

Volume 2, Number 1

**Print ISSN: 2574-0415
Online ISSN: 2574-0423**

GLOBAL JOURNAL OF ENTREPRENEURSHIP

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WOMEN ENTREPRENEURS AND THE INFLUENCE OF GENDER ON SUCCESSFUL FRANCHISING

Martin J. McDermott, Purdue University Global
David H. Butler, Purdue University Global

ABSTRACT

This study explores the influence of gender on franchise business ownership. Franchising is a common form of small business ownership. Previous research suggests one of the greatest problems for franchise organizations is attaining franchisees that are a good match for their system. Research on entrepreneurs not constrained to franchisees has found that they can be dissatisfied with operating and owning their own business; and furthermore, that gender can affect success. Previous studies have shown that compared to men, fewer women pursue a career in entrepreneurship, perform not as well on almost every business performance measure and have more difficulty obtaining business financing for their business venture. Previous research has also suggested undercapitalization is frequently the biggest obstacle that an entrepreneur can face when it comes to growth. This study wanted to learn if women franchise business owners are significantly more dissatisfied with owning and operating a franchise compared to franchises owned by men. Findings reported here indicate that of the several franchise categories studied, less women pursue a franchise compared to men. Additional findings reported that in contrast to research findings on non-franchisee entrepreneurs, gender was not correlated to satisfaction.

INTRODUCTION

This follow-on study examines the influence of gender on satisfaction associated with successful franchise business ownership. Franchising takes place when an organization, called a franchisor, sells the rights to market its branded goods and use its business methods (Chirico, Ireland, & Simon, 2011). Previous research has explored the impact of gender on entrepreneurship (Brush, 2006; Shane, 2008; Gupta, Turban, Wasti, & Sikdar, 2009; Fairlie & Robb, 2009; Robb, Coleman, & Stangler, 2014; Sarfaraz, Nezameddin & Armaghan, 2014; McManus, 2017), yet limited research has focused specifically on the franchise format of business ownership. This study seeks to fill this gap in research.

According to the International Franchise Association Foundation (2018), 30.6 percent of franchised businesses were female-owned compared to 32.8 percent of non-franchised businesses in 2012. The question of whether a franchise owner's gender is significant because it will determine best practices for evaluating future franchisee acceptance by franchisors. Much literature suggests there is a relationship between gender and entrepreneurship. However, a franchise model is very different from other entrepreneurial ventures. Therefore, it is important to know whether the factors that apply to non-franchise business opportunities are the same as those that work for a franchise.

Problem Background

Franchising has become a popular form of business ownership. The Small Business Administration (2016) estimated in 2012, there were almost 30 million small businesses in the

U.S. Approximately 800,00 of these small businesses were classified as franchises. IHS Markit Economics (2017) estimates that nominal GDP of the franchise sector will increase by 6.2% in 2018 to \$757 billion. In spite of playing a significant role in United States economy, franchising still faces challenges. Previous studies on franchising suggests one of the greatest challenges for franchisors is obtaining franchise business owners that are a good partner for their system (Saraogi, 2009; Ramirez-Hurtado, Rondan-Cataluna, Guerrero-Casas, & Berbel-Pineda, 2011, McDermott, Boyd, & Weaver, 2015; McDermott & Boyd, 2017). To explore this difficulty, prior research on the subject of franchising has focused on significant traits of successful franchise business owners (Withane, 1991; Saraogi, 2009; McDermott, 2010; Ramirez-Hurtado, Rondan-Cataluna, Guerrero-Casas, & Berbel-Pineda, 2011). Interestingly, limited research has explored the impact of gender on franchise business ownership satisfaction which is explored in this study.

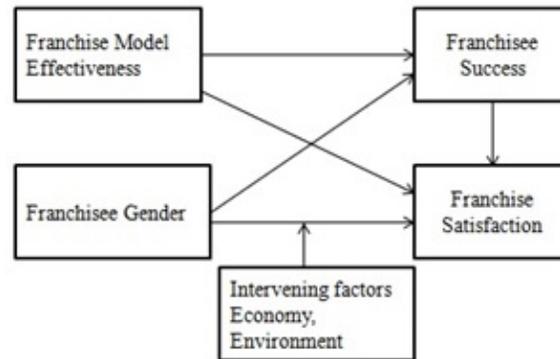
In addition to the challenge of finding qualified franchisees, McManus (2017), suggests one of the biggest problems for female entrepreneurs is raising capital to finance their business. Moreover, women-owned entrepreneurs raise smaller amounts of capital to finance their firms and are more reliant on personal, rather than external sources of financing. According to McManus (2017), statistics on business financing can be limited as it does not capture the decision-making process when requesting credit or the percentage of denial for different credit sources. Kynm's (2014) research suggests that compared to men, women are more likely to feel discouraged from applying for business loans from traditional lenders. Shane (2008) suggests another theory for females having trouble raising capital is that women pursue opportunities that are less profitable and are more likely to be found in less appealing industries. The issue of financing, as a major impediment to business success, is further supported by studies that found undercapitalization is frequently the biggest obstacle that an entrepreneur can face when it comes to growth (Brush et al., 2006; Hill et al., 2006). This obstacle makes entrepreneurship more challenging for women and might lead to lower levels of satisfaction and success in owning and operating a business. Abraham (2012) suggests job satisfaction is a significant measuring tool as it produces outcomes associated with successful organizations such as higher engagement, enhanced productivity, more loyal customers, a higher level of motivation, and more dedication to the job.

Grounds for the Study

This study attempts to determine the impact of gender on franchise ownership satisfaction. Because of the challenges faced by many women in starting a business, this research specifically wanted to learn if female franchise business owners are significantly more dissatisfied with owning and operating a franchise compared to male franchise business owners. Previous research has explored the link between expectations and satisfaction. Oliver (1981) describes satisfaction as a psychological state developing when the feeling surrounding disconfirmed anticipations is tied with a person's prior feelings about the experience. This study relates past experience to more accurate expectations, which can be argued are better displayed by satisfaction, the variance between expectations and results (Parasuraman, Zeithaml, & Berry, 1988).

Conceptual Framework

The concepts of gender and successful franchising are the theoretical underpinnings of this research. As shown in Figure 1, there are multiple factors that can influence a franchisee's success and satisfaction with a franchising arrangement. This research, as shown in Figure 1 focuses on the relationship between franchisee gender and satisfaction.

Figure 1

The context of this research is based on gender providing a better opportunity or challenge of being an entrepreneur and more precisely, satisfied and successful franchisee.

Statement of Potential Significance

According to Robb et al. (2014), women start businesses with nearly half the capital that men do. This gap in financing is visibly correlated to the size gap between men and women owned businesses since capital is one of the key elements required by a growth-oriented business. This substantial difference, which actually broadens at the higher end of firm size spectrum, has consequences for women-owned firms. According to Sarfaraz, Nezameddin, and Armaghan (2014), women can and should play a more significant role in entrepreneurship and economic development. As a result, there is a continuing need to investigate various elements of women entrepreneurship. Robb et al. (2014) suggest the focus of women and entrepreneurship is not one of trying to reach some type of quota. This is a matter of economic growth, and to the extent that half of the American and educated population are not fully contributing in the engine of growth and innovation.

The assumption behind this research is that if aspiring entrepreneurs have more realistic expectations, they will be more successful (Carree & Verheul, 2012). However, Parasuraman, Zeithaml, & Berry (1988) suggest expectations are better for looking at satisfaction than success. Therefore, the relevant question for policy makers, entrepreneurs, business lenders, and franchisors is whether this knowledge is constructive in identifying “better” franchisees. This research addresses this question and looks at gender and satisfaction because we believe that there is stronger relationship between those constructs than between gender and success.

LITERATURE REVIEW

This literature review focuses on gender’s influence on pursuing a career in entrepreneurship, gender’s impact on succeeding in entrepreneurship, and the influence gender plays with satisfaction by franchise business ownership.

Gender's Influence on Entrepreneurial Intention

Some studies on gender have examined the ratio of men and women that pursue a career in entrepreneurship. McManus' (2017) research on entrepreneurship suggests women in the United States are less likely than men to start their own business. According to the International Franchise Association Foundation (2018), 30.6 percent of franchised businesses were female-owned compared to 32.8 percent of non-franchised businesses in 2012.

Other studies have looked at the motivation for women becoming entrepreneurs. In reviewing literature on gender's influence on pursuing a career in entrepreneurship, there seems to be some common factors that influence why males and females start or grow a business. For example, Robb et al. (2014) found female and male entrepreneurs share similarities that include why they start their businesses, reasons for business success, and similar business challenges they face. These similarities include factors like potential for financial gain, a desire to work for oneself, and a drive to pursue a business idea. However, while these common factors touch on some interesting similarities, a deeper analysis indicates that there are key determinant differences, between genders, in entrepreneurial intention. For example, Robb et al. (2014) found key differences that impacted entrepreneurial intention, which included women having fewer inspiring role models and women responding differently to failure. Interestingly, Shane (2008) suggests women are more likely than men to pursue a home-based business opportunity.

Some studies have focused on the challenges women face when starting their own business. One of the biggest obstacles pertains to financing. According to Gupta, Turban, Wasti, and Sikdar (2009), women are more likely than men to report that the environment for starting a business is difficult. In addition, empirical evidence indicates that women struggle to receive debt or venture capital financing for new business opportunities. McManus (2017) similarly suggest businesses led by women are capitalized at much lower levels. The issue of financing, as a major impediment to business success, is further supported by studies that found undercapitalization is frequently the biggest obstacle that an entrepreneur can face when it comes to growth (Brush et al., 2006; Hill et al., 2006). In addition, Robb et al. (2014) suggest a high fraction of women entrepreneurs indicated financial capital as a critical challenge to starting a business and a large percentage of women use personal savings as their top funding source. Robb et al. (2014) also proposes one explanation for this notion is that women don't meet the standards required by lenders for making loans.

Some studies have looked at the lack of mentorship available for women. According to Robb et al. (2014), the history of fewer women entrepreneurs might be attributed to the lack of female, entrepreneur role models and mentors from whom they can learn and draw inspiration, and whom they can emulate. This lack of available mentors may negatively influence their entrepreneurial self-efficacy and consequently, their entrepreneurial intentions. Shane (2008) similarly suggests another explanation is that women lack access to business opportunities. Lacking the right social networks means women are less likely than men to come up with new business ideas.

Gender's Impact on Succeeding in Entrepreneurship

Literature, on gender's impact on succeeding in entrepreneurship, has pointed to generalized lower levels of success by female entrepreneurs than their male counterparts. Because of the several challenges faced by women entrepreneurs, their businesses can't do as well as new businesses led by men who have more access to capital. McManus (2017) suggests new businesses led by women perform worse on almost every performance measure. McManus suggests the

substantial differences in sales might be due to the big number of women-owned, non-employer businesses. Women owned businesses are half as likely to be employer businesses. Employer businesses produce far more in revenue regardless of gender. Shane (2008) also suggests one theory for female's lower level of success in entrepreneurship is that women pursue opportunities that are less profitable and are more likely to be found in less attractive industries.

In trying to understand why there seems to be a major difference in the level of success between male and female-owned business, a study by Fairlie and Robb (2009) found that there were some key reasons that help to understand why the parity in success between genders exists. They pointed to some key factors that include female business owners being less likely to have prior work experience and working in a business selling similar goods and services. They believe this resulted in female business owners having fewer opportunities to gain the human capital skills that are vital to running a successful business.

