

University of Texas at Arlington

**MavMatrix**

---

Business Administration Dissertations

Department of Business Administration

---

2023

## Examining Entrepreneurial Passion Within Online Communities

Fredrick Rice

Follow this and additional works at: [https://mavmatrix.uta.edu/businessadmin\\_dissertations](https://mavmatrix.uta.edu/businessadmin_dissertations)



Part of the [Business Administration, Management, and Operations Commons](#)

---

### Recommended Citation

Rice, Fredrick, "Examining Entrepreneurial Passion Within Online Communities" (2023). *Business Administration Dissertations*. 37.

[https://mavmatrix.uta.edu/businessadmin\\_dissertations/37](https://mavmatrix.uta.edu/businessadmin_dissertations/37)

This Dissertation is brought to you for free and open access by the Department of Business Administration at MavMatrix. It has been accepted for inclusion in Business Administration Dissertations by an authorized administrator of MavMatrix. For more information, please contact [leah.mccurdy@uta.edu](mailto:leah.mccurdy@uta.edu), [erica.rousseau@uta.edu](mailto:erica.rousseau@uta.edu), [vanessa.garrett@uta.edu](mailto:vanessa.garrett@uta.edu).

EXAMINING ENTREPRENEURIAL PASSION WITHIN ONLINE COMMUNITIES

by

E. Fredrick Rice

DISSERTATION

Submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy at  
The University of Texas at Arlington  
August 2023

Arlington, Texas

Supervising Committee:

Pyayt Oo, Ph.D. (Chair)

Liliana Nordtvedt, Ph.D. (Internal member)

Sridhar Nerur, Ph.D. (External member)

## ACKNOWLEDGMENTS

I would like to express deep gratitude and offer thanks to all those who supported, aided, and guided me during the completion of this dissertation and doctoral program. The first person I want to acknowledge is Dr. Oo. Not only was he a tremendous source of guidance and encouragement throughout this dissertation process, but he has also been a great mentor and role model during my time at UTA. I cannot recall how many times he checked in on me whenever I needed him. He is a brilliant scholar and an amazing teacher. His passion has left an indelible mark on me as a scholar and thinker. I must also extend my thanks to the committee members who were instrumental in helping shape this work. Dr. Nordtvedt was immensely consistent and helpful throughout the entire process. She did not hesitate to drop everything at a moment's notice to answer any questions I had. I would also like to thank Dr. Nerur for his endless guidance and insight. If it were not for his great instruction in Data Analytics, I would have never had the tools to begin this line of research. The incredible fervor that he possesses for this work is evident and contagious.

Secondly, I want to acknowledge a group of individuals who did not work directly with me on this project but were vital for its completion because of their support and encouragement. I am grateful to my program faculty in the Management Department. Their impeccable instruction, dedication, and vision benefits every student who walks into UTA wanting to make a difference in the lives of others. My family and friends have been anchors during my time as a doctoral student. Their continuous love is the glue that kept my brain and soul together, as well as the fuel that kept me motivated to challenge myself every day for the past four years. I could not have done this without them.

Lastly, it is time for me to thank the one person for whom words may not be a strong enough medium to express the gratitude I feel in my heart. I want to reserve a very special thank you for my loving wife, Afnan. The one without whose encouragement, I would not have ever been able to surmount this undertaking. I know that this ordeal has been frustrating for you. I want to sincerely thank you for your love, kindness, faith, and charity.

## LIST OF TABLES

Table 2.1: Means, Standard Deviations, and Correlations Among Study Variables .....	118
Table 2.2: Results for the Effects of Subreddit Tenure and Social Support on Passion .....	119
Table 3.1: Summary of Topics in Comments.....	120
Table 3.2: Means, Standard Deviations, and Correlations Among Study Variables .....	121
Table 3.3: Effects of Verbal Passion, Gender and Communication Style on Comment Sentiment .....	123
Table 3.4: Effects of Verbal Passion, Gender and Communication Style on Normalized Likes.....	124
Table 3.5: Effects of Verbal Passion, Gender and Communication Style on Likelihood of Belonging to Positive Topic .....	125
Table 3.6: Effects of Vocal Passion, Gender and Communication Style on Comment Sentiment .....	126
Table 3.7: Effects of Vocal Passion, Gender and Communication Style on Normalized Likes .	127
Table 3.8: Effects of Vocal Passion, Gender and Communication Style on Likelihood of Belonging to Positive Topic .....	128
Table 3.9: Effects of Facial Passion, Gender and Communication Style on Comment Sentiment .....	129
Table 3.10: Effects of Facial Passion, Gender and Communication Style on Normalized Likes .....	130
Table 3.11: Effects of Facial Passion, Gender and Communication Style on Likelihood of Belonging to Positive Topic .....	131
Table 4.1: Means, Standard Deviations, and Correlations Among Study Variables .....	132
Table 4.2: Effect of Pre-failure Passion on Post-failure Confidence .....	133
Table 4.3: Effects of Pre-failure Passion, Post-failure Confidence and Twitter Followers on the Likelihood of Relaunching.....	134
Table 4.4: Results Summary .....	135

## LIST OF FIGURES

Figure 2.1: Conceptual Models for Studies .....	136
Figure 2.2: Effects for Emotional Support and User Need for Affiliation on the Development of Passion Within the Subreddit.....	137
Figure 3.1: Effects of Gender and Communication Style on the Verbal Passion to Comment Sentiment Relationship .....	138
Figure 3.2: Effects of Gender and Communication Style on the Verbal Passion to Normalized Likes Relationship .....	139
Figure 3.3: Effects of Verbal Passion, Gender and Communication Style on Comments Belonging to Positive Topic .....	140
Figure 3.4: Effects of Gender and Communication Style on the Vocal Passion to Comment Sentiment Relationship .....	141
Figure 3.5: Effects of Gender and Communication Style on the Vocal Passion to Normalized Likes Relationship .....	142
Figure 3.6: Effects of Vocal Passion, Gender and Communication Style on Comments Belonging to Positive Topic .....	143
Figure 3.7: Effects of Gender and Communication Style on the Facial Passion to Comment Sentiment Relationship .....	144
Figure 3.8: Effects of Gender and Communication Style on the Facial Passion to Normalized Likes Relationship .....	145
Figure 3.9: Effects of Facial Passion, Gender and Communication Style on Comments Belonging to Positive Topic .....	146
Figure 4.1: Effects of Twitter Followers on Relationship Between Confidence and Probability to Relaunch .....	147

## ABSTRACT

### EXAMINING ENTREPRENEURIAL PASSION WITHIN ONLINE COMMUNITIES

The University of Texas at Arlington, 2023

Supervising Professor: Pyayt P. Oo

The intense positive feelings derived from engagement in entrepreneurial activities yields increased effort and venture success for nascent and experienced entrepreneurs alike. The overall purpose of this dissertation is to understand the ways in which entrepreneurial passion develops over time, is perceived by others, and impacts entrepreneurial persistence in online communities. To achieve this, I employ a series of unsupervised machine learning techniques aimed at extracting the passion expressed in entrepreneurs' social media posts. A broad understanding of how entrepreneurial passion evolves within digitally mediated entrepreneurial networks can inform strategies for online community building. As such, my first essay explores the temporal development of users' entrepreneurial passion within an entrepreneurship-related subreddit. Given the emergence of online-based contentpreneurship, my second essay investigates the ways in which men's and women's YouTube videos are differentially received by viewers. The third essay contributes to the crowdfunding literature by assessing the extent to which entrepreneurial passion influences social media networking and the probability of launching a campaign after previous failure.

*Keywords:* entrepreneurial passion, social media, online communities, social support, gender, crowdfunding, commitment, self-efficacy, entrepreneurial persistence

## TABLE OF CONTENTS

Chapter 1: Passion in Entrepreneurship .....	1
Chapter 2: Development of Entrepreneurial Passion in Reddit .....	6
2.1 Literature Review .....	10
2.1.1 Entrepreneurial Passion .....	10
2.1.2 Online Entrepreneurial Communities .....	12
2.1.3 Social Support Theory .....	13
2.1.4 Need for Affiliation .....	14
2.1.5 Empathy .....	14
2.1.6 Affect .....	15
2.2 Theory and Hypotheses .....	15
2.2.1 Affective Passion and Subreddit Involvement .....	15
2.2.2 Temporal Development of Affective Passion and Emotional Support .....	16
2.2.3 Passion, Subreddit Emotional Support, and the Need for Affiliation .....	19
2.3 Methods .....	21
2.3.1 Data Collection .....	21
2.3.2 Variables .....	23
2.3.2.1 Independent Variables .....	23
2.3.2.2 Moderating Variables .....	23
2.3.2.3 Dependent Variable .....	23
2.3.2.4 Control Variables .....	24
2.3.3 Statistical Procedures .....	25
2.4 Results .....	26
2.5 Discussion .....	29
2.5.1 Limitations and Future Directions .....	31
2.5.2 Conclusion .....	32
Chapter 3: Gender, Entrepreneurial Passion and YouTube Contentpreneurship .....	34
3.1 Literature Review .....	37
3.1.1 Entrepreneurial Passion .....	37
3.1.2 Gender Role Congruity Theory .....	39



3.1.3 Gender and Entrepreneurship .....	41
3.1.4 Agentic and Communal Communication .....	43
3.1.5 YouTube and Contentpreneurship.....	44
3.2 Theory and Hypotheses .....	45
3.2.1 Passion and Viewer Favorability .....	45
3.2.2 Passion and Favorable Viewer Responses Across Genders .....	47
3.2.3 Gender, Favorable Viewer Responses, and Agentic and Communal Content .....	48
3.3 Methods .....	50
3.3.1 Data Collection .....	50
3.3.2 Variables .....	53
3.3.2.1 Independent Variable .....	53
3.3.2.2 Moderating Variables.....	53
3.3.2.3 Dependent Variables .....	54
3.3.2.4 Control Variables .....	55
3.3.3 Statistical Procedures.....	57
3.4 Results .....	57
3.4.1 Verbal Passion .....	58
3.4.2 Vocal Passion .....	60
3.4.3 Facial Passion .....	61
3.5 Discussion .....	62
3.5.1 Limitations and Future Directions .....	65
3.5.2 Conclusion .....	66
Chapter 4: Passion and Networking Activity in the Crowdfunding Context.....	68
4.1 Literature Review .....	72
4.1.1 Entrepreneurial Passion .....	72
4.1.2 Passion and Persistence .....	73
4.1.3 Confidence as an Entrepreneur.....	74
4.1.4 Conservation of Resources Theory.....	75
4.1.5 Crowdfunding Campaigning and Twitter Networking.....	76
4.1.6 Launching Subsequent Crowdfunding Campaigns After Failure.....	77
4.2 Theory and Hypotheses .....	78

4.2.1 Pre-failure Affective Passion and Post-failure Networking Activity .....	78
4.2.2 Confidence, Post-failure Networking, and Subsequent Campaigning .....	80
4.2.3 Moderating Role of Twitter Following .....	82
4.3 Methods .....	83
4.3.1 Data Collection .....	83
4.3.2 Variables .....	84
4.3.2.1 Independent Variables .....	84
4.3.2.2 Mediating Variable .....	84
4.3.2.3 Moderating Variable .....	84
4.3.2.4 Dependent Variable .....	84
4.3.2.5 Control Variables .....	85
4.3.3 Statistical Procedures .....	86
4.4 Results .....	87
4.5 Discussion .....	88
4.5.1 Limitations and Future Directions .....	91
4.5.2 Conclusion .....	92
Chapter 5: Overall Conclusion of Dissertation Research .....	93
References .....	94

## **Chapter 1: Passion in Entrepreneurship**

Entrepreneurs are an integral part of the U.S. economy. At an estimated 31 million, they represent roughly 16% of the U.S. workforce (Global Entrepreneurship Monitor, 2019).

Entrepreneurial firms account for a large share of job growth in the US at about 80% (Audretsch, 2021). As there appears to be a rising demand for their innovation, this number continues to grow. Individuals who dedicate themselves to creating and sustaining small businesses take on the responsibility of driving innovation that the rest of us benefit from (Berger, Von Briel, Davidsson, & Kuckertz, 2021). Given these pressures, researchers have taken great interest in knowing what motivates entrepreneurs to face the ebbs and flows of their journeys.

The study of passion for work was brought into the entrepreneurship literature by Baum, Locke, and Smith (2001) as a way to understand what drives entrepreneurs. Since then, passion has been linked to concepts like entrepreneurial intentions, perceived entrepreneurial ability, and the perceived attractiveness of entrepreneurship (De Clercq, Honig, & Martin, 2013). Cardon, Wincent, Singh, & Drnovsek (2009) formalized the use of passion in the entrepreneurial literature, defining entrepreneurial passion as “consciously accessible intense positive feelings experienced by engagement in entrepreneurial activities associated with roles that are meaningful and salient to the self-identity of the entrepreneur” (p. 517). These entrepreneurial activities can reside in any one of three distinct domains which are based on Gartner, Starr, and Bhat’s (1999) categories: 1) founding new firms; 2) inventing new products/services and market opportunities; and 3) developing, growing, and expanding businesses. Passion has been associated with a myriad of entrepreneurial outcomes ranging from opportunity discovery to entrepreneurial innovativeness and increased organizational performance (Bao, Zhou, & Chen, 2017; Ma, Gu, & Liu, 2017; Pollack, Ho, O’Boyle, & Kirkman, 2020). Researchers have also looked at its impact

over the course of the entrepreneurial journey and called it the strongest emotion that entrepreneurs leverage during the completion of their daily activities (Vallerand, Houliort, & Fores, 2003). In the venture development stage, Biraglia and Kadile (2017) found entrepreneurial passion to be associated with entrepreneurial intentions by way of entrepreneurial self-efficacy. Similarly, the affective states associated with entrepreneurial passion can spawn increased spin-off and start-up intentions (Huyghe, Knockaert, & Obschonka, 2016). Furthermore, entrepreneurial passion is associated with increased decision-making logic for nascent entrepreneurs (Stroe, Wincent, & Parida, 2018) and venture growth for later stage start-ups (Drnovsek, Cardon & Patel, 2016). The amount of passion undergirding individuals' involvement in the entrepreneurial process plays an important role in determining how and when they get started, as well as how long they persist. Its contribution to persistence is important as the small business failure rate is around twenty percent within the first year of operations, thirty percent by the end of the second year, and half by the end of the fifth year (McIntyre, 2020). These numbers speak to the importance of studying individual antecedents that keep entrepreneurs engaged, optimistic, confident, and successful.

Both in an academic and popular sense, our collective understanding of entrepreneurs and their ventures centers the idea of passion as an antecedent to initial interest, as well as a motivating force for continued activity. When considering the tremendous dedication that business ownership takes (Mahieu, Melillo, & Thompson, 2022), we often imagine the entrepreneur as being a relatively passionate person who receives positive energy and fulfillment through their work, and one who would not get the same type of emotional sustenance from paid employment.

Although knowledge on entrepreneurial passion is expanding exponentially, so much is still unknown. One of the limitations of the current literature is its reliance on self-reported survey data to understand the extent to which individuals experience entrepreneurial passion within themselves, and the extent to which they perceive entrepreneurial passion within others. Responses to these Likert-type self-report measures may be connected to actual behaviors, however, these proxy measurements do not observe real-life behavior. As stated by Zhao & Wu (2014), research stands to benefit from observing the actual scenarios that entrepreneurs experience rather than asking them what they would do in different situations. As exploring new methods and accessing new data sources has the potential to open new doors and answer new questions, there have been recent calls to understand elements of entrepreneurs' passion through the use of other, more advanced techniques (Oo, Allison, Sahaym, & Juasrikul, 2019). Recently, Williamson, Battisti, & Pollack (2021) responded with a study on social entrepreneurs. To assess the evolution of entrepreneurial passion, they conducted a series of interviews with early-stage social entrepreneurs connected to an accelerator. Utilizing artificial intelligence and unsupervised machine learning, they captured entrepreneurial passion at different points within the early stages. In addition to developing an algorithm to recognize identity centrality, they detected affective passion (intense positive feelings) with sentiment analysis. Given that all three of this dissertation's essays use a similar form of text analysis, much of the current work is intended to build upon their contribution.

In conducting and disseminating the results of their exploratory study, Williamson et al. (2021) called on researchers to utilize and improve upon their technique to capture the expression of passion "as it happens" (Brundin, 2007, p. 282). They noted that of all available text data, the percentage that can be classified as unstructured stands at 80% and is rising.

Because the interview-based study design that the authors used cannot fully access entrepreneurial discourse as it happens in the world, an ambition of this dissertation is to capture entrepreneurial passion in entrepreneurs' social media content.

Social media platforms publish millions of entrepreneurship-related messages daily (Vilander, 2017). Thus, the amount of publicly available data being generated for and from entrepreneurs is unprecedented. With today's competition, uncertainties, and high risks, there exists a growing recognition that incorporating social media usage into one's business strategy is necessary to avoid becoming another failure statistic (Cartwright, Liu, & Raddats, 2021; Coman, Popica, & Rezeanu, 2020). As such, the application of unstructured data analysis has become a useful tool in the study of entrepreneurship. Recent studies have used social media data to explore entrepreneurs' characteristics, personalities, and motivations (Chae & Goh, 2020). Though social media platforms have emerged as powerful forums through which connected individuals can share common stories, insights, and motivations, very little is known about the way entrepreneurial passion functions in these spaces.

The purpose of this dissertation is to understand how the use of social media impacts the development and external perception of entrepreneurial passion, as well as its implications for entrepreneurial persistence. To accomplish this, I first use Reddit data to determine the extent to which time spent in an online entrepreneurial community impacts the development of entrepreneurs' affective passion, and whether their need for group affiliation impacts said development. Second, I explore how viewers receive entrepreneurial passion in entrepreneur-generated YouTube videos created to convey information about how to become a business owner. To show that there are various factors that influence the degree to which entrepreneurial passion is received as a positive, I focus on gender congruence. My third essay assesses the

extent to which entrepreneurial passion influences the likelihood of launching a subsequent crowdfunding project after experiencing one's first unsuccessful campaign. To determine the influence of external resources on the likelihood of relaunching, the impact of Twitter following size was assessed.

This dissertation offers multiple contributions to research and practice. First, I add to knowledge on the development of entrepreneurial passion over time. By studying its development within the context of entrepreneurial networks, it informs scholars and practitioners about ways to approach peer-facilitated entrepreneurial learning and network based emotional support in the entrepreneurial process. Secondly, the dissertation extends knowledge on gender bias in the perception of entrepreneurs. By incorporating gender role congruity theory with emotional contagion theory, it shows how men's expression of passion can be more beneficial than women's when it comes to gaining the approval of the lay YouTube viewer. Lastly, this dissertation contributes to knowledge on how entrepreneurial passion affects entrepreneurial persistence. It looks at real examples of persistence through the analysis of crowdfunding campaigns and uses Twitter data to suggest how efficacy also influences the allocation of resources after experiencing crowdfunding failure.

## **Chapter 2: Development of Entrepreneurial Passion in Reddit**

Though early theorists often operationalized entrepreneurial passion as an intrinsic trait, recent scholarship has begun to explore the environmental influences that may help stimulate its emergence. Though some have looked at features like formal entrepreneurial education and training efforts (Arshad, Farooq, & Afzal, 2018; Gielnik, Uy, Funken, & Bischoff, 2017), a segment of the literature has focused on passion developing from the social learning processes which take place through social interactions with established entrepreneurs (Türk, Zapkau & Schwens, 2020). For example, Cai, Gu, and Wu (2021) posited that social connections accelerated the development of individuals' entrepreneurial identities, which subsequently led to passion. This literature has almost entirely explored the knowledge obtained through the strong ties within entrepreneurs' networks; these ties are composed of family and friends who they can personally access, learn from, and observe in person (Neneh, 2022). Weak social ties are based on narrowly focused and infrequent interactions and are traditionally not considered to be primarily suited for transactions that provide less social support than strong ties (Wellman et al., 1996). However, the advice-seeking and knowledge transfer that characterize entrepreneurs' "electronic weak ties" function like both strong and weak ties, providing informational resources as well as social support (Fielden & Hunt, 2011; Kuhn, Galloway, & Collins-Williams, 2016). Furthermore, these digitally mediated social connections provide less redundant information, giving way to more novelty than strong personal ties. These findings suggest that online entrepreneurial networks represent a good context in which to study the passion-inducing effects of social interactions.

The development of entrepreneurial passion within online and anonymous entrepreneurial communities has yet to be investigated. In their review article, Mmbaga, Mathias, Williams, and Cardon (2020) called for exploration into the specific processes through which



online communities influence the formation of individuals' entrepreneurial identities. It is well established that online entrepreneurial communities offer individuals financial and human resources, as well as emotional support and socialization regarding the norms and values expected among entrepreneurs (Davidsson & Honig, 2003; Oh, Ozkaya, & LaRose, 2014). However, there have been limited mechanisms proposed to understand the extent to which emotional support leads to sustained positive feelings for community members. This dissertation suggests that these factors help to ignite members' entrepreneurial passion over time.

The fact that the entrepreneurial passion research has yet to account for individuals' involvement in online communities is peculiar given our understanding of the role that digitally mediated interactions play in helping individuals navigate the entrepreneurial journey. For example, we know about the relationship between individuals' digital networks and entrepreneurial intentions (Perez-Fernandez, Rodriguez-Escudero, Martín-Cruz, & Delgado-García, 2021) and the overall amount of social resources that entrepreneurs receive through online engagement with their peers (Smith, Smith, & Shaw, 2017). With all the resources entrepreneurs exchange online, it is unlikely that their interactions are unable to cultivate the entrepreneurial bug. Given the number of videos, comments, posts, and links from entrepreneurs intended to teach and motivate other entrepreneurs (Wang, Mack & Maciejewski, 2017), it would be logical that entrepreneurial passion is an important topic in digitally mediated spaces. Moreover, the content of any online entrepreneurial chat room or forum will show that passion for entrepreneurship is something that entrepreneurs try to keep high among themselves. The implications of these spaces are not limited to the digital sphere. Being that many entrepreneurs visit such communities daily for inspiration (Meurer, Waldkirch, Schou, Bucher, & Burmeister-

Lamp, 2022), it is plausible that they internalize the passion present in these discussions and translate their positive emotions into real-world action.

As stated by Mmbaga et al. (2020), data derived from digital sources gives researchers unencumbered access to the inner workings of entrepreneurial communities. One opportunity that this type of data provides is a way to see the extent to which a given entrepreneur experiences his or her community over time. Active engagement with one's community can increase exposure to vital resources. In the current scenario, I assert that emotional support is a critical resource that inspires increased passion.

As previously articulated, the vast majority of entrepreneurial passion research looks at entrepreneurs in isolation, thereby ignoring the extent to which their passion for entrepreneurship develops in response to the social systems they interact with. These social systems are governed by specific forms of discourse, functioning according to patterns of validation and support giving. In the case of online entrepreneurial communities, participants regulate the supportiveness of the community with the informational, emotional, verbal, and behavioral dynamics of the discussions being had. As such, studying the entrepreneurial passion of their members through the traditional lens would not show the impact of digital communities on entrepreneurial passion. Indeed, researchers must show that the types of interaction in these communities shape the extent to which users rely on the community for answers to questions, and the degree to which they rely on it for social support.

The proposed study seeks to provide insight into how entrepreneurial passion develops within digitally mediated entrepreneurial communities. In particular, I used software to capture the amount of passion users express in posts within an entrepreneurship-related Reddit community and the amount of social support in the responses to those posts. I then conducted an

analysis to assess the social support theory-based prediction that users' levels of affective passion increase over time as a function of community emotional support and members' individual need for affiliation. I define affective passion as intense positive feelings measured by the NRC Emotion Lexicon (Mohammad & Turney, 2010). I define emotional support present within the community as the amount of empathy and high positive affect in the comments. Using Reddit data provides the reasonable expectation that the vast majority of comments are anonymous and related in a significant way to the same topic of discussion (some aspect of entrepreneurship in the current case). In analyzing Reddit communities, this study offers an unimpeded glimpse into digitally mediated discussions that may cultivate individuals' passion for entrepreneurship.

This work offers several contributions to the rapidly growing body of literature on entrepreneurial passion. First, and perhaps most salient among them, it supports the role that online communities play in shaping the passion of entrepreneurs who join them. The in-depth look at the development of users' entrepreneurial passion may provide a starting point from which scholars can ask more questions about the place of these communities in shaping the entrepreneurial journeys of their members.

Second, the study extends social support theory as it relates to the development of entrepreneurial passion. As outlined by Stenholm and Nielson (2019), social support theory seems an appropriate explanatory mechanism for addressing the externally influenced development of entrepreneurial passion because one's positive emotions and confidence are ignited by his or her perception of received emotional support. By taking data from Reddit, I show how passion can develop in an environment where entrepreneurs seek domain specific information (Nadeem, Juntunen, Shirazi, & Hajli, 2020). Also, Stenholm and Nielson (2019)

used financial support as a measure of emotional support in their study, arguing that entrepreneurs attach emotional significance to such funds. The current study takes from literature that speaks to the ability of other users' comments to provide esteem and information, as well as social support (Garg, Kapadia, & Sengupta, 2021).

The third contribution of the study is its focus on support coming from the subreddit. The vast majority of studies have only looked at the development of passion in the context of one's individual journey (Stenholm & Nielson, 2019). Regardless of whether it has taken a social support or social learning approach, previous work describing the social predictors of entrepreneurial passion has failed to look at the sentiment expressed by the individuals that influence the entrepreneur (Türk et al., 2020). Scholars have assumed that through socialization or vicarious learning, entrepreneurial passion naturally grows in entrepreneurs. However, this study attends to the impact of other members' ability to empathize with different viewpoints and provide comforting responses to those expressing vulnerability in the community. Because I show that the expression of members' entrepreneurial passion is influenced by the social support present in the subreddit, the findings suggest the importance of such support by one's community.

## **2.1 Literature Review**

### **2.1.1 Entrepreneurial Passion**

As scholars have advanced both in their conceptual and empirical approaches to understanding entrepreneurial passion, the literature has increasingly conceptualized the construct as developmental in nature. That is, it has been asserted to be dynamic and subject to change over time as opposed to functioning in a static fashion throughout an individual's journey (Murnieks et al., 2016). As the intensity of individuals' passion appears to vary across

circumstances, authors have endeavored to identify the factors that affect these growths and declines. One such example of this research comes from Collewaert et al. (2016), who examined 112 entrepreneurs and found that although identity centrality did not significantly decrease over time, there was a decrease in positive feelings for founding. The authors noted, however, that this decrease was not present for those who frequently sought feedback from others. Arguments have also been made that shifts in the ways individuals define their entrepreneurial self-identities (inventor, founder, developer) have implications for positive feelings from the earliest stages of entrepreneurship to the latest (Thongmanivong, 2020).

The interest in identifying the variability of entrepreneurial passion has been associated with a small but growing trend of identifying its antecedents. Some work in this area has focused on the contextual antecedents of entrepreneurial passion. For example, when looking at small service firms, Snell et al. (2015) observed that firm marketing capabilities were associated with passion. Furthermore, Kang, Matusik, Kim, and Phillips (2016) found an impact of proactive organizational climates on inventing passion and Bhansing et al. (2017) cited proximity to passionate entrepreneurs working in the same creative business center tended to spark entrepreneurial passion. This study utilized social facilitation theory and pointed to the potential of an emotional contagion process. Much of the literature arguing that entrepreneurial passion develops from interactions with others utilizes social learning theory. A recent example of this approach comes from Türk et al. (2020), who asserted that through the vicarious learning processes that occur when observing successful entrepreneurial role models such as family and friends, those with high learning orientations tend to develop increasingly higher levels of entrepreneurial passion.

### **2.1.2 Online Entrepreneurial Communities**

At its core, entrepreneurship is a networked activity. Even for sole proprietors who lack co-workers and employees with whom they can connect, engagement with mentors, peers, and partners represents an essential ingredient of entrepreneurial success (Laukhuf & Malone, 2015). As such, researchers have documented the ways that entrepreneurs access their peer networks to obtain valuable information ranging from financial resources to business advice (Chen, Lai & Lin, 2014; Jonsson, 2015). Knowledge transfer is key within these spaces and may help to instill passion via competence building (Stenholm & Nielsen, 2019).

Entrepreneurs in these communities have access to interactions that extend beyond the capabilities of entrepreneurs' traditional networks (Hajli, 2018; Kuhn et al., 2016). For one, online communities are not necessarily geographically based. Thus, they offer the potential to connect with individuals from around the world and across different backgrounds. Given that self-employment is known to be very lonely, this may even represent the only opportunity for business-related socialization for some. Secondly, they may lack formally established relationships between those seeking support and those providing it. Although it can render information less trustworthy (Kuhn et al., 2016), this type of anonymity can be helpful for those looking to disclose controversial topics or hoping to avoid sharing strategic information with local competitors (Huang, Chengalur-Smith & Pinsonneault, 2019). Lastly, the openness and connectivity of these communities provide ample opportunity for entrepreneurial learning without the need to track down experts for advice (Nylander & Rudström, 2011). Users can learn vital information both through discussions with others and through passive observation of others' interactions (Schou, Bucher & Waldkirch, 2021). As free information sharing is central to user-generated social media platforms, entrepreneurs gain valuable and otherwise pricey information

about how to run their businesses from knowledgeable peers (Fernandes, Belo & Castela, 2016; Quinton & Wilson, 2016).

### **2.1.3 Social Support Theory**

Coming from its roots in psychology, social support theory details the mechanisms through which those who receive emotional, mental, or physical support experience better outcomes than those who lack such resources (Cassel, 1976; Cobb, 1976). The mere awareness of existing support can improve the ability to cope with stressors (Barrera, 1986). Scholars have broken social support into two types: instrumental and emotional (Adams, King, & King, 1996). While instrumental support consists of material, informational, or intellectual assistance (Edelman et al., 2016), emotional support is defined by the empathy, softness, and sense of care imbued in the communication of supporters (Taylor, 2011).

As entrepreneurship can be one of the most isolated career paths (Chen, Nualnoom, & Lakkanawanit, 2022), researchers have shown particular interest in the processes of interactive social support (Cogan, Pret & Cardon, 2022). It has been identified as a pivotal ingredient in the creation and success of new ventures (Powell and Eddleston, 2013). The support that entrepreneurs receive helps them cope with uncertainty (Arregle et al., 2015) and remain persistently committed to their venture goals (Klyver, Honig, & Steffens, 2018).

Beyond simply providing security, trust, and positive affect, the intense positive feelings engendered by perceived social support may have a direct impact on individuals' entrepreneurial behaviors (Hatak & Snellman, 2017). According to Stenholm and Nielsen (2019), the waves of positive emotions eventually transform into entrepreneurial confidence which sparks increased entrepreneurial activity.

#### **2.1.4 Need for Affiliation**

The construct of need for affiliation is rooted in psychologist David McClelland's Three Needs Theory (McClelland & Mac Clelland, 1961) and has been a well-cited concept in the management literature. Research has shown that those with high affiliation motives feel a strong need to belong to social groups and tend to gain pleasure from friendly social interactions (Norton & Manne, 2007). Over time, researchers have focused on different dimensions of the construct and their implications. For example, Hill (1987) showed that in some circumstances, affiliation motivation may be driven by an opportunity to obtain emotional support from others. In fact, people with strong affiliative desires favor interactions with warm and empathetic partners and are averse to those who are harsh (Hill, 1991). Regarding the affiliation motives of entrepreneurs, some scholars have asserted that need for affiliation has a positive impact on entrepreneurial behavior (Parveen, Faiz, Khan, Siddique & Safdar, 2020), while others have argued that people who need emotional support tend to be less interested in entrepreneurial careers due to the typical non-conformism which entrepreneurs display (Decker, Calo & Weer, 2012).

#### **2.1.5 Empathy**

Empathy reflects one's ability to perceive another's viewpoint and sensitively respond to his/her emotional state (Decety, Barta, Uzefovsky & Knafo-Noam, 2016). When receiving empathy from another, one experiences gratitude and a sense of inclusion and belonging (Bodaghia, Cheong, & Zainab, 2016). Moreover, those who are constantly at the receiving end of others' empathy have higher life satisfaction and well-being (Wei, Liao, Ku & Shaffer, 2011). Individuals who express empathy to others also have enhanced well-being as they recognize the impact of their kindness (Wei et al., 2011).



Within society, empathy constitutes a central aspect of civility and collective resilience (Qin, Yang, Jiang, & Zhong, 2022). The link between the expression of empathy and prosocial behaviors is well-established (Bohns & Flynn, 2021). In fact, high levels of empathy are positively associated with altruistic responses that eventually turn into prosocial moral reasoning (Goodhew & Edwards, 2021). In digital spaces, empathy can be seen in content contribution (Sharma, Miner, Atkins, & Althof, 2020). Recent scholarship has found that empathy on Reddit is contagious. For example, in their study on 22 mental health-related subreddits, Chen and Xu (2021) found that users who received empathic emotional support on their posts showed an increased likelihood to post again and support others compared to those who received negative social support or no support at all.

#### **2.1.6 Affect**

An essential component of perceived emotional support is the positive affect encapsulated within the sender's message (Cobb, 1976; Shumaker & Brownell, 1984). Referring to the display of positive emotions like fondness, liking, esteem, or trust, its expression is a mandatory criterion in defining a friend (Fischer, 1982). Interactions characterized by positive affect help individuals cope with the negative emotions associated with stressful events (Floyd, 2006).

### **2.2 Theory and Hypotheses**

#### **2.2.1 Affective Passion and Subreddit Involvement**

Entrepreneurs are goal-oriented people for whom professional success requires expertise in various domains, as well as constant learning about unfamiliar topics. The cultures of both online and offline entrepreneurial networks reflect this growth orientation, as do their high degrees of resource-sharing (Teubner, Adam, Camacho, & Hassanein, 2014). Entrepreneurial

subreddits are no exception to this rule. However, the structure of Reddit makes these communities particularly suited for enriching knowledge seekers' desire for usable information. Recall that, unlike the profiles of social networking sites that double as advertising (i.e. Facebook, Instagram), most Reddit users remain anonymous. As such, entrepreneurial knowledge is the emphasized resource available to share among users above others like financial capital, clients, or introductions to other entrepreneurs. Being full of relevant entrepreneurial knowledge and experience, and perhaps many users who are advanced in their careers, entrepreneurial communities on Reddit are spaces where one's frustrations or confusion can be replaced with knowledge and assurance. The continued affiliation with and participation in such spaces would be expected to increase entrepreneurial passion via knowledge-based empowerment. This type of deep empowerment comes through the material and psychological resources that experienced community members share with others. Receiving good advice from others can help members to internalize what they perceive to be the group's collective competence. Moreover, redditors may benefit by sharing knowledge of their own, as research has shown that when one sees his/her ideas being validated and respected by the Reddit community, there can be an overwhelming feeling of psychological empowerment (Hajli, 2018). Because of the empowering knowledge received by unsure users, I would expect to see passion increase via competence building for those participating in discussions within the subreddit. Stated formally:

**Hypothesis 1:** *User tenure in the subreddit will have a positive relationship with affective passion.*

### **2.2.2 Temporal Development of Affective Passion and Emotional Support**

Given the hyperpersonal communication that can take place in online communities (Turner, Grube, & Meyers, 2001), the digitally mediated support on Reddit may create a safer

place to voice one's concerns than face-to-face online communities, particularly when considering that one has confidence that anonymous strangers would be unable to condemn them for shameful questions or disclosures in a meaningful way (Meurer, et al., 2022). The support system present within platforms like Reddit causes users to develop positive feelings when engaging in discussion. These positive feelings come in response to the emotional support individuals receive (Nadeem et al., 2020). The means through which individuals become empowered by their digital networks align with how the literature describes the development of entrepreneurial passion. Thus, as individuals engage more with entrepreneurial subreddits, their socialization is expected to facilitate an increasingly passionate orientation. This inclination toward an increasing sense of passion would influence users in a way that their comments reflect genuine feelings that extend beyond simple group conformity or social desirability.

