        |
| Likingofmessage_1  |            |         |           |          |         |       |             | 0.914       |             |            |              |             |        |
| Likingofmessage_2  |            |         |           |          |         |       |             | 0.914       |             |            |              |             |        |
| Likingofmessage_3  |            |         |           |          |         |       |             | 0.858       |             |            |              |             |        |
| Likingofmessage_4  |            |         |           |          |         |       |             | 0.851       |             |            |              |             |        |
| Likingofperson_1   |            |         |           |          |         |       |             |             | 0.865       |            |              |             |        |
| Likingofperson_2   |            |         |           |          |         |       |             |             | 0.917       |            |              |             |        |
| Likingofperson_4   |            |         |           |          |         |       |             |             | 0.837       |            |              |             |        |
| Similarity_1       |            |         |           |          |         |       |             |             |             | 0.906      |              |             |        |
| Similarity_2       |            |         |           |          |         |       |             |             |             | 0.920      |              |             |        |
| Similarity_3       |            |         |           |          |         |       |             |             |             | 0.915      |              |             |        |
| Similarity_4       |            |         |           |          |         |       |             |             |             | 0.869      |              |             |        |
| Storytelling_1     |            |         |           |          |         |       |             |             |             |            | 0.806        |             |        |
| Storytelling_2     |            |         |           |          |         |       |             |             |             |            | 0.839        |             |        |
| Storytelling_3     |            |         |           |          |         |       |             |             |             |            | 0.881        |             |        |
| Storytelling_5     |            |         |           |          |         |       |             |             |             |            | 0.858        |             |        |
| Trustworthy_1      |            |         |           |          |         |       |             |             |             |            |              | 0.889       |        |
| Trustworthy_2      |            |         |           |          |         |       |             |             |             |            |              | 0.895       |        |
| Trustworthy_3      |            |         |           |          |         |       |             |             |             |            |              | 0.932       |        |
| Trustworthy_4      |            |         |           |          |         |       |             |             |             |            |              | 0.876       |        |
| Trustworthy_5      |            |         |           |          |         |       |             |             |             |            |              | 0.938       |        |
| Warmth_1           |            |         |           |          |         |       |             |             |             |            |              |             | 0.921  |
| Warmth_2           |            |         |           |          |         |       |             |             |             |            |              |             | 0.918  |
| Warmth_3           |            |         |           |          |         |       |             |             |             |            |              |             | 0.925  |
| Warmth_4           |            |         |           |          |         |       |             |             |             |            |              |             | 0.888  |
| Warmth_5           |            |         |           |          |         |       |             |             |             |            |              |             | 0.841  |
| Warmth_6           |            |         |           |          |         |       |             |             |             |            |              |             | 0.846  |

**Table 19: Descriptive Statistics of Variables (Essay III)**

|                  | Mean  | Std.<br>Deviation | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    |
|------------------|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. Attractive    | 4.382 | 1.442             | 0.83  |       |       |       |       |       |       |       |       |       |       |       |       |
| 2. Compliment    | 4.189 | 1.587             | 0.497 | 0.88  |       |       |       |       |       |       |       |       |       |       |       |
| 3. Expertise     | 5.195 | 1.483             | 0.529 | 0.514 | 0.912 |       |       |       |       |       |       |       |       |       |       |
| 4. Friendliness  | 5.252 | 1.396             | 0.511 | 0.591 | 0.609 | 0.926 |       |       |       |       |       |       |       |       |       |
| 5. FundingInt    | 4.139 | 1.872             | 0.449 | 0.698 | 0.597 | 0.579 | 0.911 |       |       |       |       |       |       |       |       |
| 6. Humor         | 3.990 | 1.733             | 0.535 | 0.773 | 0.566 | 0.595 | 0.735 | 0.909 |       |       |       |       |       |       |       |
| 7. Informative   | 4.128 | 1.725             | 0.467 | 0.778 | 0.587 | 0.591 | 0.756 | 0.79  | 0.84  |       |       |       |       |       |       |
| 8. LikingofM     | 5.053 | 1.627             | 0.514 | 0.736 | 0.693 | 0.697 | 0.762 | 0.755 | 0.783 | 0.885 |       |       |       |       |       |
| 9. LikingofP     | 5.261 | 1.387             | 0.528 | 0.614 | 0.69  | 0.834 | 0.589 | 0.585 | 0.605 | 0.748 | 0.874 |       |       |       |       |
| 10. Similarity   | 4.441 | 1.428             | 0.502 | 0.651 | 0.519 | 0.694 | 0.653 | 0.623 | 0.657 | 0.671 | 0.675 | 0.903 |       |       |       |
| 11. Storytelling | 5.438 | 1.280             | 0.547 | 0.672 | 0.667 | 0.706 | 0.591 | 0.642 | 0.644 | 0.796 | 0.768 | 0.608 | 0.846 |       |       |
| 12. Trustworthy  | 5.687 | 1.376             | 0.45  | 0.512 | 0.73  | 0.713 | 0.558 | 0.49  | 0.553 | 0.696 | 0.77  | 0.602 | 0.696 | 0.906 |       |
| 13. Warmth       | 5.455 | 1.320             | 0.473 | 0.51  | 0.587 | 0.728 | 0.461 | 0.467 | 0.488 | 0.67  | 0.801 | 0.524 | 0.761 | 0.744 | 0.891 |