Factors of Entrepreneurial Satisfaction

Studies suggest there are various outcomes on the impact of entrepreneurial satisfaction. Moreover, Abraham (2012) suggests job satisfaction produces outcomes such as higher engagement, enhanced productivity, more loyal customers, a higher level of motivation, and more dedication to the job. Morrison (1996) suggests job satisfaction is related to other non-work types of satisfaction such as life, family, and self-satisfaction. Also, VandenHeuvel and Wood (1997) submit descriptive support that entrepreneurs are more satisfied than salary earners with life factors such as more independence. In addition, Escobedo, Portillo, Casero, and Mongollon (2016) indicate some of the studies identified on female entrepreneurs showed that women did not satisfy their professional expectations doing tasks associated with housework that might not be highly regarded or valued by society, so their need and desire to achieve job, career, and personal satisfaction had increased.

HYPOTHESES

Previous studies have shown that fewer women pursue a career in entrepreneurship, perform not as well on almost every measure, which includes survival rates, sales, growth, employment and income compared to new businesses led by men, and have more difficulty obtaining business financing for their business venture. Weak performance in any of these areas is likely to decrease the satisfaction of the franchisee. It therefore follows that:

- H1* Female franchise business owners have a significantly lower level of job satisfaction than male franchise business owners.
- H2* Female franchise business owners have a significantly lower level of life satisfaction than male franchise business owners.
- H3* Female franchise business owners have a significantly lower level of career satisfaction than male franchise business owners.

The next section will address the methodology for this study.

METHODOLOGY

This section comprises of all parts of the study in replicable detail. It begins with a description of the following: the research design, the population and sampling method, contact and participation consent, data collection, research tools, the independent and dependent variables used in the research. A seven-step model was used to evaluate the hypotheses.

Research Plan

To examine the hypotheses, a comparative research model was selected to measure the differences in satisfaction between male franchise business owners versus female franchise business owners. The dependent variables for this study were job satisfaction, career satisfaction, and life satisfaction. A survey measuring the variables was taken from June 15, 2013 to July 15, 2013. The survey was mailed to respondents using a two-step process. The first mailing was an introduction to the study followed up seven days later with a package that included survey instructions, the survey, a consent form to take part in the study, and return addressed envelope with postage.

Population

The population for this study is business owners performing under a franchise model and agreement. Furthermore, the franchisee owned only one unit of the franchise and was located in the United States. To minimize variance created by context, the number of industries was limited to the following: Business Services, Home Repair and Improvement Services, or Cleaning and Maintenance Services. Four franchise companies were randomly chosen from each of the three categories yielding a total of 12 brands. For example, 14 franchisors were identified in the Cleaning and Maintenance category, 19 franchisors were identified in the Home Repair and Improvement category, and 25 franchise organizations in the Business Services category. After the franchise brands were randomly chosen from the three groups, a compiled inventory of franchisees based on the population conditions was provided by Frandata, a market research firm that focuses on franchising.

Sampling Method

The final sample was established using a stratified random sampling method. A list of 1,280 names was randomly pulled from the entire list of 4,167 names provided by Frandata using the Microsoft Excel random number generator. Every franchise business owner's name in the three categories, Business Services, Home Repair and Improvement, and Maintenance and Cleaning was given a unique random number created from one to total N for each group. After that, Microsoft Excel arranged each name sequentially from one to total N for each category. Lastly, a random sampling procedure was applied to select from the randomized list to minimize order bias.

Instruments

This study utilized a self-administered mailed survey with 30 items. Survey contents were taken from the Minnesota Satisfaction Questionnaire (1977), Greenhaus's (1990) Career Satisfaction Scale, and Diener's (1984) Satisfaction with Life Scale. The Minnesota Satisfaction

Questionnaire includes 20 items and uses a five-point Likert scale from not satisfied to extremely satisfied on a variety of elements pertaining to job satisfaction. Diener's Satisfaction with Life Scale is a five-item scale. Each item is scored from 1 to 7 so the possible range of scores is from 5 (low life satisfaction) to 35 (high life satisfaction). Career satisfaction was measured using a five-item Likert scale developed by Greenhaus, Parasuraman, and Wormley (1990), which studied relationships among race, organizational experiences, job performance evaluations, and career outcomes for black and white managers from three work organizations. All three instruments were chosen for their alignment to the study constructs and high reliability.

Variables

The independent variable for this study is gender. Gender was obtained by asking survey participants to circle their gender. The three dependent variables included job satisfaction, career satisfaction, and life satisfaction. The next section will cover the results of the survey.

RESULTS

This portion presents a breakdown of the findings from the mailed survey. It includes the demographic sample characteristics, descriptive statistics and the distribution curve of the dependent variables, reliability analysis and the results to the hypotheses using inferential statistics. All the data was analyzed using IBM SPSS, Version 24.

Sample Characteristics

The original sample of 1,280 had a response rate of 19.6% yielding a sample size of 251. A general summary of sample characteristics is provided in Table 1. The franchisees randomly selected in this study came from organizations franchising over 25 years ($M = 25.17$, $SD = 12.49$, minimum-maximum 11-61, $N = 12$).

<i>Item</i>	<i>Category</i>	<i>Frequency</i>	<i>Percent</i>
Gender	Female	45	18
	Male	204	81
	No Response	2	1

The next section presents the distribution, bell curve and Cronbach's alpha of the three dependent variables.

Distribution and Cronbach's Alpha Sampling Method

The descriptive statistics for the three dependent variables which include job satisfaction, career satisfaction, and life satisfaction indicated that kurtosis and skewness were between the ± 1.00 levels, indicating a normal distribution bell curve for the three dependent variables. Cronbach's alpha reported .89 on the Minnesota Satisfaction Questionnaire, .88 on the Diener's Satisfaction with Life Scale, and .88 on Greenhaus' Career Satisfaction Scale.

Results from tests of the Hypotheses

Tests of the three hypotheses used a one-tailed independent samples t-test to compare the means for job satisfaction, career satisfaction, and life satisfaction for Gender. Since conducting three t-tests at the same time increases the risk of a Type I error, a Bonferroni adjustment was applied reducing the original alpha from .05 to .016 (.05/3). Table 2 shows the results for the one-tailed, independent samples t-test for franchisees by gender.

<i>Scale</i>	<i>Gender</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>	<i>t</i>	<i>Sig. One-Tailed</i>	<i>95% C.I. of the difference Lower/Upper</i>	<i>Reject or Retain Null</i>
Total Job Satisfaction	Male	204	75.58	10.133	.709	-.868	.193	-4.648 to 1.805	Retain
	Female	45	77.00	9.036	1.347				
Total Life Satisfaction	Male	204	26.19	5.919	.414	.216	.414	-1.732 to 2.159	Retain
	Female	45	25.98	6.348	.946				
Total Career Satisfaction	Male	204	18.19	4.788	.335	-.883	.189	-2.183 to .832	Retain
	Female	45	18.87	3.929	.586				

DISCUSSION

This study addresses two distinct problems pertaining to entrepreneurship. First, previous research on the topic of franchising suggests one of the greatest challenges for franchise organizations is acquiring franchise business owners that are a good match for their system. Finding an appropriate franchisee is paramount in order for a franchisor to be successful. All three hypotheses for this study suggested females would have a lower level of satisfaction in owning and operating a franchise. Nevertheless, none of the three hypotheses showed a significant difference in satisfaction. These findings suggest that women can be equally successful franchisees compared to men.

Another problem addressed in this study is the challenges females face in pursuing entrepreneurship. Studies indicate that women entrepreneurs raise smaller amounts of capital to finance their business and are more dependent on personal, rather than external sources of financing. Within the context of franchising, this distinction is important because franchises typically require substantial amounts of external capital in both debt or equity.

Previous studies have shown that fewer women pursue a career in entrepreneurship and more specifically a franchise. This problem appears evident in the number of female entrepreneurs. According to the International Franchise Association Foundation (2018), 30.6 percent of franchised businesses were female-owned compared to 32.8 percent of non-franchised businesses in 2012. This study showed only 18% of the franchise business owners were women.

Limitations

There are several limitations to this research. This study focused only on individuals who owned only one franchise unit impacting the generalizability of the findings. The next limitation would include non-response bias. For many mailed surveys, there is the possibility that some types of participants are likely to be overrepresented and others underrepresented in the sample received, creating biased results. Another limitation is that this survey only included three out of approximately 80 industries that use franchising as a means of distribution restraining the generalizability of the outcomes. However, the three industries selected for the study were considered popular categories and fairly representative of the franchise market in the United States. Moreover, there are intrinsic limitations in extracting causal deductions regarding the antecedents of satisfaction. Lastly, this study did not measure control variables such as current sales performance of the franchise unit and the number of years in business which could also have an influence on entrepreneurial satisfaction.

Suggestions for Practice

There are a few recommendations for practice that could be concluded from this research. First, franchise organizations seeking new franchisees could find a strong pool of aspiring entrepreneurs in the female market. According to Robb et al. (2014), one obstacle faced by women entrepreneurs is a lack of mentors. More access to mentors is a significant tactic for encouraging more women to own and operate a franchise. Franchisors should feature more success stories of women franchisees in their system through media that targets women.

Much of the literature suggests that raising capital is one of the biggest challenges for women pursuing entrepreneurship. Developing the financial capabilities of women and ensuring access to outside financing are among the key recommendations noted in this study. If women entrepreneurs do not pursue, or if they are not able to attain external capital, their probabilities for owning and operating a franchise is limited. The challenge of raising capital also makes it difficult in hiring new employees and expanding the business in new locations.

Research suggests women are more drawn to home-based business opportunities. There are numerous franchise opportunities available in the home-based category. Home-based franchise opportunities are typically less expensive compared to many other industries that use franchising as a means of distribution. Franchisors that offer home based opportunities may find a viable market in the women segment.

Future Studies

There are several suggestions for future studies that can be drawn from this research. First, it would be an interesting follow-on investigation using a qualitative approach that specially focuses on the motivation of female entrepreneurs who own and operate a franchise. Research questions could focus on a female franchisees motive to buy a franchise. In addition, it could also focus on the obstacles females experienced in purchasing a franchise as well as running the day to day operations of the business. Next, this study only included 3 out of approximately 80 industries that presently use franchising as a means of distribution restraining the generalizability of the findings. It would be noteworthy to learn if the results of this study would be different using other common industries in franchising such as food, children's services, or pet care.

CONCLUSIONS

This research makes several contributions. First, there is much research suggesting more males pursue a career in entrepreneurship and tend to be more successful than females in terms of entrepreneurship. However, this study showed no relationship between gender and franchisee satisfaction suggesting women can be equally as successful in franchising. One of the biggest obstacles women face is securing financing for starting a business. Improving the financial qualifications of women and warranting access to outside financing is among the key suggestions noted in this research. Lastly, fewer women pursue a career in entrepreneurship, specifically franchising. The emphasis of women and franchising is not a notion of trying to hit some sort of ratio. This is an issue of business development, opportunity, and that half of the United States and qualified population of prospective women entrepreneurs are not completely participating in franchising.