The online social support literature focuses on the positive psychological consequences that users derive from their experiences in digital communities (Oh et al., 2014). Because this scholarship is not interested in neutral or negative outcomes, it tends to describe the drivers of these outcomes (community interactions) as uniformly positive and supportive (Fielden & Hunt, 2011). This generalization is especially evident in research on communities that are organized around a unifying theme (such as entrepreneurship) where individuals presumably convene with the intent to "co-cope" with those in similar circumstances (Mikal, 2022). Though one might not assume the discourse within entrepreneurial subreddits to be as unsupportive as that in subreddits with dissimilar members (r/WorldPolitics), or as contentious as subreddits created for individuals to debate one another (r/ChangeMyView), one may expect to find entrepreneurs to express a fair bit of heterogeneity regarding the supportiveness. It is important to note that even in social

environments where feedback is intended to be constructive and supportive, the wrong type of support can be interpreted as unsupportive or even negative (Fielden & Hunt, 2011).

In both offline and online contexts, unsupportive comments can leave the receiver feeling minimized, criticized, uncomfortable, or emotionally disengaged (Ingram, Betz, Mindes, Schmitt, & Smith, 2001). When users are exposed to continuous unsupportive discourse, they may be affected in any number of ways. For example, individuals may shift to a more combative orientation and use the subreddit as a space to debate. Research has shown that high-quality engagement on digital platforms can lead to higher entrepreneurial intentions (Cutolo & Kenney, 2021).

To understand the degree of emotional support found within the Reddit community, I first look to its measurable empathy, as the concept of empathy is central to many common definitions of emotional support. For example, in their study on 380 Dutch nascent entrepreneurs, Klyver et al. (2018) defined emotional support as those in respondents' social environments listening and providing empathy. Furthermore, in their definition of perceived emotional support, Sarason and Sarason (1985) included one's belief that he or she can obtain help or empathy when needed. Entrepreneurs rely on a type of empathic accuracy that enables them to adopt another's viewpoint and assess whether the value propositions proposed in their solutions appeal to potential customers (Khalid and Sekiguchi, 2018; McMullen, 2015). Another element of emotional support can include presence of positive affect. In these interactions, others provide a warm, accepting, and comforting arm for those in vulnerable positions (Bogossian, 2007; Kikas & Tang, 2019). Feeling warmth from one's social network can have a positive impact on entrepreneurial self-efficacy (Neneh, 2022). For example, in coping with involuntary termination, Ma (2015) found that managers with affection-based social circles were more likely

to enter entrepreneurship. When Reddit users ask questions or reach out for help, they reveal to the whole community the extent to which they lack knowledge in a given area. Communication from a position of ignorance can lead individuals to feel vulnerable. Thus, users may feel psychological safety when they receive feedback with an affectionate tone. Given the above assertion, I predict the following:

**Hypothesis 2a:** *Comment empathy will strengthen the relationship between tenure in the subreddit and affective passion such that this relationship will be strongest when comment empathy is higher.*

**Hypothesis 2b:** *Comment affect will strengthen the relationship between tenure in the subreddit and affective passion such that this relationship will be strongest when comment affect is higher.*

### **2.2.3 Passion, Subreddit Emotional Support, and the Need for Affiliation**

To further understand the process through which emotional support (comment empathy and affect) influence passion, I examined individual need for affiliation as a moderator. The process through which the development of passion is impacted by the empathy and affect displayed within the subreddit can be conceptualized in terms of the socialization perspective that was outlined by Stenholm and Nielsen (2019) who said that the development of passion for entrepreneurs is influenced by their perceptions of social support in their environments. Particularly for emotional support, the environmental climate of the subreddit may not by itself be sufficient for understanding the development of passion among users. For example, several commenters may respond to a post with genuinely supportive language. However, the poster's perception of the comments' supportive tone is what contributes to his or her socialization (Lacoursiere, 2001).

Research asserts that any and all advantages that can be extracted from the emotional support present in one's social environment is not tied to the actual receipt of such emotional support, but rather to one's perception of its availability (Gottlieb & Bergen, 2010). In other words, in order to benefit from the empathic or affectionate discourse of the community, individuals must be able to recognize, register, and mentally access this emotional support (Haber, Cohen, Lucas, & Baltes, 2007). It is well established that not all intended support that is provided is perceived as positive, even if that may objectively be the case. Also, if the support is inherently negative but not received as so, it will still be beneficial (Hupcey, 1998). Because this potential discrepancy exists between the objective amount of emotional support available in a social environment and one's subjective perception of whether it will be there if requested, it is necessary to evaluate individual differences that may account for such a discrepancy. It cannot be assumed that any two people will interpret emotion-based communication as the same. As person-situational factors interact to influence outcomes (Lewin, 1935), factors must be considered that contribute to one's openness to the subreddit's support.

Denzinger and Brandstätter (2018) defined need for affiliation as the desire for social contact or belongingness. Individuals high in need for affiliation are inclined to establish interpersonal relationships (Harrell & Stahl, 1984), and as such, are more sensitive to the social cues which lean toward or away from signals of empathy and closeness. Hence, because those with high need for affiliation may be predisposed to seeking out emotional support (Hill, 1991; Hill, 1987), they may read Reddit comments with increased expectation to receive emotional support from the community. If they see this in the discourse, their engagement in the community and excitement about its topics may become increasingly stronger. Conversely, if they see blame, criticism, or a lack of empathy in the subreddit's discourse, they may be more

likely to disengage from the community. Stated differently, where there is a high amount of emotional support in the environment, those who do not need much group affiliation will not be as affected as those with a high need for group affiliation. Fig. 2.1 displays the conceptual model for the study.

**Hypothesis 3a:** *The positive relationship between tenure in the subreddit and affective passion will be greater with more comment empathy when an individual's need for affiliation is also higher.*

**Hypothesis 3b:** *The positive relationship between tenure in the subreddit and affective passion will be greater with more comment affect when an individual's need for affiliation is also higher.*

## **2.3 Methods**

### **2.3.1 Data Collection**

Data for this study followed a similar process to other entrepreneurship studies examining Reddit data (Meurer et al., 2020). Reddit.com is the 18th most visited website in the world, and the 7th most visited site in the U.S. (Clement, 2021). Advertised as “the front page of the internet”, it is a social news site wherein anyone with an internet connection is free to join an open discussion on various topics. More than simply holding space for related topical forums, it serves as a hub for diverse theme-based networks (Papacharissi, 2010). Redditors (Reddit users) subscribe to and participate in discussions within communities called subreddits. Most redditors publish their posts under anonymous accounts. The subreddits in which individuals post provide the ability to discuss specific topics as opposed to exposing users to unrelated conversations and topics (Adams, 2022).

Being a source of user-generated and curated content, the management of Reddit relies on everyday users instead of an algorithm or team of editors (Massanari, 2017). The front page of subreddits displays a hierarchical list of postings that are organized by recency, voted popularity, or volume of comments. For a given post, the name and title are visible to users, as are the username of the original poster and associated comments (Adams, 2022). Platform norms strongly encourage other redditors to convey approval or disapproval of the post or comment based on their perceptions of whether it contributes to the conversation. This is done through the use of an upvote or downvote. These aggregated votes give the post a score, which reflects the collective proxy of social acceptability, contributing to its visibility within the subreddit through a sorting algorithm (Duguay, 2022). As such, Reddit has been called “a unique, boundary-spanning platform that elicits new questions about the nature of participatory culture and community in the age of social networking” (Massanari, 2015, p.7).

To identify and analyze the development of entrepreneurial passion within the Reddit community, I collected 577 original posts published by 152 unique users in the entrepreneurship-related subreddit r/Startups as well as the 633 responses to those posts. This process was conducted by making several calls to the Reddit API with the RedditExtractoR package in R.

Though there may be noise in the subreddit, it is reasonable to expect that the bulk of the content within this subreddit was germane to its title. To identify recently engaged users, I first identified 630 users that authored 1,110 posts in the subreddit over a six-month span from October 2022 to March 2023. To understand the development of their passion over time, I extracted the posts of those who had more than one r/startups post (15.9%). This yielded a final sample of 577 posts from 152 unique users. In order to understand individuals' experiences of



emotional support within the subreddit, I collected the comments (or responses) to these posts. All of the usable posts and comments were published from December 2012 to March 2023.

## **2.3.2 Variables**

### **2.3.2.1 Independent Variables**

*Subreddit Tenure* was captured by counting the number of months between the current post and the user's first post in the subreddit. Though a user can seek knowledge by reading other posts in the subreddit before authoring a post of their own, researchers are not able to access the date the user joined the community as an inactive member.

### **2.3.2.2 Moderating Variables**

To measure the *Empathy* in each comment, I used the Empathy dictionary from Payne, Brigham, Broberg, Moss, and Short (2011). Used in various contexts, it encapsulates the extent to which individuals consider and display concern and support for the plights of others.

To measure the *Affect* of a comment, I used the Linguistic Inquiry Word Count (LIWC) affect dictionary (Pennebaker, Boyd, Jordan & Blackburn, 2015). This default dictionary calculates the usage of positive and negative emotional language present in text.

*Need for Affiliation* was measured at the level of the individual user with the default LIWC dictionary on original posts. This personality trait is relatively stable. However, as the variable could vary in a negligible way from post to post, the average score was used.

### **2.3.2.3 Dependent Variable**

I measure entrepreneurs' *Affective Passion* with the 'Joy' attribute from the NRC Emotion Lexicon (Mohammad & Turney, 2010). The lexicon was developed by researchers at the National Research Council of Canada and has been thoroughly trained on tasks for tens of thousands of English words. Since I am focused on passion (i.e., intense positive feelings that

come from engagement in entrepreneurial activities), this measure follows Williamson et al.'s (2021) example of measuring entrepreneurs' passion with the joy-related variable of a tone-analyzing tool. I conducted log transformation to address right skewness in the data.

#### **2.3.2.4 Control Variables**

Several controls were used in the analyses to account for qualities of users, their posts, and their received comments that have the potential to affect activity within the subreddit.

*Days Since Last Post* indicated that days between users' posts in the subreddit. This was controlled for to further account for the impact of users who post very infrequently. If an individual posts after an extended period, the previous effects of community engagement might not be relevant any longer.

The next four control variables relate to the degree of instrumental support given by community members. Outside of tangible support like financial resources, Reddit posters can benefit from the expertise, attention, and social endorsement of other users. The variables below may reflect the value of the poster's contribution and may increase their motivation and enthusiasm.

*Confidence* in comments was measured with the clout summary variable from the LIWC internal dictionary (Pennebaker et al., 2015). This variable captures the level of expertise and confidence with which the author is communicating. The influence of confidence has often been studied in the context of the mentor-protégé relationship. For instance, Deane et al. (2022) highlights the role of mentor efficacy in developing expertise and self-assurance in protégés. Moreover, Varghese and Finkelstein (2021) leaned on social comparison theory to assert that the shared professional context with the mentor enables the mentee to adopt the mentor's vision and perspective. Applied to a peer networking context, entrepreneurs can benefit from interacting

with successful and experienced members. Increase contagion confidence has been noted among members of different Reddit communities such as those related to weight loss and smoking cessation (Liu & Yin, 2020).

*Upvotes* for each post were captured at the time of data collection. As stated before, upvotes are used to convey community approval of a user's ideas. Reddit upvotes play an important role in the functioning of the platform. They serve as a mechanism to ensure that posts remain productive and on topic. This is because upvotes reflect community norms and values. Posts with high upvote counts are seen as aligning with the community's expectations (Davis & Graham, 2021). Moreover, upvotes contribute to the visibility and exposure of posts, ensuring that valuable and community-aligned content is promoted.

*Number of Comments for Last Post* was captured by taking the number of comments left on the user's post preceding the post of interest. This measure represents an important response variable to measure the extent of social support (Pandrekar et al., 2018).

*Average Length of Last Post's Comments* was captured by dividing the total number of words in the last post's comments by the total number of comments received by the post. This measure may account for some amount of passion expressed in the current post that is based on the perceived attention that the subreddit community gave the user in the past.

### **2.3.3 Statistical Procedures**

I structured the data to obtain insights at two levels of analysis. Creating a dataset with timestamps and usernames allowed me to assess upvotes, as well as passion and need for affiliation within posts at any given stage of a user's tenure. Adding comments allowed me to observe the social support provided by others in the subreddit. Analyzing these together, the results of the longitudinal model can provide insight into the average level of passion among

users over their tenure in the subreddit. The moderating effects of upvotes as well as the empathy, affect, and confidence within the comments were examined using interaction terms in distinct longitudinal models. The further moderation of emotional support (empathy and affect) by need for affiliation was also assessed. For this longitudinal approach, mixed-effects models with Maximum Likelihood Estimation were used. Mixed-effects models are a type of statistical analysis particularly suitable for studying longitudinal data. They offer the flexibility to include both time-variant and time-invariant moderators which occur at different levels of analyses to explore both within-subject and between-subject effects. Thus, for studies examining longitudinal relationships between personal and environmental constructs, mixed-effects models can be helpful for analyzing dynamic and complex relationships between variables over time (Chen, Ployhart, Thomas, Anderson & Bliese, 2011). In the current case, they are appropriate because they can account for the hierarchical nature of the data where measurements are nested and allow for the modeling of both fixed and random effects (Gibbons, Hedeker, & DuToit, 2010). Fixed effects refer to variables that vary across time, such as the effect of tenure on passion development. Random effects refer to variables that vary between individuals, such as individual differences in baseline passion.

## **2.4 Results**

Presented in Table 2.1, descriptive statistics summarize the sample characteristics, including the mean, standard deviation, and ranges for study and control variables. The included correlation matrix shows the various relationships. Being that a longitudinal data set was analyzed to understand relationships between time-variant constructs, it is worth mentioning that the means and standard deviations presented in the table represent the relevant variables across the entire study period (2012 to 2023). The magnitude of correlations tended to be small. Still, I

examined the variance inflation factors (VIFs) in order to inspect potential issues with multicollinearity among the independent variables. The VIFs for the predictor variables ranged from 1.195 to 6.967 with a mean VIF of 3.29, which is below the rule of thumb value of 10 (O'Brien, 2007). This suggests that multicollinearity was not an issue in the analyses. Given that participants posted in the subreddit every 5 ½ months on average, they might not be defined as particularly active in terms of usage. However, the minimum and maximum of 0 days and 10 years between posts shows the variability in activity among users. Relatedly, though the Reddit API does not provide an official date of when users became “members” of the r/startups community, users had been on Reddit for an average of 2 ½ years before making their first post in the r/startups subreddit.

In terms of hypothesis testing, I began by examining the impact of subreddit tenure on entrepreneurs' passion development. More specifically, my analyses tested the existence of significant chronological increases in participants' passion over time. The results presented in Table 2.2 show the relationship between subreddit tenure and passion ( $\beta = 0.014$ ,  $p = 0.040$ ; Model 2). This supports the prediction proposed by the study. Hypothesis 2a posits that receiving empathic comments on one's posts strengthens the tenure-to-passion relationships for redditors. Looking at the results of the moderation analysis in Table 2.2, the interaction between subreddit tenure and empathy was not significant ( $\beta = 0.011$ ,  $p = 0.352$ ; Model 3). This suggests that the effect of subreddit tenure on passion does not appear to be contingent upon comment empathy. Like Hypothesis 2a, a moderation model was used to test Hypothesis 2b. The analysis tested the prediction that comments with high positive affect strengthen the relationship between redditors' tenure in the community and passion. Like the interaction between tenure and empathy, the

tenure x affect interaction was not statistically significant in predicting passion ( $\beta = -0.001$ ,  $p = 0.960$ ; Model 4). This failed to lend support to Hypothesis 2b.

Extending the theorized moderating effects of emotional support, the following hypotheses assert that its impact is contingent upon redditors' need to associate themselves with others. To test the associated hypotheses, I relied on moderated moderation. Hypothesis 3a predicted that the impact of empathy on the relationship between subreddit tenure and passion is modified by the user's need for affiliation. More specifically, it suggests that the relationship would be strongest when empathy is high and the poster's need for affiliation is also higher. The results show a non-significant interaction term ( $\beta = 0.046$ ,  $p = 0.446$ ; Model 5), indicating a lack of support for Hypothesis 3a. Next, Hypothesis 3b predicted that redditors' need for affiliation influences the extent to which comment affect impacts their tenure-to-passion relationship. Like the previous hypothesis, the results in Table 2.2 show a lack of support ( $\beta = -0.001$ ,  $p = 0.827$ ; Model 6). Fig. 2.2 displays the effects alluded to in Hypotheses 3a and 3b. As can be seen, across various levels of emotional support and user need for affiliation, passion only varies slightly with no discernable or significant patterns.

As a post hoc observation, I point to the direct effects that upvotes and comment confidence have on affective passion mostly significant at the level of  $p = 0.1$ . Table 2.2 shows the direct positive relationship between upvotes and affective passion ( $\beta = 0.002$ ,  $p = 0.064$  for Model 5;  $\beta = 0.002$ ,  $p = 0.034$  for Model 6), as well as the relationship between comment confidence and affective passion ( $\beta = 0.046$ ,  $p = 0.081$  for Model 5;  $\beta = 0.044$ ,  $p = 0.053$  for Model 6). The findings suggest that receiving more upvotes and comment confidence on one's post yields elevated expression of affective passion in one's very next post.

## 2.5 Discussion

Up until the present, the bulk of entrepreneurial passion research has conceptualized the construct as a static and intrinsically developed trait. In examining its development within entrepreneurship-related Reddit communities, the current study adds to the burgeoning literature that cites social interactions as a source of passion development (Cai et al., 2021; Türk et al., 2020). The study also taps into the broader entrepreneurship literature devoted to the role of virtual meeting spaces in providing opportunities for entrepreneurs to exchange resources, offer mutual advice, collectively problem-solve, and share useful knowledge. For example, Hafeez, Foroudi, Nguyen, Gupta, & Alghatas (2018) showed that through the utilization of digitally mediated communities of practice, users constructed their entrepreneurial narratives, engaged in entrepreneurial learning, and used storytelling as tools for knowledge sharing. Rooted in social support theory, the study took from the social support framework and found that increasingly elevated levels of affective passion are a result of increased subreddit tenure.

The hypothesized moderations were not supported by the results of the analyses. The non-significant impact of comment empathy and affect on the presentation of subsequent passion may allude to the failure of emotional support to foster the feelings associated with entrepreneurial passion. Although Reddit is a space where overwhelmingly negative feelings can be met with supportive and comforting reactions (Meurer et al., 2020), these calming interactions may not engender the type of sustainable overwhelming positive affect which inspires elevated levels of passion in users. Thus, the emotional relief and catharsis provided by highly empathic and affectionate comments may not aid in boosting the passionate response of users. Regarding the non-significance of need for affiliation, other traits and personal qualities may be more appropriate to consider when assessing the extent to which Reddit entrepreneurs are impacted by their communities. These may include McClelland's other needs (need for achievement and need

for power), existing entrepreneurial self-efficacy (Neneh, 2022), or the psychological needs for autonomy, competence, and relatedness (Warnick & McMullen, 2018).

Regarding instrumental support, I highlight the relationships between the temporarily elevated expression of passion and the confidence expressed in the comments of a redditor's previous post. As asserted by Klyver et al. (2018), sound advice from experienced entrepreneurs represents valuable instrumental support, particularly for inexperienced entrepreneurs. Redditors often appeal to the community in a state of uncertainty or confusion and may rely on heuristics that make for the most confident voices to appear the most competent (Stavrova & Evans, 2019). Several theories may explain why receiving this “good advice” may yield a boost in passion. Expectancy theory (Vroom, 1964) would suggest that users expect that by applying their newly gained knowledge, their subsequent entrepreneurial efforts will yield positive results. This can provide users with a temporary boost in joy, excitement, and confidence. Moreover, Self-Determination Theory (Deci & Ryan, 2000), would suggest that after receiving sound advice from a confident community member the user may experience an enhanced sense of competence as well as a greater sense of relatedness to the community. The fulfillment of these psychological needs may engender a rush of motivational energy that increases positive emotions and self-assuredness.

Lastly, the direct effects of upvotes may be due to the inherent benefits of instrumental support. Receiving approval from the community in the form of an upvote may be effective in instilling confidence and stimulating the type of excitement that sparks a subsequent expression of passion.



### **2.5.1 Limitations and Future Directions**

In terms of the study's limitations, several unaddressed issues might have affected the ability of the analyses to detect users' expressions of passion and experiences of social support. One issue may be that Reddit interactions alone are simply not strong or consistent enough for most users to sustain continued growth of passion. Social learning theory (Bandura, 1977) asserts that learning from a role model requires observation of and exposure to the consequences of that role model's behaviors. Developing passion through this method requires a consistent and multidimensional relationship such as that seen between mentor and mentee. Reddit, like other social media platforms, is characteristically deficient at providing either of these qualities. In the case of Reddit, users exchange ideas via weak ties that are limited to a single medium of communication that is often anonymous (Kuhn et al., 2016). Moreover, users have control over their exposure to the community and often only engage with it when they have questions. Given the unidimensional and sporadic nature of Reddit interactions, it may be the case that such a venue does not by itself provide interactions that are strong enough to sufficiently develop passion among entrepreneurs in a sustained manner. Moreover, the activity level of the users might have been an issue. As can be logically surmised, users with more frequent posts may be assumed to have more interaction with the community and thus may be better candidates for whom to assess the effects of subreddit tenure on passion. Though users can certainly benefit through passive observation of others' interactions (Schou et al., 2021), excluding those with limited subreddit posts may make any patterns more clear.

Secondly, the study did not control for users' engagement in other subreddits. As redditors can and often do belong to multiple subreddits, understanding their communication patterns in other communities (those related to business and entrepreneurship in particular) could

have given insight into users' baseline levels of passion as well as whether patterns were more likely to emerge for a user in one community and not another. Another shortcoming in the study may be its assumption that Reddit activity influences entrepreneurs' everyday experiences in the real world. The literature has demonstrated that entrepreneurs experience fluctuations in passion based on the failures and successes of their ventures (Newman et al., 2021). Thus, the failure to fully grasp the impact of Reddit may be due to the failure to pair it with entrepreneurs' real-world experiences. Perhaps having knowledge of such environmental factors can help future researchers understand which redditors' development of passion would be strongly tied to their experiences in the community.

Lastly, I highlight the study's sample size as a potential barrier. To limit the study to recently active users, the initial pool consisted of those who posted from October 2022 to March 2023. These 630 users were then narrowed down to 152 users with 577 original subreddit posts. An expanded sample size could have been used to capture more variation.

### **2.5.2 Conclusion**

Social media networking has become a critical skill for the modern entrepreneur. Every year, entrepreneurs spend more time interacting with stakeholders through virtual means and navigating digital ecosystems for the necessary business knowledge and resources required to keep their ventures afloat (Cartwright et al., 2021). As such, researchers stand to benefit from using digitally mediated networks to study the psychological processes inherent to the entrepreneurial journey. The current study provides an entry point from which scholars can start to empirically test the development of entrepreneurial passion with social media data. In particular, its interest in Reddit posts and comments departs from the dominant stream of support literature that focuses on strong, in-person ties as the sole source of social support. The findings

suggested that subreddit exposure along with certain forms of instrumental support like upvotes and commenter confidence may play a role in the development of entrepreneurial passion.

Further research can help clarify the contexts in which such forms of support might have lasting effects on individuals in different stages of the entrepreneurial journey.

### **Chapter 3: Gender, Entrepreneurial Passion and YouTube Contentpreneurship**

Gender is a major factor in determining the way entrepreneurs are seen by others. While research supports that people interpret the behaviors and competencies of men versus women entrepreneurs differently (Snellman & Solal, 2022), the fact that men are often seen as more competent entrepreneurs (Malmström, Voitkane, Johansson, & Wincent, 2018) reflects larger gendered expectations that men and women should occupy different spaces in the business world (Bird & Brush, 2002). Because expressed passion can convey lower competence depending on the expectations of a given stakeholder (Schwarte et al., 2023), and third parties typically expect for men to be more competent entrepreneurs, the passion expressed in conveying or “selling” one’s entrepreneurial knowledge may be acceptable if one is a man. However, because Cowden et al. (2021) found that women’s crowdfunding videos were successfully funded when they demonstrated feminine characteristics (agreeableness and humility), and men were more likely to meet their campaign goals when their videos demonstrated traditionally masculine characteristics (assertiveness and emotional stability), gender role congruity may help set the expectations of YouTube viewers such that passion would be seen as more trustworthy when the orientations of the entrepreneurs’ language are consistent with gendered expectations.

Research has typically regarded the external display of entrepreneurial passion as an exciting and contagious force that onlookers gravitate toward (Cardon, Richard & Mitteness, 2009). Scholars have asserted that even after brief exposure to an entrepreneur’s expressed passion, such as that in short video snippets, individuals can become enthused and react to the entrepreneur with positive affect (Davis, Hmieleski, Webb & Coombs, 2017; Li, Chen, Kotha & Fisher, 2017).

The emotional reactions of viewers to the passionate language, vocal tones, and facial expressions of entrepreneurs are most often used to investigate the extent to which live or pre-recorded pitches predict the ability of entrepreneurs to procure funding from investors (Chen, Yao, & Kotha, 2009; Warnick et al., 2021). This falls in line with emotion contagion theory, which asserts that being exposed to the emotions of others motivates observers to express similar emotions (Goldenberg & Gross, 2020). However, potential investors are not the only group whose perceptions of entrepreneurial legitimacy can be influenced by the passion they share in videos.

Over the past decade, social media has become an increasingly prominent source of data for entrepreneurial research (Kosinski, Stillwell, & Graepel, 2013). Having access to large datasets collected from social media gives researchers the ability to understand how entrepreneurs interact with one another across various regions (Wang et al., 2017). Furthermore, publicly available social media provides the ability to utilize AI-based measures to understand the real-time impact of the personality traits of millions of entrepreneurs (Obschonka & Audretsch, 2020). As social media platforms such as YouTube become increasingly utilized tools for business education, we may see viewers react to women's videos in sexist and polarizing ways (Thelwall & Foster, 2018).

The current essay seeks to examine the extent to which perceived passion in YouTube instructional videos is received more favorably when presenters are men than when they are women. More specifically, I draw from gender role congruity theory (Eagly & Karau, 2002) to assert that viewers of entrepreneurship-related YouTube videos will react more positively to presenters' passion when the videos' subjects are men rather than when they are women. Furthermore, I assert that both men and women will be viewed favorably for communicating in

ways that confirm gender role expectations as compared to those who do not. Testing several models on a sample of videos, and measuring passion expressed in presenters' words, vocal pitch, and facial expressions, I predict that passion expressed by men will result in more positive viewer reactions for videos the use more agentic communication (e.g., emphasis on attaining status and achievement) than men's videos that do not. Furthermore, I predict that passion expressed by women will result in more positive viewer reactions when their videos use more communal communication (e.g., emphasis on helping others) than women's videos who do not use such language.

Findings from the present study offer three important additions to the literature. For one, they extend gender role congruity theory research by integrating it with emotion contagion theory and applying it to the literature on social media entrepreneurship. In examining the degree to which seekers of entrepreneurial knowledge (YouTube viewers) respond less favorably to entrepreneurs who violate gender stereotypes, we can understand the impact of gender role expectations on those wanting to gain information about entrepreneurship. Understanding how the gender and communication styles influence YouTube viewers' endorsement of displayed entrepreneurial passion is critical for deconstructing prejudiced views that budding entrepreneurs can pick up at formative stages of their entrepreneurial journeys.

Second, findings from this essay contribute to the literature by highlighting the effects of gender incongruent passion expression. The current application of emotional contagion theory attributes the success of social media influencers to their expressed excitement and passion (Lee & Theokary, 2021). Likewise, the scholarship on entrepreneurial finance considers expressed passion an attribute which always enhances the positive affect of observers (Davis et al., 2017). As noted, research on gender biases in entrepreneurship has justifiably focused on barriers

experienced by women. The current study adds nuance to the discussion by comparing the receptivity to men who communicate in an agentic way to those men who do not. Thus, it offers a context in which the expression of passion can work against entrepreneurs, thereby presenting a boundary condition for the argument that success is always the result of expressed passion.

Lastly, the essay's use of YouTube videos as a data source offers a contribution to the entrepreneurship scholarship. Recent research has examined the entrepreneurial potential of social media platforms designed for content creation. Specifically, Johnson, Short, Chandler, and Jordan (2022) explored the strategies employed by contentpreneurs, those whose business models center the monetization of social media content. Additionally, Roccapiore and Pollock (2022) discussed strategies that social media fitness influencers use to grow traffic to their pages and eventually gain clients. By illuminating the manner in which viewers' biases shape their openness to this form of instruction, the present study creates an entry point through which scholars can understand the full implications of entrepreneur-generated YouTube instruction.

### **3.1 Literature Review**

#### **3.1.1 Entrepreneurial Passion**

The scholarship on entrepreneurial passion identifies the construct from an intrapsychic lens as well as through one that defines entrepreneurs' passion through the experiences of third parties. Researchers have asserted that the nonverbal and behavioral indicators observed by others reflect entrepreneurs' passion for their work (Chen, Yao & Kotha, 2009). According to Bhansing et al. (2017), social proximity and frequent interaction facilitate the transfer of entrepreneurial passion. Even for those who are not entrepreneurs themselves, but the employees of entrepreneurs, long-term exposure to their passionate founders are associated with both positive affect and affective commitment (Klaukien, Shepherd, & Patzelt, 2013). Studies

examining others' perceptions of entrepreneurs' passion through video footage have mainly been restricted to the perceptions of investors. For example, Shane, Drover, Clingingsmith, and Cerf (2020) found an association between the passion that entrepreneurs expressed in their pitches and their ability to win the eye of informal investors. Moreover, Warnick et al. (2021) found that venture capitalists and angel investors consider both passion for entrepreneurship and product passion important for investment decisions. In this context, Li et al. (2017) created another other-report scale that could be applied specifically to the area of crowdfunding.

As stated above, however, even very brief displays of entrepreneurial passion can induce the same type of positive reaction in individuals. This can be seen in Chen and colleagues' (2017) observation of the positive affect engendered in raters after seeing passionate entrepreneurs in video snippets. The authors suggest that when potential financiers watch introductory videos for crowdfunding campaigns, they are prone to automatically mimic passion-related nonverbal cues and verbal expressions, causing the projected passion to "catch fire". Considering the attractiveness of entrepreneurial passion, scholars contend that witnessing highly passionate entrepreneurs positively impacts others through the process of emotional contagion (Davis et al., 2017).

The entrepreneurship literature has long been a space where the issue of gender has been acknowledged as it relates to psychological and social outcomes. This can be seen in studies ranging from entrepreneurial intentions to self-efficacy (Elliott, Mavriplis & Anis, 2020; Wilson, Kickul & Marlino, 2007). However, the research using entrepreneurial passion theory has done very little in the way of exploring possible gendered differences in its development or implications. In their review, Murnieks, Cardon, and Haynie (2020) found that 86% of empirical articles used gender as a control variable, disregarding any potential use of a main effect or



moderator. As such, the authors set out to understand the extent to which gender influences the development of harmonious passion as well as obsessive passion. They argued that due to the promotion of autonomy and independence attached to societal masculine stereotypes, men tend to pursue activities which align with these ideas and thus have a more harmonious entrepreneurial identity. On the other hand, they argued that because women seek out meaningful connections and may value relationships more than men, their passion is more externally motivated and thus more likely to be obsessive in nature. These findings align with prior studies asserting that gender stereotypes around entrepreneurship are internalized and influence the role of entrepreneurial passion on business decisions (Dalborg, von Friedrichs & Wincent, 2015).

### **3.1.2 Gender Role Congruity Theory**

Unlike sex, gender does not reflect biological differences, but instead reflects a social construct that is expressed as defined prescriptions about how both men and women should think and behave (Anselmi & Law, 1998). The resulting stereotypes typically attach characteristics to women such as compassion, agreeableness, and value for relationships; men are often ascribed characteristics like individualism, leadership, competitiveness, and agency (Eagly, 1987).

Gender role congruity theory contends that these gender stereotypes color the way we process information and serve as heuristics for decision-making (Heilman, 2001). Thus, information is received more favorably when individuals' behaviors align with stereotypical gender roles (Eagly & Karau, 2002). In other words, when injunctive norms (e.g., what men and women are expected to do) are incongruent with descriptive norms (e.g., what men and women actually do), individuals' behaviors are seen as less acceptable and thus, others will demonstrate disapproval of such behavior. Importantly, gender role congruity theory research shows that both men and women subscribe to these gender stereotypes (Rudman and Phelan, 2008).

When applied to the business world (a traditionally masculine space), the framework suggests that women are more penalized than men in most circumstances. Although the opposite is true in some cases (Anglin et al., 2022), the penalization of women is more pronounced because women are almost always operating in spaces that are considered masculine (Carli & Eagly, 1999). Ritter and Yoder (2004) posited that even when women have agentic qualities such as dominance, the misfit between masculinized job demands and societally enforced stereotypes lessens the likelihood of them effectively engaging the necessary role.