**Figure 3: SEM Result**



\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ ; n.s. = not significant

**Table 20: Mediation Test**

| Relationship                                     | Direct effect       | Indirect effect     | Mediation result   |
|--|---------------------|---------------------|--------------------|
| Informative→Liking of message→Funding intention  | 0.194               | 0.240*              | Complete Mediation |
| Humor→Liking of message → Funding intention      | 0.114               | 0.070 <sup>+</sup>  | Complete Mediation |
| Storytelling→Liking of message→Funding intention | -0.415 <sup>+</sup> | 0.297*              | Partial Mediation  |
| Compliment→Liking of message→Funding intention   | 0.232               | -0.134 <sup>+</sup> | Complete Mediation |

\*\*\*p <.001, \*\*p < .01, \*p < .05, <sup>+</sup>p <0.1

**Table 21: Summary of Hypothesis Testing Results**

| <b>Hypotheses</b> | <b>Main argument</b>  | <b>Result</b>                        |
|-------------------|---|--------------------------------------|
| H1                | Similarity+→ liking of the source   | Supported                            |
| H2                | Attractiveness +→ liking of the source  | Not Supported                        |
| H3                | Perceived expertise+→ liking of the source  | Supported                            |
| H4                | Perceived trustworthiness +→ liking of the source   | Not Supported                        |
| H5                | Warmth+→ liking of the source   | Supported                            |
| H6                | Friendliness+→ liking of the source   | Supported                            |
| H7                | Humor expression +→ liking of the message   | Supported                            |
| H8                | Storytelling +→ liking for the message  | Supported                            |
| H9                | Informative content +→ liking for the message   | Supported                            |
| H10               | Complimentary content +→ liking for the message   | Not Supported                        |
| H11A/B            | Liking of source +→ funding intention (H11A)<br>Liking of message+→ funding intention (H11B)        | H11A Not Supported<br>H11B Supported |
| H12A/B            | Mediation effect of liking of the source (H12A)<br>Mediation effect of liking of the message (H12B) | H12A Not Supported<br>H12B Supported |

## **Discussion and Implications**

In this essay, I argued that entrepreneurs as the crowdfunding leaders should pay attention to several persuasion factors that make them likable and thus being funded. First, I defined likability and discussed how it may affect business. Then selecting literature from mass media research, I concluded the factors that may influence the likability of campaign leaders in political and advertising campaigns. Third, I exclusively proposed the most influential factors that affect entrepreneurs' likability in crowdfunding campaign success. I established the relationship between source attractiveness (similarity and physical attractiveness), source credibility (source expertise and source trustworthiness), source personality traits (warmth and friendliness), verbal expression (humor and storytelling), verbal content (informative and compliment) and the campaign leader's likability and explained how those likability factors affect the crowdfunding campaign success (funding intention).

The results of the data analysis show that majority of likability factors' effects that I proposed were supported. The similarity, expertise, warmth and friendliness of the source is positively related with funders' liking of the source. Humor, storytelling and informative of the message did positively influence the liking of message. As predicted, liking of message was highly positively related to funding intention ( $H11b$ ,  $.458$   $p = .006$ ), but surprisingly liking of source doesn't have significant impact on funding intention ( $H11a$ ,  $-.111$   $P = .439$ ).