REFERENCES

- Abraham, S. (2012). Job satisfaction as an antecedent to employee engagement. *SIES Journal*, 8(2), 27-36.
- Brush, C., Carter, N., Gatewood, E., Greene, P. & Hart, M. (2006). The use of bootstrapping by women entrepreneurs in positioning for growth, *Venture Capital*, 8(1), 15-31.
- Carree, M. & Verheul, I. (2012). What makes entrepreneurs happy? Determinants of satisfaction among founders. *Journal of Happiness Studies*, 13(1), 371-387. doi: 10.1007/s109020119269-3.
- Chirico, F., Ireland, R., Sirmon, D. (2011). Franchising and the family firm: Creating unique sources of advantage through familiness. *Entrepreneurship Theory and Practice*, 35(3), 483-501. doi: 10.1111/j.1540-6520.2011.00441.x.
- Diener, E., Emmons, R., Larsen, R., Griffin, S. (1984). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1) 71-75.
- Escobedo, M., Portillo, A., Casero, J. & Mongollon, R. (2016). Research in entrepreneurship using GEM data. Approach to the state of affairs in gender studies. *European Journal of Management and Business Economics*, 25(3), <https://doi.org/10.1016/j.redeen.2016.09.002>.
- Fairlie, R. & Robb, A. (2009). Gender differences in business performance: Evidence from the characteristics of business owners survey. *Small Business Economics*, 33(4), 375-395.
- Greenhaus, J.H., Parasuraman, S., Wormley, W.M. (1990). Effects of race on organizational experiences, job performance, evaluations, and career outcomes. *Academy of Management Journal*, 33(1) 64-86.
- Gupta, V.K., Turban, D.B., Wasti, 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), 397-417.
- IHS Markit Economics (2018, January). *Franchise business outlook for 2018*. Retrieved from http://franchise.org/sites/default/files/Franchise_Business_Outlook_Jan_2018.pdf
- International Franchise Association Foundation (2018). *Franchised Business Ownership by Minority and Gender Groups: An Update for the IFA Foundation*. <https://www.franchise.org/sites/.../Franchise%20Business%20Ownership%20Study.pdf>
- Kynm, C. (2014). *Access to capital for women and minority owned businesses*. U.S. Small Business Administration, office of Advocacy. www.sba.gov/sites/default/files/Issue%20Brief%203%20Access%20to%20Capital.pdf
- McDermott, M., Boyd, T. (2017). The Influence of Human Capital Factors on Franchising. *Small Business Institute Journal*, 13(2) 31-50.
- McDermott, M., Boyd, T., Weaver, A. (2015). Franchise business ownership: A comparative study on the implications of military experience on franchisee success and satisfaction. *Entrepreneurial Executive*, 20(1), 9-30.
- McDermott, M. (2010). Do veterans make significantly more qualified franchise business owners? A comparative study on the traits of veterans and qualified franchise business owners; literature review. *Proceedings of the 5th European Conference on Innovation and Entrepreneurship*, 395-400.
- McManus, M.J. (2017). Women's Business Ownership: Data from the 2012 Survey of Business Owners. *U.S. Small Business Administration Office of Advocacy*. 13(1)1-17. <https://www.sba.gov/sites/.../advocacy/Womens-Business-Ownership-in-the-US.pdf>

- Minnesota Satisfaction Questionnaire-Short Form (1977). *Vocational Psychology Research*. Minneapolis: University of Minnesota.
- Morrison, K. (1996). An empirical test of a model of franchisee job satisfaction. *Journal of Small Business Management*, 34(3) 27-41.
- Oliver, R. (1981). Measurement and evaluation of satisfaction process in retail settings. *Journal of Retailing*, 57(3) 25-48.
- Parasuraman, A., Zeithaml, V., Berry, L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1) 12-40.
- Phipps, S. & Prieto, L. (2015). Women versus men in entrepreneurship: a comparison of the sexes on creativity, political skill, and entrepreneurial intentions. *Academy of Entrepreneurship Journal*, 21(1), 32-43.
- Ramirez-Hurtado, J., Rondan-Cataluna, F., Guerrero-Casas, F., Berbel-Pineda, J. (2011). Identifying the franchisee profiles franchisors prefer. *Journal of Business Economics and Management*, 12(4), 567-588. doi:10.3846/1611699.2011.599408.
- Robb, A., Coleman, S. & Stangler, D. (2014). *Sources of Economic Hope: Women's Entrepreneurship*, Retrieved from <http://dx.doi.org/10.2139/ssrn.2529094>.
- Sarfaraz, L., Nezameddin, F., and Armaghan, A. (2014). The relationship between women entrepreneurship and gender equality, *Journal of Global Entrepreneurship Research* 4(6). doi.org/10.1186/2251-7316-2-6.
- Saraogi, A. (2009). Exploring franchisor franchisee relationship: Building a predictive model of franchisee performance. *Vision – The Journal of Business Perspective*, 13(1), 31-58.
- Shane, S. (2008). *The illusions of entrepreneurship. The costly myths that entrepreneurs, investors and policy makers live by*, New Haven: Yale University Press.
- U.S. Department of Commerce (2010). *Women Owned Businesses in the 21st Century*. https://www.dol.gov/wb/media/Women-Owned_Businesses_in_The_21st_Century.pdf.
- VandenHeuvel, A., & Wooden, M. (1997). Self-employed contractors and job satisfaction. *Journal of Small Business Management*, 35(3), 11–20.
- Withane, S. (1991) Franchising and franchisee behavior: An examination of opinions, personal characteristics, and motives of Canadian franchisee entrepreneurs. *Journal of Small Business Management*, 29(1) 22-29.

ENTREPRENEURIAL COGNITION IN SERIAL AND PARALLEL ENTREPRENEURS: THE NECESSITY TO SEGREGATE SUCCESS AND FAILURE

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ABSTRACT

Entrepreneurship and the cognitive processes of entrepreneurs have drawn the attention of researchers in recent years and resulted in the tremendous growth of the segment in the academic literature. To date, researchers have not clearly identify that entrepreneurial element that makes entrepreneurs different from others. This study reviews the literature on serial, habitual, and parallel or portfolio entrepreneurship and not only argues the importance of differentiating between them but also identifying failure versus success when conducting research, especially when researching cognition. The identifying entrepreneurial element that researchers seek lies deep within the metacognitive processes of multi-success entrepreneurs; those who have demonstrated the repeated ability to succeed. Many extant entrepreneurship studies are inconclusive or misleading due to sampling error because they report findings from samples where, based on widely known statistics, most of the entrepreneurs eventually failed or just got lucky once. This paper also suggests that successful serial or parallel, labeled multi-success in this paper, entrepreneurs engage in pessimistic falsification, not excessive optimism, during the early stages of opportunity evaluation and they often engage in entrepreneurial fishing through the allocation of specific but limited resources to test the waters before proceeding with new ventures.

INTRODUCTION

Politicians often herald entrepreneurship as being the job creating backbone of the US economy and they frequently delegate resources to programs intended to ignite entrepreneurial success (Learner, 2013). Academia also embraces entrepreneurship and demonstrates it with the dramatic increase in the number of entrepreneurship programs (Inc., 2006) and the number of scholars identifying with the field (Alvarez et al., 2010; Teixeira, 2011). Nonetheless, academic researchers struggle to define entrepreneurship as a unique discipline (Low, 2001, Wiklund, et al., 2011) and how entrepreneurs differ cognitively from other economic actors (see Mitchell et al., 2002). Some learned scholars, such as Nobel Laureate Kenneth Arrow (as cited in Sarasvathy, 2000), suggest that the evidence to date has failed to overcome the null hypothesis of no difference. Given the suggested importance of the impact of entrepreneurship on economic growth and employment, one would think that public policy should focus on developing everyone possible into an entrepreneur; however, such a stance ignores the waste that results from most start-up attempts ending in failure. While the image of a hard-working visionary achieving incredible success by beating all the odds is part of the American Dream, the harsh reality this is part of the entrepreneurial folklore (Brockhaus, 1980) and myths that glorify entrepreneurs (Shane, 2008). Entrepreneurial success is a rare occurrence (Short, Ketchen, Shook, & Ireland, 2010). In addition, public-sector initiatives, usually fail to meet their goals (Learner, 2013) and these initiatives often rely on recommendations from researchers (Guzman & Stern, 2015).

As Guzman and Stern (2015) point out, the inability of researchers to connect high-impact entrepreneurship with the overall incidence of entrepreneurship in the population results in conflicting recommendations to policy makers. Unfortunately, studies pretty much all agree that most new businesses, as high as 70%, fail (Shane, 2008) and even though some studies have found that as high as 40% of businesses survive at least eight years (Kirchhoff, 1997) this still indicates that most fail. In fact, the data indicate that most businesses in most industries fail (Dumne, Roberts, & Samuelson, 1988) and this has been the norm for decades. In addition, it is rare that a new firm puts well-established firms out of business (Audretsch, 1991). Many of those few that do manage to survive do not harvest excessive profits. Studies in the mid-1990s found that two-thirds of owner-operated businesses generated less than \$10,000 in annual profits (Audretsch, 1995; Barnett, 1990; Mata & Guimaraes, 1995) and US Federal Reserve Data indicates that the typical profit for owner-managed firms was \$39,000 (Audretsch & Mahmood, 1995). The data indicates that most of the self-employed earn less than they could if someone employed them else (Hamilton, 2000; Uusitalo, 2001).

The reliance on data collected from all who attempt to start a successful venture has lead researchers to mistakenly generalize that, on average, entrepreneurs are overly optimistic about the opportunities they discover (Shane & Venkataraman, 2000; Ucbasaran, Westhead, Wright, & Flores, 2010). For example, Cooper, Woo, and Dunkelberg (1988) used data from 2994 who had become business owners within the preceding 17 months to imply that extreme optimism is probably a typical occurrence in entrepreneurs. Research argues that this excess of optimism leads to entrepreneurs limiting information searches and enhancing future forecast (Kahneman & Lovallo, 1994; Kaish & Gilad, 1991) and this enhances motivation to the point that entrepreneurs exploit opportunities without conducting sufficient analysis (Busenitz & Barney, 1997). Every success must logically follow a start-up attempt; however, an increase in exploitation of recognized opportunities does not necessarily result in an increase in success rates, failure may increase as well (Shane & Venkataraman, 2000). From this *all who try are certified entrepreneurs* viewpoint it appears that most entrepreneurs blindly pursue opportunities that have odds of success far less appealing than even the least player friendly casino games. Why then, would any rational politician proclaim the economic benefits of entrepreneurship or any learned academic promote entrepreneurship as a career choice? Do college professors, who arguably give advice based on what the research indicates, want most of their students to pick a career where failure is the norm? The reason may be akin to winning the lottery. A miniscule few may be extremely successful, like Bill Gates, Steve Jobs, and Mark Zuckerberg and you cannot win if you do not play.

The problem is that entrepreneurship studies tend to focus on the quantity of entrepreneurial ventures rather than the quality (Guzman & Stern, 2015). However, doing so is quite difficult given the limited data available to entrepreneurship researchers. While the actual definition, as well as the domain, has been the subject of much debate (e.g. Gartner, 1989; McKenzie, Ugbah, & Smothers, 2007; Shane & Venkataraman, 2000; Stevenson & Jarillo, 1990), researchers have broadly defined entrepreneurship in such a way that just about anyone can be called an entrepreneur. In many studies one is labeled and entrepreneur just because they recognized something that they perceived as an opportunity and took some steps, such as registering a company name or creating an LLC, toward at least evaluating the feasibility of pursuing it. Following this logic, it would be possible to classify almost everyone in society as an artist, mathematician, musician, or athlete because, at some time in their life, they painted something in a primary school art class, worked math problems in math class, played a musical instrument, or participated in school or playground sports.