Because the theory hypothesizes that the incongruence of women engaging in traditionally masculine activity intensifies biased perceptions, it may be helpful in explaining why women are marginalized in entrepreneurial spaces. Gender stereotypes can impact the way women's abilities and competencies are assessed in entrepreneurial contexts (Buss, 1989). Being that entrepreneurship is traditionally understood to be a male-dominated activity (Gupta, Turban, Wasti & Sikdar, 2009), stereotypical biases against women can result from stakeholders. Gender bias is a prejudice that is "fundamental in the structuring of society" (Jennings and Brush, 2013, p. 667). It has contributed to disparate levels of engagement in entrepreneurship between men and women globally (Kelley, Bosma, & Amorós, 2011), and to the hesitancy among stakeholders to trust the financial capacity for women's ventures (Constantinidis, Cornet, & Asandei, 2006). However, women may attain just as much funding as men when they emphasize gender-congruent traits such as trustworthiness (Greenberg and Mollick, 2017; Johnson et al., 2018). According to Yang, Kher, and Newbert (2000), this represents a scenario in which gender bias does not result in harmful prejudice against women working in a masculine context.

### **3.1.3 Gender and Entrepreneurship**

Over the last four decades, self-employment has become an increasingly appealing career option for individuals hoping to find more flexible lifestyles while increasing their income (Yadav & Unni, 2016). Formerly thought of as being a man's space, women have also flocked to entrepreneurship. In fact, the entrepreneurial activity of women is on the rise in many male-dominated sectors (Kuschel, 2019). In reaction to this gender boom, scholars have devoted substantial amounts of effort toward understanding how entrepreneurship impacts men and women differently.

At the present moment, the literature is filled with examples of how women face barriers on various fronts compared to men (Eddleston & Powell, 2008). For one, they encounter biases in access to finance and have more demanding credit terms when they get approved (Malmström et al., 2018). As a result of being perceived as less entrepreneurial due to the lower ability to attract finance (Brush, De Bruin, & Welter, 2009), women tend to have smaller ventures and work with less capital compared to men (Johnstone-Louis, 2017). As it relates to dealing with other entrepreneurs, research has shown that women are marginalized in entrepreneurial networks and ecosystems and are more likely to be locked out away from valuable resources and knowledge (Ozkazanc-Pan & Muntean, 2018). Professional networks are found to be stronger for men (Véras, 2015). Thus, external stakeholders are likely to work with men's businesses rather than women's. Some locales have gone to explicitly building women-friendly cross-industry networks in order to connect women with business proprietors that facilitate inclusion (Singh, & Jena, 2021).

As individuals can be judged less harshly for complying with gender norms, we face the question of what types of scenarios might be seen as gender congruent for entrepreneurs. When

people view themselves at a fundamental level through an individualized lens, they are more likely to emphasize autonomy and put less focus on relationships and connectedness (Josephs et al., 1992). Research shows that across culture, entrepreneurs show more individualism and masculinity (Hayton & Cacciotti, 2013). These qualities are reflected perhaps more in the literature on entrepreneurial mindset than anywhere else. The concept of entrepreneurial mindset refers to a constellation of qualities consisting of self-confidence, optimism, forward-lookingness, and resilience (Wach, Stephan, Gorgievski, & Wegge, 2020), a set of psychological traits that emphasize individual agency and de-emphasizes the contributions of others to one's entrepreneurial success (Jones, 2014). The idea of self-sufficiency is reflected in popular conceptions of entrepreneurship. In this context, much emphasis has been placed on a traditional form of competition. This comes along with a preoccupation with control and domination instead of more traditionally feminine approaches like sharing, and trust (Wikhamm & Knights, 2013).

One area in which competition is most heavily embraced is in entrepreneurial innovation. Scholars have shown how the idea of innovation is gendered, having a strong underlying masculine connotation (Nählinder, Tillmar, & Wigren, 2012). This connotation and gendered constructions of innovation are reproduced in different domains throughout the venture (Alsos, Ljunggren & Hytti, 2013). Given that women tend to possess interdependent self-construals that emphasize social interrelatedness (Cross & Madson, 1997), it would be logical for gender stereotypes to treat women less harshly for focusing on areas of the entrepreneurial journey that highlight relationships. When considering the relationships that become the most vital for entrepreneurial success, perhaps we can look no further than those with external stakeholders like financiers and customers. Skills in building and managing relationships is an innate outgrowth of communal thinking. It can be very useful in developing new ventures and building

successful brands (Sumanasekara, 2020). Perhaps there is no more important relationship that a small business owner can have that is more important than that shared with one's employees.

Cliff, Langton and Aldrich (2005) asserted the idea of femininity in employment relationships. In this context, small firms headed by women express more attentiveness and responsiveness to the needs of employees. Rather than impartially applying rules, these firms are attentive to the specific needs of individual employees.

### **3.1.4 Agentic and Communal Communication**

The two terms agentic and communal stem from the societal categorization of different industries into traditionally masculine and feminine based on if these professions emphasize benefitting the self (agentic) as opposed to benefitting others (communal) (Tellhed, Bäckström, & Björklund, 2018). According to Cross, Bacon, and Morris (2000), men are more likely to define themselves by what separates them from others rather than what connects them to others. The individualistic worldview which is more prevalent among men determines the value of one's contribution by how it benefits oneself and not how others receive benefit from it (Brewer & Gardner, 1996). This social understanding is often projected into how we interpret and define the roles of others. As such, women are socially assigned the role of "caretaker" because of their communal communication (e.g. emphasis on helping others). They are expected to emphasize relationships over individual gains (Powell & Eddleston, 2013). This role is incompatible with the agentic behaviors typically expected from men (e.g. emphasis on attaining status) (Hmieleski & Sheppard, 2019).

In the context of entrepreneurship, women are expected to be mainly concerned with noneconomic issues like work-family balance, employee relationships, and the management of stakeholder concerns that can distract from venture performance (Zampetakis, Bakatsaki,

Kafetsios, & Moustakis, 2016). When women entrepreneurs deviate from these traditional gender norms, they are often perceived less favorably (Carli & Eagly, 2011; Eddleston, Ladge, Mitteness, & Balachandra, 2016). Agentic and communal communication (i.e., interest in status and demonstrating skill vs interest in helping others and serving community) have been extracted from speech and written to determine individuals' inclination (Bender, Woike, Burke, & Dow, 2012).

### **3.1.5 YouTube and Contentpreneurship**

Social media offers informal entrepreneurial learning for budding entrepreneurs wishing to figure out the ins and outs of business ownership. More specifically, YouTube, the world's most frequented website, represents a space where knowledge seekers can receive low-cost instruction. Being created in February 2005, YouTube acts as the world's primary online video sharing site. The web-based platform is free, and anyone can become a registered user. With a sound internet connection, any user can upload a video.

Beyond looking at these presenters just as individuals who happen to discuss entrepreneurship, contentpreneurs are entrepreneurs that directly or indirectly monetize their social media content as a part of their business models (bin Ahmad, 2022; Johnson et al., 2022). Contentpreneurs are those who monetize their content on-platform income (i.e., revenues generated directly through the platform) and off-platform income (i.e., revenues earned outside of the platform). For contentpreneurs that sell their entrepreneurial knowledge, satisfied viewers can potentially buy courses, e-books, one-on-one coaching sessions, and other types of products and services that will teach them how to similarly start and/or manage a business of their own. The presenter-viewer dynamic can be compared to a salesperson-buyer dynamic. Thus, the emphasis is on the viewer endorsing the passion of the presenter. In a sense, viewers' positive

responses act as a type of currency that these entrepreneurs can convert into real currency eventually. The user-generated format of the platform offers an alternative to traditional media by allowing individuals to create and share materials. However, biases are still an issue. YouTube's popular videos and channels lack as much cultural and gender diversity as traditional television networks (Kietzmann et al., 2011; Wotanis & McMillan, 2014). Less than a tenth of the most subscribed channels in 2013 featured women (Szostak, 2013). Gender imbalances on the platform give way to hostilities that can ostracize and intimidate women (Wotanis & McMillan, 2014).

## **3.2 Theory and Hypotheses**

### **3.2.1 Passion and Viewer Favorability**

According to emotional contagion theory, which states that communicators can automatically and unconsciously unify emotionally through mimicry and afferent feedback (Barsade, 2002), the excitement and passion that social media influencers express in their content can have a contagious effect on the excitement and enthusiasm of viewers. Although the perceptions that YouTube viewers have of video content are not exclusively driven by emotional contagion, causing them to ignore the production quality of the video or skill of the creator, viewers' reactions are heavily swayed by the video's expressed emotion, and often end up being positive when positive emotions are aroused (Rosenbusch, Evans, & Zeelenberg, 2019).

In the context of audio/video viewership, perceived entrepreneurial passion results in contagious emotional states (Li et al., 2017). Here, emotion refers to one's physiological arousal, internal drive, and full engagement in activity of interest (Perttula, 2003). In addition to the passionate content of their words and phrases, entrepreneurs videos' can communicate their own emotional orientation for a given topic through nonverbal cues such as facial expressions, vocal

tones, or even body language (Warnick et al., 2021). Exposure to entrepreneurs' strongly expressed passion can lead to equivalent changes in viewers' emotional states by way of subconscious automatic mimicry and synchronization (Hatfield, Cacioppo, & Rapson, 1994). When individuals engage in this mimicking behavior, they invite the first-hand experience of the other party's emotions through the physiological feedback from their initial responses (Breugst, Domurath, Patzelt, & Klaukien, 2012). Being an action inspiring positive emotion itself, the entrepreneurial passion expressed in videos can arouse similar types of positive emotions in viewers such as feelings of joy and zeal. Upon watching the video, such emotions may be reflected in viewers' immediate behavioral responses. This positive affective state can serve as a motivation for individuals to express approval of the video or its creator by liking it, or by leaving a comment with a positive tone.

Beyond looking at creators of entrepreneurship-related YouTube videos only as influencers, we must see them as contentpreneurs. Similarly, rather than seeing those who view these videos as ordinary entertainment seekers, they must be considered consumers of entrepreneurial knowledge. Because learning can be aided by using these mood enhancers (Mohanty, Pratihari, & Suar, 2015), the ability to use one's passion to bring the consumer into a positive emotional state has strong implications for the success of the creator. Thus, the extent to which their interests are piqued, and enthusiasm is generated during the viewing process, viewers' appreciation for the presenter may be expressed through positive comments. Given this stated logic, I predict the following:

**Hypothesis 1:** *Entrepreneurial passion will be positively associated with favorable viewer responses.*



### **3.2.2 Passion and Favorable Viewer Responses Across Genders**

The tendency of viewers to approve of men's expressed passion over that of women may stem from a deep-seated stereotype surrounding gender and entrepreneurship: men are generally more competent as entrepreneurs.

As expressed earlier, budding entrepreneurs can visit YouTube to consume information about processes with which they are unfamiliar. In doing so, individuals will naturally seek out content creators that appear to be the most knowledgeable about the topic of interest. Perceived competence consists of an observer's thoughts on a presenter's ability, intelligence, creativity, skill, and efficacy (Fiske, Cuddy, & Glick, 2007). Judgments on competence influence the extent to which observers recognize entrepreneurs' abilities to actualize their motives and ambitions (Cuddy, Glick & Beninger, 2011). Given the unpredictable nature of business ownership, those seeking entrepreneurial knowledge do not only want to learn from individuals that they feel are the most competent (Hina, Saqib & Khan, 2019), they look for appropriate role models they can trust, respect, and in whose footsteps they can follow (Ferreto, Lafuente & Leiva, 2018).

Expressed passion can convey lower competence when the expectations of a stakeholder is violated (Schwarte, Song, Hunt, & Lohrke, 2023). Because we use heuristics for processing information about people, our preconceived notions about what men and women can do, cannot do, and should do, filter the way we see, hear, and understand their actions and intentions (Heilman, 2001). Research conducted across social science disciplines has asserted that entrepreneurship is commonly understood as a traditionally masculine endeavor (Gupta et al., 2009). This social assumption is informed by many stereotypes, including those which assert men as more competent and more successful. Indeed, men are largely seen as being more knowledgeable entrepreneurs than women (Thébaud, 2015). Furthermore, the assumption that

men are more successful than women legitimates their high entry into entrepreneurship even in the face of research indicating that women are more motivated and sometimes more successful in small business ownership, than men (Liu, Schøtt &, Zhang, 2018). Given these findings, it is logical to conclude that the stated gender stereotypes cloud the judgment of YouTube viewers of both genders, impacting the way they interpret the expressed passion of creators, as well as their expressed appreciation of the videos. More specifically, influenced by the gendered bias of men being more competent and suitable for providing entrepreneurial instruction, I predict that the expressed entrepreneurial passion of men will be received as more legitimate than that of women. Consequently, viewers will be more likely to be swayed by men's expression of passion than women's, and communicate their differential appreciation for such passion in comment valence and likes.

**Hypothesis 2:** *Passion expressed by men will result in more favorable viewer responses than passion expressed by women.*

### **3.2.3 Gender, Favorable Viewer Responses, and Agentic and Communal Content**

Beyond suggesting how gender roles shape the lenses through which we perceive entrepreneurs' actions, a major contribution of the current study is its explanation of how social gender roles impact how we receive and respond to the behaviors of contentpreneurs based on their congruity with stereotypical gender roles. Gender role congruity theory brings attention to the ways gendered stereotypes impact the manner in which individuals' actions are perceived by others (Eagly & Karau, 2002). Research has asserted that behaving in compliance with prescribed gender roles typically yields social benefits, while behaving in contradiction to these roles can yield social backlash (Bolino & Turnley, 2003). For example, Anglin, Courtney, and Allison (2022) found that men who violated role expectations by pursuing social ventures

received less crowdfunding capital than men who pursued commercial ventures. This is due to the gendered expectation that men be more concerned with profit than social impact. Conversely, women are seen in a more favorable light when they highlight social impact in their business plans as compared to when they do not (Lee & Huang, 2018). This is due to the gender role expectation that women's ventures incorporate a communal concern.

Without taking into account within-person differences, the penalization of women is more pronounced because women entrepreneurs are almost always operating in spaces that are considered masculine (Carli & Eagly, 1999). Masculinity is typically associated with agentic qualities such as dominance and independence (Ritter & Yoder, 2004). As such, women, who are expected to prioritize harmonious relationships, may be judged harshly. However, there exists variation in the extent to which even women who choose the entrepreneurial domain endorse and express gender incongruent characteristics. In fact, although entrepreneurship is typically characterized as a competitive and solitary journey, successful business owners of both genders must balance both agentic and communal aspects of managing the enterprise (Hmieleski & Sheppard, 2019). Although it may be true that entrepreneurs of different genders may prefer certain entrepreneurial activities more than others, the fact that women must always be cognizant of the signals they present to stakeholders (Clarke & Healey, 2022) illustrates that, in order to gain a competitive advantage, one must have a requisite level of proficiency in both the agentic and communal aspects of entrepreneurship. However, overtly expressing interest or passion in either aspect can result in social rewards or punishments depending on if it is socially expected or not.

Given the contagious nature of expressed passion in entrepreneurship-related videos (Warnick et al., 2021), it is to be expected that presenter passion yields more viewer positivity

when the presenter's content follows gendered expectations (i.e., men speak in an agentic manner and women speak in a communal manner). If entrepreneurs are judged harshly for deviating from gender stereotypes in their videos by those seeking entrepreneurial knowledge, the degree to which one looks less favorably upon these gender norm violators this should be reflected in engagement with the video content.

Given that dominance, competition, and individual agency is expected of men in business, logic would indicate that viewers would punish the incongruity they see when men are lower in agentic communication. Similarly, because relationship building is expected from women in the business world, those who discuss entrepreneurship in a less communal way would expect to be punished for their incongruent behavior. Fig. 2.1 displays the conceptual model for the study:

**Hypothesis 3a:** *Passion expressed by men whose communication style is highly agentic will receive more favorable viewer responses than that from men whose communication style is less agentic.*

**Hypothesis 3b:** *Passion expressed by women whose communication style is highly communal will receive more favorable viewer responses than that from women whose communication style is less communal.*

### **3.3 Methods**

#### **3.3.1 Data Collection**

The current study follows the precedent of understanding the effectiveness of social media entrepreneurs by analyzing their videos in connection with the reactions of stakeholders on the platform (Mei & Genet, 2022). Given that YouTube offers a vast array of entrepreneurs to

study, the current data collection method was intended to provide variety concerning topics, personality types, and communication styles. Although a video's topic does not necessarily indicate the communication style that is likely to be used, I anticipated that including videos on a wide range of topics would create variance in the linguistic orientation of the sample's videos. Thus, the initial pool of videos was identified by a diverse set of entrepreneurial YouTube channels.

Channels were searched using the term "entrepreneurship" along with keywords associated with various topics that might reflect different communication styles (competition, innovation, and entrepreneurial mindset for agentic; and managing employees, engaging with stakeholders, and work-family balance for communal). Competition is the rivalry between businesses that operate in activities that produce or sell goods or services (Basalamah, Syahnur, Ashoer & Bahari, 2020). These channels pertaining to competition were searched with terms such as: "beat\* the competition", "beat\* your competitors", "strategy", and "advantage". Innovation is seeking out new ways of doing business and looking for differentiated products and services to introduce to the market (Alsos et al., 2013). These channels were searched with terms such as: "innovat\*", "creat\*", and "pivoting". Entrepreneurial mindset refers to an ideological approach that emphasizes self-confidence, optimism, forward-lookingness, and resilience (Wach et al., 2020). Channels concerning entrepreneurial mindset included: "entrepreneurial mindset", "mindset", "state of mind", "confidence", "grit", and "resilience". Managing employee relationships includes implementing processes to effectively handle all employee interactions such that they achieve the goals of the organization (Ritesh & Mehrotra, 2015). These channels were searched with terms such as: "motivat\* employees", "hiring", "managing people", and "retain\* employees". Stakeholder engagement refers to communicating with, involving, and

developing relationships with stakeholders (Nair, 2020). Channels related to entrepreneurs' stakeholder engagement were searched with terms such as: "stakeholder", "build\* relationships", "cultivat\* relationship", "engag\*", "community building", and "collab\*". Work-family balance refers to balancing one's time between work and family such that they satisfy their roles equally (Greenhaus, Collins, & Shaw, 2003). These channels were searched with terms such as: "work-family balance", "balance", and "work and family".

Using the method described above, I selected channels with 500 or more subscribers, at least one video posted during 2022, located in the US, and owned by a single person instead of a group, organization, or institution. This brought my initial pool of channels to 1,019. Next, iterative coding was conducted with a research assistant to weed out channels whose owners did not fit the definition of a contentpreneur as described above. We used the channel's "About" section and its latest five videos to determine whether channels met this criteria. We examined the material separately and had acceptable intercoder reliability at  $\alpha = 0.835$ . Differences were discussed in reference to nonidentical instances, and a decision was made as to who were contentpreneurs and would have their channel retained. Lastly, I excluded channels with a significant proportion of videos that were in interview or podcast formats. Specifically, if more than 15% of the channel's videos used these formats, the channel was excluded. The final pool consisted of 302 channels. To construct the final sample of 3,020 videos, I selected the 10 latest from each of the 302 channels. I note that if a video did not follow a structure in which the contentpreneurs's face was shown prominently and consistently, I took the next latest video from that channel.

I downloaded the videos using a Python script and used the Google API to collect each video's title, transcript, description, number of likes and dislikes received, number of views, and

number of comments received. I also collected the latest top-line comments (up to 50) associated with each video for further analysis.

### **3.3.2 Variables**

#### **3.3.2.1 Independent Variable**

*Entrepreneurial passion* was assessed by three different expressions of presenter passion: (1) the verbal dimension, (2) the vocal pitch dimension, and (3) the facial dimension. All three passion variables were mean centered to minimize issues with interpretability due to differences in scaling.

*Verbal Passion* used transcribed text of the videos. I converted each presentation's audio into a text transcription via speech-to-text conversion using the GoogleCloud API and measured them in the speech corpora with the 'Joy' value of the NRC Emotion Lexicon Tool (Mohammad & Turney, 2010).

*Vocal Passion* was measured by passing the audio files through the Aubio python module. The voice analysis measures the pitch and tone of .mp4 audio files.

*Facial Passion* was captured using a python script that scraped a sample of images at thirty frames per second for each video. After identifying embedded human faces, the emotion recognition algorithm from Google Cloud Vision's API analyzed the raw images and assigned a 'Joy' value.

#### **3.3.2.2 Moderating Variables**

*Gender* was determined through independent coding between a research assistant and myself. It was conceptualized as a dichotomous variable (man/ woman). When the two independent ratings were initially compared, there was 100% agreement on the gender of the 302

contentpreneurs. Thus, no further coding was conducted. Where applicable, presenter self-identification was used to verify gender.

*Agentic Communication and Communal Communication* were captured with the dictionaries in the LIWC program designed by Pennebaker, Booth, and Francis (2007). The software compares each word in a certain group of text with the existing categories of a programmed dictionary, adjusting for the frequency count (Bender et., 2012). To calculate videos' agentic and communal communication styles, I ran the transcripts through each dictionary (Pietraszkiewicz et al., 2018) and got continuous agentic and communal scores. Here, it is important to clarify that the study does not consider gender to be a personality trait. It intends to distinguish between men's and women's use of agentic communication, a linguistic orientation that is traditionally associated with men and masculinity, as well as communal communication, which is traditionally associated with women and femininity. These variables were mean centered to minimize issues with interpretability due to different scaling among variables.

### **3.3.2.3 Dependent Variables**

The dependent variables were all intended to capture, to varying degrees, viewers' responses to the videos. They were assessed by: (1) comment sentiment, (2) normalized likes, and (3) the likelihood of a video's comments to belong to the positive topic. These variables were mean centered to minimize issues with interpretability due to different scaling among variables.

*Comment Sentiment* was measured with the positive sentiment attribute from the NRC Emotion Lexicon Tool (Mohammad & Turney, 2010).



*Normalized Likes* was calculated by collecting the number of likes a particular video received and dividing that number by the video's number of views.

For a particular video's comments, the *Likelihood of Comment Belonging to The Positive Topic* was captured through a topic modeling approach. After the text of the comments was collected and pre-processed, themes were extracted from the corpus using Latent Dirichlet allocation (LDA; Blei et al., 2003). This approach is used to identify unobserved latent meanings present within large sets of textual data. It assumes that each collection of data possesses a unique combination of latent or unobserved topics within its structure. In order to create a measure of viewership, I looked at the probability that a given video's comments belong to certain topics and noted whether the comment was from a man's or woman's video, as well as its levels of agentic or communal communication. I initially tested different numbers of topics and evaluated them based on their coherence scores. More specifically, I trained a model to optimize the coherence score using a range of topics from 2 to 15. The optimal model was accomplished at six, providing a good balance between topic interpretability and coherence ( $C_v=0.543$ ). The finalization of the topic interpretations included a brief review of comments with the highest topic-specific loadings. Though Table 3.1 summarizes all six topics, I identified Topic 2 as being particularly positive, containing terms such as 'thank', 'love', and 'appreciate'.

#### **3.3.2.4 Control Variables**

Several controls were used in the analyses to account for qualities of contentpreneurs, their videos, and their received comments that have the potential to affect viewers access and responses to the content. As stated previously, the final sample of 3,020 videos were taken from 302 contentpreneurs' YouTube channels. Thus, in a sense, the video-level patterns are nested within larger channel characteristics, As such, controlling for official channel statistics is

essential for minimizing biases in user engagement and interaction which are artifacts of the contentpreneur's channel (Oh & Choeh, 2022). The following details the study's five channel-level controls. They were mean centered to minimize issues with interpretability due to different scaling among variables.

*Channel Age* was captured by counting the number of days between the date of the channel's creation and March 1<sup>st</sup>, 2023. *Channel Subscribers* is defined as the number of the channel's subscribers at the time of data collection. *Channel Video Count* is defined as the number of the channel's total posted videos at the time of data collection. *Channel View Count* is defined as the number of the channel's total view count at the time of data collection. *Industry* was captured through coding between myself and a research assistant. We categorized contentpreneurs' channels into 24 different industry categories based on the particular business type or specialized content that the channel focused on. For the 302 channels, the most common industries (aside from "general" n = 190) were e-commerce (n= 26), business finances (n= 21), and branding/marketing (n=11).

The next three control variables are at the video-level: (1) video views, (2) video length, and (3) number of comments. These variables were mean centered to minimize issues with interpretability due to different scaling among variables.

*Video Views* is defined as the number of total views the video received at the time of data collection. Views reflect the exposure and reach of a video. Thus, controlling for views can increase certainty that the influence of the study variables on viewer reactions is not confounded by the effects of video popularity.

*Video Length* was measured in minutes and captured through the Google API. Longer videos can both dissuade viewers looking for quick answers while providing more opportunities

for others to engage with the content (Park, Naaman, & Berger, 2016). Thus, controlling for video length minimizes the risk of attributing these variations in viewer preference to the differences in engagement could be mistakenly attributed to inherent gender disparities rather than the length of the videos.

*Number of Comments* is defined as the total number of comments received by the video at the time of data collection. Controlling for it standardizes an element of user interaction and engagement with the video.

### **3.3.3 Statistical Procedures**

The models used to test the conceptual model differ in the DV that they use to assess viewer responses. Each of the models used moderation and assessed the interactions between the continuous IV (passion), moderators (gender, agentic communication, communal communication), and the respective DV. All regressions were conducted at the video level of analysis.

### **3.4 Results**

The next section presents results from various analyses conducted at the video level. By first reporting descriptive statistics and correlations in Table 3.2, I hoped to uncover some initial insights about the basic characteristics of the sample as well as some notable relationships among the study variables. This initial information provided the groundwork for the in-depth explorations of the data that are discussed going forward. For example, in looking at the gender of channel owners (contentpreneurs), women displayed less verbal, vocal, and facial passion than men as well as more communal communication. Men had more subscribers, channel views, and channel videos. Although correlations were small overall, VIFs were examined. They showed a

value range of 1.324 to 6.700 with a mean VIF of 3.466. This falls below the rule of thumb (O'Brien, 2007), suggesting that multicollinearity was not a concern among the study variables.

### **3.4.1 Verbal Passion**

Verbal passion, or the passion extracted from video transcripts was entered into analyses as a continuous variable. As can be seen in Table 3.3, it had positive and statistically significant relationships with comment sentiment ( $\beta = 0.148$ ,  $p = 0.012$ ; Model 2). This relationship was not significant when predicting normalized likes ( $\beta = 0.012$ ,  $p = 0.321$ ; Model 2 in Table 3.4). However, when analyzing the association between videos' verbal passion and the probability of their comments belonging to the positive topic, the result was positive and significant ( $\beta = 0.114$ ,  $p < 0.01$ ; Model 2 in Table 3.5). These findings lend support to Hypothesis 1's prediction that verbal passion is positively related to viewers' favorable responses.

Verbal passion was next used to test Hypothesis 2, which asserts that passion expressed by men will result in more favorable viewer responses than that expressed by women. Interestingly, women received more positive comment sentiment than men, while men received more normalized likes. Table 3.3 shows a non-significant interaction between passion and gender when predicting comment sentiment ( $\beta = -.014$ ,  $p = 0.340$ ; Model 3), while Table 3.4 shows a positive and significant interaction between passion and gender when predicting normalized likes ( $\beta = 0.477$ ,  $p = 0.019$ ; Model 3). This finding suggests that at least in the case of receiving likes on their videos, men fare better as their passion increases. Regarding the link between gender and the likelihood of videos' comments belonging to the positive topic, analyses showed significant interaction effects between passion and gender ( $\beta = -0.037$ ,  $p < 0.01$ ; Model 3 in Table 3.5). The aforementioned findings provide support for Hypothesis 2 when the outcome variable is normalized likes and likelihood of belonging to the positive topic. Figs. 3.1 and 3.2

present the effects of verbal passion and gender in predicting comment sentiment and normalized likes, while Fig. 3.3 shows the interactions in predicting the probability of video's comments belonging to the positive topic.

Hypothesis 3a stated that men's videos will receive more favorable viewership when their passion is expressed through agentic communication. Relatedly, Hypothesis 3b asserted that the favorable viewership of women's videos comes when their passion is expressed through communal communication. These predictions were tested using moderated moderation models. As can be seen in Tables 3.3 and 3.4, the interaction terms between verbal passion, gender and agentic communication is non-significant for the model predicting comment sentiment ( $\beta = 0.009$ ,  $p = 0.432$ ; Model 4 in Table 3.3) as well as the model predicting normalized likes ( $\beta = -0.553$ ,  $p = 0.729$ ; Model 4 in Table 3.4). Table 3.3, which predicts comment sentiment, has a non-significant interaction term for verbal passion, gender and communal communication ( $\beta = -0.008$ ,  $p = 0.926$ ; Model 5). However, the three-way interaction was significant when predicting normalized likes ( $\beta = 0.034$ ,  $p < 0.01$ ; Model 5 in Table 3.4). This finding aligns with the illustration from Fig. 3.2 showing that for all women, higher verbal passion tended to yield less normalized likes. However, for highly communal women, these negative effects were buffered. When looking at the likelihood that viewers' comments belong to the positive topic, Table 3.5 shows a non-significant effect for one three-way interaction ( $\beta = -0.014$ ,  $p = 0.258$  for Model 4) but a significant effect for the other ( $\beta = 0.016$ ,  $p = 0.020$  for Model 5). These findings provide no support for Hypothesis 3a, but support for Hypothesis 3b when normalized likes and likelihood of belonging the positive topic were the outcome variables.

### 3.4.2 Vocal Passion

Vocal passion, or the passion extracted from video's audio files was entered into analyses as a continuous variable. Table 3.6 displays a coefficient for the relationship between vocal passion and comment sentiment that is not significant ( $\beta = 0.018$ ,  $p = 0.705$ ; Model 2). A non-significant association was also found for the relationships between vocal passion and normalized likes ( $\beta = 0.013$ ,  $p = 0.615$ ; Model 2 in Table 3.7). However, the relationship was significant between vocal passion and the likelihood of video's comments belonging to the positive topic ( $\beta = 0.031$ ,  $p < 0.01$ ; Model 2 in Table 3.8). These findings support Hypothesis 1.

Regarding Hypothesis 2, the results from each linear regression analysis yielded a non-significant interaction between gender and vocal passion (Model 3 in Table 3.6 ( $\beta = 0.027$ ,  $p = 0.316$ ) and Model 3 in Table 3.7 ( $\beta = 0.022$ ,  $p = 0.531$ )). However, support for Hypothesis 2 can be taken from the finding that gender influences the relationship between vocal passion and the likelihood of video's comments belonging to the positive topic. Table 3.8 shows this in the two-way interaction ( $\beta = 0.086$ ,  $p < 0.01$ ; Model 3). Fig. 3.6 shows that the probability increases for men with more vocal passion but decreases for women.

Support for Hypotheses 3a and 3b would suggest that the magnitude of gender's impact on the relationship between vocal passion and viewers' favorable responses is strengthened by gender congruent communication styles. The interaction terms for all but one linear models were non-significant ( $\beta = -0.003$ ,  $p = 0.540$  for Model 4 in Table 3.6;  $\beta = -0.054$ ,  $p = 0.754$  for Model 5 in Table 3.6;  $\beta = .052$ ,  $p = 0.552$  for Model 4 in Table 3.7; and  $\beta = 0.063$ ,  $p = 0.015$ ; Model 5 in Table 3.7). The likelihood of having positive comments was lower for women with highly communal communication ( $\beta = 0.029$ ,  $p = 0.031$ ; Model 5 in Table 3.8). Fig. 3.6 illustrates that men with high agentic communication stood a better chance of eliciting positive comments.

Taken with the results from Model 4 in Table 3.8 ( $\beta = 0.043$ ,  $p < 0.01$ ), Hypothesis 3a seemed to be supported when the outcome variable was the likelihood of a video's comments belonging to the positive topic while Hypothesis 3b was supported for this outcome variable as well as normalized likes.

### **3.4.3 Facial Passion**

Facial passion, extracted from videos by facial recognition software, was entered into several analyses as a continuous independent variable. The regression results show that in one of the two linear models, the relationship between facial passion and viewer response was significant ( $\beta = 0.030$ ,  $p = 0.806$ ; Model 2 in Table 3.9 and  $\beta = 0.041$ ,  $p = 0.046$ ; Model 2 in Table 3.10). There was a non-significant effect in the logistic regression model assessing the degree to which videos with higher facial passion elicit comments related to the positive topic ( $\beta = 0.014$ ,  $p = 0.381$ ; Model 2 in Table 3.11). Overall, these findings provide support for Hypothesis 1 when normalized likes is taken as the dependent variable.

Results showed that the facial passion x gender interaction was not significant when predicting comment sentiment ( $\beta = -0.032$ ,  $p = 0.761$ ; Model 3 in Table 3.9) or normalized likes ( $\beta = -0.009$ ,  $p = 0.217$ ; Model 3 in Table 3.10). It was however significant when predicting the likelihood of having positive comments ( $\beta = 0.021$ ;  $p = 0.025$ ; See Model 3 in Table 3.11). Thus, concerning Hypothesis 2, the prediction that facial passion yields more favorable viewership for men than for women was only supported when the dependent variable was the likelihood of a video's comments belonging to the positive topic.

Hypothesis 3a asserts that the facial passion of highly agentic men would garner higher levels of comment sentiment than those of low agentic men. The coefficient from Model 4 in Table 3.9 does not support this hypothesis ( $\beta = -0.09$ ;  $p = 0.577$ ). Similarly, the three-way

interaction was not significant when predicting normalized likes ( $\beta = 0.002$ ,  $p = 0.252$ ; Model 4 in Table 3.10). However, Table 3.11 and Fig 3.9 show that when predicting the likelihood of a video's comments belonging to the positive topic, more agentic men fare better than their low agentic counterparts ( $\beta = 0.033$ ,  $p < 0.01$ ; Model 4). This finding supports Hypothesis 3a.

Hypothesis 3b, which asserts that the facial passion of highly communal women yields more favorable viewership than that of low communal women, was supported when predicting comment sentiment ( $\beta = -0.047$ ,  $p = 0.039$ ; See Model 5 in Table 3.9 and Fig. 3.7), but not supported when predicting normalized likes ( $\beta = 0.002$ ,  $p = 0.679$ ; Model 5 in Table 3.10), or the likelihood of a video's comments belonging to the positive topic ( $\beta = 0.005$ ,  $p = 0.761$ ; Model 5 in Table 3.11).

### **3.5 Discussion**

The current study proposed, in line with emotional contagion and gender role congruity theories, that the verbal, vocal, and facially detected passion expressed in contentpreneurs' YouTube videos has significant implications for the type of feedback they receive from viewers via comments and likes. The emotional contagion framework has been utilized in previous entrepreneurship studies but has not received much consideration in research looking at social media influencers (Davis et al., 2017; Lee & Theokary, 2021). Given that the theory assumes the projected emotion of an entrepreneur to be salient enough in the viewing experience that it is reflected by the observer, the current application benefits from looking directly at the real-life engagement of YouTube viewers. For contentpreneurs, these interactions form the basis of monetization strategies. Thus, it is pivotal to know what animates viewers' positive responses. In addition to its novel use of YouTube videos as a data source, which creates an entry point for scholars to understand fuller implications of contentpreneur-generated content (Johnson et al.,



2022), the current study offers several theoretical contributions. Previous literature has examined cases in which women are harmed or helped by using particular forms of speech in the business context (Anglin et al., 2022). The current study incorporates this framework into the passion literature, a space that has yet to consider whether passion can be a negative if expressed in the wrong form. By introducing communication style (agentic and communal), this essay describes potential scenarios in which the expression of passion can work against entrepreneurs. This presents boundary conditions for the argument that expressed passion always yields success.

