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Amy E. Hurley-Hanson

Chapman University, ahurley@chapman.edu


Cristina M. Giannantonio

Chapman University, giannant@chapman.edu

Richard Sudek

Chapman University

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Comments

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High-Tech Entrepreneurial Careers: A Model of Stages, Phases, and Ages

Amy E. Hurley-Hanson
Chapman University

Cristina M. Giannantonio
Chapman University

Richard Sudek
Chapman University

The meteoric rise, dramatic fall, and spectacular comeback associated with Steve Jobs' career path is an evocative example of the risks and rewards associated with following a high-tech entrepreneurial career. While research on entrepreneurs has primarily focused on their characteristics, there is limited research on the career paths of entrepreneurs in either the careers or the entrepreneurship literature. The purpose of this paper is to propose a new model of entrepreneurial careers that better reflects the realities of pursuing a career in the high-tech computer industry. The proposed model considers the role that stages, phases, and ages play in the careers of high-tech entrepreneurs.

The financial and business success of high-tech entrepreneurs Steve Jobs of Apple, Bill Gates of Microsoft, and Mark Zuckerberg of Facebook have captured the interest of academics, practitioners, and the general public. The products developed by their companies have changed the way businesses operate, how people spend their work and leisure time, and the ways they connect with each other. The companies these entrepreneurs have developed are some of the country's wealthiest, with Apple edging out Exxon for the highest valued company for much of 2012. While recent analytical doubts about the future of Apple have seen it drop out of the number one spot of financial top companies, Apple's long term viability is not in question (Myuhi, 2013).

These and other high profile computer and high-tech companies (e.g. Google) are viewed as highly desirable places to work by college graduates. Also capturing the public's interest is the unimaginable wealth these individuals have amassed, often at relatively young ages, compared to most successful entrepreneurs. While embodying the American dream, the success of these entrepreneurs has world wide appeal.

The high-tech industry is an important driver for innovation, jobs, and the U.S. economy. The Bay Area Council Economic Institute Report 2012 identified important job and economic factors. For instance, since 2004 high-tech jobs have outpaced the private sector by a ratio of three-to-one. It is estimated that the creation of one high-tech job creates 4.3 additional jobs in the local goods and services economy of the same region. However, this is not simply a temporary phenomenon. It is projected that employment growth will be at 13.3 percent from 2011 to 2020, while high-tech jobs are expected to increase 13.9 percent. High-tech companies are not only located in Silicon Valley, Los Angeles, and New York. There is at least one high-tech business in 98% of all counties in the United States. The average salary for high-tech jobs for 2011 was \$95,832. As seen by these statistics in the 2012 Report, the impact of high-tech industry jobs is significant in our economy.

There is limited research on the career paths of entrepreneurs in the high-tech industry. Traditional stage and linear models of careers do not appear to fit the career paths that Jobs, Gates, Zuckerberg and other high-tech entrepreneurs have followed. Thus, the purpose of this paper is to propose a new model of entrepreneurial careers that better reflects the realities of pursuing a career in the high-tech computer industry. Steve Jobs' career is examined through the components of the model presented in this paper.

Steve Jobs

Steve Jobs' life story and career path offer management scholars a modern day case study in which to explore career theories and models. The interest in Steve Jobs' personal life and management style, along with the popularity of Apple's consumer electronic products, including the iMac, iPod, iPhone, and iPad, offers academics an engaging and relatable business case relevant to several disciplines. His successful return to Apple after a very public firing adds to the uniqueness of his story.

Steve Jobs' life and career combined to create a compelling story on many levels. There was the rags to riches story of an adopted child who achieved cult-like adoration from the customers who buy his products. There were spectacular failures along with undreamed successes. There were incredible self-disappointments including being ousted from a company he founded by a CEO and a board he chose. There were imaginative designs after multiple revisions. There were enemies created and friends alienated by a lack of social skills. There were huge risks and ultimatums given to corporate giants. There was brutal treatment of those he called friends. There was a hero who battled cancer and a genius whose work was cut short at the age of fifty-six. At the heart of the story, there was an entrepreneur.