A possible illustration of this result may be: compare with political campaign and advertising campaign, crowdfunding campaign focuses more on message delivery than personal interactions. Political campaign has a lot of ways for promotions, such as TV shows, political debates on newspaper or radio, person-to-person meeting and conversations, etc. Same story happens in advertising campaign. It has word of mouth, door to door sale, TV, magazine and

radio advertisements, etc. However, funders could only acquire information through online platforms, which lead to their high motivation of critical thinking towards the message. This result is consistent with the existing literature that the central route (when the receiver is motivated to think about the message) of ELM is more effective for receiver's attitude change than the peripheral route (when the receiver is affected by peripheral cues) (Petty & Wegener, 1998). It also explains that under ELM model, when the audience think critically, the message turned to matter more than other cues (Rogers, 2007). An alternative explanation may relate to the reason that the source of political campaign and advertising campaign are more professional than of crowdfunding campaign. Political campaign candidates usually have well educated background and rich resources. Advertising campaigns often hire well-known celebrities as their speakers. Both sources seem trustworthier than unprofessional presenters in the crowdfunding video. If the audiences are not convinced and familiar with the speaker, they may prefer to make their decision through the message.

In addition, trustworthiness and attractiveness of the video presenter showed no significant effect on liking of the source. As I mentioned in my hypothesis building, source trustworthiness differs in its influence under different circumstances. Earning the trust of customers, employees, and funders is much harder under the context of CMC. The effect of source trustworthiness highly depends on the perception of target audiences (McGinnies & Ward 1980; Tripp et al., 1994). In addition, trustworthiness differs from other cues such as attractiveness that could be easily detected by investors in a short time, is hard to observe from just 5 or 10 mins through a crowdfunding video pitch. Like I stated above, founders may be perceived less trustworthy compared to political campaign candidates and celebrities. They may even not be able to generate an accurate perception of trustworthiness towards the founder.

Therefore, the perceived trustworthiness of the entrepreneur doesn't matter much on how likability he/she is under crowdfunding context.

Following the same logic, the purpose of most funders surfing reward-based crowdfunding platforms is to receive the promised rewards (Gerber et al. 2012; Lee et al. 2015; Ryu & Kim, 2016). Besides, funders in crowdfunding campaign bear more risks than supporters in political and advertising campaign. They are not sure whether they could receive the final product or service or not. Compare with the other two campaigns, funder are spending their money in return of uncertainty. Therefore, they focus more on the feasibility of the project rather than the attractiveness of the entrepreneur. This explains why attractiveness don't have significant effect on funding intention ( $P=.772$ ). This result also supports Guadagno et al. (2013)'s study that factors such as physical attractiveness may be less powerful in producing liking under the context of CMC, due to the lacking of visual and social cues in direct interactions. Another possible reason is related to the subjective perception of attractiveness, that is to say, beauty is in the eye of the beholder. Different people have different opinions on what is attractive. Therefore, the positive and negative perceptions from different participants may wipe away the significant effect of attractiveness on likability.

Moreover, compliment showed a significant negative effect on the liking of message. In the direct effect model, compliment did not have any significant relation to funding intention. This suggests entrepreneurs should avoid or reduce using complimentary words or messages in their arguments. Due to the high motivation of elaborating and accessing messages for funders, they would like to hear more information about the project instead of formulae. However, positive, encourage or complimentary words usually don't have any substantial meaning. Under the current fast paced society, consumers could click and buy a product even within 5 seconds

through online shopping. Funders usually don't want to spend much time in deciding online. Therefore, they prefer to read and hear simple and meaningful words, which could help them in making prompt decisions. Sometimes, compliments may also represent the entrepreneur's lacking of confidence towards the project. The more complimentary words are used, the less authority and confidence it probably will show.

Besides the direct effects of source and message variables on likability and funding intention, the indirect effects of likability also generated some interesting findings. Even though majority of the source and message variables showed significant impact on likability, most of them are not significantly related with the funding intention. The perceived likability of an entrepreneur doesn't always lead to backing behaviors in crowdfunding. Only four message variables turned out to be mediated through likability to funding intention, that is, informative, storytelling, compliment and humor. Those variables not only have a direct effect on funding intention, but also partially or fully mediated by liking of message in this relation.

The significant results from the control variables make a better fit of the model. The negative effects of gender, age, backing experience, marriage status and education suggest that funders who are woman, younger, having crowdfunding backing experiences, being married and less educated are more likely to fund the projects presented in this study. The negative impact of industry states that technology projects are more likely to be funded than film projects. The positive influence of product appeal on funding intention also suggests that the more the funders like the product, the more likely they are going to back the project.