Drawing from gender role congruity theory, the study also examined the roles of gender and communication style in enhancing or diminishing the quality of viewer engagement. Upon initial analysis of the data, it became clear that women and men have distinct experiences as YouTube entrepreneurs. For example, men's entrepreneurship-related channels had more subscribers, more channel views, and more posted channel videos on average. This mirrors the general underrepresentation and underpatronization of women entrepreneurs (Ahl, 2006; Shinnar, Hsu, Powell, & Zhou, 2018). Secondly, women expressed less verbal, vocal, and facial passion than men on average. Lastly, women expectedly tended to use more communal communication in their videos.

The analyses revealed that passion had a positive association with favorable responses; this was particularly in the case of verbal passion. These findings support the main hypothesis and underscore the fact that entrepreneurs looking to increase viewer engagement should work to express entrepreneurial passion through their vocabulary. It may certainly be the case that branding for some entrepreneurs requires a high degree of antagonistic, dramatic, or humorous language in order to spur increased product interest through sarcasm, shock or concern. In general, however, passionate vocabulary is going to perform better in creating positive emotional

contagion with one's audience. As it relates to positive comments sentiment, much of what is being captured in the words of the commenters can be thought of as mirroring the contentpreneuers' passionate language.

The second thrust of this study's analyses concern potential differences in the way viewers responded to women's passion versus that of men. As discussed earlier, women are often penalized for operating in the business context (Carli & Eagly, 1999). Even when they display domain-specific expertise and competence, generally accepted stereotypes can still act as barriers to success (Ritter & Yoder, 2004). Keeping in mind that entrepreneurship is typically seen as a masculine endeavor, and that men may get more praise for engaging in this gender congruent activity, I hypothesized that their expressed passion would result in more likes and comment positivity. The results of the study suggest that this finding was true in part. Indeed, men received more normalized likes as passion increased while women received less. However, women saw an increase over men when it came to comment sentiment.

There may be several reasons as to why women receive more positive comments than men but receive less video likes. One potential explanation may involve the tendency for viewers to subconsciously maintain gendered hierarchies through their choice of video feedback. Social role theory (Eagly, Wood & Diekmann, 2000) proposes that when gender roles are internalized, individuals take steps to preserve the status quo. Therefore, even in the case of women responding to the videos of other women, verbal support and praise for their content may be more about praising the person than about validating her as an entrepreneur. If comment positivity functions as a performative symbol, viewers can demonstrate support for gender equality in the entrepreneurship space without validating the actual content of the video. Likes on the other hand, may be used as more of a legitimate stamp of approval for men's content that

represents a substantive validation of his ideas as an entrepreneur instead of a praise of his personhood. In this context, giving women positive comments without liking their content may act to maintain the perceived superiority of men in the entrepreneurial space.

Drawing further from gender role congruity theory, the present study makes the assertion that when men express their passion through a highly agentic mode of communication, they receive more positive viewership than their low agentic counterparts. In the case of facial passion, the more a man matched it with agentic communication, the more his comments fell into the positive topic. This observation was the opposite for women. Perhaps the visible expression of joy in men's faces when speaking about their successes and opinions inspires confidence, trust and excitement in the mind of the viewer. This may not be the case for women, who are not expected to visibly show passion about their own exploits and personal gains. When assessing the verbal expression of passion, it could be seen that women benefit from higher levels of communal communication. Although Fig. 3.2 shows that as a whole, women received less likes as their passion increased, those with higher levels of communal communication fared better than their low communal counterparts. Going back to the possibility that likes represent a substantive validation of one's entrepreneurial content, perhaps highly communal communication is more effective for women in garnering likes because emphasizing communal values demonstrates that a woman is a trustworthy caretaker as opposed to an independent troublemaker.

### **3.5.1 Limitations and Future Directions**

This study has several limitations that warrant mentioning. Firstly, the study utilized actual YouTube comments and likes. This has the benefit of showing real-world responses in a naturalistic context. However, such an approach does not allow for the establishment of causal

relationships or for manipulation checks. Future studies can incorporate controlled experiments that allow such affordances. Using controlled designs would also give researchers the capacity to gather a broader range of information in follow-up questions.

Secondly, investigating comment content could provide very valuable insights. In this study, I extracted six different topics, but only used one. A deeper exploration of comment topics may tell us more about the factors that motivate viewer engagement. Future research should improve on this study's use of text, pitch, and videometric measures. Although the current tools contributed to the analysis, exploring and comparing the reliability of alternative tools is critical for the continuation of research conducted in this vein.

Lastly, the generalizability of the findings may be limited by the specific sample. As YouTube is a vast library of entrepreneurial knowledge with new teachers joining every day, it is nearly impossible to analyze all YouTube contentpreneurs in a meaningful way. Still, the current method of data collection relied heavily on manual utilization of YouTube's search field which can be skewed due to the site's algorithm. Going forward, researchers should use more advanced modes of data collection.

### **3.5.2 Conclusion**

This current study provides support for the assertion that the passion of contentpreneurs, as expressed through verbal, vocal, and facial communication in their YouTube videos, influences the way that viewers comment on and like their content. Derived from gender role congruity theory, it develops boundary conditions through which we can understand how the gendered expression of passion shapes its receivability. The findings contribute to research on gender in entrepreneurship as well as literature on the emotion contagion effect of social media

content in general and that of contentpreneurs in particular. Further research can help clarify other factors that may result in favorable viewership.

#### **Chapter 4: Passion and Networking Activity in the Crowdfunding Context**

Entrepreneurship is a high-risk endeavor in which founders invest immense amounts of time, energy, and financial capital with the hopes of seeing exceeding returns. To procure the funds necessary to successfully launch or maintain their ventures, entrepreneurs often leverage their relationships with friends, family members, and loosely related associates (Chung, Li, & Jia, 2021). Venture-related failures and setbacks can harm one's reputation with these funders, and jeopardize the social capital embedded in such relationships (Cai, Polzin & Stam, 2021).

Still, the untapped resources within these connections can make it worthwhile to re-engage one's digital network after past failure, especially for those with either particularly strong faith in the businesses or high levels of belief in themselves (Stevenson, Ciuchta, Letwin, Dinger, & Vancouver, 2019). For those who turn to crowdfunding methods for injections of capital, the probability of being perceived as a failure can be even more present. For one, "failure", as defined in crowdfunding, is not raising the desired amount on the platform during one's campaign (Cassar, 2004). Although campaign generated capital is often required for entrepreneurs to expand their ventures (Cosh, Cumming, & Hughes, 2009), failing to obtain it is separate from running out of operating capital or being forced to dissolve one's entity. However, entrepreneurs who do not meet their funding goals can be seen as failing in the public's eyes even if their businesses are still doing well. Because failing to reach one's projected fundraising goal is a public ordeal, and over half of campaigns are unsuccessful (Mamonov & Malaga, 2018), the small portion of entrepreneurs that return to these platforms to launch subsequent campaigns (Fan-Osuala, 2021) may be animated by particular beliefs about themselves and the resources they have access to. According to De Hoe and Janssen (2022), confidence and social capital are two types of resources that are critical for taking a positive approach to failure and employing one's resources to recover from such entrepreneurial setbacks.

Entrepreneurial passion has been associated with entrepreneurial persistence (Feng & Chen, 2020), as well as network building (Ho & Pollack, 2014). Still, researchers have yet to explore the extent to which passionate entrepreneurs look to their social networks for resources in their journeys. At its core, modern entrepreneurship is a networked activity. Founders with the capacity to grow and navigate digital communities stand the greatest chance of procuring the financial, social, and human capital necessary for venture success (Davidsson & Honig, 2003). Whereas social media usage was once reserved exclusively for marketing purposes, entrepreneurs' adoption of digital platforms has increasingly been connected to various business functions, including fundraising (Olanrewaju, Hossain, Whiteside, & Mercieca, 2020). Not only has the entrepreneurial finance literature highlighted how the digital connectedness of startups increases funds raised from traditional institutional investors (Banerji & Reimer, 2019), it points to how the dissemination of information across social networks gives way to successful crowdfunding campaigns (Vrontis, Christofi, Battisti, & Graziano, 2020).

Perhaps one of the most fruitful skills in terms of digital crowdfunding is the ability to effectively engage with diverse social networks. Not only does a strong digital presence help founders connect ordinary users to their goods and services across platforms with the click of a button (Guo, Wang, Wu, & Goh, 2021), the virality of strategically employed social media content enables information about one's campaign to reach distant networks, creating the broad visibility and excitement necessary for successful fundraising (Popescul, Radu, Păvăloaia, & Georgescu, 2020).

With the construction and maintenance of online social networks being pivotal to the success of crowdfunding campaigns, researchers have spent a great deal of energy exploring the personal factors that contribute to founders' effectiveness in these areas. Because of its

associations with both social networking behaviors and crowdfunding success, entrepreneurial passion is a factor that has received considerable attention. Ho and Pollack (2014) found, for example, that passion is a driver of network centrality and financial performance for entrepreneurs. Other studies, like that from Li et al. (2017), have focused on the positive impact of externally expressed passion in founders' campaign-related social media content.

Because scholars have been mostly interested in understanding which factors predict the success of any given crowdfunding campaign, the literature has paid close attention to founders' social behaviors during, and immediately preceding the launch of their campaigns (Vanacker, Vismara, & Walthoff-Borm, 2019). As a result, the current scholarship has largely failed to comment on the behaviors of founders after or even between their crowdfunding campaigns. However, some recent research has indicated noticeable changes in entrepreneurs' digital identities and footprints following venture failure (Fisch & Block, 2021). In failing to explore the networking behaviors of founders after the conclusion of their campaigns, I contribute to the larger research gap concerning the aftereffects of crowdfunding failure. Furthermore, failing to explore entrepreneurs' behaviors after their crowdfunding campaigns limits the extent to which we can understand how their personal qualities and characteristics (such as entrepreneurial passion) may influence their post-failure networking behaviors.

To understand how entrepreneurial passion impacts the propensity to launch a subsequent crowdfunding campaign after a previously unsuccessful campaign, I tested a model that combined campaign-related data from Kickstarter, a leading crowdfunding platform in the US, with social network-related data from Twitter, one of the world's largest social media platforms. I utilized entrepreneurial self-efficacy and conservation of resources theory to frame the relationships between affective passion and venture-related tweets after unsuccessful Kickstarter



campaigns. In particular, I was interested in knowing how the passion found in pre-failure posts related to the confidence within post-failure posts. Moreover, I looked at the moderating effect of network size as a means of lowering concern for failure over and above the internal resources of persistence and confidence. My hypotheses suggest that passion facilitates the type of confidence in one's entrepreneurial abilities that enables individuals to engage confidently with potential funders on Twitter, and that this confidence is enhanced by the social capital locked within those Twitter followings.

The current study contributes to the crowdfunding literature in two ways. First, it builds on research connecting social media networks and crowdfunding success. Increased access to social media data has created room for a burgeoning scholarship which moves beyond traditional self-reporting and compares social platforms in order to understand the impact of digital social capital on crowdfunding outcomes (Hoang & Yi, 2015). However, this research has mainly focused on network density (Banerji & Reimer, 2019) and underestimated the tone with which actors engage such networks as potential predictors of crowdfunding launches.

Secondly, the study contributes to the scholarship by looking at founders' behaviors after the conclusion of unsuccessful campaigns. Recent years have seen an increased focus on post-failure actions taken by entrepreneurs (Vanacker, Vismara, & Walthoff-Borm, 2019). However, this research has looked primarily at the circumstances surrounding initial failure. For example, Stevenson, Allen, and Wang (2022) found that cues from the crowd suggesting market potential stimulates persistence both through affective activation and cognition-based action intentions. Also, Fan-Osuala (2021) found that marginal failure in the first campaign led to a higher likelihood to launch a subsequent crowdfunding campaign as well as a shorter turnaround time. Focusing on the qualities of the entrepreneur, the findings from this study may illuminate

entrepreneurs' engagement with their social networks as a key component in the post-failure decision making process. The degree of failure an entrepreneur experiences affects their subsequent response to entrepreneurial failure.

## **4.1 Literature Review**

### **4.1.1 Entrepreneurial Passion**

The deep positive feelings that passionate entrepreneurs possess for their ventures hold many implications for how they respond to the challenges of business ownership, as well as how they engage in interpersonal relationships with stakeholders. Over the past 15 years, scholars have cited many cases in which entrepreneurial passion relates to or contributes to entrepreneurial persistence and eventual success during times of difficulty. Specifically, researchers have found that entrepreneurial passion stimulates various behaviors that aid in the survival of ventures (de Mol, Cardon, de Jong, Khapova, & Elfring, 2020). Perhaps one of the most cited constructs linking entrepreneurial passion to entrepreneurial success is persistence (Hsu, Shinnar, & Powell, 2014). Beyond the impact that entrepreneurial passion has on entrepreneurs' intrapsychic qualities, scholars have noted that venture success is also aided by the way passionate entrepreneurs deal with external stakeholders. For instance, entrepreneurial passion is known to relate to initiating social connections in the entrepreneurial journey (Ho & Pollack, 2014). These connections can lead to other types of resources, as those high in entrepreneurial passion tend to extract from them different types of resources that aid in supporting and developing their ventures (Warnick et al., 2021). Furthermore, entrepreneurial passion can potentially increase venture success through contagion effects which extend from the focal entrepreneur to stakeholders (Murnieks et al., 2016). This can even be seen in employees

that offer more effort and goal commitment to passionate employers (Hubner, Baum, & Frese, 2020).

#### **4.1.2 Passion and Persistence**

Early on in the entrepreneurial persistence literature, the construct of persistence was typically defined as a personality trait (Baum & Locke, 2004). However, contemporary scholarship views the continuing pursuit of entrepreneurial opportunities in the face of adversity as a function birthed from a combination of personal and contextual factors (Caliendo, Goethner, & Weißenberger, 2020). Regarding its individual-level factors, entrepreneurial passion is a heavily cited antecedent of entrepreneurial persistence and performance (Feng & Chen, 2020). As an example, Xia, Han, & Zhang (2020) found that entrepreneurial passion led to entrepreneurial perseverance and subsequent venture performance. According to Cardon et al. (2013), entrepreneurial passion inspires founders to persist through and overcome obstacles that act as barriers to performance. This unwillingness to part from one's venture may stem from the centrality of the entrepreneurial identity that comes natural to those high in passion (Cardon & Kirk, 2015; Hoang & Gimeno, 2010). Mueller, Wolfe, and Syed (2017) also asserted that entrepreneurial passion increases the likelihood of entrepreneurs persevering in the face of challenges because they have a stronger sense of entrepreneurial identity. This causes them to be more determined in their goals, and more willing to put in further time and effort. As such, when positive emotions align with one's unwillingness to compromise the entrepreneurial identity, responses to challenges are informed by a deep sense of inspiration which breeds perseverance (Izard, 2009).

Scholars have also argued that entrepreneurs are better able to experience positive feelings during moments of difficulty because of a sense of confidence that they feel in

themselves (Li et al, 2020). This enables passionate entrepreneurs to pursue new opportunities (Cardon & Stevens, 2009), and it is through these efforts that they meet their goals and perform better than those with low self-efficacy (Breugst et al., 2012; Xia et al., 2020). Entrepreneurial passion increases individuals' risk tolerance and motivation (Stroe et al., 2018). As such, entrepreneurial passion may enhance entrepreneurs' motivation to develop confidence as an internal resource that is conducive to the promotion of their entrepreneurial activities.

#### **4.1.3 Confidence as an Entrepreneur**

Confidence in one's overall abilities is generally referred to as self-efficacy (Zhao et al., 2005), and takes on a more specific definition when manifested in certain domains in one's life, or to particular parts of the self that are most salient to one's identity. In terms of its usage in the entrepreneurship literature, self-efficacy relates to the perception that one will be successful in a particular aspect of self-employment even in the face of challenging circumstances (Cardon & Kirk, 2015). The construct has received attention among researchers because of its capacity to shape a broad array of outcomes including entrepreneurs' activities, goals, persistence, and ultimate performance (Newman, Obschonka, Moeller & Chandan, 2021). Self-efficacy is characterized by the strong belief that an individual has to execute certain tasks. Outside of one's personal abilities and competencies, it represents an internal motivator (Bong & Clark, 1999). Self-efficacy stems from social cognitive theory (Bandura, 1986). It reflects an individual's confidence in his or her abilities to deploy the motivation, cognitive resources, and courses of action necessary to execute a given task within a given context (Stajkovic & Luthans, 1998). As it relates to confidence in one's entrepreneurial abilities, research suggests that confident entrepreneurs are driven to succeed, and that this specific task belief helps them bounce back from failure more so than any general sense of self-efficacy (Trevelyan, 2011). The conviction in

one's ability to accomplish entrepreneurial success is tied to efficacy expectations, and regarding his or her entrepreneurial behaviors and capabilities. The higher the entrepreneurial self-efficacy, the more confident the entrepreneur is that they can influence the surrounding environment through their own abilities.

On crowdfunding platforms, founders typically provide far fewer updates after the completion of their campaigns (Dorfleitner, Hornuf, & Weber, 2018). However, crowdfunding entrepreneurs work earnestly to maintain their relationships with investors after successful campaigns (Li, Rakesh, & Reddy, 2016). Beyond communicating information about potential rewards, continued communication keeps the door open for future fundraising opportunities.

Confidence is a type of psychological capital that can help explain what keeps entrepreneurs interested in growing, cultivating, and engaging their social media networks after their crowdfunding campaigns, particularly if those campaigns were unsuccessful (Luthans & Youssef, 2004). Because failing to meet a fundraising goal can be a very distressing event, the tendency to focus on continually acquiring resources can help in creating a psychological buffer for unsuccessful founders, giving them an outlook which is hopeful of future success. As a result of this orientation, this group may be more likely to express a continued desire to build their networks.

#### **4.1.4 Conservation of Resources Theory**

Conservation of resources theory articulates a process through which individuals attempt to guard against the stress of potential losses by mobilizing their resources (Hobfoll, 1989). Because entrepreneurs must work to reduce the negative strain associated with the potential loss of already limited available resources such as opportunities, time, money and energy (Monsen & Boss, 2009), they look to both internal and external resources to help fulfill the demands of

competing entrepreneurial domains. The conservation of resources theory explains that those who have experienced resource loss (potential or actual) are prone to acquire, protect, and develop such resources that give a security blanket effect (Hobfoll, 1989). According to the theory, an individual resource like confidence, as well as external resources embedded in the social network of an entrepreneur affect how one is likely to engage in their entrepreneurial pursuits (Lu, Han, Wang, & Tang, 2020). Thus, one's confidence and perceived social connection can influence how he or she copes with entrepreneurial challenges and allocates resources in a way that maximizes success (Hu, Xu, Zhao, & Chen, 2022; Karatepe & Karadas, 2014).

#### **4.1.5 Crowdfunding Campaigning and Twitter Networking**

The appeal of crowdfunding is the ability to fund a venture by drawing on relatively small contributions from a relatively large number of regular individuals without the intervention of financial institutions that act as intermediaries (Mollick, 2014). Crowdfunding sites are uniquely designed social media platforms that streamline the connection between users and producers of innovative products and services. As a result of their design, these platforms lack many of the network building features found on other social media sites, the least of these being mechanisms to facilitate robust two-way communication. Therefore, the largest crowdfunding platforms make it easy for founders to connect potential backers with their profiles on other social media sites (Banerji & Reimer, 2019). Integrating funders into their existing social networks allows entrepreneurs to take advantage of the social buzz generated by these platforms (Benlian, Thies, & Wessel, 2014). As such, communicating about one's campaign on network building platforms such as Twitter may increase founders' ability to raise funds by conveying

signals that reduce information asymmetries between investors and founders which might remain present on crowdfunding sites (Löhner, 2017).

Stemming from sociology, the concept of social capital represents the actual or potential resources associated with one's network of mutual acquaintances (Bourdieu, 1986). Distinct from forms of traditional capital (e.g., financial, physical, technological) and human capital (e.g., explicit and tacit knowledge), social capital comprises various facets of relational characteristics (e.g. social networks, trust) that yield return on investment for individuals and businesses (Adler & Kwon, 2002). According to social capital theory, the building and maintenance of these social relationships are important for the accumulation of human capital, which can eventually give way to financial capital and other beneficial resources (Smith et al., 2017). Successful entrepreneurs maintain good relationships (Philippe et al., 2010) and proactively seek out fruitful network ties with others (Becker, Ebbers, & Engel, 2021). In the case of crowdfunding, scholars have noted several characteristics of founders' social media networks, including the number of founder contacts and followers (Banerji & Reimer, 2019), that have been shown to predict founders' abilities to utilize their social connectedness to raise funds. Posting about one's venture on a networking platform prior to launching its associated crowdfunding campaign is a form of proactive network building intended to cash in on their digital social capital (van Burg, Elfring, & Cornelissen, 2021). As such, the tone, tenor, and frequency of these posts shows a mechanism through which entrepreneurs exploit the resources acquired from their networks.

#### **4.1.6 Launching Subsequent Crowdfunding Campaigns After Failure**

Because the resource loss associated with an unsuccessful crowdfunding campaign can significantly increase the odds that a founder deliberately decides to discontinue the venture (Rossi, Vanacker, and Vismara, 2022), crowdfunding researchers have looked at the various

motivational factors that can explain why individuals choose to engage in subsequent projects after failure. Additionally, the literature has begun to explore some of the reasons that these campaigns can be more successful than initial attempts. Regarding situational factors, Piening, Thies, Wessel, and Benlian (2021) found that marginal failures (near misses) in initial campaigns increased the likelihood of launching subsequent campaigns. They also found that being close to the initial goal created greater urgency for launching a second campaign. Other scholars have chosen to look at resources acquired by the entrepreneur. Buttice, Colombo, and Wright (2017), for example, suggested that the social capital built up in relationships with prior backers accounted for some of the success of serial crowdfunders. Using an entrepreneurial learning perspective, Yang and Hahn (2015) asserted that success was most influenced by direct learning. As such, they also posited that initial success may have a negative effect on subsequent crowdfunding experiences. More recent studies have paid more attention to the nonfinancial affective needs that founders may seek to meet in post-failure persistence. For example, Rossi et al. (2022) found that the solely financial view is less dominant with owners of family businesses and that their persistence after crowdfunding failure is more heavily influenced by social and emotional well-being.

## **4.2 Theory and Hypotheses**

### **4.2.1 Pre-failure Affective Passion and Post-failure Networking Activity**

Research has asserted entrepreneurial passion's positive influence on entrepreneurial self-efficacy (Neneh, 2020; Norena-Chavez & Thalassinou, 2022), as well as its tendency to increase entrepreneurs' confidence in their abilities to navigate setbacks and find new opportunities (Xie, Chen, & Ye, 2016). The relationship between entrepreneurial passion and entrepreneurial self-efficacy may lay in the former's ability to sway entrepreneurs' emotions and self-concepts.



Latham and Pinder (2005) asserted that strong positive affinity can affect individuals' efficacious expectations.

According to Fredrickson (1998), when sitting in positive emotions, people's thoughts and actions are broadened and they build repertoires of personal resources. Conversely, negative emotions end up narrowing individuals' thinking, causing them not to reach for cognitive resources that can empower them. Being that negative emotions are connected to survival responses developed early in human evolution (Fredrickson, 2000), they are not conducive to the development of perspectives that orient toward hope of and confidence in long-term survival and comfort. As such, positive emotions specifically added to the types of personal resources like self-efficacy, can be called upon as an emotional buffer to the challenges of life (Aspinwall & Taylor, 1997; Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000). Furthermore, related positive emotions may be important in building up other mental capital constructs such as mental flexibility and efficiency in learning (Carmona-Halty, Salanova, Llorens, & Schaufeli, 2019). For entrepreneurs, passion can improve entrepreneurial role recognition, help maintain optimism and positive attitudes that stimulate their sense of self-efficacy (Feng & Chen, 2020). Given the connection between positive emotions and the development of self-efficacy, the importance of entrepreneurial passion as a source of positive emotionality becomes central.

Beyond the security that it can instill, entrepreneurial passion can motivate feelings, moods, and emotions that connect very deeply to individuals' personal identities. As such, those who experience passion regarding entrepreneurship also tend to take great pride in the fact that they are entrepreneurs (Xie et al., 2016). As a result of this, they may be more willing to psychologically protect this identity, particularly as a defense against perceived failure. Although the research specifically conceptualizing entrepreneurial passion as an antecedent to

entrepreneurial self-efficacy is sparse, the above application suggests that the relationship exists and that having more passion for entrepreneurship can naturally lead to a sense of self-efficacy that is robust to failures and setbacks. Due to its ability to inspire founders to persist through and overcome obstacles (Cardon & Kirk, 2015; Mueller et al., 2017), I also hypothesize the following:

**Hypothesis 1:** *Affective passion in pre-failure venture-related tweets will be positively related to confidence in post-failure venture-related tweets.*

**Hypothesis 2:** *Affective passion in pre-failure venture-related tweets will be positively associated with a greater likelihood of relaunching a subsequent campaign.*

#### **4.2.2 Confidence, Post-failure Networking, and Subsequent Campaigning**

Psychological states themselves are valuable personal resources for entrepreneurs (Runyan, Huddleston & Swinney 2007). Entrepreneurs that are more confident are more courageous in their decision making and are more likely to succeed (Hu et al., 2022). Self-efficacy also stands as a trait that influences the ways individuals allocate their time, finances, and other resources. When one believes that he or she has the mental fortitude and capacity to overcome difficulties, he or she will be much more likely to engage in the risky behavior. In the crowdfunding context, deciding to launch after previous failure shows a type of persistence which entails continuation of entrepreneurial effort and action despite failures, impediments, or threats (Gimeno, Folta, Cooper, & Woo, 1997).

Scholars have asserted that when one has a strong belief in his or her ability to succeed at a certain task, the willingness and motivation to act is increased (Bacq et al., 2017). Having confidence that you will indeed be able to traverse a range of serious unforeseeable challenges can result in more risk-taking. For example, Al Issa (2021) found that entrepreneurial self-

efficacy and optimism had positive effects on entrepreneurial success and that persistence and risk-taking mediated the relationships.

Conviction in future success can be etched into an entrepreneur's thought process even without much objective evidence to support it. This is because people are motivated by their perceptions of their personal abilities, and those perceptions may not align with any objective measures of them. Prior research suggests that it is perception which plays the most important role in driving the willingness to engage in subsequent behaviors (Wilson et al., 2007). Or as expressed by Wood & Bandura (1989), perceptions decisively influence one's approach to goals, tasks, and challenges.

Considering the importance of individual perceptions, theory would suggest that confident individuals feel they have the ability to prevent failure from occurring in the future. This aligns with the findings from Coffee, Rees, and Haslam (2009) who showed how, when aiming to bounce back from failure, strong personal self-efficacy facilitated an enhanced sense of one's ability to easily change the circumstances that led to previous failures.

As entrepreneurs' reactions to venture-related setbacks can be gleaned from their digital communications (Fisch & Block, 2021), perceptions that lean toward continued firm viability may be reflected in the confident tone of their social media posts. Thus, I would suspect that the self-confidence expressed in entrepreneurs post-failure venture-related tweets will be associated with entrepreneurial persistence. Given this, I predict the following:

**Hypothesis 3:** *Confidence in post-failure venture-related tweets will be positively associated with a greater likelihood of relaunching a subsequent campaign.*

### **4.2.3 Moderating Role of Twitter Following**

Faced with a great deal of uncertainty, the evaluation of future business opportunities relies on internal factors like individual's beliefs as well as their assessment of the favorability and desirability of the action they have in mind (Davari, Emami, Ramadani, & Taherkhani, 2018). Entrepreneurs are motivated to look at their social networks for feedback on what they intend to offer in the marketplace (Emami & Khajeheian, 2018). This allows them to interpret, sort through, and translate their initial ideas into action (Yin & Jahanshahi, 2018). As the potential in their social networks represent an important external resource for those intending to seek funds, the confident entrepreneur may recognize tapping into this resource as a way to protect the desired outcome from being lost.

Acting as a means to obtain desired outcomes, conservation of resources theory would suggest that both internal and external resources are instrumental in determining how individuals appraise and respond to changes in their work environments. Although both forms are critical, the theory suggests that external resources (such as the size of one's Twitter following) play a greater role in shaping one's perceptions of safety and risk to personal characteristics (Hobfoll, 2002). This means that although the internal experience of self-efficacy enhances individuals' abilities to manage and utilize external resources while under the threat of resource loss, obtaining one's desired outcome can be heavily dependent upon possession of the external resources that individuals need to employ (Ciby & Sahai, 2020).

Building on the conservation of resources theory, the social capital inherent in entrepreneurs' Twitter networks may strengthen their confidence in and hope for subsequent crowdfunding success. This aligns with literature asserting that the environment plays a strong role in shaping behavior (Ajzen, 1991). Fig. 2.1 displays the conceptual model for the study.

**Hypothesis 4:** *The relationship between post-failure confidence and the likelihood of relaunching will be moderated by the size of the founder's Twitter following such that those with larger followings will have a greater likelihood of relaunching.*

## **4.3 Methods**

### **4.3.1 Data Collection**

The data collection strategy for this study was designed to construct a panel data set consisting of entrepreneurs' social media communications before and after their first campaign failures on Kickstarter. To capture a large enough pool of usable data, campaigns were collected spanning from 2014 to 2022. The data set includes users that experienced their first failure during this period, and either launched no further campaigns or returned to Kickstarter to launch one or more subsequent campaigns. These data were collected from various industry categories and included up to two projects, even if the campaign creator had more. Wanting to ensure that the data were restricted to the entrepreneurs who failed and either relaunched or not within the 8-year span of the study, I excluded founders whose first failure was during the last year of the time frame. In addition to collecting the fundraising goal amount, I tracked the degree to which campaign creators failed in their first campaigns (percentage raised of total goal). I excluded those campaigns with missing Twitter information connected to the Kickstarter profile. I then collected outcome data on the number of donors, the amount raised, and the campaign duration and termination date. I only used profiles that were in English.

The final sample consisted of 553 unsuccessful campaigns with a total of 73 subsequent relaunches (13.2% of total failures). In terms of procuring Twitter data, I collected original venture-related tweets from the primary founder up to one year before launching the failed campaign. I then collected those same users' tweets between the failure date and one year after

failure (or the date of relaunch). I again only used tweets that were in English. This resulted in a total of 3,056 tweets from 553 users. 2,377 of the tweets were published before failure (4.3 per user), and 679 were published between initial failure and one year after (or until relaunch where applicable). Tweets were pulled using the rtweet package in R.

## **4.3.2 Variables**

### **4.3.2.1 Independent Variables**

*Pre-failure Affective Passion* was extracted from tweets with the ‘Joy’ attribute from the NRC Emotion Lexicon Tool (Mohammad & Turney, 2010). This was defined as the intense positive feelings in an individual’s tweets about his/ her venture (tweets that addressed an element of the business) prior to the failure.

### **4.3.2.2 Mediating Variable**

*Confidence in Post-failure Tweets* was measured with the LIWC linguistic metric clout. This variable indicates the level of confidence conveyed in the Twitter post (Moore, Yen, & Powers, 2021). More specifically, it shows if the user is communicating from a place of confidence and certainty or from doubt and uncertainty.

### **4.3.2.3 Moderating Variable**

*Size of Twitter Following* was recorded by extracting users’ Twitter followings as of March 2<sup>nd</sup>, 2023. The Twitter API does not provide the ability to collect information about followers retroactively or in an archived manner. Thus, the number of each users’ followers reflects their followers currently and not at the time of their initial failure or subsequent relaunch.

### **4.3.2.4 Dependent Variable**

To measure *Likelihood of Relaunching*, I assigned a 1 to a dummy variable if the entrepreneur launched a subsequent campaign within the study timeframe and a 0 if they did not.

Relaunching has been conceptualized several different ways in the crowdfunding literature (Fan-Osuala, 2021; Piening et al., 2021), but for the purposes of the current study, I define it as the likelihood of the same primary founder launching a second Kickstarter campaign on the same profile (whether for the same product or not) after the completion of the first failed campaign. I included campaigns that were not fully funded, as well as those that were not completed.

#### **4.3.2.5 Control Variables**

In terms of project-related variables, I following Moy, Chan, and Torgler (2018), controlling for *backers*, *funding goal*, *project duration*, and *category* of the project: all characteristics which impact entrepreneurs' behaviors in the crowdfunding context. I also used *percent of the funding goal raised* as a control variable, as marginal failure in a campaign can increase the chances of subsequent relaunch (Fan-Osuala, 2021).

*Backers* was defined as the total number of individuals who financially contributed at the initial project at the time of its failure.

*Funding Goal* was defined as the initial amount that entrepreneurs set as the fundraising goal for the project.

*Project Duration* was defined as the number of days elapsed between the launch of the initial campaign and its failure.

*Category* was defined as the category in which the project was placed in Kickstarter (i.e., Art, Comics, Crafts, Dance).

*Percent Raised* was defined as percentage of the funding goal that the actual amount raised represented. In the analyses, it took the form of a decimal.

*Gender* was collected through coding with a research assistant and myself. It was conceptualized as a dichotomous variable (man/ woman). Where gender of the primary

entrepreneur could not be determined (Kickstarter and Twitter profiles not identified with an individual), an ‘unidentified’ code was assigned. Our coding was first done separately. We had good intercoder reliability at  $\alpha = 0.811$  and discussed differences to decide on the same categorization.

*Ethnicity* was also collected through independent coding. The categories were White and non-White. Both the entrepreneurs’ Kickstarter and Twitter profiles were assessed. Where ethnicity could not be determined from text, images, or video, an unidentified code was assigned. We had intercoder reliability at  $\alpha = 0.695$  and discussed differences to attain agreement on categorizations.

*Tweets Favorites* was defined as the total amount of times users’ post-failure venture-related tweets were favorited divided by their total number of post-failure tweets.

*Tweets Retweets* was defined as the total number of retweets users received on their post-failure venture-related tweets divided by their total number of post-failure tweets. Favorites and retweets were controlled because of the social capital that they can represent (Faucher, 2018).