Steve Jobs' career exemplifies the unique path that high-tech entrepreneurs may follow. This paper differentiates the high-tech entrepreneurial career path from other stage models of careers. His early career path can be followed from Apple, to NeXT, to

Pixar, and back to Apple. There are some aspects of entrepreneurial career theories that may apply to his early career decisions. However, it was after he was fired from Apple that his unique high-tech career path emerged and served as an illustration for the proposed model. Research on the mid-career paths of entrepreneurs may differ greatly from the early career paths of entrepreneurs just as it may for all careers. Research on entrepreneurs' long term career paths is lacking. In addition, research is lacking that differentiates the career path of entrepreneurs from standard career theories.

Although the career trajectory of Steve Jobs is utilized to illustrate the new model that is presented, Steve Jobs was not alone in exhibiting a unique high-tech entrepreneurial career path. Throughout the world there are examples of entrepreneurs who do not fit traditional academic careers models. Some include Richard Branson, Bill Gates, George Lucas, Mark Zuckerberg, and others. Silicon Valley offers numerous examples of high-tech entrepreneurs who have not followed traditional entrepreneurial paths. It is short sighted to not examine the career paths of these entrepreneurs. Their successes serve as inspiration for other would-be entrepreneurs, their stories offer business lessons for future generations of management practitioners, and their "unique" career paths are likely to become the norm for those who choose to work in high-tech companies. Careers researchers must begin to reformulate their assumptions about the careers of high-tech entrepreneurs.

Careers Research

Developmental theories of career development assume that "career development is a process that takes place over the life span" (Super, Savickas & Super, 1996, p. 28). Numerous psychologists and sociologists have suggested that individuals progress through distinct career stages, where each career stage is characterized by unique career concerns, psychological needs, and developmental tasks. Most of these developmental theories of career development also assign an expected age range to each stage in their career path model (Levinson, 1978; Hall, 1976). The key assumption underlying stage models of careers is that careers are linear, with individuals progressing in a step-by-step fashion through each career stage. These models do not explicitly recognize that individuals can cycle through the various stages several times in their careers. Entrepreneurial careers, which are often characterized by repeated failures and multiple start-ups, do not conform to traditional career stage models. Also problematic is the fact that some high-profile entrepreneurs are successfully running their own companies before the age of thirty. It is doubtful that these young millionaires and billionaires consider themselves to be in the early stages of their careers, given the success of their companies.

Donald Super in his model of careers (1980) emphasized the fact that careers develop over time. That is, while occupational decisions might otherwise be considered in relative isolation, Super's work suggested that such decisions must be considered in the context of the past and the future. In reviewing Jobs' career path, one can clearly trace the linkages between his occupational decisions. For example, the software developed at NeXT is utilized in Apple's current operating systems.

Although most models of career development have been based on the careers of white middle class males, some models have been developed for specific populations

including women (Fossen, 2012), entrepreneurs with and without dependents (DeMartino, Barbato & Jacques, 2006), MBA students (Nabi, Holden & Walmsley, 2010), minorities (DeCaro, DeCaro & Bowen-Thompson, 2010), transnationals (Portes, 2002), Cuban-Americans (Peterson, 2001), and for specific geographical regions such as Finland (Brannback & Carsrud, 2008). Few models exist which address the unique aspects of entrepreneurial careers. Plehn-Dujowich (2010) identified a model for serial entrepreneurs, entrepreneurs who repeatedly start new businesses across their careers, such as Richard Branson (Wright, Robbie & Ennew, 1997). There is no career model for what might be termed “one hit wonders,” entrepreneurs who develop one successful company across their life span such as Sam Walton or Walt Disney, although some have investigated entrepreneurs with one hit item fad businesses (May, 2010).

Entrepreneurship Research

The study of entrepreneurship is still relatively young. Yet in a short time, researchers have put forth and studied numerous theories of entrepreneurship. These theories seek to explain the process of entrepreneurship and attempt to predict who will become entrepreneurs or what conditions lead to entrepreneurship. Besides helping academics to understand the entrepreneurial process, these theories have the goal of assisting people who are or want to become entrepreneurs. However, there has been very little research on the career paths of entrepreneurs, nor the stages they may go through as their careers unfold.

One explanation for this is that there is still the problem of defining entrepreneurship. It has been defined as innovation (Schumpeter, 1958), initiating, maintaining, and developing a profit-oriented business (Cole, 1965), making significant decisions about changes which affect resources of a company (Sawyer, 1958), risk-bearing (Mill, 1848), ultimate formal authority within an organization (Weber, 2009), or making changes in strategy for an existing firm that alter the state or pattern of resources deployment (Ginsberg, 1988). Today there are many definitions of entrepreneurship accepted and each researcher is responsible for defining precisely what type of entrepreneur or entrepreneurial activity they are studying. There is still much discussion about whether entrepreneurship can take place in a corporate environment (Guth & Ginsberg, 1990) or whether street peddlers should be included as entrepreneurs. An inclusive definition which permits a broad exploration of entrepreneurship is “a process by which individuals - either on their own or inside organizations - pursue opportunities without regard to the resources they currently control” (Stevenson, Roberts & Grous-Beck, 1989, p. 23).