The classification mechanism for entrepreneurs in much of the extant literature fails to have some threshold that separates would-be entrepreneurs who mindlessly pursue heartfelt dreams from successful entrepreneurs that really do innovate, create jobs, and contribute to economic expansion. Essentially, entrepreneurship researchers have included every basketball player from grade school to the NBA in the population and found statistical support for the hypothesis that basketball players miss almost most of their shots. In the real world, one's career is the thing that they can perform effectively enough to earn a living at; therefore, a real entrepreneur is one who has been sufficiently successful at recognizing opportunities and seeing them through to fruition sufficiently to make a living doing so and create wealth in the long run. Those who tried and failed are simply would-be entrepreneurs just as 200,000 high school basketball stars become something else the day they graduate and find that they do not have a scholarship to college and nobody will pay them to play basketball. Although the study of failure is important, the point of this paper is that one should not generalize the actions and cognitive processes of would-be entrepreneurs as applying to successful entrepreneurs.

Despite the dismal data on business survival, apparently some people do become successful entrepreneurs. The data indicates that the self-employed are four times more likely to become millionaires than those who work for others (Stanley & Danko, 1996). The US Federal Reserve Survey of Consumer Finances indicates that the top 10% of families, in terms of net worth, hold 93.3% of business equity in the US in 2007. That number that has remained around the 90% mark for about three decades, and the data also indicates that the top 1% and next 19% also hold a disproportionate percentage of the unincorporated business equity and *other* (commercial, rental, vacation) real estate (Wolff, 2007, 2010). This information provides support for the enthusiasm for entrepreneurship demonstrated by politicians and academicians; membership in the club of business ownership does appear to have its privileges. However, it also underlines the need for researchers to focus more attention on what this small percentage does correctly instead of filling academic journals with pages of studies based on data from populations polluted with so much failure. MacMillan (1986) argued the importance of studying repeated entrepreneurial success to understand entrepreneurship sufficiently; however, the problem is that observing this rare subset of the business practitioner species in its natural environment is difficult. In fact, most of them live incognito as Stanley and Danko (1996) pointed out.

Notwithstanding a few overoptimistic entrepreneurs who get lucky the first time, successful entrepreneurs are not overconfident or overoptimistic. They are sufficiently confident and demonstrated an appropriate level of optimism about the opportunity and the adequacy of their skills, knowledge, and experience to be successful. Because a better understanding of people who have founded multiple businesses is crucial for in a free-enterprise economy (Scott & Rosa, 1996) researchers should study habitual entrepreneurs (MacMillan, 1986) because they are more theoretically interesting than those that just get lucky once (McGrath, 1996). Again, we can reflect on the comments of Kenneth Arrow, "What is the definition of an entrepreneur? Not only one who succeeds, but one who keeps on succeeding." (Sarasvathy, 2000, p. 7). However, studying retail entrepreneurs in Texas over 21 years, LaFontain and Shaw (2016) found, serial entrepreneurs represent a minority of small business owners, 25%, and only 8% of those who currently operate a business start a new business. Nonetheless, they found that those who previously started a business had higher success rates, measured by longevity, in subsequent businesses and that second time entrepreneurs were more likely to start even more businesses. This provides convincing evidence that successful serial and parallel entrepreneurs, labeled *multi-success entrepreneurs* in this paper, provide the most fertile ground when mining for the elusive entrepreneurial element.

First, this study contributes to the literature by demonstrating the importance of researching entrepreneurial cognition by first separating the successful entrepreneurs from the would-be entrepreneurs and arguing that many findings related to entrepreneurs in the extant literature come from populations polluted with unsuccessful entrepreneurs. Second, it provides convincing evidence that researchers should not confuse serial entrepreneurship with serial successes. Third, it suggests that the multi-success entrepreneur does not view his or herself as the creator of multiple businesses; but rather that they are *the business* and the multiple legal business entities are simply multiple manifestations of their entrepreneurial abilities. Finally, the most significant contribution is the introduction of the concept of *pessimistic falsification* as the preliminary internal phase of the metacognition process that occurs in real-life opportunity analysis and precedes the expression of optimism and the positive approach to opportunity reported in empirical studies using surveys and experimentation with business scenarios. This paper also presents a framework for viewing the opportunity evaluation process of multi-success entrepreneurs where the feasibility evaluation process becomes optimistic only after the experienced entrepreneurial mind has pessimistically scrutinized it in a process much like Popper's scientific method of falsification where the null hypothesis is failure.

LITERATURE REVIEW

Opportunity Recognition

Shane and Venkataraman (2000: 218) state, "The field of entrepreneurship involves the study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluated, and exploit them". Researchers recognized opportunity recognition as an important trait of successful entrepreneurs (Ardichvili, Cardozo, & Ray, 2003). Pattern recognition is a key component of opportunity recognition and the cognitive representations of opportunities of experienced entrepreneurs differ from those of novice entrepreneurs (Baron & Ensley, 2006). Shane and Venkataraman (2000, pp. 221-222) suggest that "two broad categories of factors that influence the probability that particular people will discover particular opportunities: (1) the possession of the prior information necessary to identify an opportunity and (2) the cognitive properties necessary to value it". However, Shepherd and DeTienne (2005) argue that the interaction of prior knowledge and financial reward is complex and may have a moderating effect on opportunity recognition. At any point in time, only some subset of the population will discover a given opportunity (Kirzner, 1973) because asymmetry of beliefs is a precondition for the existence of entrepreneurial opportunities (Hayek, 1945). Novice entrepreneurs envision novelty, technological and industry change; however, experienced entrepreneurs examine pragmatic issues like cash flow and risk. Learning serves as a key driver of the effectiveness of opportunity development (Short et al., 2010). Experience develops decision-making heuristics that enhance opportunity capture (Bingham, Eisenhardt, & Furr, 2007), an argument empirically supported by Lafontain and Shaw (2016). Because information about underutilized resources, new technology, unsated demand, and political and regulatory shifts varies according to the idiosyncratic life circumstances of each person in the population (Venkataraman, 2007), most novice entrepreneurs have no real concept of what it takes to develop a successful business. This supports the findings that entrepreneurs, when the class includes nascent or would-be entrepreneurs, are overoptimistic but at the same time it underlines the need to separate successful entrepreneurs from would-be entrepreneurs.

Repeated Entrepreneurial Success

When reviewing the literature on opportunity recognition, there is considerable heterogeneity among entrepreneurs (Gaglio & Katz, 2001; Ucbasaran, Westhead, & Wright, 2009); considering that researchers tend to group would-be entrepreneurs and successful entrepreneurs together in their samples, the variation in business ownership experience may explain this heterogeneity (Baron & Ensley, 2006; Shane & Venkataraman, 2000; Shepherd & DeTienne, 2005; Ucbasaran et al., 2009). The importance of studying individuals who have experienced entrepreneurial success more than once is not a new concept (Alsos & Kolvereid, 1998; Birley & Westhead, 1993; Lamont, 1972; Westhead & Wright, 1998); however, at least at first glance, the findings are mixed. Where Alsos and Kolvereid (1998) found the parallel entrepreneurs had a higher probability of venture implementation than novice and serial founders, Birley and Westhead (1993) found no difference in terms of performance between novice, habitual, and serial founders. It is important to note that Alsos and Kolvereid (1998) were examining the new business gestation process from opportunity recognition to implementation whereas Birley and Westhead (1993) were comparing performance in established firms. The fact that all the firms in the Birley and Westhead (1993) study had successfully navigated through the start-up process and were operating as ongoing business concerns entails that they had graduated from would-be entrepreneur status to experienced entrepreneurs in at least one business. However, an empirical study encompassing 2.3 million retail small businesses in Texas started between 1990 and 2011 by Lafontaine and Shaw (2016) contradicts Birley and Westhead (1993) and provides convincing evidence that prior entrepreneurship experience matters when the measure is business longevity. Lafontaine and Shaw (2016) also found that serial entrepreneurship is uncommon at only 25%; but at only 8%, founding a new business while operating an existing business is even less common. If anything, this supports the importance of controlling for prior and concurrent successful entrepreneurial experience when analyzing samples in entrepreneurship research.

Entrepreneurship Semantics

One should note that the terminology is inconsistent across the entrepreneurship literature. Researchers often refer to inexperienced entrepreneurs as *novice* or *nascent* entrepreneurs; emphasizing the importance of demonstrated success. This paper uses the term *would-be* entrepreneurs to identify those who envision or even start a business but fail to evolve it into an ongoing concern lasting more than a couple of years. Some studies use the terms *repeat* and *habitual* to classify individuals that have started up more than one business; however, these terms describe both those who own multiple businesses concurrently and those who start a new business after exiting or closing an existing business. Numerous studies describe those who start a business and then move on to start another business as *serial* or *sequential* entrepreneurs with some studies defining that the entrepreneur moved to the new business and exited previous businesses while others do not differentiate. In studies that use the terminology *parallel* or *portfolio* entrepreneurs authors clarify that the entrepreneurs start another business while they are still operating an existing business.

It is not the intent of the paper to diminish the value of entrepreneurs that create a single durable business. They are the most frequent example of the entrepreneurial spirit that fuels economic growth and creates jobs. There are numerous examples of these entrepreneurs growing

their businesses into large enterprises that endure for decades. The point expressed here is that researchers need to be more attentive when it comes to identifying and classifying entrepreneurs. If the intent of research is to identify the activities and cognitive processes correlated with entrepreneurial success, then researchers need to focus on successful entrepreneurs. It follows that entrepreneurs that have demonstrated repeated success in starting and managing durable entrepreneurial ventures provide a verifiable context for research. As subsequently discussed, not all serial entrepreneurs are equal in terms of success; there are serial failures and even fraudsters in the mix. Therefore, this paper uses the term *multi-success* entrepreneur to signify both parallel entrepreneurs who open a new business while running an existing business and serial entrepreneurs that have created one or more successful business that they exit and go on to create a new business venture.

Serial Entrepreneurs

The literature discusses the inspiring concept of the habitual or serial entrepreneur motivated by the challenge of bringing a recognized opportunity to fruition but disinterested in managing the business once established (MacMillan, 1986; McGrath, 1996; Scott & Rosa, 1996) and there are certainly documented examples. Nevertheless, serial entrepreneurship is somewhat common. As high as one-quarter to one-third of existing business owners previously started a business, (Lafontaine & Shaw, 2016; Baird & Morrison, 2005; Birley & Westhead, 1993; Kolvereid & Bullvag, 1993) and empirical evidence suggest that there may be additional reasons for the serial entrepreneurship phenomenon. The reason for leaving the first business could range from selling the firm due to the boredom of routine management tasks after the excitement of a business start-up, to termination by management put in place by investors, as was the case of Steve Jobs at Apple and Sandy Lerner at Cisco Systems, to failure of the firm. While it is true that serial entrepreneurs do have entrepreneurial experience, we needed to understand if a difference exists between parallel entrepreneurs and serial entrepreneurs.

Extant literature indicates that examination of both the capabilities and motivations of serial entrepreneurs is necessary. Wright, Robbie, and Ennew (1997b) found that venture capitalists do not uniformly embrace serial entrepreneurs and that researchers should take care when assessing experienced entrepreneurs. The same researchers identified three types of serial entrepreneurial behavior namely *venture repeaters*, *organic serials*, and *serial dealmakers*; distinguished by the motivations and the methods used to develop their ventures. Evidence from this study also indicates that the role of active investors varies according to the type of serial entrepreneur and venture (Wright, Robbie, & Ennew, 1997a). Westhead, Ucbasaran, and Wright (2003) suggested that novice and serial entrepreneurs were similar in terms of growth prospects and less likely to express dimensions of entrepreneurial behavior (Westhead, Ucbasaran, & Wright, 2005). Recently, these researchers found that serial entrepreneurs were overly optimistic and less capable of reflecting on failure (Ucbasaran, Westhead, & Wright, 2011). In at least some cases, serial entrepreneurs are would-be entrepreneurs that got lucky once (McGrath, 1996).