### **4.3.3 Statistical Procedures**

To test the assertion that the passion expressed in pre-failure tweets is associated with post-failure confidence, and that this confidence influences the probability of launching a subsequent campaign after initial failure, a mediated logistic regression model was used with passion entered as an independent variable and confidence as a mediator. To test the extent to which the size of one’s Twitter following impacted relaunching, this variable was included as a second stage moderator. The lack of viable Twitter information forced me to narrow the initial sample substantially. This narrowing further skewed an already imbalanced data set, and because only 13.2% (73 of 553) entrepreneurs relaunched after initial failure, the regression was



weighted. This approach assigns different weights to different observations based on their representativeness and estimates the parameters with the intention to maximize the modified log-likelihood function instead of the standard log-likelihood function (King & Zeng, 2001).

#### **4.4 Results**

Table 4.1 displays descriptive statistics and correlations for the study variables. VIFs were analyzed to determine potential multicollinearity among the predictor variables. Values ranged from 1.100 to 8.252 (mean VIF of 3.264). Being below the rule of thumb (O'Brien, 2007), multicollinearity did not appear to be a major concern for the analyses. Looking briefly at the correlation matrix, it can be seen that pre-failure tweet passion has a small, negative, and non-significant correlation with relaunch ( $r = -0.02$ ), countering my assumption and suggesting that those showing more entrepreneurial passion in their Twitter posts tend to be less likely to relaunch after their first campaign failure. Further, it can be seen that pre-failure tweet passion has a small, positive, and non-significant correlation with post-failure tweet confidence ( $r = 0.02$ ).

The first three hypotheses of this study involve the direct relationships between constructs. Hypothesis 1 asserts that the passion expressed in pre-failure tweets is positively associated with confidence in post-failure tweets. This hypothesis was not supported ( $\beta = -0.006$ ,  $p = 0.938$ ; see Model 2 in Table 4.2). The next two hypotheses specifically involve the outcome variable of interest: likelihood of relaunching. Post-failure tweet confidence did not yield a significant result ( $\beta = -0.278$ ,  $p = 0.419$ ; Model 3 in Table 4.3), while pre-failure tweet passion yielded a significant negative coefficient, contradicting the prediction ( $\beta = -2.617$ ,  $p = 0.024$ ; Model 2 in Table 4.3). These findings failed to support Hypothesis 2 and Hypothesis 3 respectively. Hypothesis 4 states that having more Twitter followers strengthens the impact of post-failure tweet confidence on relaunching such that those with larger followings will have a

greater likelihood of relaunching. In order to assess this hypothesis, we can look at the interaction term between post-failure tweet confidence and Twitter followers. Fig. 4.1 illustrates the moderation effects of Twitter followers ( $\beta = -0.010$ ,  $p = 0.045$ ; Model 3 in Table 4.3). As confidence increased, those with more followers had a lower probability of relaunching, while those with fewer followers experienced an increasing probability of relaunching. This finding counters the hypothesized direction of the relationship.

#### **4.5 Discussion**

The current study aimed to explore how passion expressed in entrepreneurs' social media communications predicts their persistence in entrepreneurial crowdfunding. More specifically, it assessed the extent to which the affective passion found in the venture-related tweets leading up to an entrepreneur's first Kickstarter failure predicted the likelihood that the entrepreneur would launch a subsequent campaign after the failure. Drawing on prior research linking entrepreneurial passion to venture persistence (Cardon et al., 2013; Feng & Chen, 2020; Xia et al., 2020), I asserted that pre-failure affective passion would be positively related to relaunching. I also predicted that it would have an indirect effect through post-failure confidence, a construct that was extracted from venture-related tweets posted after the campaign failure. My assertion that post-failure confidence leads to an increased chance of relaunching was rooted in prior research which framed self-efficacy as a type of psychological capital that could buffer campaign creators from the distress of failure and keep them engaged in acquiring future resources (Luthans & Youssef, 2004). Furthermore, the study incorporates social capital and conservation of resource theories to examine how social relationships on Twitter can bolster one's self-efficacy and affect the way one chooses to allocate resources (Lu et al., 2020; Smith et al., 2017).

Although the study's findings challenge my predictions, its incorporation of data from Twitter and examination of post-failure behavior provide valuable insights into the interplay between entrepreneurial passion, online social networks, and crowdfunding behaviors. By considering these dynamics, the study contributes to our understanding of what drives entrepreneurs to re-engage in crowdfunding after previous failure. Regarding the hypothesis linking pre-failure affective passion to relaunching, results from the analysis showed a significant negative relationship, contradicting my prediction. There may be several reasons for this result. First, the strategic adaptability of passionate entrepreneurs cannot be overlooked. A failed Kickstarter campaign may be a sign that new opportunities should be explored. One's passion and persistence may drive them to pivot and seek other forms of funding. Whereas the limited ambition of less passionate entrepreneurs can lead them to believe that returning to Kickstarter is their only option for acquiring resources, passionate entrepreneurs may be open to seeking out other sources of funding. Moreover, after experiencing Kickstarter's rigid format, passionate entrepreneurs may feel that exploring alternative funding sources can offer them more flexibility and autonomy in their entrepreneurial journey. On the other hand, less passionate entrepreneurs may be comfortable with the easy to navigate network of Kickstarter, not wanting to build one themselves.

Contradicting the prediction that confident entrepreneurs' large Twitter followings would inspire them to relaunch, the results from the analysis showed that the high rates of relaunching actually came from confident entrepreneurs with small Twitter followings. There are several explanations that can be cited for the unexpected finding. As stated by Wise and Valliere (2014), Twitter followership can represent an important proxy for entrepreneurs' social and professional connectedness. Given the time and energy that go into developing and maintaining relationships

on Twitter, entrepreneurs with a large following will likely see it as one of the richest available networks from which to extract human and financial capital. Furthermore, they may see these networks as very reliable. If campaign failure indicates that Kickstarter is not a valuable or reliable place to invest one's time and energy, cost-benefit analysis may lead one to prioritize Twitter followers over reliance on crowdfunders. This may be particularly true for individuals who prefer to cultivate relationships in communities where communication is more bidirectional. Still, even if entrepreneurs have a large Twitter followership, without confidence in their entrepreneurial abilities, they may purposefully lean more to utilizing crowdfunding websites where they may not be exposed to as much social reticule via bidirectional communication.

Entrepreneurs with small social networks are at a strategic disadvantage (van Burg et al., 2021). Compared to their competitors, they do not have access to a great deal of human resources which can be leveraged into financial capital. As such, returning to Kickstarter after previously having undergone the discomfort of failure may be an option most often considered by this group. When considering how to proceed after failure, poorly connected entrepreneurs must ask important questions about the viability of relaunching. Those with confidence in their entrepreneurial abilities may believe that the campaign failure was due to external factors. They may in turn feel like with only minor adjustments, they will gain subsequent Kickstarter success. Thus, they may be more likely to see relaunch as an opportunity to leverage the crowdfunding platform to compensate for their limited social connections. Conversely, those with very little confidence in their entrepreneurial abilities may see the venture itself as being fundamentally flawed. Believing that these flaws will render any future campaign a failure, entrepreneurs with low confidence and small networks may elect not to return to Kickstarter and instead look to other means of funding.

#### **4.5.1 Limitations and Future Directions**

While the current study sheds light on the relationships between entrepreneurial passion, entrepreneurial confidence, and relaunching after a failed crowdfunding campaign, several limitations should be acknowledged. First, while the study assumes that the passion and confidence extracted from the tweets only measure attitudes about the business and its products, there is a possibility that these variables capture general aspects of the entrepreneur's personality. The use of multi-method approaches can help future research determine the psychological origin of entrepreneurs' expressed passion and confidence.

Second, the current study had an imbalanced sample. This was due to the rarity of relaunching (Fan-Osuala, 2021). Moreover, unavailability of Twitter data shrunk the data set substantially and may have introduced further bias. These factors have the potential to impact generalizability. Though I attempted to address the imbalance through a weighted regression analysis, it should be stated that such statistical techniques may not fully account for issues regarding imbalanced samples.

Third, the study looks at pre-failure passion without assessing the effects of post-failure passion. Likewise, it assesses post-failure confidence without considering the potential impact of pre-failure confidence. Future research interested in these constructs can use cross-lagged designs to compare passion and confidence before and after failure. Doing so will allow researchers to control for the stability of the variables across time. Also, the analysis of cross-lagged relationships can give insight into the directionality of the relationship between constructs.

Fourth, the study's conceptualization of persistence looks only at the entrepreneur's continued use of Kickstarter crowdfunding. Though returning to Kickstarter indeed indicates

persistence, it represents a very specific type. The study does not capture whether the venture thrives or dissolves after failure, nor does it measure any offline strategies entrepreneurs use to fund their activities. Future research could address this limitation by capturing the long-term outcomes of ventures that relaunched. Moreover, it can attempt to understand the effectiveness of different funding strategies by exploring interactions between online and offline efforts.

Lastly, when assessing online crowdfunding activity, future studies may analyze all of the different social media platforms utilized by the entrepreneur to see whether he/she drops all social media-based fundraising after Kickstarter failure, or just shifts focus to a different platform that is more compatible with his/her marketing strategy.

#### **4.5.2 Conclusion**

As crowdfunding becomes an increasingly viable avenue for procuring entrepreneurial funding, the centrality of online social networks is more apparent now than ever before in the entrepreneurship literature. Contradicting the predicted effects of pre-failure passion and Twitter followership size, the current findings offer insight into the potential factors that go into the choice to relaunch after initial crowdfunding failure.

## **Chapter 5: Overall Conclusion of Dissertation Research**

Entrepreneurial passion is a dynamic and multifaceted construct that is influenced by various internal and external factors and can be expressed in a myriad of ways. Social media platforms and online communities provide entrepreneurs with connectivity and access to global audiences. This presents opportunities to cultivate relationships, garner support, and extract value from virtual connections in an unprecedented way. However, to maximize the resources inherent in these connections, entrepreneurs must have a virtual footprint that is perceived as passionate.

This dissertation sets a template for future research to explore the expression and development of entrepreneurial passion in the context of social media interactions. It highlights the mechanisms through which passion is cultivated, perceived, and reciprocated to various stakeholders in virtual spaces. Studying these virtual relationships can provide valuable insights for practitioners and policymakers alike. Moreover, studying the development and expression of entrepreneurial passion on digital platforms sets a precedent for the future examination of how passion expressed in online environments can enhance entrepreneurs' offline experiences. Not only can this research help entrepreneurs navigate the difficulties presented by social media, but it can also ultimately provide insight into entrepreneurs' ability to build networks, attract resources, and drive positive outcomes.

In conclusion, understanding the expression and development of entrepreneurial passion in online and digitally mediated spaces necessitates flexible data-driven approaches. As scholars look deeper into entrepreneurial passion in the digital age, and the use of unstructured data becomes increasingly important, we can expect new insights and discoveries that will shape our understanding of passion in entrepreneurship.

## References

- Adams, G. A., King, L. A., & King, D. W. (1996). Relationships of job and family involvement, family social support, and work–family conflict with job and life satisfaction. *Journal of Applied Psychology, 81*(4), 411.
- Adams, N. (2022). ‘Scraping’ Reddit posts for academic research? Addressing some blurred lines of consent in growing internet-based research trend during the time of Covid-19. *International Journal of Social Research Methodology, 1-16*.
- Adler, P. S., & Kwon, S. W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review, 27*(1), 17.
- Ahl, H. (2006). Why research on women entrepreneurs needs new directions. *Entrepreneurship: Theory and Practice 30, 595*.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes, 50*(2), 179.
- Al Issa, H. E. (2021). Psychological capital for success: The mediating role of entrepreneurial persistence and risk-taking. *Journal of Entrepreneurship in Emerging Economies, 14*(4), 525.
- Alsos, G. A., Ljunggren, E., & Hytti, U. (2013). Gender and innovation: State of the art and a research agenda. *International Journal of Gender and Entrepreneurship, 5*(3), 236.
- Anglin, A. H., Kincaid, P. A., Short, J. C., & Allen, D. G. (2022). Role theory perspectives: Past, present, and future applications of role theories in management research. *Journal of Management, 01492063221081442*.
- Anselmi, D. L., & Law, A. L. (1998). *Questions of gender: Perspectives and paradoxes*. Boston: McGraw Hill.
- Arregle, J. L., Batjargal, B., Hitt, M. A., Webb, J. W., Miller, T., & Tsui, A. S. (2015). Family ties in entrepreneurs’ social networks and new venture growth. *Entrepreneurship Theory and Practice, 39*(2), 313.
- Arshad, M., Farooq, O., & Afzal, S. (2018). The role of entrepreneurship education in developing a passion for business. *Global Business and Organizational Excellence, 38*(1), 15.
- Aspinwall, L. G., & Taylor, S. E. (1997). A stitch in time: self-regulation and proactive coping. *Psychological bulletin, 121*(3), 417.
- Audretsch, D. B. (2021). Have we oversold the Silicon Valley model of entrepreneurship? *Small Business Economics, 56*(2), 849.



- Bacq, S., Ofstein, L. F., Kickul, J. R., & Gundry, L. K. (2017). Perceived entrepreneurial munificence and entrepreneurial intentions: A social cognitive perspective. *International Small Business Journal*, 35(5), 639.
- Bandura, A., (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs: Prentice-Hall.
- Banerji, D., & Reimer, T. (2019). Startup founders and their LinkedIn connections: Are well-connected entrepreneurs more successful? *Computers in Human Behavior*, 90, 46.
- Bao, J., Zhou, X., & Chen, Y. (2017). Entrepreneurial passion and behaviors: opportunity recognition as a mediator. *Social behavior and personality: An international journal*, 45(7), 1211.
- Baum, J. R., & Locke, E. A. (2004). The relationship of entrepreneurial traits, skill, and motivation to subsequent venture growth. *Journal of Applied Psychology*, 89(4), 587.
- Baum, J. R., Locke, E. A., & Smith, K. G. (2001). A multidimensional model of venture growth. *Academy of Management Journal*, 44(2), 292.
- Basalamah, J., Syahnur, M. H., Ashoer, M., & Bahari, A. F. (2020). Consumer behavior in online transportation services: A systematic review of business strategies. *Ilomata International Journal of Management*, 1(3), 134.
- Barrera, M. (1986). Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology*, 14(4), 413.
- Becker, K., Ebberts, J., & Engel, Y. (2021). Social Networks and Entrepreneurial Passion: Selection or Contagion?. In *Academy of Management Proceedings*, 1, 12357. Academy of Management.
- Bender, M., Woike, B. A., Burke, C. T., & Dow, E. A. (2012). The relationship between implicit and explicit motives, goal pursuit, and autobiographical memory content during a diary study. *Journal of Research in Personality*, 46(4), 374.
- Berger, E. S., Von Briel, F., Davidsson, P., & Kuckertz, A. (2021). Digital or not—the future of entrepreneurship and innovation: Introduction to the special issue. *Journal of Business Research*, 125, 436.
- Bhansing, P. V., Hitters, E. & Wijngaarden, Y. (2017). Passion inspires: Motivations of creative entrepreneurs in creative business centres in the Netherlands. *The Journal of Entrepreneurship*, 27(1), 1.

- bin Ahmad, M. F. (2022). Contentpreneur: How can social media contentpreneurs (SMC) monetize on Youtube? Innovating education for a better tomorrow. *IUCEL 2022 Proceedings*, 115.
- Biraglia, A., & Kadile, V. (2017). The role of entrepreneurial passion and creativity in developing entrepreneurial intentions: Insights from American homebrewers. *Journal of Small Business Management*, 55(1), 170.
- Bird, B., & Brush, C. (2002). A gendered perspective on organizational creation. *Entrepreneurship Theory and Practice*, 26(3), 41.
- Blei, D. M., Ng, A. Y., & Jordan, M. I. (2003). Latent dirichlet allocation. *Journal of Machine Learning Research*, 3, 993.
- Bodaghia, N. B., Cheong, L. S., & Zainab, A. N. (2016). Librarians empathy: Visually impaired students' experiences towards inclusion and sense of belonging in an academic library. *Journal of Academic Librarianship*, 42(1), 87.
- Bogossian, F. E. (2007). Social support: proposing a conceptual model for application to midwifery practice. *Women and Birth*, 20(4), 169-173.
- Bohns, V. K., & Flynn, F. J. (2021). Empathy and expectations of others' willingness to help. *Personality and Individual Differences*, 168, 110368.
- Bolino, M. C., & Turnley, W. H. (2003). Counternormative impression management, likeability, and performance ratings: The use of intimidation in an organizational setting. *Journal of Organizational Behavior*, 24(2), 237.
- Bong, M., & Clark, R. E. (1999). Comparison between self-concept and self-efficacy in academic motivation research. *Educational Psychologist*, 34(3), 139.
- Bourdieu, P. (1986). The forms of capital. J.G. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education*. Westport, CT: Greenwood, 241.
- Breugst, N., Domurath, A., Patzelt, H., & Klaukien, A. (2012). Perceptions of entrepreneurial passion and employees' commitment to entrepreneurial ventures. *Entrepreneurship Theory and Practice*, 36(1), 171.
- Brewer, M. B., & Gardner, W. (1996). Who is this "We"? Levels of collective identity and self representations. *Journal of Personality and Social Psychology*, 71(1), 83.
- Brundin, E. (2007). *Catching it as it happens*. Northampton, MA: Edward Elgar Publishing.
- Brush, C.G., De Bruin, A.M., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and Entrepreneurship*, 1(1), 8-24.

- Bucher, E. L., Schou, P. K., & Waldkirch, M. (2021). Pacifying the algorithm–anticipatory compliance in the face of algorithmic management in the gig economy. *Organization*, 28(1), 44.
- Burke, S. C., & Snyder, S. L. (2008). YouTube: An innovative learning resource for college health education courses. *International Electronic Journal of Health Education*, 11, 39.
- Buss, D. M. (1989). Conflict between the sexes: strategic interference and the evocation of anger and upset. *Journal of Personality and Social Psychology*, 56(5), 735.
- Buttice, V., Colombo, M. G., & Wright, M. (2017). Serial crowdfunding, social capital, and project success. *Entrepreneurship Theory and Practice*, 41(2), 183.
- Cai, W., Gu, J., & Wu, J. (2021). How entrepreneurship education and social capital promote nascent entrepreneurial behaviours: The mediating roles of entrepreneurial passion and self-efficacy. *Sustainability*, 13(20), 11158.
- Cai, W., Polzin, F., & Stam, E. (2021). Crowdfunding and social capital: A systematic review using a dynamic perspective. *Technological Forecasting and Social Change*, 162, 120412.
- Caliendo, M., Goethner, M., & Weißenberger, M. (2020). Entrepreneurial persistence beyond survival: Measurement and determinants. *Journal of Small Business Management*, 58(3), 617.
- Cardon, M. S., Sudek, R., & Mitteness, C. (2009). The impact of perceived entrepreneurial passion on angel investing. *Frontiers of entrepreneurship research*, 29(2), 1.
- Cartwright, S., Liu, H., & Raddats, C. (2021). Strategic use of social media within business-to-business (B2B) marketing: A systematic literature review. *Industrial Marketing Management*, 97, 35.
- Cardon, M. S., Foo, M. D., Shepherd, D., & Wiklund, J. (2012). Exploring the heart: Entrepreneurial emotion is a hot topic. *Entrepreneurship theory and practice*, 36(1), 1.
- Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of Management Review*, 34(3), 511-532.
- Cardon, M. S., & Stevens, C. E. (2009, August). The Discriminant Validity Of Entrepreneurial Passion. In *Academy of Management Proceedings*, 1,1. Briarcliff Manor, NY: Academy of Management.
- Carli, L. L., & Eagly, A. H. (1999). Gender effects on influence and emergent leadership. In G. N. Powell (Ed.), *Handbook of Gender & Work*, 203. Thousand Oaks, CA: Sage.

- Carli L. L. & Eagly A. H. (2011). Gender and leadership. In Bryman, A., Collinson, D., Grint K., Jackson, B., & Uhl-Bien, M. (Eds.), *The Sage Handbook of Leadership*, 103. Thousand Oaks, CA: Sage.
- Carmona-Halty, M., Salanova, M., Llorens, S., & Schaufeli, W. B. (2019). How psychological capital mediates between study-related positive emotions and academic performance. *Journal of Happiness Studies*, 20(2), 605.
- Cassar, G. (2004). The financing of business start-ups. *Journal of Business Venturing*, 19(2), 261.
- Cassel, J. (1976). The contribution of the social environment to host resistance: the Fourth Wade Hampton Frost Lecture. *American Journal of Epidemiology*, 104(2), 107.
- Chae, B., & Goh, G. (2020). Digital entrepreneurs in artificial intelligence and data analytics: Who are they? *Journal of Open Innovation: Technology, Market, and Complexity*, 6(3), 56.
- Chen, D., Lai, F., & Lin, Z. (2014). A trust model for online peer-to-peer lending: A lender's perspective. *Information Technology and Management*, 15(4), 239.
- Chen, S., Nualnoom, P., & Lakkanawanit, P. (2022). The influence of entrepreneurial ability and entrepreneurial resources on the Growth of e-commerce startups in ethnic minority areas—a case study of Chongzuo City, Guangxi, China. *Science, Technology, and Social Sciences Procedia*, 2022(2), 10.
- Chen, G., Ployhart, R. E., Thomas, H. C., Anderson, N., & Bliese, P. D. (2011). The power of momentum: A new model of dynamic relationships between job satisfaction change and turnover intentions. *Academy of Management Journal*, 54(1), 159.
- Chen, Y., & Xu, Y. (2021). Social support is contagious: Exploring the effect of Social Support in Online Mental Health Communities. In *Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems*, 1.
- Chen, X. P., Yao, X., & Kotha, S. (2009). Entrepreneur passion and preparedness in business plan presentations: a persuasion analysis of venture capitalists' funding decisions. *Academy of Management Journal*, 52(1), 199.
- Ciby, M. A., & Sahai, S. (2020). Extending psychological capital-mental health research framework: Role of social capital. *International Journal of Management*, 11(12), 1589.
- Clarke, J., & Healey, M. P. (2022). Giving voice to persuasion: Embodiment, the voice and cultural entrepreneurship. In *Advances in Cultural Entrepreneurship*, 37. Emerald Publishing Limited.

- Cliff, J. E., Langton, N., & Aldrich, H. E. (2005). Walking the talk? Gendered rhetoric vs. action in small firms. *Organization Studies*, 26(1), 63.
- Clement, J. (2021). Total global visitor traffic to Reddit.com 2021. Statista. <https://www.statista.com/statistics/443332/reddit-monthly-visitors/>
- Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine*, 38(5), 300.
- Coffee, P., Rees, T., & Haslam, S. A. (2009). Bouncing back from failure: The interactive impact of perceived controllability and stability on self-efficacy beliefs and future task performance. *Journal of Sports Sciences*, 27(11), 1117.
- Cogan, A., Pret, T., & Cardon, M. S. (2022). Everyday social support processes: Household members' instrumental and emotional support of entrepreneurs. *International Small Business Journal*, 02662426211054098.
- Collewaert, V., Anseel, F., Crommelinck, M., De Beuckelaer, A., & Vermeire, J. (2016). When passion fades: Disentangling the temporal dynamics of entrepreneurial passion for founding. *Journal of Management Studies*, 53(6), 966.
- Coman, C., Popica, M. M., Rezeanu, C. I. (2020). The adoption of digital marketing by SMEs entrepreneurs. In Antipova, T., & Rocha, Á. (Eds.), *Digital Science 2019. DSIC 2019. Advances in Intelligent Systems and Computing*, 1114. Springer.
- Constantinidis, C., Cornet, A., & Asandei, S. (2006). Financing of women-owned ventures: The impact of gender and other owner-and firm-related variables. *Venture Capital*, 8(2), 133.
- Cosh, A., Cumming, D., & Hughes, A. (2009). Outside entrepreneurial capital. *The Economic Journal*, 119(540), 1494.
- Cowden, B. J., Creek, S. A., & Maurer, J. D. (2021). Gender role congruity and crowdfunding success. *Journal of Small Business Management*, 59(1), 134.
- Cross, S. E., Bacon, P. L., & Morris, M. L. (2000). The relational-interdependent self-construal and relationships. *Journal of Personality and Social Psychology*, 78(4), 791.
- Cross, S. E., & Madson, L. (1997). Models of the self: self-construals and gender. *Psychological bulletin*, 122(1), 5.
- Cuddy, A. J., Glick, P., & Beninger, A. (2011). The dynamics of warmth and competence judgments, and their outcomes in organizations. *Research in Organizational Behavior*, 31, 73.

- Cutolo, D., & Kenney, M. (2021). Platform-dependent entrepreneurs: Power asymmetries, risks, and strategies in the platform economy. *Academy of Management Perspectives*, 35(4), 584.
- Dalborg, C., von Friedrichs, Y., & Wincent, J. (2015). Risk perception matters: Why women's passion may not lead to a business start-up. *International Journal of Gender and Entrepreneurship*, 7(1), 87.
- Davari, A., Emami, A., Ramadani, V., & Taherkhani, S. (2018). Factors influencing academic entrepreneurship: a case-based study. *Journal of Science and Technology Policy Management*. 9(3), 284.
- Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3), 301.
- Davis, J. L., & Graham, T. (2021). Emotional consequences and attention rewards: the social effects of ratings on Reddit. *Information, Communication & Society*, 24(5), 649.
- Davis, B. C., Hmieleski, K. M., Webb, J. W., & Coombs, J. E. (2017). Funders' positive affective reactions to entrepreneurs' crowdfunding pitches: The influence of perceived product creativity and entrepreneurial passion. *Journal of Business Venturing*, 32(1), 90.
- De Clercq, D., Honig, B., & Martin, B. (2013). The roles of learning orientation and passion for work in the formation of entrepreneurial intention. *International Small Business Journal*, 31(6), 652.
- De Hoe, R., & Janssen, F. (2022). Re-creation after business failure: A conceptual model of the mediating role of psychological capital. *Frontiers in Psychology*, 13, 842590.
- de Mol, E., Cardon, M. S., de Jong, B., Khapova, S. N., & Elfring, T. (2020). Entrepreneurial passion diversity in new venture teams: An empirical examination of short-and long-term performance implications. *Journal of Business Venturing*, 35(4), 105965.
- Deane, K. L., Boat, A. A., Haddock, S. A., Henry, K. L., Zimmerman, T. S., & Weiler, L. M. (2022). The comparative roles of mentor self-efficacy and empathy in fostering relationship quality with youth. *Journal of Youth and Adolescence*, 51(4), 805.
- Decety, J., Bartal, I. B. A., Uzefovsky, F., & Knafno-Noam, A. (2016). Empathy as a driver of prosocial behaviour: highly conserved neurobehavioural mechanisms across species. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 371(1686), 20150077.
- Decker, W. H., Calo, T. J., & Weer, C. H. (2012). Affiliation motivation and interest in entrepreneurial careers. *Journal of Managerial Psychology*. 27(3) 302.
- Denzinger, F., & Brandstätter, V. (2018). Stability of and changes in implicit motives. A narrative review of empirical studies. *Frontiers in Psychology*, 9, 777.

- Dorfleitner, G., Hornuf, L., & Weber, M. (2018). Dynamics of investor communication in equity crowdfunding. *Electronic Markets*, 28(4), 523.
- Drnovsek, M., Cardon, M. S., & Patel, P. C. (2016). Direct and indirect effects of passion on growing technology ventures. *Strategic Entrepreneurship Journal*, 10(2), 194.
- Duguay, P. A. (2022). Read it on reddit: Homogeneity and ideological segregation in the age of social news. *Social Science Computer Review*, 40(5), 1186.
- Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Lawrence Erlbaum Associates.
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573.
- Eagly, A. H., Wood, W., & Diekmann, A. B. (2000). Social role theory of sex differences and similarities: A current appraisal. In T. Eckes & H. M. Trautner (Eds.), *The Developmental Social Psychology of Gender*, 123. Erlbaum.
- Eddleston, K. A., Ladge, J. J., Mitteness, C., & Balachandra, L. (2016). Do you see what I see? Signaling effects of gender and firm characteristics on financing entrepreneurial ventures. *Entrepreneurship Theory and Practice*, 40(3), 489.
- Eddleston, K. A., & Powell, G. N. (2008). The role of gender identity in explaining sex differences in business owners' career satisfier preferences. *Journal of Business Venturing*, 23(2), 244.
- Edelman, L. F., Manolova, T., Shirokova, G., & Tsukanova, T. (2016). The impact of family support on young entrepreneurs' start-up activities. *Journal of Business Venturing*, 31(4), 428.
- Elliott, C., Mavriplis, C., & Anis, H. (2020). An entrepreneurship education and peer mentoring program for women in STEM: mentors' experiences and perceptions of entrepreneurial self-efficacy and intent. *International Entrepreneurship and Management Journal*, 16(1), 43.
- Emami, A., & Khajeheian, D. (2018). Social norms and entrepreneurial action: the mediating role of opportunity confidence. *Sustainability*, 11(1), 158.
- Fan-Osuala, O. (2021). All failures are not equal: Degree of failure and the launch of subsequent crowdfunding campaigns. *Journal of Business Venturing Insights*, 16.
- Faucher, K. X. (2018). *Social Capital Online: Alienation and Accumulation*. University of Westminster Press.

- Feng, B., & Chen, M. (2020). The impact of entrepreneurial passion on psychology and behavior of entrepreneurs. *Frontiers in Psychology, 11*, 1733.
- Fernandes, S., Belo, A., & Castela, G. (2016). Social network enterprise behaviors and patterns in SMEs: Lessons from a Portuguese local community centered around the tourism industry. *Technology in Society, 44*, 15.
- Ferreto, E., Lafuente, E., & Leiva, J. C. (2018). Can entrepreneurial role models alleviate the fear of entrepreneurial failure? *International Journal of Business Environment, 10*(2), 160.
- Fielden, S. L., & Hunt, C. M. (2011). Online coaching: An alternative source of social support for female entrepreneurs during venture creation. *International Small Business Journal, 29*(4), 345.
- Fisch, C., & Block, J. H. (2021). How does entrepreneurial failure change an entrepreneur's digital identity? Evidence from twitter data. *Journal of Business Venturing, 36*(1), 106015.
- Fischer, C. S. (1982). *To dwell among friends: Personal networks in town and city*. University of Chicago Press.
- Fischer, C. S. (2009). "The 2004 GSS Finding of Shrunken Social Networks: An Artifact?" *American Sociological Review, 74*, 657.
- Fiske, S. T., Cuddy, A. J., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in cognitive sciences, 11*(2), 77.
- Floyd, K. (2006). *Communicating affection: Interpersonal behavior and social context*. Cambridge University Press.
- Fredrickson, B. (1998). What good are positive emotions? *Review of General Psychology, 2*, 300.
- Fredrickson, B. L. (2000). Cultivating positive emotions to optimize health and well-being. *Prevention & Treatment, 3*(1), 1.
- Garg, R., Kapadia, Y., & Sengupta, S. (2021). Using the lenses of emotion and support to understand unemployment discourse on Reddit. *Proceedings of the ACM on Human-Computer Interaction, 5*, 1.
- Gartner, W., Starr, J., & Bhat, S. (1999). Predicting new venture survival: An analysis of anatomy of a start-up. cases from Inc. Magazine. *Journal of Business Venturing, 14*(2), 215.
- Gibbons, R. D., Hedeker, D., & DuToit, S. (2010). Advances in analysis of longitudinal data. *Annual Review of Clinical Psychology, 6*, 79.



- Gielnik, M. M., Uy, M. A., Funken, R., & Bischoff, K. M. (2017). Boosting and sustaining passion: A long-term perspective on the effects of entrepreneurship training. *Journal of Business Venturing*, 32(3), 334.
- Gimeno, J., Folta, T. B., Cooper, A. C., & Woo, C. Y. (1997). Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, 750.
- Goldenberg, A., & Gross, J. J. (2020). Digital emotion contagion. *Trends in Cognitive Sciences*, 24(4), 316-328.
- Goodhew, S. C., & Edwards, M. (2021). Attentional control both helps and harms empathy. *Cognition*, 206, 104505.
- Gottlieb, B. H., & Bergen, A. E. (2010). Social support concepts and measures. *Journal of Psychosomatic Research*, 69(5), 511.
- Greenhaus, J. H., Collins, K. M., & Shaw, J. D. (2003). The relation between work–family balance and quality of life. *Journal of Vocational Behavior*, 63(3), 510.
- Greenberg, J., & Mollick, E. (2017). Activist choice homophily and the crowdfunding of female founders. *Administrative Science Quarterly*, 62(2), 341.
- Guo, L., Wang, W., Wu, Y. J., & Goh, M. (2021). How much do social connections matter in fundraising outcomes?. *Financial Innovation*, 7(1), 1.
- Gupta, V. K., Turban, D. B., Wasti, S. A., & Sikdar, A. (2009). The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur. *Entrepreneurship Theory and Practice*, 33(2), 397.
- Haber, M. G., Cohen, J. L., Lucas, T., & Baltes, B. B. (2007). The relationship between self-reported received and perceived social support: A meta-analytic review. *American Journal of Community Psychology*, 39(1), 133.
- Hafeez, K., Foroudi, P., Nguyen, B., Gupta, S., & Alghatas, F. (2018). How do entrepreneurs learn and engage in an online community-of-practice? A case study approach. *Behaviour & Information Technology*, 37(7), 714.
- Hajli, N. (2018). Ethical environment in the online communities by information credibility: A social media perspective. *Journal of Business Ethics*, 149(4), 799.
- Harrell, A. M., & Stahl, M. J. (1984). McClelland's trichotomy of needs theory and the job satisfaction and work performance of CPA firm professionals. *Accounting, Organizations and Society*, 9(3-4), 241.

- Hatak, I., & Snellman, K. (2017). The influence of anticipated regret on business start-up behaviour. *International Small Business Journal*, 35(3), 349.
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1994). *Emotional Contagion*. New York: Cambridge University Press.
- Hayton, J. C., & Cacciotti, G. (2013). Is there an entrepreneurial culture? A review of empirical research. *Entrepreneurship & Regional Development*, 25(9-10), 708.
- Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, 57(4), 657.
- Hill, C. A. (1987). Social support and health: The role of affiliative need as a moderator. *Journal of Research in Personality*, 21, 127.
- Hill, C. A. (1991). Seeking emotional support: The influence of affiliative need and partner warmth. *Journal of Personality and Social Psychology*, 60(1), 112.
- Hina, M., Saqib, Z., & Khan, M. (2019). Vicarious Learning of FATA Women Entrepreneurs in Pakistan. *Business & Economic Review*, 11(4), 59.
- Ho, V. T., & Pollack, J. M. (2014). Passion isn't always a good thing: Examining entrepreneurs' network centrality and financial performance with a dualistic model of passion. *Journal of Management Studies*, 51(3), 433.
- Hobfoll, S.E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513.
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6(4), 307.
- Hoang, H., & Gimeno, J. (2010). Becoming a founder: How founder role identity affects entrepreneurial transitions and persistence in founding. *Journal of Business Venturing*, 25(1), 41.
- Hmieleski, K. M., & Sheppard, L. D. (2019). The Yin and Yang of entrepreneurship: Gender differences in the importance of communal and agentic characteristics for entrepreneurs' subjective well-being and performance. *Journal of Business Venturing*, 34(4), 709.
- Hoang, H., & Yi, A. (2015). Network-based research in entrepreneurship: A decade in review. *Foundations and Trends in Entrepreneurship*, 11(1), 1.
- Hsu, D. K., Shinnar, R. S., & Powell, B. C. (2014). Expectancy theory and entrepreneurial motivation: A longitudinal examination of the role of entrepreneurship education. *Journal of Business and Entrepreneurship*, 26(1), 121.