In the nineteenth century, an entrepreneur was any successful business man. Books were written about business tycoons such as Astor and Vanderbilt. These descriptions assumed entrepreneurs were owners. Early historians described the entrepreneur's motivations as material wealth, public recognition and esteem, and the welfare of society. His distinguishing qualifications were hard work and good luck (Livesay, 1982). The study of entrepreneurship entered the professional disciplines in the late 1920s. N.S.B. Gras and his colleagues at Harvard attempted to relate the business executive to the management of the firm and the socioeconomic environment

in which the firms operated. These Harvard academics produced a stream of case studies on business executives and firms (Livesay, 1982). Today, much of the study of entrepreneurs is still based on case studies. This has led to numerous criticisms of the history of entrepreneurial research. Historians may have been studying the careers of business tycoons instead of the formation of new companies (Vesey, 1982).

There is still much work to be done in the field of entrepreneurship. No one theory has been shown to explain the process completely. While research in the field is growing at a substantial rate, there are still some basic problems to be worked out in the grounding of entrepreneurial theory. There are two major streams of theory building in entrepreneurship: sociological and psychological. Sociological theories look at how the environment affects entrepreneurship. These studies began with McClelland's work on the need for achievement (1961). He felt that the high economic and social growth in some societies fostered entrepreneurship. In his view, this growth was owed to a large segment of these societies being high in need for achievement. Hagen's (1960) theory states that entrepreneurs are lower status groups trying to overcome their social inequality with economic venturing. He drew on historical cases from different countries. Recent historical research has found evidence that it was not the lower status groups in the country who were creating new businesses (Fleming, 1979; Kaser, 1978). Hagen's theory is now dismissed because of these inconsistent findings but perhaps his theory should not be dismissed so easily. Sociological theories have tried to come up with one theory of how environmental conditions affect all members of the population.

Psychological theories of entrepreneurs look at the distinguishing psychological characteristics entrepreneurs possess. These characteristics have been correlated with entrepreneurial performance in an attempt to predict who will become a successful entrepreneur. These psychological theories take a broad view of psychology. The three factors most often studied about entrepreneurs are the psychological influences on them, their personal characteristics, and the effects of previous experience on these individuals (Brockhaus, 1982).

While there is much research on the factors leading to an individual's decision to become an entrepreneur (Sing & DeNoble, 2003), there is less research on how they live out their entrepreneurial careers. Some research has focused on entrepreneurs' growth intentions (Cassar, 2007), but very little has examined the career stages of entrepreneurs as their careers evolve. Other research has explored how different variables at different stages of a person's life may influence them to become entrepreneurs (Singh & Verma, 2001). However, there is not much research on the influence of these variables on later career stages. Very few theories or models of mid-career stages exist and even fewer address the mid-careers of entrepreneurs.

Individuals may make the decision to become entrepreneurs at different stages of their lives, including retirement (Singh & DeNoble, 2003), right after school (Shaver & Scott, 1991), or after working for a while (Katz, 1994). The decision to become self-employed is affected by different factors at various stages of an individual's life course (Singh & Verma, 2001). Another important factor to consider is the co-evolution of the industry the individual works in (Jones, 2001). For example, Steve Jobs' career path cannot be examined without considering the evolution of the personal and home computer industry.

This brief review of current themes in entrepreneurship research reveals the need for theoretical and empirical work that examines the entrepreneurial careers of individuals working in the computer and other high-tech industries. The next section of the paper describes a proposed model of entrepreneurial careers. Relevant examples are drawn from Steve Jobs' career at Apple, NeXT, Pixar, and his return to Apple.

A New Model of Entrepreneurial Careers

The purpose of this paper is to propose a new model of entrepreneurial careers that reflects the realities of pursuing a career in the high-tech computer industry. The career path of Steve Jobs is used to illustrate the entrepreneurial activities that comprise the stages, phases, and ages components of the proposed model. It is not the purpose of this paper to explore the reasons why Steve Jobs may have become an entrepreneur (Isaacson, 2011). As perhaps the world's most widely recognized CEO, Steve Jobs exemplifies entrepreneurs operating in high-tech industries. This paper describes a proposed model of entrepreneurial careers and illustrates the components of the model by examining Jobs' career path.