Studying small owner-operator corporations, under 500 employees, Baird and Morrison (2005) found evidence from bankruptcy filings in one federal district court that serial entrepreneurs use bankruptcy reorganization laws, Chapter 11, to protect their personal credit record while forcing renegotiation of personal guarantees they initially made with creditors and the IRS during the business start-up. They also found 85% of the businesses in the sample were serial entrepreneurs and were able to determine that 45% had previously started a business that failed. In

70% of the cases, the owner-operators started another business or simply moved operation to another corporation they had previously established. In 60% of the cases, the new business was like the one shutdown during or after the Chapter 11 bankruptcy process. Although Chapter 11 is a reorganization process intended to put debt collectors and landlords at bay and keep supplies flowing to preserve the business as a going concern, Baird and Morrison (2005) found that almost all the small corporations in the sample ceased operation. The point of the study was why owner-managers used this legal process if business closure was the apparent plan. They determined that for owner-operators the bankruptcy process was more a delay and renegotiation tactic used as a means of self-employment preservation. Although only a very small portion of small businesses that fail go through the bankruptcy process, most owner-operators that used the process meet the definition of serial entrepreneurs and this indicates a need for a better understanding of serial entrepreneurs.

While there are competent entrepreneurs that successfully started a business and leave to start-up subsequent successful businesses (Gompers, Kovner, Lerner, & Scharfstein, 2010), the evidence suggests that not all serial entrepreneurs do it just because they are good at it. This dictates that researchers must take care when generalizing the findings from a sample of serial entrepreneurs as best practices.

Parallel Entrepreneurs

A review of the entrepreneurship literature provides evidence that ownership of more than one business at a time is quite rare, Alsos and Kolvereid (1998: 101-102) stated that “It is, however, now becoming widely appreciated that some parallel/portfolio founders own two or more businesses at the same time”. While Lafontaine and Shaw (2016) found that only 8% of business startups in their study currently owned and ongoing enterprise, they also found that entrepreneurs that started a second business were much more likely to start even more businesses. This aligns well with the data on the concentration of control of business equity in the US Federal Reserve Survey of Consumer Finances. There is a positive correlation between wealth and multi-business ownership. Not surprisingly, it appears that family ownership of multiple companies is common among the wealthiest families in the US. Although research on multi-business ownership is increasing (eg. Ucbasaran, Westhead, & Wright, 2008; Ucbasaran et al., 2009, 2011; Ucbasaran et al., 2010; Westhead et al., 2003, 2005), the majority of this research has focused on comparing portfolio entrepreneurs to novice and serial entrepreneurs with the dependent variable being performance, opportunity recognition, or implementation success.

Although the empirical research on parallel entrepreneurs is limited (Westhead & Wright, 1998), Alsos and Kolvereid (1998) found that parallel entrepreneurs take a less hurried approach and have a higher probability of venture implementation than both novice and serial founders. Westhead et al. (2003) suggested that portfolio entrepreneurs, on average, appear to offer more attractive growth prospects than novice and serial entrepreneurs and portfolio entrepreneurs were more likely to express dimensions of entrepreneurial behavior (Westhead et al., 2005). Ucbasaran et al. (2011) found that while portfolio entrepreneurs are realistic and learn from their failures, serial entrepreneurs tend to be overly optimistic and less capable of reflecting on failure. Parallel entrepreneurs have been found to have easier access to external financing (Lamont, 1972) and this may be due to the accumulation of tacit knowledge (Polanyi, 1966) about business start-up as well as technical and commercial information that can only be gained through personal experience (Star & Bygrave, 1991). Both would certainly enhance entrepreneurial intuition (Armstrong & Hird,

2009; Mitchell, Friga, & Mitchell, 2005) and entrepreneurial intentions have been empirically determined to derive from perceptions of feasibility and desirability (Krueger, 1993). Therefore, one can expect experience entrepreneurs to carry out business start-up processes differently from those without experience (Alsos & Kolvereid, 1998) which supports the idea that entrepreneurs think differently (Busenitz & Barney, 1997; Krueger, 1993; Krueger & Brazeal, 1994; Palich & Bagby, 1995). Building on the work of Ericsson and Charness (1994), Krueger (2007) argues that successful entrepreneurs have an expert mind-set and experts typically organize or structure the content differently; however, not all successfully make the transition from novice to expert. Therefore, it is vital to the understanding of the *entrepreneurial element* that we study multi-success entrepreneurs, those who succeed and keeps on succeeding (Kenneth Arrow as cited in S. D. Sarasvathy, 2000), and parallel entrepreneurs have proven their ability in that respect.

Why Own Multiple Businesses?

Scott and Rosa (1996) suggest researchers have reached the limits of firm-level analysis in small business research and urged researchers to focus on the invisibility of real wealth creating activities and the results of multiple ownership. Why do entrepreneurs who own a successful ongoing concern deflect their time, human capital, and financial resources toward starting or acquiring other businesses? Birley and Westhead (1993) suggest that multiple business ownership results from a growth strategy while Alsos and Kolvereid (1998) add that additional businesses may be a strategy for tax reduction. From a legal perspective, Baird and Morrison (2005) point out that it is common for a company, for example a restaurant, to incorporate each location as a unique corporate identity. Each of these explanations has merit. The truth may be a combination of these motivations. However, one should note that the tax-reduction motivation suggested by Alsos and Kolvereid (1998) in their study in Norway would likely vary from country to country. In the US for example, at the federal level the profits of wholly owned separate corporations flow-through to the parent corporation untaxed, as do the profits from Type S corporations to their shareholders, to accumulate in one tax paying entity. This eliminates any advantage gained by having the profits of several entities separate in a stepped or progressive income tax system.

While individuals and groups of individuals can do business as unincorporated sole-proprietors or unincorporated partnerships, incorporating the business so that it stands as its own corporate person provides some degree of personal protection from legal liability and debt collection in the event of an accident, defective products, or business failure. In the US, the special tax treatment given to Type-S corporations avoids the issue of double taxation of corporate profits as they pass through to shareholders in the form of dividends and the Type-S Corporation is the most common type of corporation in the US. The only negatives of incorporating a small enterprise are the minimal initial fees to file a corporation with the Secretary of State in the chosen state, the annual corporate license tax, usually based on the assets held by the corporation, and the requirement to hold and document annual meetings. According to the IRS (2005) Type S corporations are significant participants in the US economy:

S corporations are entities whose income and deductions pass through the corporate structure to the shareholders. Since the mid-1980s, the number of S corporations has risen rapidly, growing from 724,749 in 1985 to 3,154,377 in 2002. The growth rate has been even faster among S corporations with more than \$10 million in assets. From 1985 to 2002, the number of these larger S corporations grew more than ten-fold, from 2,305 to 26,096....S corporations are now the most common corporate entity. In 2002, the latest year for which data is available, S corporation returns accounted for 59 percent of all corporate returns filed for that tax year. Two million S corporations reported net income of about \$248 billion and 1.2 million S corporations reported net losses of about \$63 billion.

Some states have added hybrid forms of doing business that include Limited Liability Companies (LLC), Limited Liability Partnerships (LLP), and Professional Associations (PA) that are either partnerships or Type S corporations for federal tax purposes. In effect, these provide the same legal liability protections while still providing some ownership transfer restrictions that a small company or group of licensed professionals might need in events such as death or exit of an owner.

The purpose for this discussion is to point out a need to examine the reasons for multiple business ownership, when the identifying criterion is multiple legal operating entities, before labeling parallel entrepreneurs. There are liability and credit reasons that may motivate a person who sells auto parts in three locations to hold each as a separate corporation, yet they are still in practice the same business. Is this really parallel entrepreneurship? On the other hand, a person who owns a 15-minute oil change company, a restaurant, and an insurance agency might be a more interesting research subject and meet the criteria of repetition of entrepreneurial experience with an entirely new company (Wright et al., 1997b). Despite the potential insight these individuals offer, the research on multiple business ownership is sparse. In a study of 600 small business owners in the UK, Rosa, Carter, and Hamilton (1996) found that 19.6% of men and 8.6% of women owned more than one business. Although not extensively researched, farmers have often pursued multiple ventures simultaneously (Alsos & Carter, 2006; Carter, 1998, 1999, 2001).

The extant literature provides little empirical insight into why an individual would want to own multiple businesses, but intuitively, growth, cost reduction, supply chain reliability, and risk management would be logical explanations. There are likely numerous, context specific, explanations. For example, individuals who already own a business may inherit an existing business that generates a reliable income stream. One might also desire to create additional businesses that children could take over in the future. Clearly, a business owner that recognized the possible decline in business due to changes in market dynamics or technology shifts would be motivated to establish alternative income streams. Then there are likely seasonal issues that come into play also. One can imagine that an owner-operator of a ski rental business would have the need for supplemental income during a significant portion of the year. Beyond these situations, the journey into multiple business ownership could also be the result of an individual having a stable business where reinvestment would not significantly increase the profits because of market saturation. In any event, if the second business is successful, then the entrepreneur becomes aware that his or her real core competence is the ability to manage businesses successfully. This could explain why entrepreneurs that open a second business often open a third or fourth business (Lafontaine and Shaw, 2016).

Proposition 1: Multi-success entrepreneurs do not consider themselves as multi-success entrepreneurs. They envision themselves as one multifaceted business entity.

In this stream of inquiry, it might also be fruitful to explore issues of locus of control and the entrepreneur's perception of their ability to control outcomes as motivators for investing in additional businesses that they can participate in the management of as opposed to the stocks of publicly traded companies.

UNDERSTANDING THE ENTREPRENEURIAL MIND

Research has yet to determine whether entrepreneurs differ cognitively from others in society and the increasing stream of research on entrepreneurial cognition is examining that question from a variety of angles. This paper grounds the following postulations in both the extant literature on entrepreneurial cognition and the author's personal experience as a multi-success entrepreneur and interaction with multiple entrepreneurs, both successful and unsuccessful, over a period exceeding three decades. In general, successful entrepreneurs are highly inquisitive individuals that passively evaluated opportunity on an almost continual basis. This process is a mental exercise similar to a math enthusiast solving Sudoku puzzles. For example, an entrepreneur may be passing through a town and realize that a common fast food restaurant does not exist and ponder why some local person has not invested in the franchise and consider the likelihood of success based on population, nearness to a major interstate and other pertinent criteria with no intention of actually pursuing the opportunity. Similarly, when entrepreneurs gather, conversations discussing business opportunities usually develop. It is also a truism that when one is the owner of one or more businesses he or she is frequently pitched business investment opportunities by others. More often than not, by individuals who have the idea, desire, and passion but not the capital to pursue their vision. Figure 1 provides a provides a suggested cognitive process map.

Proposition 2: The multi-success entrepreneur is inquisitive and alert to opportunity by nature and continuously hones those skills by running mental evaluations of potential opportunities, small and large, encountered on a daily or weekly basis.