- Hu, W., Xu, Y., Zhao, F., & Chen, Y. (2022). Entrepreneurial passion and entrepreneurial success—the role of psychological capital and entrepreneurial policy support. *Frontiers in Psychology*, 13.
- Huang, K. Y., Chengalur-Smith, I., & Pinsonneault, A. (2019). Sharing is caring: Social support provision and companionship activities in healthcare virtual support communities. *MIS Quarterly*, 43(2), 395.
- Hupcey, J. E. (1998). Clarifying the social support theory-research linkage. *Journal of Advanced Nursing*, 27(6), 1231.
- Huyghe, A., Knockaert, M., & Obschonka, M. (2016). Unraveling the “passion orchestra” in academia. *Journal of Business Venturing*, 31(3), 344.
- Ingram, K. M., Betz, N. E., Mindes, E. J., Schmitt, M. M., & Smith, N. G. (2001). Unsupportive responses from others concerning a stressful life event: Development of the unsupportive social interactions inventory. *Journal of Social and Clinical Psychology*, 20(2), 173.
- Izard, C. E. (2009). Emotion theory and research: Highlights, unanswered questions, and emerging issues. *Annual Review of Psychology*, 60, 1.
- Jennings, J. E., & Brush, C. G. (2013). Research on women entrepreneurs: challenges to (and from) the broader entrepreneurship literature? *Academy of Management Annals*, 7(1), 663.
- Jones, S. (2014). Gendered discourses of entrepreneurship in UK higher education: The fictive entrepreneur and the fictive student. *International Small Business Journal*, 32(3), 237.
- Jonsson, S. (2015). Entrepreneurs’ network evolution—the relevance of cognitive social capital. *International Journal of Entrepreneurial Behavior & Research*, 21(2), 223.
- Johnson, N. E., Short, J. C., Chandler, J. A., & Jordan, S. L. (2022). Introducing the contentpreneur: Making the case for research on content creation-based online platforms. *Journal of Business Venturing Insights*, 18, e00328.
- Johnstone-Louis, M. (2017). Corporate social responsibility and women’s entrepreneurship: towards a more adequate theory of “work”. *Business Ethics Quarterly*, 27(4), 569.
- Kang, J. H., Matusik, J. G., Kim, T. Y., & Phillips, J. M. (2016). Interactive effects of multiple organizational climates on employee innovative behavior in entrepreneurial firms: A cross-level investigation. *Journal of Business Venturing*, 31(6), 628.
- Karatepe, O. M., & Karadas, G. (2014). The effect of psychological capital on conflicts in the work–family interface, turnover and absence intentions. *International Journal of Hospitality Management*, 43, 132.

- Kelley, D., Bosma, N. S., & Amorós, J. E. (2011). *Global entrepreneurship monitor 2010 executive report*.
- Khalid, S., & Sekiguchi, T. (2018). The role of empathy in entrepreneurial opportunity recognition: An experimental study in Japan and Pakistan. *Journal of Business Venturing Insights*, 9, 1-9.
- Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54(3), 241.
- Kikas, E., & Tang, X. (2019). Child-perceived teacher emotional support, its relations with teaching practices, and task persistence. *European Journal of Psychology of Education*, 34(2), 359.
- King, G., & Zeng, L. (2001). Logistic regression in rare events data. *Political analysis*, 9(2), 137.
- Klaukien, A., Shepherd, D. A., & Patzelt, H. (2013). Passion for work, nonwork-related excitement, and innovation managers' decision to exploit new product opportunities. *Journal of Product Innovation Management*, 30(3), 574.
- Klyver, K., Honig, B., & Steffens, P. (2018). Social support timing and persistence in nascent entrepreneurship: exploring when instrumental and emotional support is most effective. *Small Business Economics*, 51(3), 709.
- Kosinski, M., Stillwell, D., & Graepel, T. (2013). Private traits and attributes are predictable from digital records of human behavior. *Proceedings of the National Academy of Sciences*, 110(15), 5802.
- Kuhn, K., Galloway, T., & Collins-Williams, M. (2016). Near, far, and online: Small business owners' advice-seeking from peers. *Journal of Small Business and Enterprise Development*, 23(1), 189–206.
- Kuschel, K. (2019). Women founders in the technology industry: The startup-relatedness of the decision to become a mother. *Administrative sciences*, 9(2), 30.
- LaCoursiere, S. P. (2001). A theory of online social support. *Advances in Nursing Science*, 24(1), 60.
- Latham, G. P., & Pinder, C. C. (2005). Work motivation theory and research at the dawn of the twenty-first century. *Annual Review of Psychology*, 56, 485.
- Laukhuf, R. L., & Malone, T. A. (2015). Women entrepreneurs need mentors. *International Journal of Evidence Based Coaching and Mentoring*, 13(1), 70.

- Lee, M., & Huang, L. (2018). Gender bias, social impact framing, and evaluation of entrepreneurial ventures. *Organization Science*, 29(1), 1.
- Lee, M. T., & Theokary, C. (2021). The superstar social media influencer: Exploiting linguistic style and emotional contagion over content? *Journal of Business Research*, 132, 860.
- Lewin, K. (1935). Psycho-sociological problems of a minority group. *Character & Personality*, 3, 175.
- Li, J. J., Chen, X. P., Kotha, S., & Fisher, G. (2017). Catching fire and spreading it: A glimpse into displayed entrepreneurial passion in crowdfunding campaigns. *Journal of Applied Psychology*, 102(7), 1075.
- Li, C., Murad, M., Shahzad, F., Khan, M. A. S., Ashraf, S. F., & Dogbe, C. S. K. (2020). Entrepreneurial passion to entrepreneurial behavior: Role of entrepreneurial alertness, entrepreneurial self-efficacy and proactive personality. *Frontiers in Psychology*, 1611.
- Li, Y., Rakesh, V., & Reddy, C. K. (2016). Project success prediction in crowdfunding environments. In *Proceedings of the Ninth ACM International Conference on Web Search and Data Mining*, 247).
- Liu, Y., Schøtt, T., & Zhang, C. (2019). Women's experiences of legitimacy, satisfaction and commitment as entrepreneurs: embedded in gender hierarchy and networks in private and business spheres. *Entrepreneurship & Regional Development*, 31(3-4), 293.
- Liu, Y., & Yin, Z. (2020). Understanding weight loss via online discussions: content analysis of Reddit posts using topic modeling and word clustering techniques. *Journal of Medical Internet Research*, 22(6), e13745.
- Löhner, J. (2017). The interaction of equity crowdfunding platforms and ventures: an analysis of the preselection process. *An International Journal of Entrepreneurial Finance*, 19 (1,2) 51.
- Lu, Y., Han, Y., Wang, Y., & Tang, Y. (2020). Understanding the impact of family-to-work conflict/enrichment on entrepreneurial firms' performance. In *Academy of Management Proceedings*, 1, 15224. Briarcliff Manor, NY: Academy of Management.
- Luthans, F., & Youssef, C. M. (2004). Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organizational Dynamics*, 33(2), 143.
- Ma, D. (2015). Social belonging and economic action: Affection-based social circles in the creation of private entrepreneurship. *Social Forces*, 94(1), 87.
- Ma, C., Gu, J., & Liu, H. (2017). Entrepreneurs' passion and new venture performance in China. *International Entrepreneurship and Management Journal*, 13(4), 1043.

- Mahieu, J., Melillo, F., & Thompson, P. (2022). The long-term consequences of entrepreneurship: Earnings trajectories of former entrepreneurs. *Strategic Management Journal*, 43(2), 213.
- Malmström, M., Voitkane, A., Johansson, J., & Wincent, J. (2018). When stereotypical gender notions see the light of day, will they burst? Venture capitalists' gender constructions versus venturing performance facts. *Journal of Business Venturing Insights*, 9, 32.
- Mamonov, S., & Malaga, R. (2018). Success factors in Title III equity crowdfunding in the United States. *Electronic Commerce Research and Applications*, 27, 65.
- Massanari, A. (2017). # Gamergate and The Fapping: How Reddit's algorithm, governance, and culture support toxic technocultures. *New Media & Society*, 19(3), 329.
- Massanari, A. L. (2015). Participatory culture, community, and play. Learning from Reddit. New York: Peter Lang.
- McClelland, D. C., & Mac Clelland, D. C. (1961). *Achieving society* (Vol. 92051). Simon and Schuster.
- McIntyre, G. (2020, November 20). *What percentage of small businesses fail? (And other need-to-know stats)*. Fundera.  
<https://www.fundera.com/blog/what-percentage-of-small-businesses-fail>
- McMullen, J. S. (2015). Entrepreneurial judgment as empathic accuracy: A sequential decision-making approach to entrepreneurial action. *Journal of Institutional Economics*, 11(3), 651.
- Mei, M. Q., & Genet, C. (2022). Social media entrepreneurship: A study on follower response to social media monetization. *European Management Journal*, <https://doi.org/10.1016/j.emj.2022.04.006>.
- Meurer, M. M., Waldkirch, M., Schou, P. K., Bucher, E. L., & Burmeister-Lamp, K. (2022). Digital affordances: How entrepreneurs access support in online communities during the COVID-19 pandemic. *Small Business Economics*, 58(2), 637.
- Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29(1), 1.
- Mohammad, S. M., & Turney, P. D. (2010). Emotions evoked by common words and phrases: Using Mechanical Turk to create an emotion lexicon. In Proceedings of the *NAACL-HLT 2010 Workshop on Computational Approaches to Analysis and Generation of Emotion in Text*, LA, California.

- Mohanty, S. N., Pratihari, D. K., & Suar, D. (2015). Study on influence of mood states on information processing during decision making using fuzzy reasoning tool and neuro-fuzzy system developed based on Mamdani approach. *International Journal of Fuzzy Computing Modeling*, 1(3), 252.
- Monsen, E., & Wayne Boss, R. (2009). The impact of strategic entrepreneurship inside the organization: Examining job stress and employee retention. *Entrepreneurship theory and practice*, 33(1), 71.
- Moore, R. L., Yen, C. J., & Powers, F. E. (2021). Exploring the relationship between clout and cognitive processing in MOOC discussion forums. *British Journal of Educational Technology*, 52(1), 482.
- Moy, N., Chan, H. F., & Torgler, B. (2018). How much is too much? The effects of information quantity on crowdfunding performance. *PloS one*, 13(3), e0192012.
- Mikal, J. P. (2022). Where form meets function: The impact of social media platform characteristics on access to online social support. *Universal Access in the Information Society*, 21(4), 1023.
- Mmbaga, N. A., Mathias, B. D., Williams, D. W., & Cardon, M. S. (2020). A review of and future agenda for research on identity in entrepreneurship. *Journal of Business Venturing*, 35(6), 106049.
- Mueller, B. A., Wolfe, M. T., & Syed, I. (2017). Passion and grit: An exploration of the pathways leading to venture success. *Journal of Business Venturing*, 32(3), 260.
- Murnieks, C. Y., Cardon, M. S., & Haynie, J. M. (2020). Fueling the fire: Examining identity centrality, affective interpersonal commitment and gender as drivers of entrepreneurial passion. *Journal of Business Venturing*, 35(1), 105909.
- Murnieks, C. Y., Cardon, M. S., Sudek, R., White, T. D., & Brooks, W. T. (2016). Drawn to the fire: The role of passion, tenacity and inspirational leadership in angel investing. *Journal of Business Venturing*, 31(4), 468.
- Nadeem, W., Juntunen, M., Shirazi, F., & Hajli, N. (2020). Consumers' value co-creation in sharing economy: The role of social support, consumers' ethical perceptions and relationship quality. *Technological Forecasting and Social Change*, 151, 119786.
- Nählinder, J., Tillmar, M., & Wigren, C. (2012). Are female and male entrepreneurs equally innovative? Reducing the gender bias of operationalizations and industries studied. In S. Andersson, K. Berglund, E. Gunnarsson, & E. Sundin (Eds.), *Promoting Innovation Policies, Practices and Procedures* (Vol. VR 2012:08).
- Nair, S. R. (2020). The link between women entrepreneurship, innovation and stakeholder engagement: A review. *Journal of Business Research*, 119, 283.

- Neneh, B. N. (2022). Entrepreneurial passion and entrepreneurial intention: the role of social support and entrepreneurial self-efficacy. *Studies in Higher Education, 47*(3), 587.
- Newman, A., Obschonka, M., Moeller, J., & Chandan, G. G. (2021). Entrepreneurial passion: A review, synthesis, and agenda for future research. *Applied Psychology, 70*(2), 816.
- Norena-Chavez, D., & Thalassinou, E. (2022). The mediation effect of entrepreneurial self-efficacy in the relationship between entrepreneurial passion and leadership styles. In *The New Digital Era: Other Emerging Risks and Opportunities*, 109, 99. Emerald Publishing Limited. Bradford, UK.
- Norton, T. R., & Manne, S. L. (2007). Support concordance among couples coping with cancer: Relationship, individual, and situational factors. *Journal of Social and Personal Relationships, 24*(5), 675.
- Nylander, S., & Rudström, Å. (2011, June). Questions, inspiration, feedback, and contributions: How entrepreneurs network online. In *Proceedings of the 5th International Conference on Communities and Technologies*, 128.
- Obschonka, M., & Audretsch, D. B. (2020). Artificial intelligence and big data in entrepreneurship: a new era has begun. *Small Business Economics, 55*(3), 529.
- Ozkazanc-Pan, B., & Muntean, S. C. (2018). Networking towards (in) equality: Women entrepreneurs in technology. *Gender, Work & Organization, 25*(4), 379.
- Oh, Y. K., & Choeh, J. Y. (2022). Social media engagements of music videos on YouTube's official artist channels. *Convergence, 28*(3), 804.
- Oh, H. J., Ozkaya, E., & LaRose, R. (2014). How does online social networking enhance life satisfaction? The relationships among online supportive interaction, affect, perceived social support, sense of community, and life satisfaction. *Computers in Human Behavior, 30*, 69.
- Olanrewaju, A. S. T., Hossain, M. A., Whiteside, N., & Mercieca, P. (2020). Social media and entrepreneurship research: A literature review. *International Journal of Information Management, 50*, 90.
- Oo, P. P., Allison, T. H., Sahaym, A., & Juasrikul, S. (2019). User entrepreneurs' multiple identities and crowdfunding performance: Effects through product innovativeness, perceived passion, and need similarity. *Journal of Business Venturing, 34*(5), 105895.
- O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity, 41*, 673.



- Pandreakar, S., Chen, X., Gopalkrishna, G., Srivastava, A., Saltz, M., Saltz, J., & Wang, F. (2018). Social media based analysis of opioid epidemic using Reddit. In *AMIA Annual Symposium Proceedings*, 867. American Medical Informatics Association.
- Papacharissi, Z. (2010). *A Networked Self: Identity, Community, and Culture on Social Network Sites*. New York: Routledge.
- Park, M., Naaman, M., & Berger, J. (2016). A data-driven study of view duration on youtube. In *Proceedings of the International AAAI Conference on Web and Social Media 10, 1*, 651.
- Parveen, S., Faiz, M., Khan, M. M., Siddique, M., & Safdar, M. Z. (2020). Impact of locus of control, risk-taking propensity, ambiguity tolerance and need for affiliation on entrepreneurial behavior. *Pakistan Journal of Social and Clinical Psychology*, 18(1), 89-94.
- Payne, G. T., Brigham, K. H., Broberg, J. C., Moss, T. W., & Short, J. C. (2011). Organizational virtue orientation and family firms. *Business Ethics Quarterly*, 21(2), 257.
- Pennebaker, J. W., Booth, R. J., & Francis, M. E. (2007). Linguistic inquiry and word count: LIWC Austin. TX: *liwc. Net*.
- Pennebaker, J. W., Boyd, R. L., Jordan, K., & Blackburn, K. (2015). *The Development and Psychometric Properties of LIWC2015*.
- Perez Fernandez, H., Rodriguez Escudero, A. I., Martín Cruz, N., & Delgado García, J. B. (2021). The impact of social capital on entrepreneurial intention and its antecedents: Differences between social capital online and offline. *BRQ Business Research Quarterly*, 23409444211062228.
- Perttula, K. M. 2003. The POW factor: Understanding passion for one's work. Paper presented the annual meeting of the Academy of Management Seattle.
- Philippe, F. L., Vallerand, R. J., Houliort, N., Lavigne, G. L., & Donahue, E. G. (2010). Passion for an activity and quality of interpersonal relationships: the mediating role of emotions. *Journal of Personality and Social Psychology*, 98(6), 917.
- Piening, E. P., Thies, F., Wessel, M., & Benlian, A. (2021). Searching for success—entrepreneurs' responses to crowdfunding failure. *Entrepreneurship Theory and Practice*, 45(3), 626.
- Pietraszkiewicz, A., Formanowicz, M., Gustafsson Sendén, M., Boyd, R. L., Sikström, S., & Sczesny, S. (2019). The big two dictionaries: Capturing agency and communion in natural language. *European Journal of Social Psychology*, 49(5), 871.
- Pollack, J. M., Ho, V. T., O'Boyle, E. H., & Kirkman, B. L. (2020). Passion at work: A meta-analysis of individual work outcomes. *Journal of Organizational Behavior*, 41(4), 311.

- Popescul, D., Radu, L. D., Păvăloaia, V. D., & Georgescu, M. R. (2020). Psychological determinants of investor motivation in social media-based crowdfunding projects: A systematic review. *Frontiers in Psychology, 11*, 588121.
- Powell, G. N., & Eddleston, K. A. (2013). Linking family-to-business enrichment and support to entrepreneurial success: do female and male entrepreneurs experience different outcomes? *Journal of Business Venturing, 28*(2), 261.
- Qin, X., Yang, F., Jiang, Z., & Zhong, B. (2022). Empathy not quarantined: Social support via social media helps maintain empathy during the COVID-19 pandemic. *Social Media+ Society, 8*(1), 20563051221086234.
- Ritesh, A., & Mehrotra, R. (2015). Best practices for women-a review of employment relations application in Indian it industry. *Voice of Research, 30*.
- Ritter, B. A., & Yoder, J. D. (2004). Gender differences in leader emergence persist even for dominant women: An updated confirmation of role congruity theory. *Psychology of Women Quarterly, 28*(3), 187.
- Roccapriore, A. Y., & Pollock, T. (2022). I don't need a degree, I've got abs: Influencer warmth and competence, communication mode, and stakeholder engagement on social media. *Academy of Management Journal*. <https://doi.org/10.5465/amj.2020.1546>.
- Rosenbusch, H., Evans, A. M., & Zeelenberg, M. (2019). Multilevel emotion transfer on YouTube: Disentangling the effects of emotional contagion and homophily on video audiences. *Social Psychological and Personality Science, 10*(8), 1028.
- Rossi, A., Vanacker, T., & Vismara, S. (2022). Unsuccessful Equity Crowdfunding Offerings and the persistence in equity fundraising of family business start-ups. *Entrepreneurship Theory and Practice, 10422587221121290*.
- Rudman, L. A., & Phelan, J. E. (2008). Backlash effects for disconfirming gender stereotypes in organizations. *Research in Organizational Behavior, 28*, 61.
- Runyan, R. C., Huddleston, P., & Swinney, J. L. (2007). A resource-based view of the small firm: Using a qualitative approach to uncover small firm resources. *Qualitative Market Research: An International Journal, 10*(4), 390.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68.
- Sarason, I. G., & Sarason, B. R. (1985). Social support—Insights from assessment and experimentation. In *Social Support: Theory, Research and Applications*, 39. Dordrecht: Springer.

- Schwarte, Y., Song, Y., Hunt, R. A., & Lohrke, F. T. (2023). Passion as process: Three perspectives on entrepreneurial passion and an integrated path forward. *Journal of Business Research*, 156, 113474.
- Sharma, A., Miner, A. S., Atkins, D. C., & Althoff, T. (2020). A computational approach to understanding empathy expressed in text-based mental health support. *arXiv preprint arXiv:2009.08441*.
- Shane, S., Drover, W., Clingsmith, D., & Cerf, M. (2020). Founder passion, neural engagement and informal investor interest in startup pitches: An fMRI study. *Journal of Business Venturing*, 35(4), 105949.
- Shinnar, R. S., Hsu, D. K., Powell, B. C., & Zhou, H. (2018). Entrepreneurial intentions and start-ups: are women or men more likely to enact their intentions? *International Small Business Journal*, 36(1), 60.
- Shumaker, S. A., & Brownell, A. (1984). Toward a theory of social support: Closing conceptual gaps. *Journal of Social Issues*, 40(4), 11.
- Singh, L. P., & Jena, A. B. (2021). *The Entrepreneurial Ecosystem and Gender Gap-An Exploration to Issues and Challenges*, 21(2), 96.
- Smith, C., Smith, J. B., & Shaw, E. (2017). Embracing digital networks: Entrepreneurs' social capital online. *Journal of Business Venturing*, 32(1), 18.
- Snell, L., Sok, P., & Danaher, T. S. (2015). Achieving growth-quality of work life ambidexterity in small firms. *Journal of Service Theory and Practice*, 25(5), 529.
- Snellman, K., & Solal, I. (2022). Does investor gender matter for the success of female entrepreneurs? Gender homophily and the stigma of incompetence in entrepreneurial finance. *Organization Science*, 1-20.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A metaanalysis. *Psychological Bulletin*, 124(2), 240.
- Stavrova, O., & Evans, A. M. (2019). Examining the trade-off between confidence and optimism in future forecasts. *Journal of Behavioral Decision Making*, 32(1), 3.
- Stenholm, P., & Nielsen, M. S. (2019). Understanding the emergence of entrepreneurial passion: The influence of perceived emotional support and competences. *International Journal of Entrepreneurial Behavior & Research*, 25(6), 1368.
- Steffens, A. N., Langerhuizen, D. W., Doornberg, J. N., Ring, D., & Janssen, S. J. (2021). Emotional tones in scientific writing: comparison of commercially funded studies and non-commercially funded orthopedic studies. *Acta Orthopaedica*, 92(2), 240.

- Stevenson, R., Allen, J., & Wang, T. (2022). Failed but validated? The effect of market validation on persistence and performance after a crowdfunding failure. *Journal of Business Venturing*, 37(2), 106175.
- Stevenson, R. M., Ciuchta, M. P., Letwin, C., Dinger, J. M., & Vancouver, J. B. (2019). Out of control or right on the money? Funder self-efficacy and crowd bias in equity crowdfunding. *Journal of Business Venturing*, 34(2), 348.
- Stroe, S., Parida, V., & Wincent, J. (2018). Effectuation or causation: An fsQCA analysis of entrepreneurial passion, risk perception, and self-efficacy. *Journal of Business Research*, 89, 265-272.
- Stroe, S., Wincent, J., & Parida, V. (2018). Untangling intense engagement in entrepreneurship: Role overload and obsessive passion in early-stage entrepreneurs. *Journal of Business Research*, 90, 59-66.
- Sumanasekara, K. P. (2020). Women Entrepreneurial Characteristics in Developing Successful Brands in Sri Lanka. In Proceedings of *International Conference on Business Management*, 11.
- Szostak, N. (2013). Girls on YouTube: Gender politics and the potential for a public sphere. *The McMaster Journal of Communication*, 8, 47.
- Taylor, S. E. (2011). Social support: A review. In H. S. Friedman (Ed.), *The Oxford Handbook of Health Psychology*, 189. New York: Oxford University Press.
- Taylor, S. E., Kemeny, M. E., Reed, G. M., Bower, J. E., & Gruenewald, T. L. (2000). Psychological resources, positive illusions, and health. *American Psychologist*, 55(1), 99.
- Tellhed, U., Bäckström, M., & Björklund, F. (2018). The role of ability beliefs and agentic vs. communal career goals in adolescents' first educational choice. What explains the degree of gender-balance? *Journal of Vocational Behavior*, 104, 1-13.
- Teubner, T., Adam, M. T., Camacho, S., & Hassanein, K. (2014). Understanding resource sharing in C2C platforms: The role of picture humanization. *ACIS*.
- Thébaud, S. (2015). Business as plan B: Institutional foundations of gender inequality in entrepreneurship across 24 industrialized countries. *Administrative science quarterly*, 60(4), 671.
- Thelwall, M., & Foster, D. (2021). Male or female gender-polarized YouTube videos are less viewed. *Journal of the Association for Information Science and Technology*, 72(12), 1545.
- Thies, F., Wessel, M., and Benlian, A. 2014. "Understanding the Dynamic Interplay of Social Buzz and Contribution Behavior within and between Online Platforms – Evidence from

- Crowdfunding,” *Proceedings of the 35th International Conference on Information Systems (ICIS)*.
- Thongmanivong, T. (2020). *Entrepreneurial Passion: A Systematic Literature Review and Research Agenda*. (Doctoral dissertation, Auckland University of Technology).
- Toor, S. U. R., & Ofori, G. (2010). Positive psychological capital as a source of sustainable competitive advantage for organizations. *Journal of Construction Engineering and Management*, 136(3), 341.
- Trevelyan, R. (2011). Self-efficacy and effort in new venture development. *Journal of Management & Organization*, 17(1), 2-16.
- Türk, S., Zapkau, F. B., & Schwens, C. (2020). Prior entrepreneurial exposure and the emergence of entrepreneurial passion: the moderating role of learning orientation. *Journal of Small Business Management*, 58(2), 225.
- Turner, J. W., Grube, J. A., & Meyers, J. (2001). Developing an optimal match within online communities: An exploration of CMC support communities and traditional support. *Journal of Communication*, 51(2), 231.
- Vallerand, R. J., Houliort, N., & Fores, J. (2003). Passion at work. *Emerging Perspectives on Values in Organizations*, 6(8), 175.
- van Burg, E., Elfring, T., & Cornelissen, J. P. (2022). Connecting content and structure: A review of mechanisms in entrepreneurs’ social networks. *International Journal of Management Reviews*, 24(2), 188.
- Vanacker, T., Vismara, S., & Walthoff-Borm, X. (2019). What happens after a crowdfunding campaign? *Handbook of research on crowdfunding*, 227.
- Véras, E. Z. (2015). Female entrepreneurship: from women’s empowerment to shared value creation. *Journal on Innovation and Sustainability RISUS*, 6(2), 109.
- Vilander, J. (2017). Personal Branding on Social Media and Social Media Based Entrepreneurship.
- Vrontis, D., Christofi, M., Battisti, E., & Graziano, E. A. (2020). Intellectual capital, knowledge sharing and equity crowdfunding. *Journal of Intellectual Capital*, 22(1), 95.
- Vroom, V. H. 1964. *Work and motivation*. Wiley.
- Wach, D., Stephan, U., Gorgievski, M., & Wegge, J. (2020). Entrepreneurs’ achieved success: Developing a multi-faceted measure. *International Entrepreneurship and Management Journal*, 16(3), 1123.

- Wang, F., Mack, E. A., & Maciejewski, R. (2017). Analyzing entrepreneurial social networks with big data. *Annals of the American Association of Geographers*, 107(1), 130.
- Wang, Y., Tsai, C. H., Lin, D. D., Enkhbuyant, O., & Cai, J. (2019). Effects of human, relational, and psychological capitals on new venture performance. *Frontiers in Psychology*, 10, 1071.
- Warnick, B. J., Davis, B. C., Allison, T. H., & Anglin, A. H. (2021). Express yourself: Facial expression of happiness, anger, fear, and sadness in funding pitches. *Journal of Business Venturing*, 36(4), 106109.
- Wei, M., Liao, K. Y. H., Ku, T. Y., & Shaffer, P. A. (2011). Attachment, self-compassion, empathy, and subjective well-being among college students and community adults. *Journal of Personality*, 79(1), 191.
- Wellman, B., Salaff, J., Dimitrova, D., Garton, L., Gulia, M. & Haythornthwaite, C. (1996). Computer networks as social networks: Collaborative work, telework, and virtual community. *Annual Review of Sociology*, 22(1): 213–38.
- Wikhamn, B. R., & Knights, D. (2013). Open innovation, gender and the infiltration of masculine discourses. *International Journal of Gender and Entrepreneurship*, 5(3), 275.
- Williamson, A. J., Battisti, M., & Pollack, J. M. (2021). Is Artificial Intelligence the New Frontier for Research on Passion? On Inferring Passion from Text. In *Academy of Management Proceedings*, 1, 10145. Briarcliff Manor, NY: Academy of Management.
- Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. *Entrepreneurship Theory and Practice*, 31(3), 387.
- Wilson, D., & Quinton, S. (2016). What type of birdsong carries? Twitter: Source credibility and its links to value creation in the wine business—A tentative model. In *Looking Forward, Looking Back: Drawing on the Past to Shape the Future of Marketing*, 447. Springer, Cham.
- Wise, S., & Valliere, D. (2014). The impact on management experience on the performance of start-ups within accelerators. *The Journal of Private Equity*, 18(1), 9.
- Wotanis, L., & McMillan, L. (2014). Performing gender on YouTube: How Jenna Marbles negotiates a hostile online environment. *Feminist Media Studies*, 14(6), 912.
- Wood, R., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, 56(3), 407.

- Xia, L., Han, Q., & Zhang, W. (2020). Entrepreneurial passion, entrepreneurial perseverance, and new enterprise performance: Evidence from China. *Social Behavior and Personality: An International Journal*, 48(6), 1.
- Xie, Y., Chen, X., & Ye, D. (2016). Does entrepreneurial passion contribute to entrepreneurial success? *Management Review*, 28(11), 170.
- Yadav, V., & Unni, J. (2016). Women entrepreneurship: research review and future directions. *Journal of Global Entrepreneurship Research*, 6(1), 1.
- Yang, S., Kher, R., & Newbert, S. L. (2020). What signals matter for social startups? It depends: The influence of gender role congruity on social impact accelerator selection decisions. *Journal of Business Venturing*, 35(2), 105932.
- Yang, L., and J. Hahn (2015). Learning from Prior Experience: An Empirical Study of Serial Entrepreneurs in IT-enabled Crowdfunding. Thirty Sixth International Conference on Information Systems, Fort Worth, TX.
- Yin, M., & Jahanshahi, A. A. (2018). Developing knowledge-based resources: the role of entrepreneurs' social network size and trust. *Sustainability*, 10(10), 3380.
- Zampetakis, L. A., Bakatsaki, M., Kafetsios, K., & Moustakis, V. S. (2016). Sex differences in entrepreneurs' business growth intentions: an identity approach. *Journal of Innovation and Entrepreneurship*, 5(1), 1.
- Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of applied psychology*, 90(6), 1265.
- Zhao, H. & Wu, S. (2014). The power of motivation-goal fit in predicting entrepreneurial persistence. *Social Behaviour and Personality: An International Journal*, 42(8), 1345–1352.