By analyzing of those research questions and findings, I have some expected contributions for current and future managerial research: First, this research recalled the debate on the likability and capability effect of the campaign leader. On one side, many people argue

that it's possible for a person to be an effective leader without being likable. Some researchers argued that likability has been an issue for politicians going back at least to the early 20th century. On the other side, researchers believe likability could generate many benefits. Sanders (2006) found that people who are likeable tend to land jobs more easily, less likely to lose their jobs, find friends more quickly and have happier relationships. Commenters concluded Hillary Clinton's failure toward Obama in 2008, "she has so many qualifications: experience, knowledge, partisan skill, adding that the likability factor is what she needs to work on" (Zelizer, 2015). Does likability still matter in modern campaign? Through the detailed literature review and hypotheses building, the answer of this question depends on different contexts and situations. Likability of the entrepreneur does not matter much under crowdfunding context. Due to the specific characteristics of crowdfunding, likability of the message affects more than the likability of the campaign leader.

Second, I broaden likability research focus from political scientists, marketing researchers and social psychologists to management field. I contribute to the likability literature by providing evidence that advertising campaign and political campaign is similar with crowdfunding campaign. I extend this line of research by employing the likability factors from mass media campaign literature. Previous likability research mainly focused on advertising liking. I extended this research perspective into the entrepreneurship field. While crowdfunding and mass media campaigns are similar in critical nonverbal and verbal factors, entrepreneurship research should pay attention to the effects of such signals on entrepreneurial financing. I expanded the stream of entrepreneurial persuasion research by emphasizing the effect of those important communication cues under mass media campaign context (Burgoon, 1994; Galbraith, et al., 2014).

Third, I applied several communication theories such as the persuasion theories into business research. Theoretically, by linking those theories into management field, I contribute to both entrepreneurship and persuasion literature, specifically, by explaining the arguments matters more than cues in crowdfunding persuasion. In addition, I confirmed the statements of ELM by explaining the central processing is more important for persuading people to back a project than peripheral processing (Petty & Wegener, 1998). Furthermore, I extended the persuasion studies by comparing the likability factors with advertising and political campaign where illustrate a more complete picture of the entrepreneurial financing process with the meditating effect of likability. Based on the insufficient research related with political and entrepreneurial views, especially for the non-verbal and verbal cues, I opened an area of study on likability cues in the entrepreneurial financing process by conducting this research.

Lastly, by presenting the factors that lead to likable mass media and crowdfunding campaigns, this paper helps entrepreneurs create, understand, and control their nonverbal and verbal behaviors that are associated with their projects. This may lead to more effective use of likable message in crowdfunding project building strategy. In sum, the findings suggest that founders should demonstrate their credibility (trustworthiness and expertise) as well as similarity in front of their target audiences. Most importantly, they should pay attention to deliver an informative, humorous and less storytelling message to their funders. The more their message are liked, the more likely funders will back their projects and the more success their crowdfunding campaign will be.

Like Bhargava (2012) mentioned in his book *Likeonomics*, likability is not just influencing the clicking of "Like" button on social media, but decides who and which organizations to trust, what advice to follow, and whom to build relationship with. I hope this

dissertation offers a new vision of campaign leadership, where leaders or entrepreneurs could attract and being liked not just by their personality, behaviors and actions, but also by the persuasive message that they delivered. With the likability factors mentioned in this dissertation as a guide, entrepreneurs will get advice on how to stand out in a good way under the context of CMC and social media, and appeal to funders in a way that secures entrepreneurial campaigns as a trusted and likable resource.

### **Limitations and Future Research**

This study has several limitations that should be addressed in future work. I focused only on the main likability factors' impact on the campaign performance. I believe among other likability factors that a campaign leader may have those five dimensions could be the most influential one. However, I should admit that other kinds of likability factors such as empathy, familiarity and simplicity or demographic factors such as location and religion will also have an impact on voter or funder's decision making. The entrepreneur's gender, race and age probably will moderate the effect of the source variables on likability. For example, source variables may work more on women than on men in generating likability. Other types of likability factors should, thus, be probed in future research. I may consider more demographic factors and control variables in our future research to reduce the selection biases. Otherwise, the internal validity of our research will be questioned.