A model of high-tech entrepreneurial career development is relevant to and necessary for understanding today's fast paced technological environment. It is hoped that this model will serve to connect career theories and entrepreneurial theories. The model draws on historical career theory by utilizing developmental stages. However, these stages are conceptualized to reflect the stages that entrepreneurs experience. The model includes the concept of career phases to incorporate the fact that entrepreneurs may develop several products and companies across their careers. Finally, recognizing that entrepreneurs can start companies at many points in their lives, age is included as a component in the model.

As a high-tech entrepreneur, Steve Jobs' career trajectory illustrates the components of the model of entrepreneurial careers that is presented in this paper. Jobs' early career success, his ouster from the company he created, his work at NeXT and Pixar, and his ultimate return to Apple, offer management scholars a contemporary version of the Horatio Alger success stories. Studies on his successes and failures are likely to continue for years after his death. Steve Jobs was a very successful entrepreneur. His startups of Apple, NeXT, and Pixar created millions of dollars for him and his stockholders. His return to Apple in the 1990s ushered in a string of highly profitable consumer electronic products and dramatically increased Apple's market value.

There are three components in the proposed model of entrepreneurial careers. The components are career stages, career phases, and career ages. The first component of the model is career stages. Similar to other stage models of careers, entrepreneurial careers unfold across a series of stages. The model is similar to developmental models of career stages. However, unlike traditional career models which have linear progression, the proposed model recognizes that entrepreneurs may start up different businesses which results in them cycling through the stages multiple times. There are four stages in the proposed model. The first stage is reconnection. The second stage is transition. The third stage is reflection, and the fourth stage is death. As very little research has linked career theories to entrepreneurial careers (Katz, 1994), the proposed model attempts

to adapt classic career concepts such as career stages to better reflect the experiences of high-tech entrepreneurs.

The second component of the model is career phases. Since the primary focus of most entrepreneurs is on starting and building companies, the model needs to reflect the idea that entrepreneurial careers can be divided into identifiable career phases. Each career phase is usually associated with the specific company that the entrepreneur is focused on in that part of their life span. Entrepreneurs may operate in more than one phase at a time, but there is usually one primary company that is the focus of the entrepreneur's time, money, and effort in each phase.

The third component of the model is career ages. Many well-known career and developmental stage models such as Super (1980) and Levinson (1978) link the stages of their models to specific chronological ages. Some researchers have questioned whether specific ages should be linked to career stages (Leonard, Mathews & Bowes, 1987). Previous research on entrepreneurship illustrated that entrepreneurial careers can happen at many different ages (Katz, 1994; Shaver & Scott, 1991; Singh & DeNoble, 2003) but also found most entrepreneurs to be over the age of 40 (Kauffman, 2009; Wolverson, 2013). With the success of relatively young entrepreneurs such as Jobs and Zuckerberg, the model needed to recognize that entrepreneurial activity may occur before the entrepreneur formally enters the workforce and that entrepreneurial success may be achieved in what used to be considered the early career stages. It is recognized that age is an important component of entrepreneurial careers, however, it is argued that linearly assigning age ranges to career stages, as in previous stage models of careers, may not accurately capture the experiences of high-tech entrepreneurs. The next section of the paper utilizes the career path of Steve Jobs to illustrate each component of the model.

Applying the Model

Applying the model to Steve Jobs' career path, the following career stages are illustrated. The first stage of his unique career path is Reconnection. In 1985 Jobs was forced out of the firm he created. He returned to Apple in 1997 when the company purchased NeXT, the computer firm he started after his ouster from Apple. However, the Apple he returned to was a dying enterprise. Fourteen years later, at the time of his death, it had become the most valuable company in the United States. Jobs reconnected with his old firm and reminded the company what was important about Apple. Jobs reconnected Apple to its true purpose – innovation – to transform its organizational image. Jobs used Apple's organizational identity to build the company into one of the top firms in the country and he created a new purpose for the organization.

The next stage in the model is the Transformation stage. Key to Jobs' success at Apple was his transformation of Apple from a computer company to a mobile device company. Jobs introduced the iPad in a January 2010 Keynote. During that Keynote, Jobs announced that Apple was a mobile devices company (Circle ID Reporter, 2010). This shift in strategy and redefinition of the company's mission was a dramatic transformation for a company that had launched the personal and home computer industry.