**Table 2.1:** Means, Standard Deviations, and Correlations Among Study Variables

Variables	Mean	Std	1	2	3	4	5	6	7	8	9
1 Subreddit Tenure	10.26	16.59									
2 Comment Empathy	0.084	0.135	.00								
3 Comment Affect	4.44	1.55	-.06	.06							
4 Entre Passion	0.022	0.027	.07	.01	.07						
5 Need for Affiliation	2.506	1.78	.05	.00	.05	.02					
6 Comment Confidence	7.71	1.344	.09	.02	.02	-.02	.18				
7 Upvotes	23.91	43.19	.12	-.01	.10	.21	-.05	-.06			
8 Days Since Last Post	198.7	420.36	.19	-.05	-.07	-.03	.00	.00	-.10		
9 Number of Comment	24.41	27.59	-.03	-.05	.07	.01	-.02	.00	.01	-.04	
10 Avg Comment Length	121.35	368.26	-.03	.06	.04	.03	.00	-.08	.17	-.02	-.16

$r \geq .15 = p < .01$ ;  $r > .10$  &  $< .15 = p < .05$   
 N = 577



**Table 2.2:** Results for the Effects of Subreddit Tenure and Social Support on Passion

	DV: Affective Passion											
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
<b>Controls</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
Days Since Last Post	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Number of comments for last post	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001
Average length of last post's comments	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001
Number of upvotes for last post	0.002+	0.001	0.002+	0.001	0.002+	0.001	0.002+	0.001	0.002+	0.001	0.002*	0.001
Avg confidence in last post's comments	0.034+	0.024	0.044+	0.024	0.045+	0.024	0.041+	0.024	0.046+	0.024	0.044+	0.024
<b>Predictors</b>												
Tenure (H1)			0.014*	0.007	0.015+	0.008	0.018	0.017	0.029+	0.016	0.016	0.042
Empathy			0.488*	0.248	0.383	0.423			0.362	0.728		
Affect			-0.010	0.021			-0.019	0.034			-0.027	0.067
Need for affiliation			0.013	0.023					0.047	0.037	0.040	0.097
<b>Interactions</b>												
Tenure x Empathy (H2a)					0.011	0.039						
Tenure x Affect (H2b)							-0.001	0.001				
Tenure x Empathy x Need for affiliation (H3a)									0.046	0.027		
Tenure x Affect x Need for affiliation (H3b)											-0.001	0.001
Constant	-6.378		-6.517		-6.459		-6.536		-6.583		-6.672	
R-Squared (Conditional)	0.027		0.048		0.039		0.029		0.049		0.040	
F-statistic	2.445		2.789		2.753		2.467		2.818		2.413	

Note: Standardized coefficients are displayed in the table with standard errors

+ p < 0.1, \* p < .05; \*\* p < .01

N= 577

**Table 3.1:** *Summary of Topics in Comments*

Topic #	Topic label	Top 10 words by frequency
<i>Favorable Topic</i>		
2	Positive	thank, great, love, content, help, share, inform, amazing, appreciate, good
<i>Neutral Topics</i>		
3	New Business	start, business, time, help, year, work, new, people, thing, know
4	Business Logistics	product, amazon, sell, link, height, email, ad, list, store, ship
5	Online Businesses	online, website, free, e-commerce, audience, comment, like, join, course, train, ai
6	Business Finance	monetize, invest, pay, credit, card, account, tax, income, market, profit
1	Other	value, work, freelance, subscribe, limit, true, rich, nice, scam, country

Examples of Topic 2 Comments:

Thank you for sharing. This is very informative. I just came across your channel today, subscribed, and I love it! Wishing you GREAT SUCCESS! (posterior score = 0.948; contentpreneur was woman)

“Good video, just liked! :) Definitely got some solid info here, thanks so much for the content. Keep up the great work, and I look forward to future content!” (posterior score = 0.930; contentpreneur was man)

**Table 3.2: Means, Standard Deviations, and Correlations Among Study Variables**

Variables	Mean	Std	1	2	3	4	5	6	7	8	9	10
1 Verbal passion	0.365	0.107										
2 Vocal Passion	0.609	0.146	.15									
3 Facial passion	0.403	0.237	.05	.19								
4 Gender	0.573	0.495	-.20	-.57	-.25							
5 Agentic	0.169	0.226	.02	.00	.00	.01						
6 Communal	0.450	0.314	.17	.04	.01	-.06	.04					
7 Comment Sentiment	0.559	0.397	.07	.04	.05	-.09	.04	.02				
8 Normalized Likes	0.063	0.055	.03	.00	.00	.03	.00	.09	-.01			
9 Video Views	12789.4	74054.69	.01	-.03	.00	.05	-.01	-.03	-.01	-.01		
10 Video Length	715.4	444.89	.05	-.08	-.02	-.05	.02	-.02	.06	-.04	.08	
11 Number of Comments	103.2	383.052	.01	-.03	.00	.06	-.01	-.04	-.02	-.01	.65	.09
12 Channel Age	2349.1	1425.58	.09	-.07	-.04	.01	.05	-.01	.01	-.07	.02	.05
13 Channel subscribers	124930.6	249594.9	-.02	-.11	.01	.11	.00	-.01	-.02	-.03	.37	.12
14 Channel videos	369.3	433.02	-.06	-.18	-.09	.22	.01	-.01	-.05	-.03	.00	.01
15 Channel views	7984979.0	22440490	-.05	-.11	.00	.12	-.01	-.03	-.06	-.02	.32	.07

Note: Gender: Man = 1, Woman = 0

$r \geq .05$  =  $p < .01$ ;  $r = .04$  =  $p < .05$

N= 3,020

**Table 3.2:** Means, Standard Deviations, and Correlations Among Study Variables (cont)

	11	12	13	14
12 Channel Age	.00			
13 Channel subscribers	.47	.19		
14 Channel videos	.06	.31	.25	
15 Channel views	.44	.18	.88	.36

Note: Gender: Man = 1, Woman = 0  
 $r \geq .05 | = p < 0.01$ ;  $r = .04 | = p < 0.05$   
N= 3,020

**Table 3.3:** *Effects of Verbal Passion, Gender and Communication Style on Comment Sentiment*

	DV: Comment Sentiment									
	Model 1		Model 2		Model 3		Model 4		Model 5	
<b>Controls</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
Video views	0.005	0.021	0.004	0.020	0.004	0.020	0.004	0.020	0.004	0.020
Video length	0.061**	0.018	0.054**	0.018	0.054**	0.018	0.053**	0.018	0.055**	0.018
Number of comments	-0.011+	0.022	-0.009	0.022	-0.010	0.022	-0.010	0.022	-0.009	0.022
Channel's age	0.024	0.020	0.012	0.020	0.013*	0.020	0.011	0.020	0.013	0.020
Channel's subscribers	0.102*	0.040	0.105**	0.040	0.106**	0.040	0.105**	0.040	0.108**	0.040
Channel's videos	-0.033	0.021	-0.014	0.021	-0.014	0.021	-0.014	0.021	-0.014	0.021
Channel's views	-0.141**	0.042	-0.137**	0.041	-0.139**	0.041	-0.138**	0.041	-0.141**	0.041
Industry	0.006	0.004	0.006*	0.004	0.006	0.004	0.005	0.004	0.006	0.004
<b>Predictors</b>										
Entrep passion (verbal) (H1)			0.148*	0.019	0.049**	0.019	0.046*	0.019	0.053**	0.019
Gender			-0.070**	0.019	-0.069**	0.019	-0.071**	0.019	-0.066**	0.019
Agentic communication			0.038*	0.018			0.040*	0.018		
Communal communication				0.005					0.002	0.019
<b>Interactions</b>										
Entrep passion x Gender (H2)					-0.014	0.018				
Entrep passion x Gender x Agentic communication (H3a)							0.009	0.018		
Entrep passion x Gender x Communal communication (H3b)									-0.008	0.016
Constant	-0.019		-0.019		-0.021		-0.020		-0.03	
R-Squared	0.012		0.022		0.021		0.022		0.024	
F-statistic	4.696		5.632		5.782		4.596		4.836	

Note: Standardized coefficients are displayed in the table with standard errors

\* p < .05; \*\* p < .01

N= 3,020

**Table 3.4:** *Effects of Verbal Passion, Gender and Communication Style on Normalized Likes*

	DV: Normalized Likes									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
<b>Controls</b>										
Video views	-0.043*	0.021	-0.043*	0.020	-0.043*	0.020	-0.043*	0.020	-0.041*	0.020
Video length	-0.059**	0.018	-0.060**	0.018	-0.060**	0.018	-0.060**	0.018	-0.053**	0.018
Number of comments	0.010	0.022	0.014	0.022	0.008	0.022	0.008	0.022	0.016	0.021
Channel's age	-0.006	0.020	-0.009	0.020	-0.012	0.020	-0.011	0.020	-0.003	0.020
Channel's subscribers	-0.150**	0.040	-0.156**	0.040	-0.149**	0.040	-0.149**	0.040	-0.157**	0.040
Channel's videos	-0.029	0.021	-0.020	0.021	-0.017	0.021	-0.017	0.021	-0.018	0.021
Channel's views	0.089*	0.041	0.099*	0.041	0.094*	0.041	0.094*	0.041	0.098*	0.041
Industry	-0.006	0.004	-0.006	0.004	-0.006	0.004	-0.006	0.004	-0.005	0.004
<b>Predictors</b>										
Entrep passion (verbal) (H1)			0.012	0.010	-0.005	0.014	0.454*	0.203	0.369	0.204
Gender			-0.004+	0.002	-0.022**	0.007	0.103*	0.045	0.096*	0.044
Agentic communication			0.003	0.004			0.275	0.094		
Communal communication			0.017**	0.003					0.359**	0.068
<b>Interactions</b>										
Entrep passion x Gender (H2)					0.477*	0.019				
Entrep passion x Gender x Agentic communication (H3a)							-0.553	0.017		
Entrep passion x Gender x Communal communication (H3b)									0.034**	0.016
Constant		0.021		0.019		0.028		0.029		0.021
R-Squared		0.016		0.029		0.021		0.023		0.046
F-statistic		6.000		7.425		5.881		4.793		9.576

Note: Standardized coefficients are displayed in the table with standard errors

+ p = <0.1, \* p < .05; \*\* p <.01

N= 3,020

**Table 3.5:** Effects of Verbal Passion, Gender and Communication Style on Likelihood of Belonging to Positive Topic

	DV: Likelihood of Comment Belonging to Positive Topic									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
<b>Controls</b>										
Video views	0.0053	0.015	0.010	0.015	0.006	0.015	0.007	0.015	0.009	0.015
Video length	-0.013	0.009	-0.013	0.010	-0.012	0.010	-0.011	0.010	-0.012	0.010
Number of comments	-0.141**	0.017	-0.143**	0.017	-0.144**	0.017	-0.144**	0.017	-0.140**	0.017
Channel's age	0.067**	0.011	0.055**	0.011	0.056**	0.011	0.055**	0.011	0.057**	0.011
Channel's subscribers	0.195**	0.021	0.166**	0.021	0.176**	0.021	0.176**	0.021	0.162**	0.021
Channel's videos	-0.079**	0.013	-0.058**	0.013	-0.057**	0.013	-0.057**	0.013	-0.060**	0.013
Channel's views	-0.260**	0.024	-0.214**	0.024	-0.224**	0.024	-0.224**	0.024	-0.214**	0.024
Industry	0.007**	0.002	0.010**	0.002	0.010**	0.002	0.010**	0.002	0.010**	0.002
<b>Predictors</b>										
Entrep passion (verbal) (H1)			0.114**	0.010	0.117**	0.010	0.117**	0.010	0.110**	0.010
Gender			-0.084**	0.010	-0.080**	0.010	-0.080**	0.010	-0.081**	0.010
Agentic communication			0.013	0.010			0.011	0.010		
Communal communication			0.056**	0.010					0.060**	0.010
<b>Interactions</b>										
Entrep passion x Gender (H2)					-0.037**	0.010				
Entrep passion x Gender x Agentic communication (H3a)							-0.014	0.010		
Entrep passion x Gender x Communal communication (H3b)									0.016*	0.009
Constant	-0.769		-0.784		-0.792		-0.792		-0.788	
Log Likelihood	-32158		-31996		-32008		-32004		-31985	
Chi-square	491.181		814.254		791.647		799.327		836.804	

Note: Logit coefficients are displayed in the table with standard errors

\* p < .05; \*\* p < .01

N= 51,440

**Table 3.6:** *Effects of Vocal Passion, Gender and Communication Style on Comment Sentiment*

	DV: Comment Sentiment									
	Model 1		Model 2		Model 3		Model 4		Model 5	
<b>Controls</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
Vocal confidence	0.005	0.021	0.004	0.020	0.004	0.020	0.004	0.020	-0.011*	0.005
Video views	0.061**	0.018	0.054**	0.018	0.054**	0.018	0.053**	0.018	-0.002	0.004
Video length	-0.011	0.022	-0.007	0.022	-0.007	0.022	-0.007	0.022	0.006	0.006
Number of comments	0.024	0.020	0.016	0.020	0.016	0.020	0.014+	0.020	0.063**	0.005
Channel's age	0.102*	0.040	0.108**	0.040	0.113**	0.040	0.112**	0.040	0.148**	0.009
Channel's subscribers	-0.033	0.021	-0.016	0.021	-0.015	0.021	-0.015	0.021	-0.034**	0.005
Channel's videos	-0.141**	0.042	-0.143**	0.041	-0.147**	0.041	-0.146**	0.041	-0.301**	0.010
Channel's views	0.006	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.009**	0.001
Industry	0.005	0.021	0.004	0.020	0.004	0.020	0.004	0.020	-0.011*	0.005
<b>Predictors</b>										
Entrep passion (vocal) (H1)			0.018	0.022	0.028	0.025	0.028	0.025	0.089*	0.042
Gender			-0.089**	0.023	-0.100**	0.025	-0.100**	0.025	-0.491**	0.032
Agentic communication			0.039*	0.018			0.037	0.023		
Communal communication			0.012	0.018					0.085**	0.028
<b>Interactions</b>										
Entrep passion x Gender (H2)					0.027	0.026				
Entrep passion x Gender x Agentic communication (H3a)							-0.003	0.027		
Entrep passion x Gender x Communal communication (H3b)									-0.054	0.048
Constant	-0.019		-0.0175		-0.003		-0.003		-0.036	
R-Squared	0.012		0.020		0.015		0.020		0.019	
F-statistic	4.696		5.134		5.223		4.188		3.965	

Note: Standardized coefficients are displayed in the table with standard errors

+ p = <0.1, \* p < .05; \*\* p < .01

N= 3,020



**Table 3.7:** *Effects of Vocal Passion, Gender and Communication Style on Normalized Likes*

	DV: Normalized Likes									
	Model 1		Model 2		Model 3		Model 4		Model 5	
<b>Controls</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
Video views	-0.043*	0.021	0.125**	0.009	-0.045*	0.02	-0.044*	0.020	-0.043*	0.020
Video length	-0.059**	0.018	-0.073**	0.005	-0.053**	0.018	-0.053**	0.018	-0.048**	0.018
Number of comments	0.010	0.022	-0.288**	0.010	0.009	0.022	0.009	0.022	0.015	0.021
Channel's age	-0.006	0.020	0.004**	0.001	-0.006	0.02	-0.008	0.020	0.004	0.020
Channel's subscribers	-0.150**	0.040	-0.152**	0.040	-0.141**	0.04	-0.140**	0.040	-0.156**	0.040
Channel's videos	-0.029	0.021	-0.017	0.021	-0.015	0.021	-0.017	0.021	-0.018	0.021
Channel's views	0.089*	0.041	0.096*	0.041	0.086**	0.041	0.085*	0.041	0.097*	0.041
Industry	-0.006	0.004	-0.005	0.004	-0.006	0.004	-0.006	0.004	-0.005	0.004
<b>Predictors</b>										
Entrep passion (vocal) (H1)			0.013	0.006	0.081**	0.025	0.078**	0.025	0.081**	0.024
Gender			-0.001	0.004	-0.000	0.025	-0.002	0.025	0.005	0.025
Agentic communication			0.002	0.006			0.047	0.023		
Communal communication			0.066**	0.005					0.142**	0.024
<b>Interactions</b>										
Entrep passion x Gender (H2)					0.022	0.026				
Entrep passion x Gender x Agentic communication (H3a)							0.052	0.027		
Entrep passion x Gender x Communal communication (H3b)									0.063*	0.026
Constant	0.021		0.013		0.033		0.031		0.036	
R-Squared	0.016		0.033		0.023		0.025		0.048	
F-statistic	6.000		8.683		6.402		5.178		10.12	

Note: Standardized coefficients are displayed in the table with standard errors

\* p < .05; \*\* p < .01

N= 3,020

**Table 3.8:** *Effects of Vocal Passion, Gender and Communication Style on Likelihood of Belonging to Positive Topic*

	DV: Likelihood of Comment Belonging to Positive Topic									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
<b>Controls</b>										
Video views	0.005	0.015	0.014	0.015	0.009	0.015	0.009	0.015	0.013	0.015
Video length	-0.013	0.009	-0.013	0.010	-0.013	0.010	-0.014	0.010	-0.014	0.010
Number of comments	-0.141**	0.017	-0.141**	0.017	-0.137**	0.017	-0.135**	0.017	-0.134**	0.017
Channel's age	0.067**	0.011	0.067**	0.011	0.064**	0.011	0.063**	0.011	0.063**	0.011
Channel's subscribers	0.195**	0.021	0.191**	0.021	0.216**	0.021	0.215**	0.021	0.200**	0.021
Channel's videos	-0.079**	0.013	-0.054**	0.013	-0.049**	0.013	-0.049**	0.013	-0.053**	0.013
Channel's views	-0.260**	0.024	-0.251**	0.024	-0.272**	0.024	-0.272**	0.024	-0.258**	0.024
Industry	0.007**	0.002	0.009**	0.002	0.011**	0.002	0.011**	0.002	0.011**	0.002
<b>Predictors</b>										
Entrep passion (vocal) (H1)			0.031**	0.012	0.008	0.013	0.006	0.013	0.006	0.013
Gender			-0.089**	0.012	-0.140**	0.014	-0.141**	0.014	-0.136**	0.014
Agentic communication			0.009	0.009			0.044**	0.014		
Communal communication			0.069**	0.009					0.086**	0.013
<b>Interactions</b>										
Entrep passion x Gender (H2)					0.086**	0.014				
Entrep passion x Gender x Agentic communication (H3a)							0.043**	0.015		
Entrep passion x Gender x Communal communication (H3b)									0.029*	0.015
Constant	-0.769		-0.781		-0.731		-0.731		-0.733	
Log Likelihood	-32158		-32059		-32068		-32063		-32040	
Chi-square	491.182		688.543		670.040		681.362		726.974	

Note: Logit coefficients are displayed in the table with standard errors

\* p < .05; \*\* p < .01; N= 51,440

**Table 3.9:** *Effects of Facial Passion, Gender and Communication Style on Comment Sentiment*

	DV: Comment Sentiment									
	Model 1		Model 2		Model 3		Model 4		Model 5	
<b>Controls</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
Video views	0.005	0.021	0.004	0.020	0.004	0.020	0.004	0.020	0.004	0.020
Video length	0.061**	0.018	0.057**	0.018	0.056**	0.018	0.055**	0.018	0.056**	0.018
Number of comments	-0.011	0.022	-0.008	0.022	-0.008	0.022	-0.008	0.022	-0.009	0.022
Channel's age	0.024	0.020	0.017	0.020	0.019	0.020	0.016	0.020	0.020	0.020
Channel's subscribers	0.102*	0.040	0.106**	0.040	0.110**	0.040	0.110**	0.040	0.110**	0.040
Channel's videos	-0.033	0.021	-0.014*	0.021	-0.013	0.021	-0.013	0.021	-0.013	0.021
Channel's views	-0.141**	0.042	-0.142**	0.041	-0.146**	0.041	-0.145**	0.041	-0.145**	0.041
Industry	0.006	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004
<b>Predictors</b>										
Entrep passion (facial) (H1)			0.030	0.019	0.022	0.019	0.022	0.019	0.020	0.019
Gender			-0.071**	0.019	-0.072**	0.019	-0.072**	0.019	-0.071**	0.019
Agentic communication			0.038*	0.018			0.036+	0.019		
Communal communication			0.012	0.018					0.006	0.019
<b>Interactions</b>										
Entrep passion x Gender (H2)					-0.032	0.019				
Entrep passion x Gender x Agentic communication (H3a)							-0.009	0.019		
Entrep passion x Gender x Communal communication (H3b)									-0.047*	0.019
Constant	-0.019		-0.017		-0.025		-0.025		-0.024	
R-Squared	0.012		0.021		0.016		0.022		0.022	
F-statistic	4.696		5.288		5.575		4.462		4.564	

Note: Standardized coefficients are displayed in the table with standard errors

+ p = <0.1, \* p < .05; \*\* p <.01

N= 3,020

**Table 3.10:** *Effects of Facial Passion, Gender and Communication Style on Normalized Likes*

	DV: Normalized Likes									
	Model 1		Model 2		Model 3		Model 4		Model 5	
<b>Controls</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
Facial confidence	-0.043*	0.021	-0.043*	0.020	-0.043*	0.020	-0.043*	0.020	-0.041*	0.020
Video views	-0.059**	0.018	-0.058**	0.018	-0.061**	0.018	-0.062**	0.018	-0.055**	0.018
Video length	0.010	0.022	0.016	0.022	0.012	0.022	0.012	0.022	0.017	0.022
Number of comments	-0.006	0.020	-0.006	0.020	-0.008	0.020	-0.01	0.020	0.001	0.020
Channel's age	-0.150**	0.040	-0.158**	0.040	-0.149**	0.040	-0.151**	0.040	-0.162**	0.040
Channel's subscribers	-0.029	0.021	-0.019	0.021	-0.018	0.021	-0.018	0.021	-0.018	0.021
Channel's videos	0.089*	0.041	0.097*	0.041	0.088*	0.041	0.091*	0.041	0.098*	0.041
Channel's views	-0.006	0.004	-0.006	0.004	-0.007+	0.004	-0.007+	0.004	-0.006	0.004
Industry	-0.043*	0.021	-0.043*	0.020	-0.043*	0.020	-0.043*	0.020	-0.041*	0.020
<b>Predictors</b>										
Entrep passion (facial) (H1)			0.041*	0.019	0.038+	0.019	0.038**	0.019	0.034+	0.019
Gender			-0.026	0.019	-0.033+	0.019	-0.033+	0.019	-0.028	0.019
Agentic communication			0.013	0.018			0.021	0.019		
Communal communication			0.103**	0.018					0.100**	0.018
<b>Interactions</b>										
Entrep passion x Gender (H2)					-0.009	0.019				
Entrep passion x Gender x Agentic communication (H3a)							0.002	0.019		
Entrep passion x Gender x Communal communication (H3b)									-0.029	0.019
Constant	0.021		0.021		0.021		0.021		0.024	
R-Squared	0.016		0.030		0.019		0.023		0.042	
F-statistic	6.000		7.679		5.272		4.711		8.777	

Note: Standardized coefficients are displayed in the table with standard errors

+ p = <0.1, \* p < .05; \*\* p <.01

N= 3,020

**Table 3.11:** *Effects of Facial Passion, Gender and Communication Style on Likelihood of Belonging to Positive Topic*

	DV: Likelihood of Comment Belonging to Positive Topic									
	Model 1		Model 2		Model 3		Model 4		Model 5	
<b>Controls</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
Facial confidence	0.005	0.015	0.012	0.015	0.008	0.015	0.009	0.015	0.012	0.015
Video views	-0.013	0.009	-0.014	0.010	-0.014	0.010	-0.013	0.010	-0.014	0.010
Video length	-0.141**	0.017	-0.138**	0.017	-0.139**	0.017	-0.140**	0.017	-0.136**	0.017
Number of comments	0.067**	0.011	0.065**	0.011	0.069**	0.011	0.069**	0.011	0.068**	0.011
Channel's age	0.195**	0.021	0.185**	0.021	0.198**	0.021	0.194**	0.021	0.182**	0.021
Channel's subscribers	-0.079**	0.013	-0.056**	0.013	-0.054**	0.013	-0.056**	0.013	-0.057**	0.013
Channel's videos	-0.260**	0.024	-0.248**	0.024	-0.260**	0.024	-0.257**	0.024	-0.247**	0.024
Channel's views	0.007**	0.002	0.009**	0.002	0.009**	0.002	0.009**	0.002	0.009**	0.002
Industry	0.005	0.015	0.012	0.015	0.008	0.015	0.009	0.015	0.012	0.015
<b>Predictors</b>										
Entrep passion (facial) (H1)			0.014	0.010	0.022*	0.010	0.023*	0.010	0.018+	0.010
Gender			-0.104**	0.010	-0.109**	0.010	-0.109**	0.010	-0.107**	0.010
Agentic communication			0.010	0.009			0.030**	0.011		
Communal communication			0.069	0.009					0.069**	0.010
<b>Interactions</b>										
Entrep passion x Gender (H2)					0.021*	0.009				
Entrep passion x Gender x Agentic communication (H3a)							0.033**	0.011		
Entrep passion x Gender x Communal communication (H3b)									0.005	0.009
Constant	-0.769		-0.779		-0.779		-0.773		-0.773	
Log Likelihood	-32158		-32061		-32086		-32080		-32056	
Chi-square	491.182		684.545		633.923		646.412		694.669	

Note: Logit coefficients are displayed in the table with standard errors

\* p < .05; \*\* p < .01

N= 51,440

**Table 4.1: Means, Standard Deviations, and Correlations Among Study Variables**

Variables	Mean	Std	1	2	3	4	5	6	7	8	9	10	11
1. Relaunch	0.132	0.339											
2. Pre-failure tweet passion	0.068	0.082	-.02										
3. Post-failure tweet confidence	0.208	0.129	-.04	.02									
4. Number of twitter followers	645.85	10191.46	-.02	.09	-.07								
5. Fundraising goal	54588.80	22730.38	.11	-.07	-.09	-.01							
6. Percent raised	13.64	20.13	.18	.02	-.03	.04	-.09						
7. Campaign duration	34.24	11.13	-.08	-.01	.03	-.02	.14	-.09					
8. Number of campaign backers	32.44	70.83	.04	-.08	-.01	-.02	.02	.41	.03				
9. Gender	1.29	0.523	-.01	.06	.02	.07	-.06	.01	.02	-.05			
10. Ethnicity	2.24	0.932	-.18	-.04	.07	-.05	.07	-.14	.03	-.02	-.19		
11. Tweets favorites	2.05	5.17	-.01	.14	-.06	.38	-.03	.08	-.01	.05	.05	-.07	
12. Tweets retweets	1.27	8.74	-.02	.01	-.07	.53	-.01	.02	-.03	.02	.01	-.03	.39

Note: Project category not listed. Men coded as 1; women coded as 2; unidentified coded as 3. White coded as 1; non-white coded as 2; unidentified coded as 3.

$r \geq |.13| = p < .01$ ;  $r > |.85|$  &  $< |.13| = p < .05$

N = 553

**Table 4.2:** *Effect of Pre-failure Passion on Post-failure Confidence*

DV: Post-failure Tweet Confidence				
	Model 1		Model 2	
<b>Controls</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
Goal	-0.000*	0.000	-0.000**	0.000
Percent raised	-0.000	0.000	-0.000	0.000
Category	-0.002	0.002	-0.001	0.002
Project duration	0.000	0.000	0.000	0.000
Backers	-0.000	0.000	-0.000	0.000
Gender	0.009	0.011	-0.015	0.012
Ethnicity	0.009	0.006	0.003	0.006
Tweet favorites	-0.000	0.001	-0.002	0.001
Tweet retweets	-0.009	0.001	-0.000	0.001
 <b>Predictor</b>				
Pre-failure tweet passion (H1)			-0.006	0.074
Constant	0.180		0.218	
R-Squared	0.025		0.025	
F-statistic	1.395		1.279	

Note: Standardized coefficients are displayed in the table with standard errors

\* p < .05; \*\* p < .01

N = 553

**Table 4.3:***Effects of Pre-failure Passion, Post-failure Confidence and Twitter Followers on the Likelihood of Relaunching*

	DV: Likelihood of Relaunching					
	Model 1		Model 2		Model 3	
	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>	<b>B</b>	<b>SE</b>
<b>Controls</b>						
Goal	0.000**	0.001	0.001**	0.001	0.001**	0.001
Percent raised	0.015**	0.003	0.010**	0.003	0.019**	0.001
Category	-0.196**	0.022	-0.204**	0.002	-0.197**	0.001
Project duration	-0.029**	0.007	-0.294**	0.007	-0.027**	0.007
Backers	-0.001	0.001	-0.001	0.001	-0.001	0.001
Gender	-0.380*	0.158	-0.399*	0.161	-0.401*	0.162
Ethnicity	-0.660**	0.083	-0.660**	0.084	0.653**	0.084
Tweet favorites	0.005	0.024	0.013	0.025	0.037	0.031
Tweet retweets	-0.043	0.056	-0.053	0.057	-0.079	0.063
<b>Predictors</b>						
Pre-failure tweet passion (H2)			-2.617*	1.019		
Post-failure tweet confidence (H3)			-0.424	0.563	-0.278	0.586
Twitter followers			0.000	0.000	0.000	0.000
<b>Interaction</b>						
Post-failure tweet confidence x Twitter followers (H4)					-0.010*	0.003
Constant	4.010		4.343		4.206	
Log Likelihood	-570.075		-566.174		-561.122	
Chi-square	62.465		65.334		65.335	

Note: Logit coefficients are displayed in the table with standard errors

\* p &lt; .05; \*\* p &lt; .01

N = 553



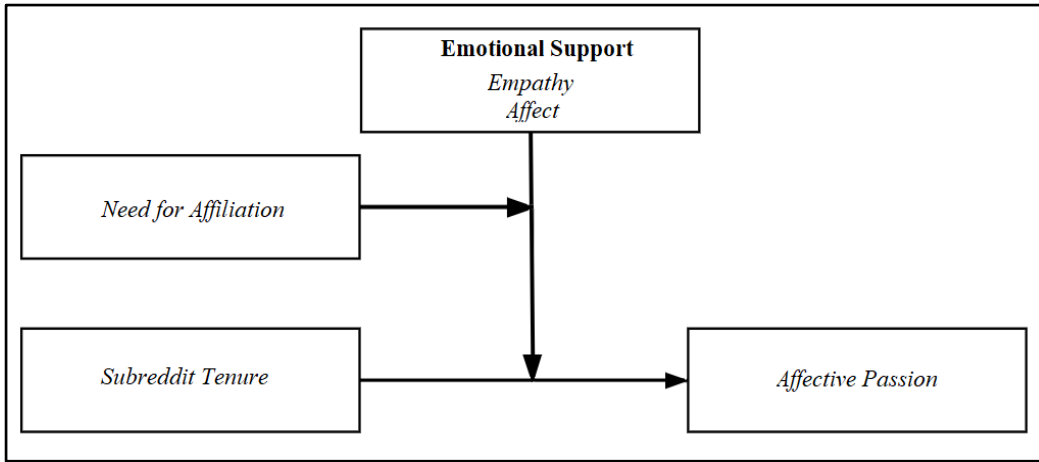
**Table 4.4: Results Summary**

Hypothesis	Direction	Significance	Results
<b>Study 1</b>			
H1: User tenure in the subreddit will have a positive relationship with affective passion	Expected Direction	Significant	Supported
H2a: Comment empathy will strengthen the relationship between tenure in the subreddit and affective passion such that this relationship will be strongest when comment empathy is higher.	Expected Direction	Not Significant	Not Supported
H2b: Comment affect will strengthen the relationship between tenure in the subreddit and affective passion such that this relationship will be strongest when comment affect is higher.	Expected Direction	Not Significant	Not Supported
H3a: The positive relationship between tenure in the subreddit and affective passion will be greater with more comment empathy when an individual's need for affiliation is also higher.	Expected Direction	Not Significant	Not Supported
H3b: The positive relationship between tenure in the subreddit and affective passion will be greater with more comment affect when an individual's need for affiliation is also higher.	Expected Direction	Not Significant	Not Supported
<b>Study 2</b>			
H1: Entrepreneurial passion will be positively associated with favorable viewer responses.	Expected Direction	Significant	Supported <sup>a1, a3, b3, c2</sup>
H2: Passion expressed by men will result in more favorable viewer responses than passion expressed by women.	Expected Direction	Significant	Supported <sup>a2, a3, b3, c3</sup>
H3a: Passion expressed by men whose communication style is highly agentic will receive more favorable viewer responses than that from men whose communication style is less agentic.	Expected Direction	Significant	Supported <sup>b3, c3</sup>
H3b: Passion expressed by women whose communication style is highly communal will receive more favorable viewer responses than that from women whose communication style is less communal.	Expected Direction	Significant	Supported <sup>a2, a3, b2, b3, c1</sup>
<b>Study 3</b>			
H1: Affective passion in pre-failure venture-related tweets will be positively related to confidence in post-failure venture-related tweets.	Opposite Direction	Not Significant	Not Supported
H2: Affective passion in pre-failure venture-related tweets will be positively associated with a greater likelihood of relaunching a subsequent campaign.	Opposite Direction	Significant	Not Supported
H3: Confidence in post-failure venture-related tweets will be positively associated with a greater likelihood of relaunching a subsequent campaign.	Opposite Direction	Not Significant	Not Supported
H4: The relationship between post-failure confidence and the likelihood of relaunching will be moderated by the size of the founder's Twitter following such that those with larger followings will have a greater likelihood of relaunching.	Opposite Direction	Significant	Not Supported

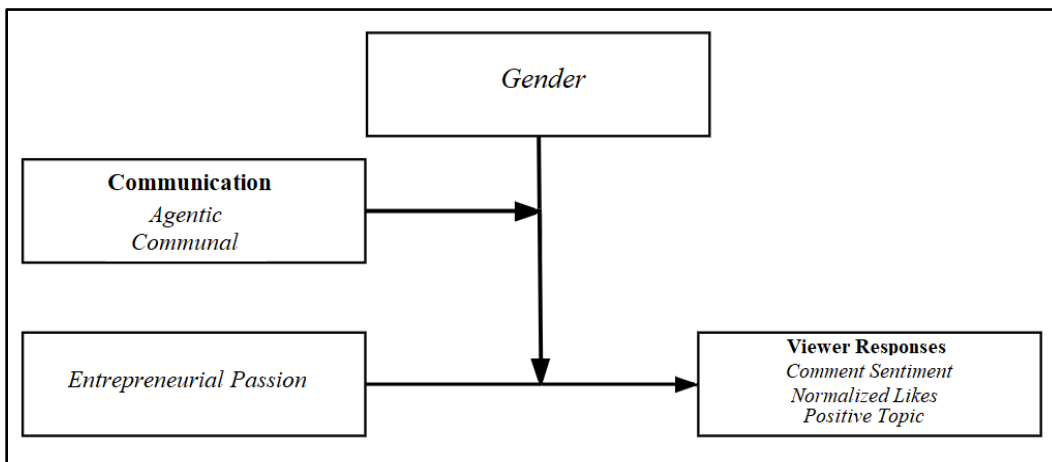
Predictors: a = verbal passion; b = vocal passion; c = facial passion

Outcomes: 1 = comment sentiment; 2 = normalized likes; 3 = likelihood of comment belonging to the positive topic

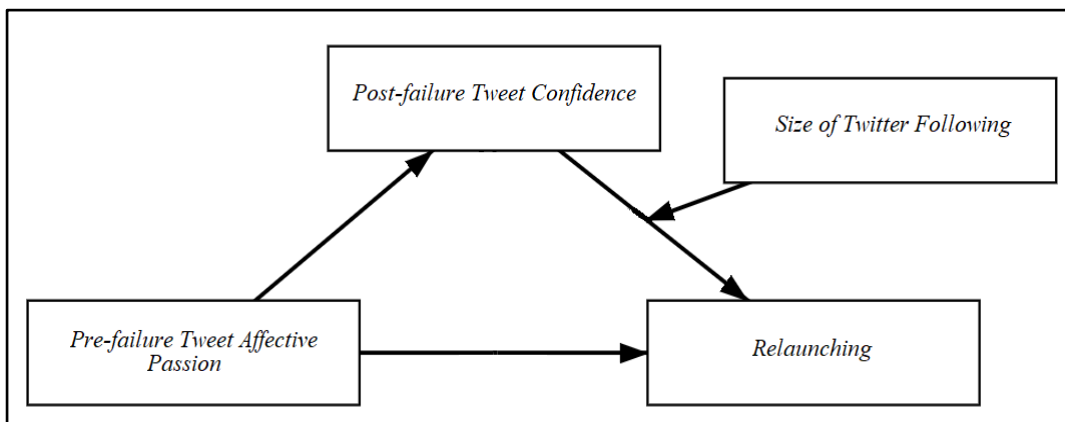
**Figure 2.1: Conceptual Models for Studies**