Second limitation of this study is related to the limited empirical research method. In this study, I only selected six videos within two industrials categories. This may affect the generalizability of my results. Future research should extend the project types and videos into a wider range. In addition, I conducted the data collection of this study through Mturk. Although crowdfunding attracts ordinary people, the participants from Mturk may not be the best

representatives for funders. They may not take as much time and effort as real funders in investigating and evaluating the project before backing it.

Another shortcoming of this study relates to the measurement of variables. The dependent variable is measured by the funding intention instead of real backing behaviors. The result may be different between the participants' intention to back the projects or they actual behaviors of backing the projects. Therefore, I call for future research on exploring the real funders' behaviors other than hypothetical settings. Moreover, most of the likability factors don't have well-established scales. I have to create and combine some of the items from literature to make own scales. For example, the scales of friendliness, warmth and compliment were created by their definition. I borrowed the scale of entertaining to measure humor. Results of this study may be improved with more established measurement scales.

## **Conclusion**

What would be the characteristics that are essential for campaign leaders in order to achieve campaign success? This study sheds light on the comparison between crowdfunding and mass media campaign success factors. I summarized the factors make the mass media campaigns raise money and likable. I show that what would be the factors or lessons that project founders could learn from. In sum, my findings suggest that liking of the message matters more than liking of the source on funding intention. Most importantly, I suggest entrepreneurs should pay attention to deliver an informative, humorous, storytelling and less complimentary message to their potential funders. The more their messages are liked, the more likely funders will back their projects and the more success their crowdfunding campaign will be.

## CHAPTER VI

### DISCUSSION AND CONCLUSION

This dissertation contains three essays with empirical tests on the effects of nonverbal, verbal cues on likability and subsequent crowdfunding performance. In the first essay, I applied social presence theory to test the impact of non-verbal cues in a pitch video on crowdfunding success. From the empirical results, I found that immediacy factors (time to appear and speech pauses) effect more than other factors such as intimacy and interactivity under the social presence construct. It indicates that under the online environment of crowdfunding, funders care more about timing and immediacy factors rather than intimacy factors (such as smiling) and interactivity factors (like eye contact).

In the second essay, I explore how verbal cues (such as readability and complexity) and non-verbal cues (such as smiling and professional attire) interact to influence crowdfunding outcome. Findings of this essay indicate that powerful persuasion results from both expression (verbal cues) and impression (non-verbal cues). In addition, the expression should match the impression in order to have the maximum effect on crowdfunding outcome. That is, formal impressions such as the complexity of the project should match with formal expressions (professional attire). Informal expressions (smiles) will enhance the effect of informal impressions (readability).

The third essay examines the mediating effect of likability between nonverbal, verbal cues and crowdfunding performance. I concluded five main dimensions of likability by

summarizing the likability factors extracted from political and advertising campaign literature. The results show that liking of message matters more than liking of source in the crowdfunding context. Informative, storytelling and humorous message, mediated by likability, are the most significant likability factors that affect crowdfunding success.

The findings across the three essays support most of the proposed hypotheses. These findings have both significant theoretical and practical implications: First, departing from previous research which mainly focuses on either funders or founders' characteristics, this dissertation is one of the first investigation about how non-verbal cues and verbal cues separately and interactively affect the crowdfunding outcome. Few studies explored how to use those unique features of videos to maximize communication effectiveness. Besides, due to the limited research on the relationship between likability and entrepreneurial performance, this dissertation could also serve as the first attempt of exploring, defining and illustrating the construct of likability within the crowdfunding context. Practically, the understanding of the use of non-verbal and verbal cues not only help entrepreneurs to communicate with their funders more effectively, but also provide suggestions for crowdfunding platforms to design tools facilitating the communication. The exploration of likability in crowdfunding provides a useful guidance for entrepreneur who want to improve their likability to achieve crowdfunding success.

Second, this dissertation tested the proposed relationships both through objective sources (crowdfunding platforms) and subjective sources (investors' perspective). Most of the data collection towards crowdfunding research are conducted by the secondary data. Previous crowdfunding and persuasion research has been limited to student samples (e.g., Hosman & Siltanen, 2011; Smith, Siltanen & Hosman, 1998; Sparks & Areni, 2002) or has been examined in hypothetical situations (e.g., Chen, et al., 2009). In this dissertation, I not only tested the

nonverbal and verbal cues' effect on crowdfunding through the data collected from crowdfunding platform (Kickstarter), but also through the ratings of Mturk participants. It concludes the real financial decisions of the crowdfunding phenomenon and the real concerns of funders (Mollick, 2014). Based on the data collected from both sides, results and findings of the three studies became interrelated, mutually supported and convinced.