Just getting lucky once (McGrath, 1996) is likely a somewhat frequent occurrence and it could lead to the failure to reject Kenneth Arrow's null hypothesis of no particular set of characteristics that distinguishes individuals in terms of success or failure. Arrow's suggested definition of entrepreneurs being those who succeed and continue succeeding (as cited in Sarasvathy, 2000) is theoretically more interesting and suggests that he believes that some differences might actually exist. Arguably, successful entrepreneurs do think differently (Busenitz & Barney, 1997; Krueger, 1993; Krueger & Brazeal, 1994; Palich & Bagby, 1995). The high failure rate of business start-ups is a clear indication that success is not given and those who did succeed likely encountered numerous obstacles during the journey. Even if someone did just get lucky once, the entrepreneurial experience enhances both general and specific human capital (Chandler, Lyon, & Detienne, 2005); therefore, the experience itself leads to cognitive adaptation that impacts individual self-regulation (Haynie & Shepherd, 2009; Higgins, 1997). Metacognition incorporates self-regulation (Flavell, 1979; Flavell, 1987; Nelson, 1996) process in that "regulation informs the development and generation of new sense-making structures (heuristics) as a function of a changing environment" (Haynie & Shepherd, 2009: 696).

Despite the popular myth that entrepreneurs have a much higher propensity for risk than others in society, the reality is that the risk preference of entrepreneurs is scattered across the risk preference spectrum and may actually be skewed toward risk aversion (Begley & Boyd, 1987;

Brockhaus, 1980; Miner & Raju, 2004; Palich & Bagby, 1995; Sarasvathy, Simon, & Lave, 1998; Stewart & Roth, 2001). Masters and Meier (1988), Palich and Bagby (1995), and Norton Jr and Moore (2006) failed to find a difference in risk propensity among entrepreneurs. Nevertheless, entrepreneurs have been found to be more positive about opportunity (Palich & Bagby, 1995) more intuitive (Armstrong & Hird, 2009), more self-confident (Macko & Tyszka, 2009). Macko and Tyszka (2009) did find in an experiment using students that would-be entrepreneurs were more prone to risk. While they did find some evidence of riskier choices among students who were practicing entrepreneurs, they underlined the difficulty of simulating real-life situations where actual consequences were involved. The finding that would-be entrepreneurs are more prone to risk supports the argument for the need to study experienced entrepreneurs because they approach opportunity and risk differently.

Drawing on Schraw and Dennison (1994), Melot (1998), and Haynie and Shepherd (2009) this paper argues that successful entrepreneurial experience enhances metacognition in the way that they approach opportunity evaluation. In other words, they think more about how they think about opportunities. The experience of actually starting and running a successful business enlightens one to the complexity of being the decision maker and having everything at risk and greatly enhances ones Entrepreneurial Specific Human Capital (Smith, Matthews, & Schenkel, 2009). As a result, they become more intuitive (Armstrong & Hird, 2009) because experience has made them aware that there are multiple ways to formulate a response, so they are more likely to evaluate alternatives before making a decisive move and this explains the findings that multi-success entrepreneurs are less hurried (Alsos & Kolvereid, 1998). Furthermore, the experience of actually experiencing the resource scarcity that is the reality for most entrepreneurial start-ups makes multi-success entrepreneurs more likely to scan the environment and examine the accessibility of internal and external resources before becoming positive about a potential opportunity.

While successful entrepreneurs are arguably self-confident, they should not be classified as over confident about their abilities. Notwithstanding the few overconfident entrepreneurs that got lucky once, the fact that they have had one or more successful ventures provides evidence that they are sufficiently confident about themselves. This paper suggests that the increased positivity or optimism observed in different studies is a result of instrumentality of the studies and the difficulty simulating the real feeling of potential loss of time, resources, and capital, as Macko and Tyszka (2009) discussed. Based on not less than one dozen real-life collaborations on significant business opportunity evaluations with other successful entrepreneurs over about three decades, this author has not witnessed excessive optimism being the initial stance that experienced entrepreneurs take. The opposite is usually the norm, at least initially. Experienced entrepreneurs know that failure is the most likely outcome in the majority of business startups and take a very pessimistic initial viewpoint. After all, if it is so good then why has someone not done it already? It is only after sufficient eliminations of the reasons that the venture will not succeed that they become excited about the opportunity. However, the nature of the entrepreneurial spirit may inhibit researcher from exhibiting this phenomena. Given the competitive nature of business, is it realistic to think that a successful and seasoned entrepreneur would truly reveal how they analyze a potential business deal? Because entrepreneurs view themselves as *the business*, and not the business being some stand-alone inanimate object, they are very unlikely to express anything but optimism to anyone that does not have *skin in the game*.

Proposition 3: Multi-success entrepreneurs take a risk adverse falsification approach to opportunity evaluation where the null hypothesis is failure,

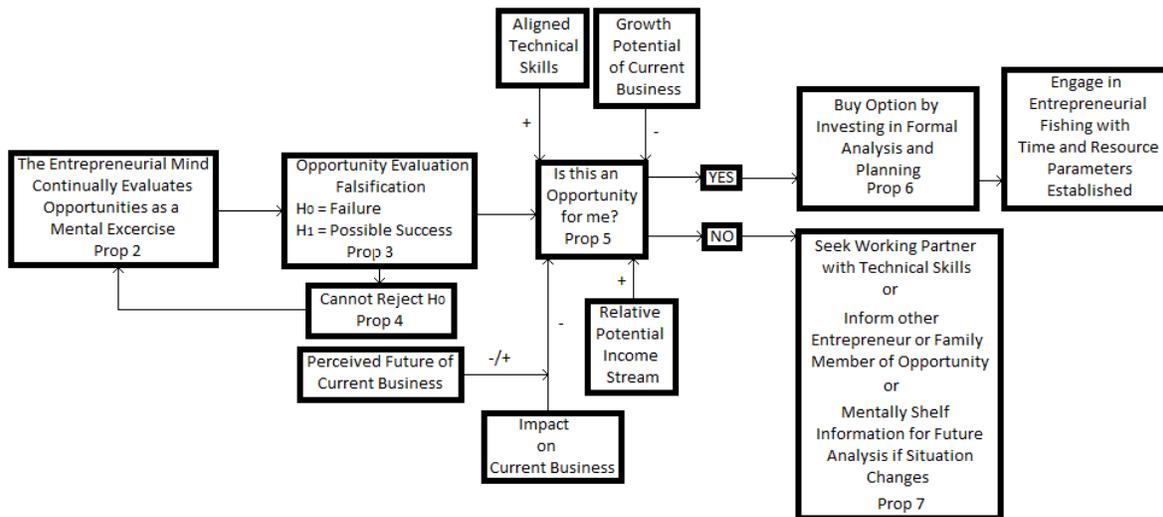
Proposition 4: The vast majority of opportunity evaluations in the mental exercise stage fail to reject the null hypothesis of failure.

Is This an Opportunity for Me?

If the potential opportunity passes through the falsification phase because the entrepreneur has found sufficient evidence to reject the null hypothesis of failure this only results in a finding that it is a third person opportunity for someone. The entrepreneur then analyzes personal and associated (i.e. employees, family, network ties) human capital and access to enabling technologies, financial resources, and customer support (Choi & Shepherd, 2004; Haynie, Shepherd, & McMullen, 2009; Ucbasaran et al., 2008, 2009) against requirements of potential opportunity to evaluate if this is a potential first person opportunity for them (Haynie et al., 2009). Since opportunities are the result of information asymmetries, there is always a degree of tacitness and Entrepreneurial Specific Human Capital (ESC) gained through experience and this plays a significant role in understanding the requirements of tacit opportunities (Smith et al., 2009). This ability allows multi-success entrepreneurs to reduce uncertainty and dramatically improve their success rates. While would-be entrepreneurs often rush in, multi-success entrepreneurs are less hurried and may use an options approach where they postpone investments until key uncertainties are resolved (Alsos & Kolvereid, 1990; McGrath, 1996).

Even if the multi-success entrepreneur determines that they have access to the needed skills and resources, the entrepreneur balances the potential income stream against the personal investment of time and capital (Chandler et al., 2005). As depicted in Figure 1, in the case of persons that have an existing business, or businesses, the impact that the new venture may have on the performance of current business operations moderates the decision. However, the moderating effect is very context dependent. If the entrepreneur perceives a future downturn in the existing business this would increase the perception of the new venture being beneficial. On the other hand, if the existing business is growing and in need of the entrepreneurs undivided attention the new venture would have to show evidence of extraordinary returns, relative to the existing business, and temporal urgency to warrant the investment of time and resources. Then there could also be instances where a potential opportunity could enhance the performance of an existing business. If the potential opportunity is determined to fit into the multi-success entrepreneur's current situation, he or she invests additional resources to do a formal analysis and formulate a business plan. Given that the multi-success entrepreneur has an existing business, this entails that he or she also has a current income stream and failure of a new venture could disrupt that income stream as well as result in the loss of hard-earned assets. As a result, experienced entrepreneurs are likely to establish a business plan that one could categorize as *entrepreneurial fishing* where he or she establishes specific parameters for the investment of resources and the performance criteria required at each stage of the process. The entrepreneurial fishing term derives from years of personal experience with a successful entrepreneur who always set detailed guidelines for investing employee time, money, and clarifying objectives in the development of new products, entry into related segments, or pursuing specific clients. He was also an avid fisherman and when arriving at a new fishing spot he would clearly state how long the waters would be tested and with what bait before moving on to other locations.

Figure 1. Multi-success entrepreneur opportunity evaluation process.



Because multi-success entrepreneurs appreciate the benefit that entrepreneurship provides to the economy, the knowledge of an unexploited opportunity may actually be bothersome. Therefore, they will inform others of opportunities that they find that do not fit into their own specific situation. In some instances, they may seek a working partner that has the requisite skills but not the capital and enter into a partnership. In other cases, they may enlighten someone in their network or a family member to an opportunity that they have validated but do not feel fits into their current situation. If others do not exploit the opportunity, the entrepreneur mentally shelves the information acquired in the event that future circumstances facilitate their ability to pursue the opportunity.

Proposition 5: The multi-success entrepreneur balances Entrepreneurial Specific Human Capital, access to resources, skills, and enabling technologies, as well as potential impact on established income streams against the potential income stream of the newly recognized opportunity when determining if the opportunity is “right for me”.

Proposition 6: Multi-success Entrepreneurs take an options approach on opportunities determined to be “right for me” and invest in formal analysis and planning before pursuing the opportunity.

Proposition 7: Multi-success entrepreneurs may seek working partners, inform other entrepreneurs in their network, or inform family members about opportunities that the opportunity evaluation rejected the null hypotheses but were not an opportunity for them.

DISCUSSION

This paper has pointed out the importance of truly understanding the entrepreneurial experience of the research subjects when studying cognition. The distribution of entrepreneurship skills and experience is not uniform. As the evidence on wealth accumulation strongly suggests, some have honed these elusive traits into highly effective business creation tools. Entrepreneurial experience enhances both general and specific human capital (Chandler, Lyon, & Detienne, 2005). Starting a business is difficult and the road to success contains countless landmines and resource destroying detours. Because of this experience, successful entrepreneurs are uniquely aware of the complexity that surrounds any potential business opportunity and tend to first approach opportunities from a pessimistic point of view even though they may not provide outward signs of pessimism. The reason that the extant empirical research on entrepreneurial cognition has failed to capture this important component of the entrepreneurial element that differentiates entrepreneurs from the rest of society is that researchers have incorrectly defined the population of entrepreneurs that are the actual disequilibrium phenomenon (Sarasvathy, 2000) responsible for driving innovation and economic expansion. Given that failure is the most common entrepreneurial outcome, exceeding 70% by some accounts, the empirical findings of the vast majority of studies are arguably more representative of the entrepreneurially challenged than they are of those who have demonstrated the ability to recognize opportunity and turn it into a durable, wealth creating enterprise. The sampling error created by grouping would-be entrepreneurs and serial failures with successful entrepreneurs when studying cognition has resulted in a misrepresentation of the characteristics of entrepreneurs in the academic literature. Entrepreneurship researchers need to follow the suggestion of Kenneth Arrow and define entrepreneurs as those who succeed and keep succeeding if they desire to understand the process of entrepreneurship and discover the entrepreneurial element that is responsible for the job creation and economic expansion.