**Conceptual model for study 1**

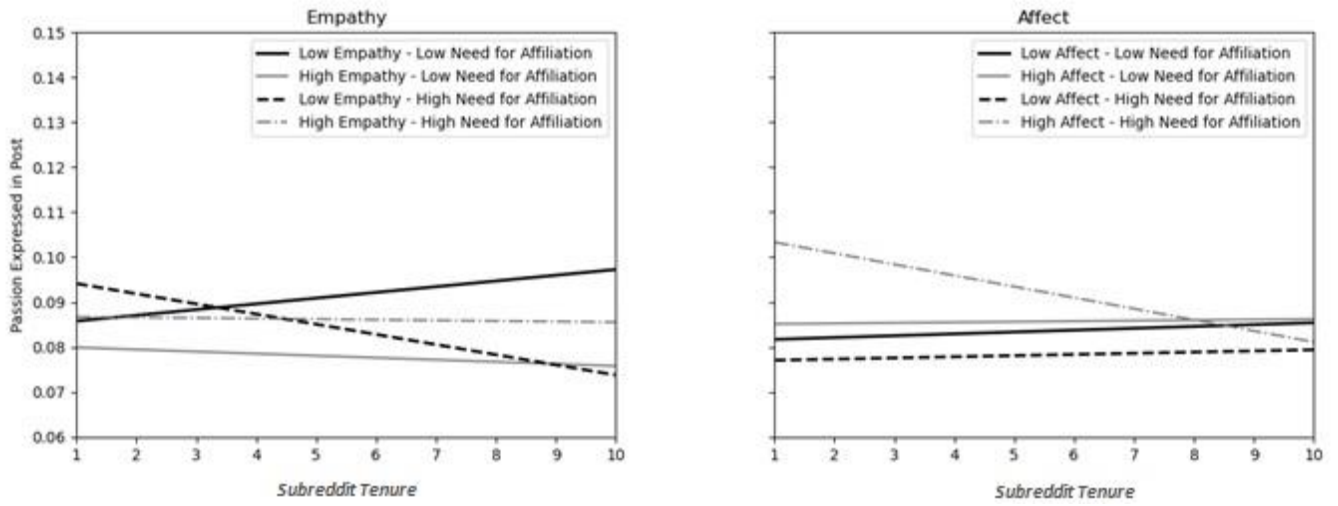


**Conceptual model for study 2**

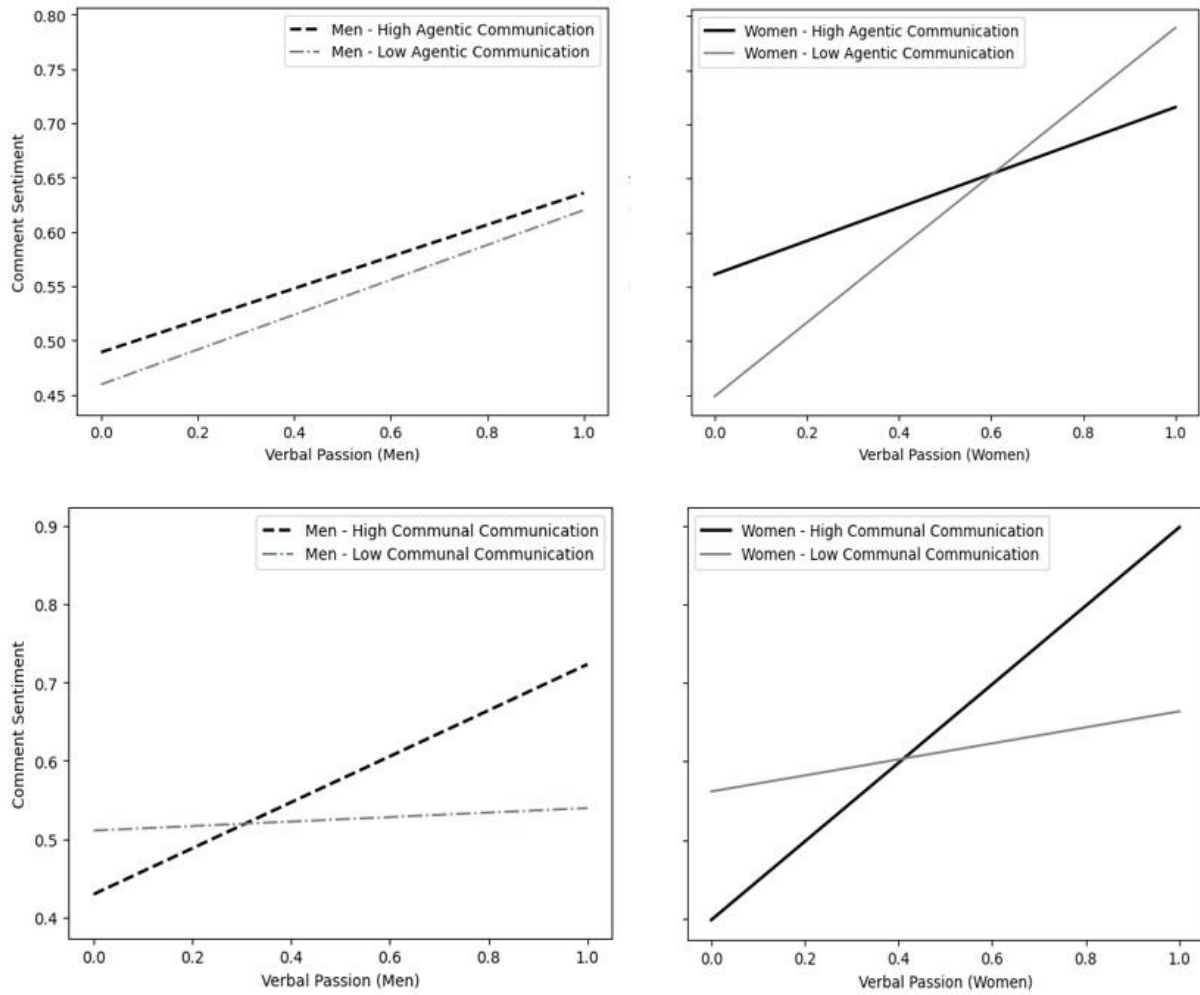


**Conceptual model for study 3**

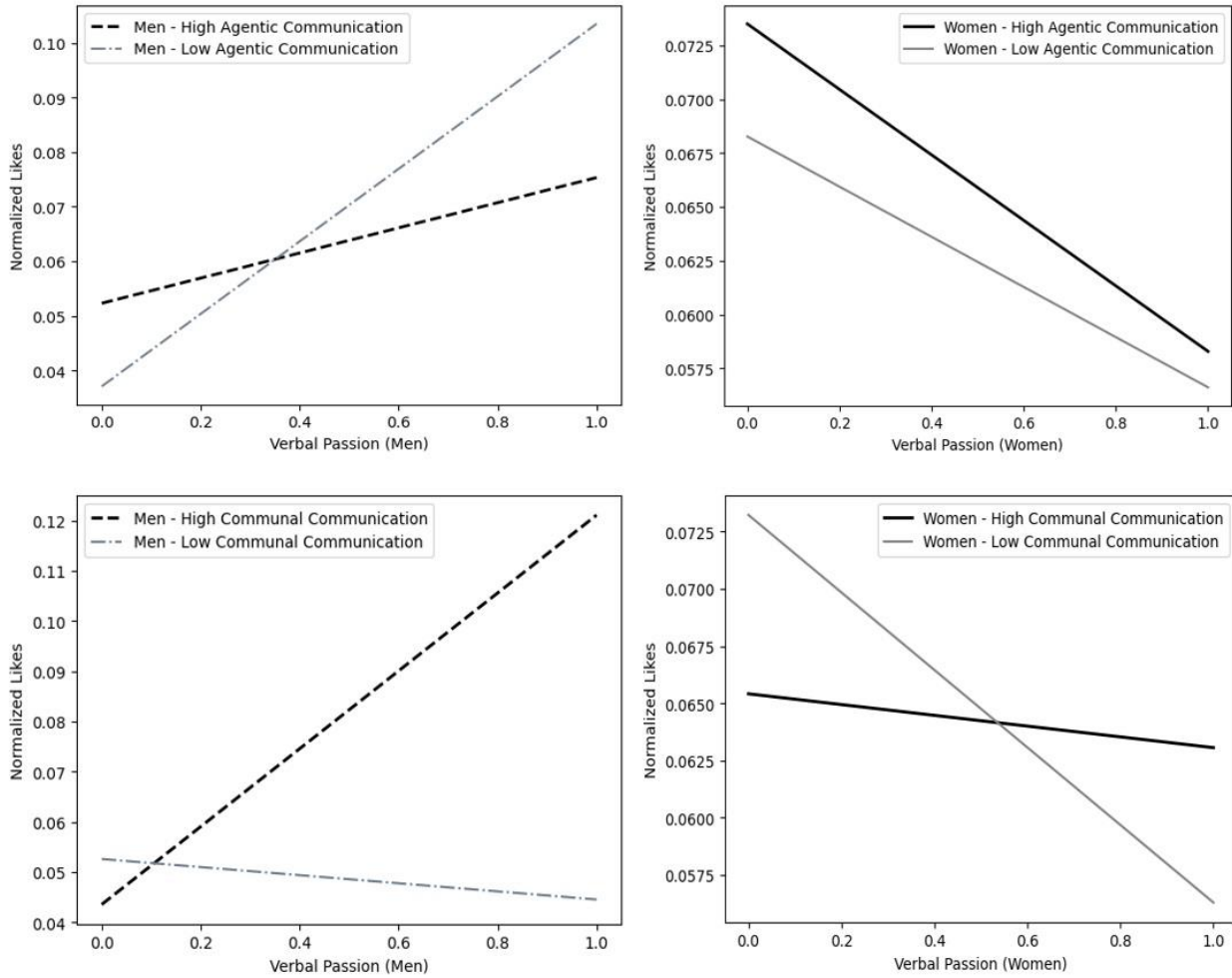
**Figure 2.2:**  
*Effects for Emotional Support and User Need for Affiliation on the Development of Passion Within the Subreddit*



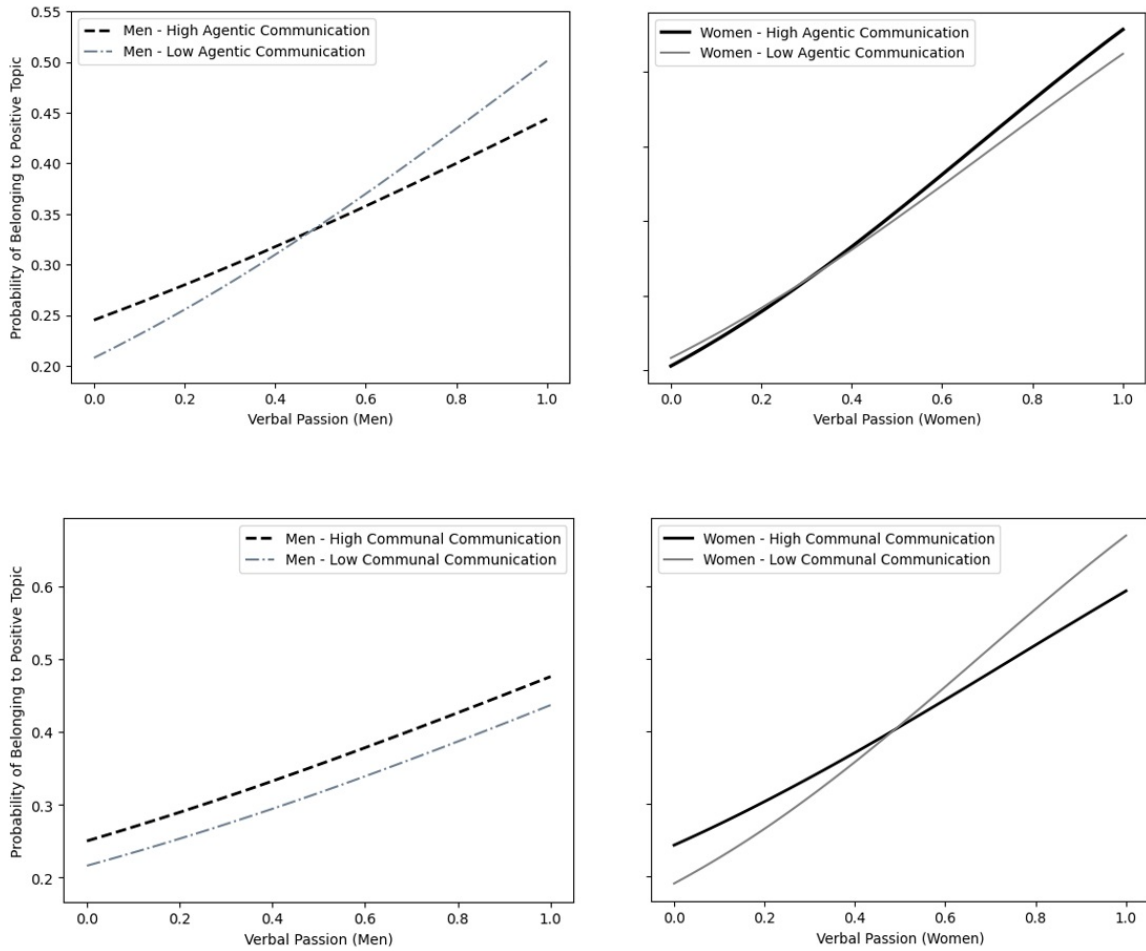
**Figure 3.1:** Effects of Gender and Communication Style on the Verbal Passion to Comment Sentiment Relationship



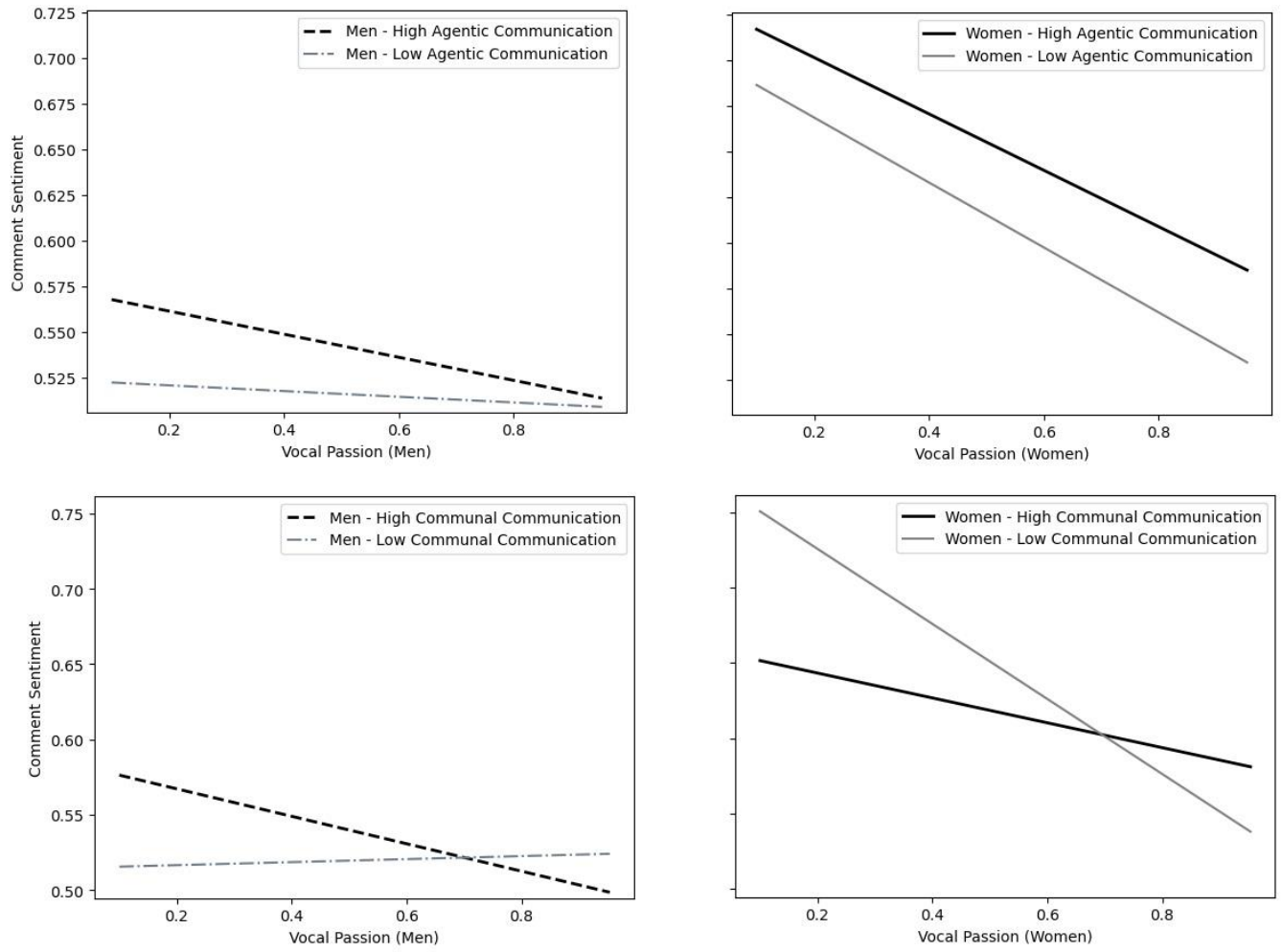
**Figure 3.2:** Effects of Gender and Communication Style on the Verbal Passion to Normalized Likes Relationship



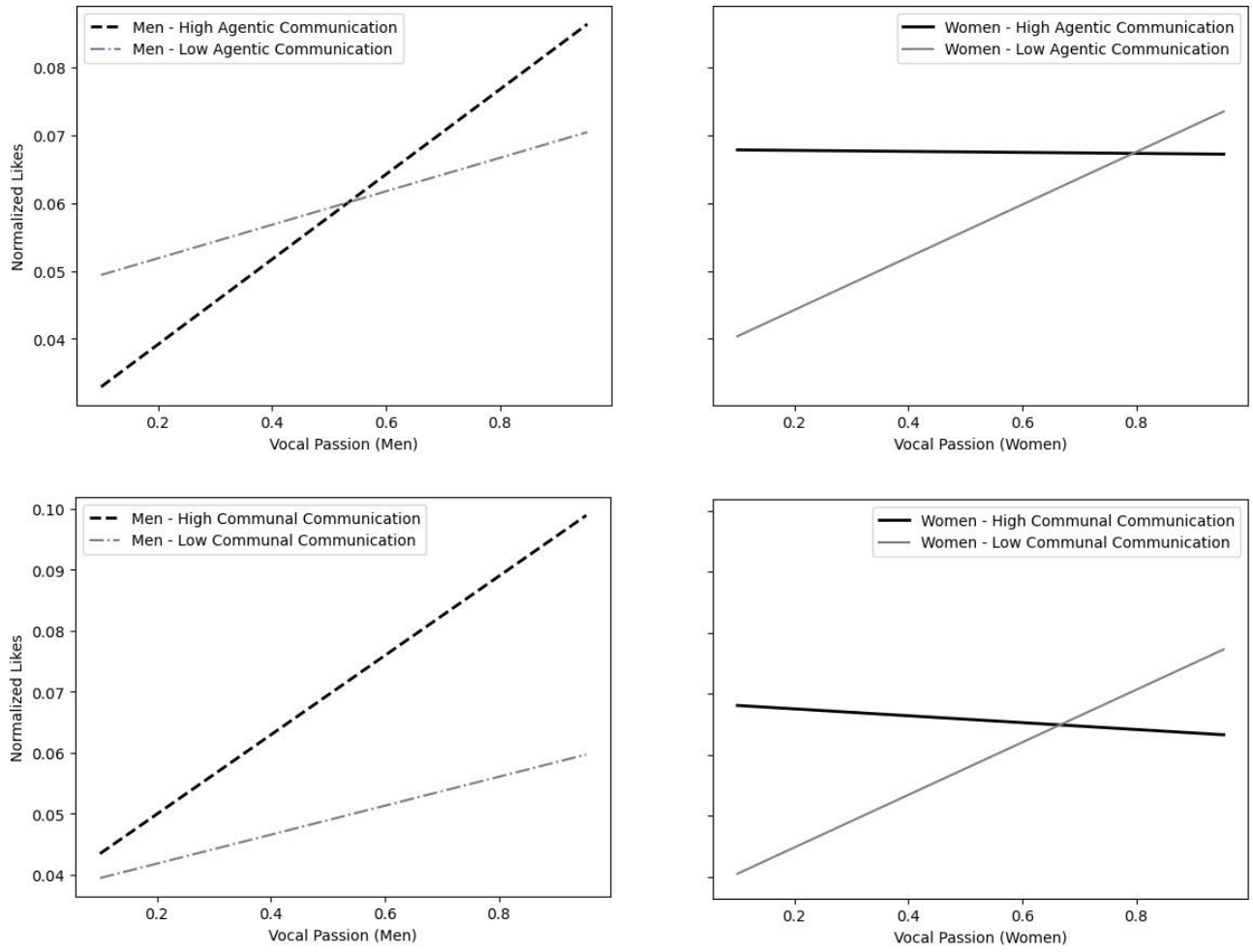
**Figure 3.3:** *Effects of Verbal Passion, Gender and Communication Style on Comments Belonging to Positive Topic*



**Figure 3.4:** *Effects of Gender and Communication Style on the Vocal Passion to Comment Sentiment Relationship*

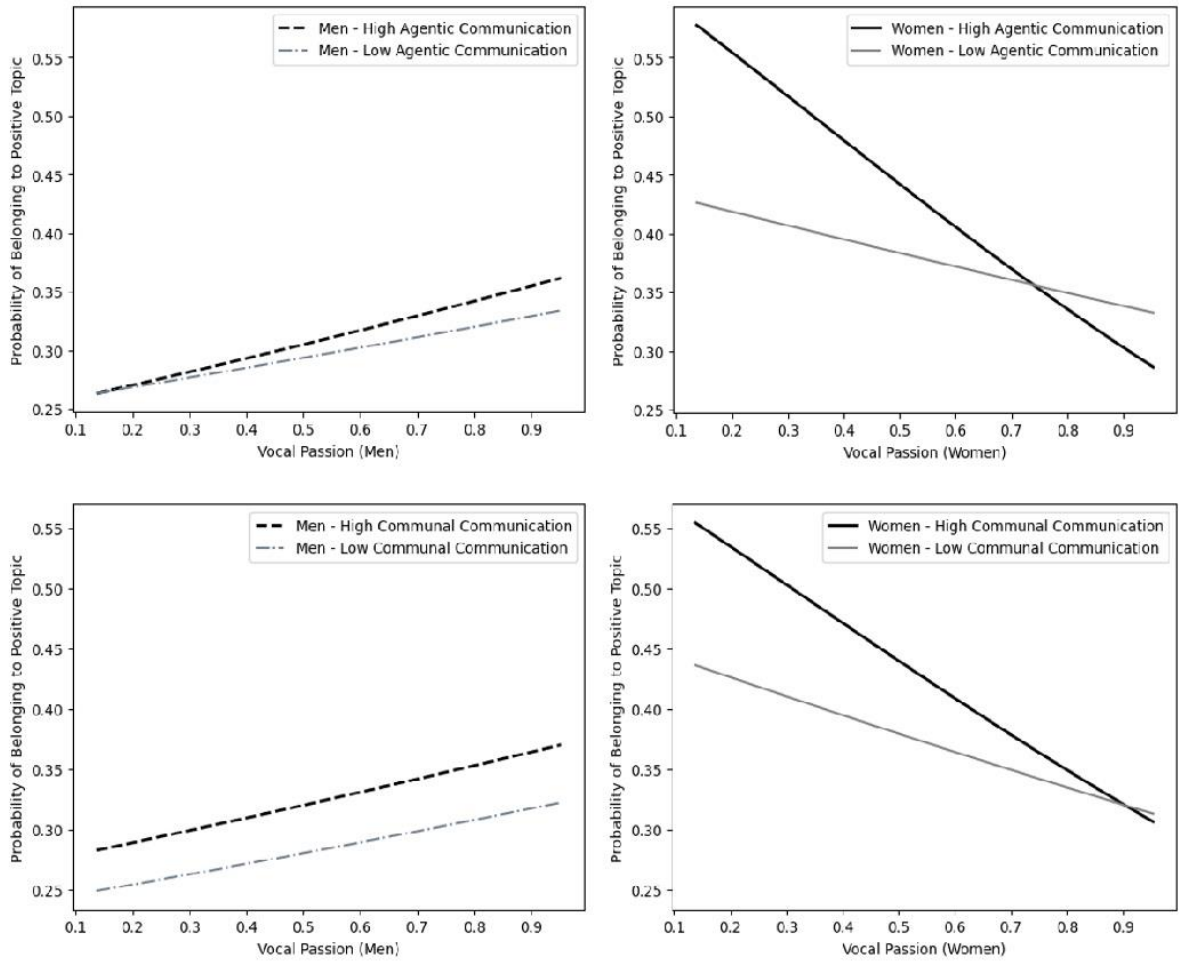


**Figure 3.5:** *Effects of Gender and Communication Style on the Vocal Passion to Normalized Likes Relationship*

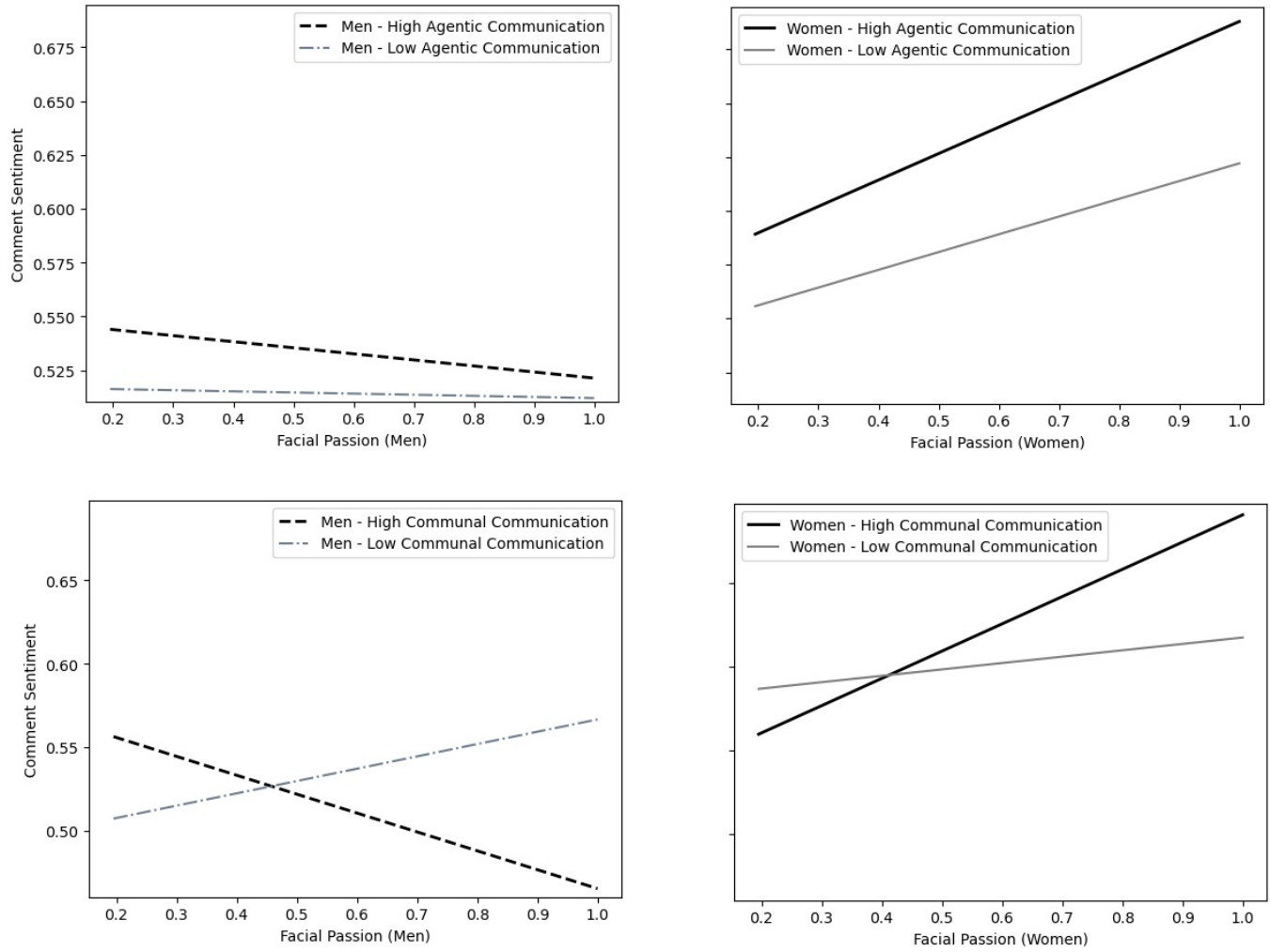




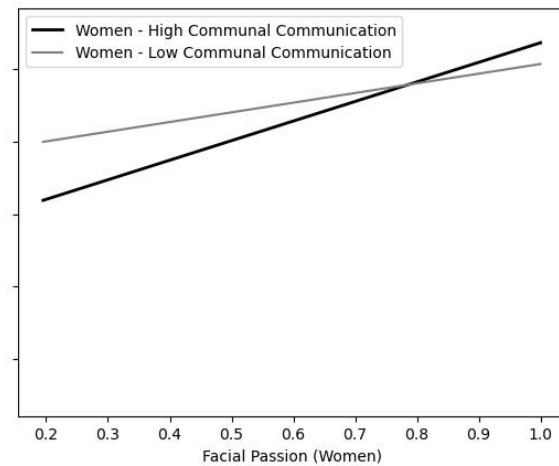
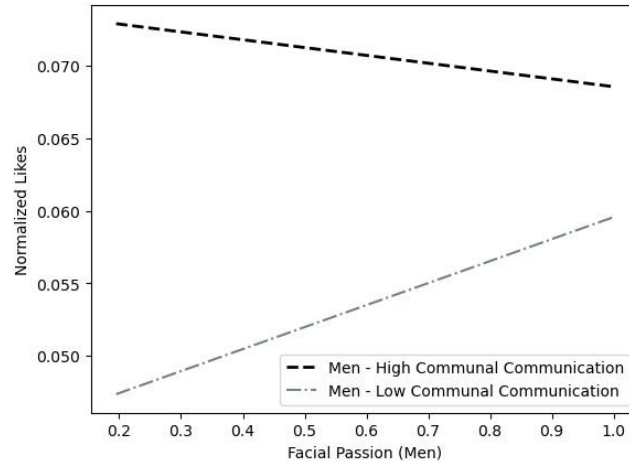
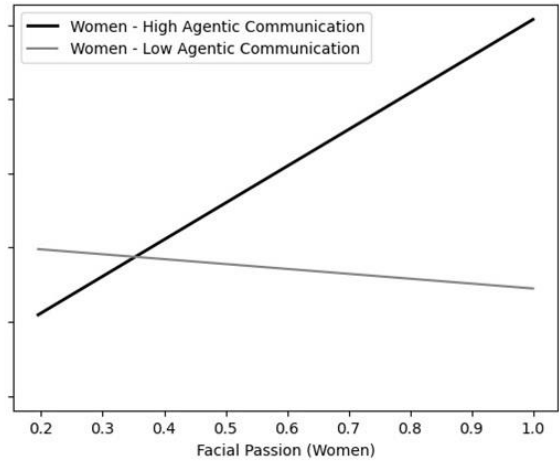
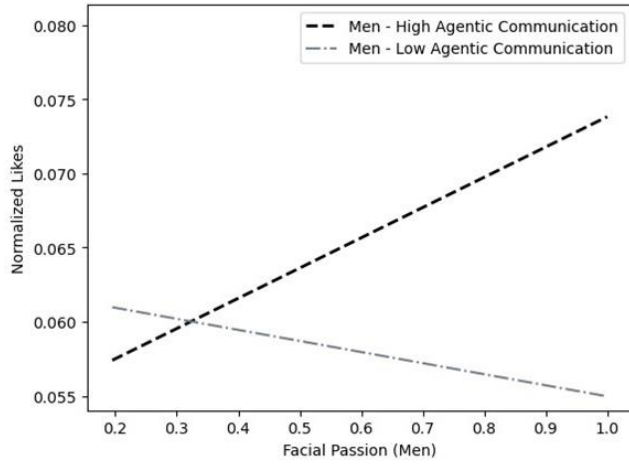
**Figure 3.6:** Effects of Vocal Passion, Gender and Communication Style on Comments Belonging to Positive Topic



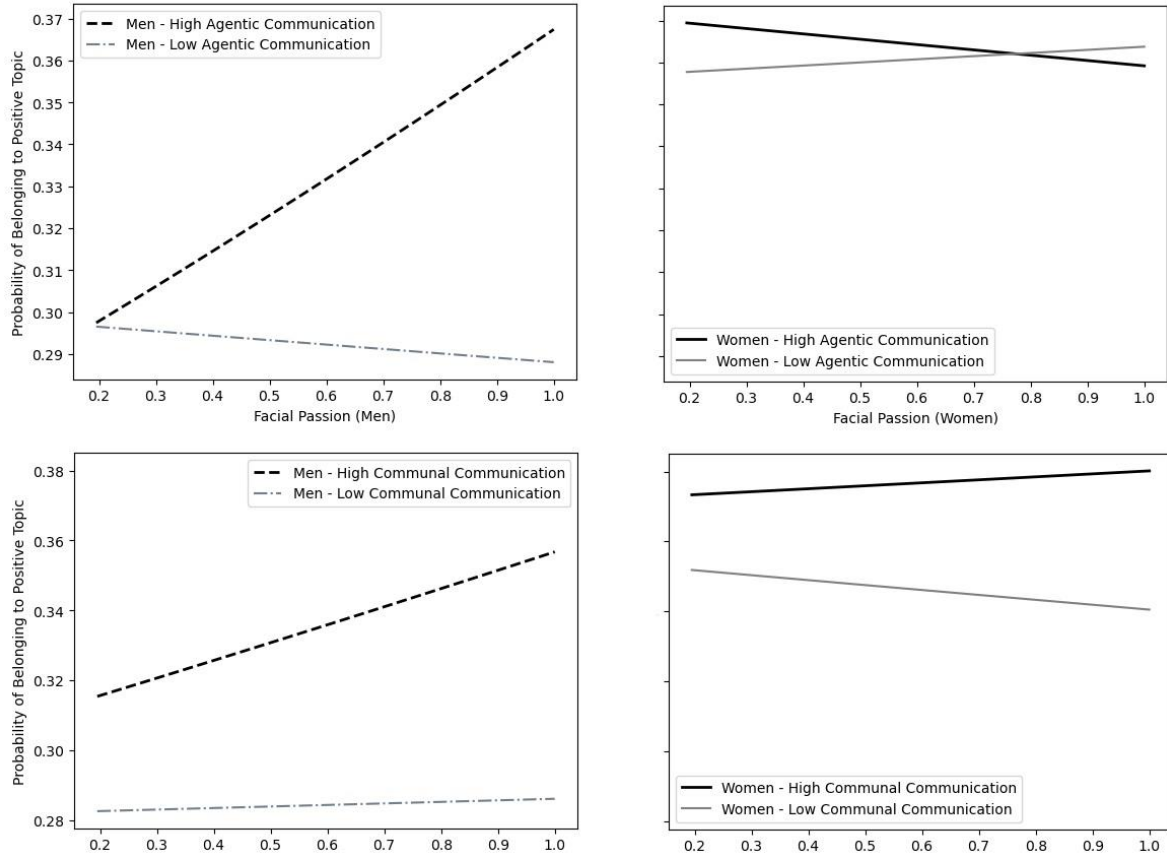
**Figure 3.7:** Effects of Gender and Communication Style on the Facial Passion to Comment Sentiment Relationship



**Figure 3.8:** *Effects of Gender and Communication Style on the Facial Passion to Normalized Likes Relationship*



**Figure 3.9:** *Effects of Facial Passion, Gender and Communication Style on Comments Belonging to Positive Topic*



**Figure 4.1:** *Effects of Twitter Followers on Relationship Between Confidence and Probability to Relaunch*