Third, this dissertation contributes to CMC research by extending its focus and applications. The primary focuses of CMC research is on the use of different communication channels (Daft & Lengel, 1986; Dennis & Kinney, 1998). Previous research of social presence theory found that videos can closely resemble face-to-face communication and create high level of social presence. By applying the CMC theories in crowdfunding, I tested and extended the application of those theories. The results of this dissertation suggest that the effect of high-level social presence depends on different social presence factors. Intimacy factors may not as effective as immediacy factors under crowdfunding context. Interactivity factors may even have a negative effect on crowdfunding performance. Therefore, when creating the pitch video for crowdfunding, entrepreneurs should apply more immediacy factors such as appear in the video earlier and speak more fluently in their speeches.

Fourth, this dissertation contributes to the entrepreneurial persuasion research. Excellent presentation skills are important social skills to ensure entrepreneurial financing (Hoehnweiss, Brush, & Baron, 2004). However, very few of the previous research studies have focused persuasion of non-verbal cues and verbal cues in entrepreneurship literature (Clark, 2008; Maxwell & Levesque, 2011; Hoehnweiss, Brush, & Baron, 2004). I contributed to the application of persuasion theories by applying them in explaining the phenomenon of crowdfunding. The results of the dissertation indicated the importance of arguments over cues in

the duality of persuasion. This finding is consistent with ELM that the message turned to matter more than other cues when the audiences take the central route (think critically) (Rogers, 2007). It also explains that under ELM model, central route is more effective for receiver's attitude change than the peripheral route (Petty & Wegener, 1998). Concluding the results from the persuasion factors through three essays, I could summarize the practical implications that message is more powerful than cues in crowdfunding persuasion. More specifically, nonverbal cues such smiling, eye contact and physical attractiveness are not as effective as we imagine. Having a good idea and delivering a persuasive message should be the focus of project founders.

Fourth, this dissertation enriches the entrepreneurship literature with marketing and political literature. By comparing the similarity and difference between advertising, political and crowdfunding campaigns, I conclude that some of the likability factors work better in advertising and political campaigns than in crowdfunding campaigns. Compare with political campaign and advertising campaign, crowdfunding campaign focuses more on message delivery than personal interactions. Therefore, the source variables such as physical attractiveness and trustworthiness are less important than message variables such as storytelling, humor, informative content in crowdfunding.

This dissertation is not without limitations, which should be considered when generalizing the findings and may be addressed in future research. First, I selected only the main nonverbal, verbal and likability factors in this dissertation. I believe among other nonverbal, verbal and likability factors that a campaign leader may has, those factors could be the most influential one. However, I should admit that other nonverbal, verbal and likability factors or demographic factors will also have an impact on funder's decision. Some moderators such as the entrepreneur's gender, race and age may influence the effect of the source and message variables

on likability and thus success. Therefore, future research should consider including more types of nonverbal, verbal and likability factors, as well as demographic factors and control variables to increase the generalizability of the result.

Second limitation of this dissertation is related to the data collection method. I selected the videos from two out of fifteen categories available on one reward-based platform (Kickstarter). Future research could examine the effect of variables across different categories through different crowdfunding platforms. In addition, I conducted the data collection of this study through Mturk. Although crowdfunding attracts ordinary people, the participants from Mturk may not be the best representatives for funders. They may not take as much time and efforts as real funders in investigating and evaluating the project before backing it. Furthermore, some measurements of this dissertation especially in my third essay need improvements with more established measurement scales through more empirical tests.

Lastly, I did not take the different types of investors and various forms of crowdfunding into consideration. For example, some of the investors may frequently back crowdfunding projects, while some of them may seek for just one time investment. Some of them may invest for their friends or families or someone they know, while some of them may invest for the quality of the project and financial return. Different types of investors may affect their different funding intentions. Moreover, the current forms of crowdfunding could either be online or offline or hybrid. For instance, some crowdfunding platforms offer face to face consulting with entrepreneurs and help them with rich resources and experiences in building their projects. Various forms of crowdfunding may also influence its success rate. Therefore, all those limitations are expected to be addressed by future studies. I call for future research on exploring

the real funders' behaviors on this stream and provide more comprehensive understanding on the likability effect of crowdfunding performance through different contexts.

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