With entrepreneurship education on the rise in business schools (Inc., 2006), it is imperative that educators understand the true nature of successful entrepreneurial cognition if they wish to instill in students the analytical abilities they need to succeed. The appropriate sample for study is those who have created more than one successful business, yet the empirical research on these successful individuals is grossly inadequate. Unfortunately, entrepreneurs are busy people and operating multiple businesses simultaneously amplifies the responsibilities. It is likely that the lack of research on multi-success entrepreneurs is due to the difficulty of gaining access; however, this only intensifies the importance of understanding how they think and underlines the important contribution that such understanding would make to the entrepreneurial literature.

Researchers face challenges when it comes to identifying successful multi-success entrepreneurs. While renowned examples such as Elon Musk are self-evident, they are outliers and are not representative of the majority of successful entrepreneurs in the US or any other nation. Guzman and Stern (2015) and Lafontaine and Shaw (2016) demonstrate how publicly available data on business registration can be used to identify and categorize startup success. Arguably, most successful multi-success entrepreneurs are operating through incorporated entities or through LLCs. Publicly available data may provide the ability to search for individuals who are officers or owners in more than one firm. Local chambers of commerce and community banks are also likely sources of insight. Once researchers identify willing participants, initial research should likely proceed as semi-structured interviews focusing on past opportunity evaluations of multi-success entrepreneurs. It may also be revealing to ask multi-success entrepreneurs to report the opportunities discovered or presented to them in real-life over a period of three to six months and

note their thoughts as they evaluate the opportunity. One can envision the use of content analysis (Barringer, Jones, & Neubaum, 2005) (Chandler & Lyon, 2001) (Gartner, 1990) (Marino, Castaldi, & Dollinger, 1989) and/or Cognitive Mapping (Barr, Stimpert, & Huff, 1992) (Bougon, Weick, & Binkhorst, 1977; Bougon, 1992; Eden, 1992; Eden, Ackermann, & Cropper, 1992; Krueger, 2005; Nadkarni & Barr, 2008; Russell, 1999; Walsh, 1995) as a research tool. However, the difficulty of extracting an internal cognitive process that these individuals likely take for granted should not be underestimated and may require the combination of multiple research methods.

REFERENCES

- Alsos, G. A., & Carter, S. (2006). Multiple business ownership in the Norwegian farm sector: Resource transfer and performance consequences. *Journal of Rural Studies*, 22(3), 313-322. doi: 10.1016/j.jrurstud.2005.09.003
- Alsos, G. A., & Kolvereid, L. (1998). The Business Gestation Process of Novice, Serial, and Parallel Business Founders. *Entrepreneurship: Theory & Practice*, 22(4), 101-114.
- Alvarez, S. A., Barney, J. B., & Young, S. L. (2010). Debates in entrepreneurship: Opportunity formation and implications for the field of entrepreneurship. *International Handbook Series on Entrepreneurship*, 5 (Part 1), 23-45.
- Ardichvili, A., Cardozo, R., & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing*, 18(1), 105-123.
- Armstrong, S., & Hird, A. (2009). Cognitive style and entrepreneurial drive of new and mature business owner-managers. *Journal of Business & Psychology*, 24(4), 419-430. doi: 10.1007/s10869-009-9114-4
- Audretsch, D. B. (1991). New-firm survival and the technological regime. *Review of Economics & Statistics*, 73(3), 441.
- Audretsch, D. B. (1995). Innovation, growth and survival. *International Journal of Industrial Organization*, 13, 441-457.
- Audretsch, D. B., & Mahmood, T. (1995). New firm survival: New results using a hazard function. *Review of Economics and Statistics*, 77(1), 97-103.
- Baird, D. G., & Morrison, E. R. (2005). Serial entrepreneurs and small business bankruptcies. *Columbia Law Review*, 105(8), 2310-2368.
- Barnett, W. (1990). The organizational ecology of a technological system. *Administrative Science Quarterly*, 35, 31-60.
- Baron, R. A., & Ensley, M. D. (2006). Opportunity recognition as the detection of meaningful patterns: evidence from comparisons of novice and experienced entrepreneurs. *Management Science*, 52(9), 1331-1344.
- Barr, P. S., Stimpert, J. L., & Huff, A. S. (1992). Cognitive change, strategic action, and organizational renewal. *Strategic Management Journal*, 13, 15-36.
- Barringer, B. R., Jones, F. F., & Neubaum, D. O. (2005). A quantitative content analysis of the characteristics of rapid-growth firms and their founders. *Journal of Business Venturing*, 20(5), 663-687. doi: 10.1016/j.jbusvent.2004.03.004
- Begley, T. M., & Boyd, D. P. (1987). A comparison of entrepreneurs and managers of small business firms. *Journal of Management*, 13(1), 99-108.
- Bingham, C. B., Eisenhardt, K. M., & Furr, N. R. (2007). What makes a process a capability? Heuristics, strategy, and effective capture of opportunities. *Strategic Entrepreneurship Journal*, 1(1-2), 27-47. doi: 10.1002/sej.1
- Birley, S., & Westhead, P. (1993). A comparison of new businesses established by "novice" and "habitual" founders in Great Britain. *International Small Business Journal*, 12(1), 38-60.
- Bougon, M., Weick, K., & Binkhorst, D. (1977). Cognition in organizations: An analysis of the utrecht jazz orchestra. *Administrative Science Quarterly*, 22(4), 606-639.
- Bougon, M. G. (1992). Congregate cognitive maps: A unified dynamic theory of organization and strategy. *Journal of Management Studies*, 29(3), 369-387. doi: 10.1111/j.1467-6486.1992.tb00670.x
- Brockhaus, S. R. H. (1980). Risk taking propensity of entrepreneurs. *Academy of Management Journal*, 23(3), 509-20. doi: 10.2307/255515
- Busenitz, L. W., & Barney, J. B. (1997). Differences between entrepreneurs and managers in large organizations: Biases and heuristics in. *Journal of Business Venturing*, 12(1), 9.

- Carter, S. (1998). The economic potential of portfolio entrepreneurship: Enterprise and employment contributions of multiple business ownership. *Journal of Small Business and Enterprise Development*, 5(4), 297-306.
- Carter, S. (1999). Multiple business ownership in the farm sector: assessing the enterprise and employment contributions of farmers in Cambridgeshire. *Journal of Rural Studies*, 15(4), 417-429. doi: 10.1016/s0743-0167(99)00004-2
- Carter, S. (2001). Multiple business ownership in the farm sector - Differentiating monoactive, diversified and portfolio enterprises. *International Journal of Entrepreneurial Behaviour & Research*, 7(2), 43-59. doi: 10.1108/13552550110695552
- Chandler, G. N., & Lyon, D. W. (2001). Issues of research design and construct measurement in entrepreneurship research: The past decade. *Entrepreneurship: Theory & Practice*, 25(4), 101.
- Chandler, G. N., Lyon, D. W., & Detienne, D. R. (2005). Antecedents and exploitation outcomes of opportunity identification processes. *Academy of Management Proceedings*, 1, J1-J6.
- Choi, Y. R., & Shepherd, D. A. (2004). Entrepreneurs' decisions to exploit opportunities. *Journal of Management*, 30(3), 377-395. doi: 10.1016/j.jm.2003.04.002
- Cooper, A. C., Woo, C. Y., & Dunkelberg, W. C. (1988). Entrepreneurs' perceived chances for success. *Journal of Business Venturing*, 3(2), 97-108. doi: 10.1016/0883-9026(88)90020-1
- Dumne, T., Roberts, M. J., & Samuelson, L. (1988). Patterns of firm entry and exit in U.S. manufacturing industries. *RAND Journal of Economics*, 19(4), 495-515.
- Eden, C. (1992). On the nature of cognitive maps. *Journal of Management Studies*, 29(3), 261-265. doi: 10.1111/j.1467-6486.1992.tb00664.x
- Eden, C., Ackermann, F., & Cropper, S. (1992). The analysis of cause maps. *Journal of Management Studies*, 29(3), 309-324. doi: 10.1111/j.1467-6486.1992.tb00667.x
- Ericsson, K. A., & Charness, N. (1994). Expert performance. *American Psychologist*, 49(8), 725-747.
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10), 906-911. doi: 10.1037/0003-066X.34.10.906
- Flavell, J. H. (1987). Speculations about the nature and development of metacognition. In F. E. Weinert & R. H. Kluwe (Eds.), *Metacognition, motivation, and understanding* (pp. 21-29). Hillsdale, NJ: Erlbaum.
- Gaglio, C. M., & Katz, J. A. (2001). The psychological basis of opportunity identification: entrepreneurial alertness. *Small Business Economics*, 16, 95-111.
- Gartner, W. B. (1989). "Who is an entrepreneur?" Is the wrong question. *Entrepreneurship: Theory & Practice*, 13(4), 47-68.
- Gartner, W. B. (1990). What are we talking about when we talk about entrepreneurship? *Journal of Business Venturing*, 5(1), 15-28. doi: 10.1016/0883-9026(90)90023-m
- Gompers, P., Kovner, A., Lerner, J., & Scharfstein, D. (2010). Performance persistence in entrepreneurship. *Journal of Financial Economics*, 96(1), 18-32. doi: 10.1016/j.jfineco.2009.11.001
- Hamilton, B. (2000). Does entrepreneurship pay? An empirical analysis of the returns to self-employment. *Journal of Political Economy*, 108(3), 604-631.
- Guzman, J. & Stern, S. (2015). Where is silicon valley? Forecasting and mapping entrepreneurial quality? *Science*, 347(6222), 606-609. doi: 10.1126/science.aaa0201.
- Hayek, F. A. (1945). The use of knowledge in society. *American Economic Review*, 35(4), 519.
- Haynie, J. M., Shepherd, D. A., & McMullen, J. S. (2009). An Opportunity for me? The role of resources in opportunity evaluation decisions. *Journal of Management Studies*, 46(3), 337-361. doi: 10.1111/j.1467-6486.2009.00824.x
- Haynie, M., & Shepherd, D. A. (2009). A measure of adaptive cognition for entrepreneurship research. *Entrepreneurship: Theory & Practice*, 33(3), 695-714. doi: 10.1111/j.1540-6520.2009.00322.x
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52(12), 1280-1300. doi: 10.1037/0003-066X.52.12.1280
- Inc. (2006). Rise of the entrepreneurial class. *Inc.* Retrieved from <http://www.inc.com/articles/2006/08/schools.html>
- IRS. (2005). IRS launches study of S Corporation reporting compliance. *IRS Newswire*. Retrieved from <https://www.irs.gov/newsroom/irs-launches-study-of-s-corporation-reporting-compliance>.
- Kahneman, D., & Lovallo, D. (1994). Timid choices and bold forecasts: A cognitive perspective on risk taking. In R. P. Rumelt, D. E. Schendel & D. Teece (Eds.), *Fundamental issues in strategy: A research agenda* (pp. 71-96). Boston: Ballinger.
- Kaish, S., & Gilad, B. (1991). Characteristics of opportunities search of entrepreneurs versus executives: Sources, interests, general alertness. *Journal of Business Venturing*, 6(1), 45.