Jobs transformed additional companies, as well as entire industries. He transformed

Pixar from a computer division of Lucasfilm into an award-winning computer animation film studio. He transformed the way that music was purchased, stored, and listened to through the development of iTunes and the iPod. He transformed software development and distribution with the creation of the App Store, creating a cottage industry for thousands of app developers, and launching another generation of high-tech entrepreneurs.

As he grew older and was diagnosed with cancer, Jobs began the Reflection stage of his career. He began to speak to the media about his career and personal life. He chose to speak at graduations and other venues where he hoped to have an impact on people's lives and careers. He agreed to have a biography written about him (Issacson, 2011). He opened up about career failures as well as successes in the hope of imparting wisdom that would help people to learn from his successes and his failures.

In the reflection stage, Jobs appeared to consider his generativity needs (Erikson, 1963). In his personal life he spent private time with his wife and children, as well as his friends and colleagues. Jobs prepared Tim Cook for the day when he would not be able to run Apple because of his health. He worked very closely with Apple's board to prepare the company for life at Apple after he was gone. Steve Jobs busied himself with making sure the company would survive without him. He focused on choosing his successor and setting up the next products that Apple would introduce to the world. The three stories he told in his 2005 Stanford University commencement address were reflections on his life and legacy and lessons learned along the way.

Companies with strong entrepreneurial founders have to consider the impact that the eventual death of their company's founder will have on the long term viability of their firm. Therefore, the fourth stage of the model is Death. Steve Jobs faced this stage by resigning from his duties as CEO of Apple and preparing for his death. He died on October 6, 2011 at the age of 56. His death sparked very unique public reactions throughout the world. Thousands of people outside of his immediate circle followed his journey through this stage. In the days following Jobs' passing, reflections on his legacy were noted by the worldwide media (Moses, 2011; Hughes, 2011). Bloomberg Business Week devoted an entire issue to him, something they had never done in their publishing history (Bloomberg Business Week, 2011). Apple users around the world felt the need to note the passing of Steve Jobs and be involved with this phase. Apple stores allowed customers and visitors to place Post-it notes around the store sharing their feelings on the loss of Steve Jobs. People were able to use Apple technology to create visual images to send around the world to mourn with other Apple customers and fans of Steve Jobs.

The death phase is a rarely studied phase in career theories. However, Bell and Taylor (2012) studied this phase of Steve Job's career by doing a semiotic analysis of photographic images and emails sent to Apple and other corporate websites after the death of Steve Jobs. Visual data such as this may provide an important way for stories about the life of an organization and its founder to be remembered. Visual data is an additional way for individuals to communicate messages about their leader's death and the loss their employees may feel (Bell, 2012). Continuous visual images may also illustrate the importance of the dead in the ongoing life of the organization and show how the organization's members seek to maintain a continuing bond with the

dead (Bell & Taylor, 2011). Apple fans were in so much disbelief about his dying that they actually thought he would make a surprise appearance and launch Apple's latest product at a shareholder meeting two days before he died. On the one year anniversary of his death, visitors to the Apple website were presented with a single picture of Steve Jobs followed by a voice over video by Tim Cook. For several days it was not possible to access Apple's website without seeing this visual image of a company mourning the loss of their founder and paying respect to him.

Another issue to consider in the death stage of entrepreneurial careers is the reaction of the financial markets to the death of the founding entrepreneur. Because of his inextricable relationship with Apple, questions were rampant about whether the death of its founder would also result in the death of his company (Moses, 2011). Entrepreneurial careers are unique in that the impact of losing the company's founder may be keenly felt and result in questions about the long term viability of their firm. There have been product launches since the death of Steve Jobs. Although most have been highly anticipated and have generated huge sales numbers, Apple has dropped from its top spot as the world's biggest financial corporation (Popper, 2013). Investors are wary of Jobs' successor and whether he will be able to maintain the leadership of Steve Jobs. Steve Jobs' followers believed he was changing their lives with each new project. Cook has not yet enjoyed the cult-like following that Jobs engendered. Competitors have cut greatly into Apple's market share and profits (USA Today Money, 2013). Enormous law suits have bit into the cult-like status of Apple by revealing many details of the innovation of Apple products that Apple would rather not be made public. These lawsuits are also causing Tim Cook to focus on many other issues besides generating innovative new products for Apple (Cohan, 2013). For the first time, Apple profits and stock prices have fallen. Although in reality this may have nothing to do with the death of Steve Job's, many will attribute the financial decline to Jobs' death (Burrows, 2011). This aspect of the death stage of entrepreneurs is likely to be studied for many years.