- Kirchhoff, B. (1997). Entrepreneurship economics. In W. D. Bygrave (Ed.), *The Portable MBA in Entrepreneurship*. New York: John Wiley & Sons.
- Kirzner, I. (1973). *Competition and entrepreneurship*. Chicago: University of Chicago Press.
- Kolvreid, L., & Bullvag, E. (1993). Novices versus experienced business founders: An exploratory investigation. In S. Birley, I. C. MacMillan & S. Subramony (Eds.), *Entrepreneurship Research: Global Perspectives* (pp. 275-285). Oxford: Pergamon.
- Krueger, N. F. (1993). The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship: Theory & Practice*, 18(1), 5-21.
- Krueger, N. F. (2005). The cognitive psychology of entrepreneurship handbook of entrepreneurship research. In Z. J. Acs & D. B. Audretsch (Eds.), (Vol. 1, pp. 105-140): Springer US.
- Krueger, N. F. (2007). What lies beneath? The experiential essence of entrepreneurial thinking. *Entrepreneurship: Theory & Practice*, 31(1), 123-138. doi: 10.1111/j.1540-6520.2007.00166.x
- Krueger, N. F., & Brazeal, D. V. (1994). Entrepreneurial Potential and Potential Entrepreneurs. *Entrepreneurship: Theory & Practice*, 18(3), 91-104.
- Lafontaine, F., & Shaw, K. (2016). Serial entrepreneurship: Learning by doing? *Journal of Labor Economics*, 34(52), S217-S254. doi: 10.1086/683820.
- Lamont, L. (1972). What entrepreneurs learn from experience. *Journal of Small Business Management*, 10(3), 36-41.
- Lerner, J. (2013). The boulevard of broken dreams: Innovation policy and entrepreneurship. *Innovation Policy and the Economy*, 13(1) 61-68. doi: 10.1086/668239.
- Low, M. B. (2001). The adolescence of entrepreneurship research: Specification of purpose. *Entrepreneurship: Theory & Practice*, 25(4), 17.
- Macko, A., & Tyszka, T. (2009). Entrepreneurship and risk taking. *Applied Psychology*, 58(3), 469-487. doi: 10.1111/j.1464-0597.2009.00402.x
- MacMillan, I. C. (1986). To really learn about entrepreneurship, Let's study habitual entrepreneurs. *Journal of Business Venturing*, 1(3), 241-243.
- Marino, K. E., Castaldi, R. M., & Dollinger, M. J. (1989). Content analysis in entrepreneurship research: The case of initial public offerings. *Entrepreneurship: Theory & Practice*, 14(1), 51-66.
- Masters, R., & Meier, R. (1988). Sex differences and risk-taking propensity of entrepreneurs. *Journal of Small Business Management*, 26(1), 31-35.
- Mata, P., & Guimaraes, P. (1995). The survival of new plants: Start-up conditions and post-entry evolution. *International Journal of Industrial Organization*, 13, 459-481.
- McGrath, R. G. (1996). *Options and the entrepreneur: Toward a strategic theory of entrepreneurial wealth creation*. Paper presented at the Academy of Management, Cincinnati, OH.
- McKenzie, B., Ugbah, S. D., & Smothers, N. (2007). "Who is an entrepreneur?" Is it still the wrong question? *Academy of Entrepreneurship Journal*, 13(1), 23-43.
- Melot, A. M. (1998). The relationship between metacognitive knowledge and metacognitive experiences: Acquisition and re-elaboration. *European Journal of Psychology of Education*, 13(1), 75-89. doi: 10.1007/bf03172814
- Miner, J. B., & Raju, N. S. (2004). Risk propensity differences between managers and entrepreneurs and between low- and high-growth entrepreneurs: A reply in a more conservative vein. *Journal of Applied Psychology*, 89(1), 3-13. doi: 10.1037/0021-9010.89.1.3
- Mitchell, R.K., Busenitz, L., Lant, Theresa, McDougall, P.P., Morse, E. A., Brock Smith, J. (2002). Toward a theory of entrepreneurship research. *Entrepreneurship Theory and Practice*, 27(2), 93-104. Doi: 10.1111/1540-8520.00001.
- Mitchell, J. R., Friga, P. N., & Mitchell, R. K. (2005). Untangling the intuition mess: Intuition as a construct in entrepreneurship research. *Entrepreneurship: Theory & Practice*, 29(6), 653-679. doi: 10.1111/j.1540-6520.2005.00102.x
- Nadkarni, S., & Barr, P. S. (2008). Environmental context, managerial cognition, and strategic action: An integrated view. *Strategic Management Journal*, 29(13), 1395-1427.
- Nelson, T. O. (1996). Consciousness and metacognition. *American Psychologist*, 51(2), 102-116. doi: 10.1037/0003-66X.51.2.102
- Norton Jr, W. I., & Moore, W. T. (2006). The influence of entrepreneurial risk assessment on venture launch or growth decisions. *Small Business Economics*, 26(3), 215-226. doi: 10.1007/s11187-004-5612-y
- Palich, L. E., & Bagby, R. D. (1995). Using cognitive theory to explain entrepreneurial risk-taking: Challenging conventional wisdom. *Journal of Business Venturing*, 10(6), 425-438. doi: 10.1016/0883-9026(95)00082-j
- Polanyi, M. (1966). *The Tacit Dimension*. Chicago: University of Chicago Press.

- Peter Smith, Rosa, P., Carter, S., & Hamilton, D. (1996). Gender as a determinant of small business performance: Insights from a British study. *Small Business Economics*, 8(6), 463-478. doi: 10.1007/bf00390031
- Russell, R. D. (1999). Developing a process model of intrapreneurial systems: A cognitive mapping approach. *Entrepreneurship: Theory & Practice*, 23(3), 65-84.
- Sarasvathy, D. K., Simon, H. A., & Lave, L. (1998). Perceiving and managing business risks: differences between entrepreneurs and bankers. *Journal of Economic Behavior & Organization*, 33(2), 207-225. doi: 10.1016/s0167-2681(97)00092-9
- Sarasvathy, S. D. (2000). Seminar on research perspectives in entrepreneurship (1997). *Journal of Business Venturing*, 15(1), 1.
- Schraw, G., & Dennison, R. S. (1994). Assessing metacognitive awareness. *Contemporary Educational Psychology*, 19(4), 460-475. doi: 10.1006/ceps.1994.1033
- Scott, M., & Rosa, P. (1996). Has firm level analysis reached its limits? Time for a rethink?, Editorial, *International Small Business Journal*, 14(4), 81-89.
- Shane, S. (2008). *The Illusions of Entrepreneurship: The costly myths that entrepreneurs, investors, and policy makers live by*. New Haven, CT: Yale University Press.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217-226. doi: 10.5465/amr.2000.2791611
- Shepherd, D. A., & DeTienne, D. R. (2005). Prior knowledge, potential financial reward, and opportunity identification. *Entrepreneurship: Theory & Practice*, 29(1), 91-112. doi: 10.1111/j.1540-6520.2005.00071.x
- Short, J. C., Ketchen, J. D. J., Shook, C. L., & Ireland, R. D. (2010). The concept of "opportunity" in entrepreneurship research: past accomplishments and future challenges. *Journal of Management*, 36(1), 40-65.
- Smith, B. R., Matthews, C. H., & Schenkel, M. T. (2009). Differences in entrepreneurial opportunities: The role of tacitness and codification in opportunity identification. *Journal of Small Business Management*, 47(1), 38-57. doi: 10.1111/j.1540-627X.2008.00261.x
- Stanley, T., & Danko, W. (1996). *The Millionaire Next Door*. Atlanta: Longstreet.
- Star, J. A., & Bygrave, W. D. (1991). The second time around: The outcomes, assets, and liabilities of prior start-up experience. In S. Birley & S. Subramony (Eds.), *International Perspectives on Entrepreneurship Research* (pp. 340-363). Amsterdam: Elsevier Science.
- Stevenson, H. H., & Jarillo, J. C. (1990). A paradigm of entrepreneurship: Entrepreneurial management. *Strategic Management Journal*, 11(4), 17-27.
- Stewart, W. H., Jr., & Roth, P. L. (2001). Risk propensity differences between entrepreneurs and managers: A meta-analytic review. *Journal of Applied Psychology*, 86(1), 145-153. doi: 10.1037/0021-9010.86.1.145
- Teixeira, A. A. C. (2011). Mapping the (in)visible college(s) in the field of entrepreneurship. *Scientometrics* 89, 1-6. doi: 10.1007/s11192-011-0445-3.
- Ucbasaran, D., Westhead, P., & Wright, M. (2008). Opportunity identification and pursuit: Does an entrepreneur's human capital matter? *Small Business Economics*, 30(2), 153-173. doi: 10.1007/s11187-006-9020-3
- Ucbasaran, D., Westhead, P., & Wright, M. (2009). The extent and nature of opportunity identification by experienced entrepreneurs. *Journal of Business Venturing*, 24(2), 99-115. doi: 10.1016/j.jbusvent.2008.01.008
- Ucbasaran, D., Westhead, P., & Wright, M. (2011). Why serial entrepreneurs Don't learn from failure. *Harvard Business Review*, 89(4), 26-26.
- Ucbasaran, D., Westhead, P., Wright, M., & Flores, M. (2010). The nature of entrepreneurial experience, business failure and comparative optimism. *Journal of Business Venturing*, 25(6), 541-555. doi:10.1016/j.jbusvent.2009.04.001
- Uusitalo, R. (2001). Homo entrepreneurus? *Applied Economics*, 33, 1631-1638.
- Venkataraman, S. (2007). The distinctive domain of entrepreneurship research: An editor's perspective. In J. Katz & J. Brockhaus (Eds.), *Advances in Entrepreneurship, Firm Emergence, and Growth* (pp. 119-138). Greenwich, CT: JAI Press.
- Walsh, J. P. (1995). Managerial and organizational cognition: Notes from a trip down memory lane. *Organization Science*, 6(3), 280-321.
- Westhead, P., Ucbasaran, D., & Wright, M. (2003). Differences between private firms owned by novice, serial and portfolio entrepreneurs: Implications for policy makers and practitioners. *Regional Studies*, 37(2), 187-200. doi: 10.1080/0034340022000057488
- Westhead, P., Ucbasaran, D., & Wright, M. (2005). Decisions, actions, and performance: Do novice, serial, and portfolio entrepreneurs differ?. *Journal of Small Business Management*, 43(4), 393-417. doi: 10.1111/j.1540-627X.2005.00144.x

- Westhead, P., & Wright, M. (1998). Novice, portfolio, and serial founders: are they different? *Journal of Business Venturing*, 13(3), 173-204. doi: 10.1016/s0883-9026(97)90002-1
- Wiklund, J., Davidsson, P., Audretsch, D., & Karlsson, C. (2011). The future of entrepreneurship research. *Entrepreneurship Theory and Practice*, 35(1), 1–9.
- Wolff, E. N. (2007). *Recent trends in household wealth in the United States: Rising debt and the middle-class squeeze*. Annandale-on-Hudson, NY: Levy Economics Institute of Bard College.
- Wolff, E. N. (2010). *Tecent trends in household wealth in the United States: Rising debt and middle-class squeeze – an update to 2007*. Annandale-on-Hudson, NY: Levy Economics Institute of Bard College.
- Wright, M., Robbie, K., & Ennew, C. (1997a). Serial Entrepreneurs. *British Journal of Management*, 8(3), 251-268. doi: 10.1111/1467-8551.00064
- Wright, M., Robbie, K., & Ennew, C. (1997b). Venture capitalists and serial entrepreneurs. *Journal of Business Venturing*, 12(3), 227-249. doi: 10.1016/s0883-9026(96)06115-0