A second component of the proposed model is career phases. It was important to include a variable that explicitly dealt with the reality that entrepreneurs may be involved with several products, businesses, and/or industries across their career spans. In examining Steve Jobs' career path, four distinct phases may be identified. Phase one occurred with the founding of Apple Computer. After building the first personal computer in his parents' garage, Jobs' focus was on building the Apple 1 and Apple 2 computers, building Apple Computer (the company), and taking the company public. Other key events in phase one include the development of the Macintosh, the hiring of John Sculley, and the eventual firing of Steve Jobs from Apple.

Phase two occurred at NeXT, the computer company that Jobs started after his ouster from Apple. Using technology developed for the Lisa computer, Jobs and his team developed a high-end, costly computer aimed at the scientific and academic community. While the computer was not a commercial success, its software found wide spread application. Steve Jobs ultimately sold NeXT to Apple. The third phase in Jobs' career path phase occurred at Pixar. Jobs transformed a computer division of Lucasfilms into an award winning computer animation film studio. Pixar's first release was Toy Story which was both a commercial and critical success. Several other successful films were produced by Pixar and Jobs eventually sold the studio to

Disney. During Jobs' Pixar phase he was able to fully integrate his love of artistry and technology (Isaacson, 2011).

The fourth phase of Jobs' career occurred at Apple. This phase encompassed his return to Apple in the mid-1990s until his death in 2011. During this phase Jobs transformed Apple from a computer company into a mobile devices company. There were numerous highly successful product launches including the iMac, the iPod, the iPhone, and the iPad. This phase also saw the creation of iTunes, the App Store, and Apple retail stores. In examining each of these phases, it can be seen that part of Jobs' genius was his ability to see the strategic linkages between each phase of his career. Technology developed for one computer became the platform for other high-tech products. It is also evident that while each of these phases of his career were distinct, there were strategic linkages between the businesses he focused on in each phase.

The final component of the model that Jobs' career path illustrates is age. Career age has interesting implications for both image norms (Giannantonio & Hurley-Hanson, 2006) and age norms (Lawrence, 1988). Entrepreneurship may intersect with age and image norms as people assess whether their occupation is age appropriate. Perceptions about the importance of physical attractiveness characteristics, including age, in certain occupations and organizations reflect both occupational and organizational stereotypes. These image stereotypes are exhibited in image norms (Giannantonio & Hurley-Hanson, 2006). An image norm is the belief that people must possess a certain degree of physical attractiveness in order to work in certain occupations, industries, and/or companies. Steve Jobs' image in his twenties did not fit the image norm individuals and organizations held at that time of people who started their own companies or who worked in the computer industry. He did not look like a serious business person who had started his own company and become a millionaire before the age of thirty. Jobs did eventually create his own unique image consisting of a plain black turtleneck and a pair of faded blue jeans (Isaacson, 2011). Jobs was an excellent example of an image buster: a person who is so skilled and successful at their work that they are able to publicly and professionally present themselves with no concern for societal expectations regarding their appearance (Giannantonio & Hurley-Hanson, 2006).

Jobs was a millionaire in his twenties; he was fired from the company he founded at 30; and he passed away at the age of fifty six. In his thirty year career he started and sold numerous companies. Consistent with the model presented in this paper, Jobs' entrepreneurial activities occurred at several ages. Age norms are defined as "widely shared judgments of the standard or typical age of a person holding a role or status" (Lawrence, 1988, p 310). In organizations, age norms may accurately reflect how the organizations operate, but in many organizations they have been found to be inaccurate perceptions of the age distributions in their organizations (Lawrence, 1996). While research has found that most companies are founded by individuals older than Steve Jobs, he broke age norms by starting his first company in his twenties (Wolverson, 2013). Steve Jobs and many others that have followed in his footsteps, such as Mark Zuckerberg, suggest that age norms for entrepreneurs are shifting, if not radically changing.

Conclusion

The purpose of this paper was to present a new model of entrepreneurial careers and to illustrate the components of the model using Steve Jobs' career path. Future research should examine the careers paths of other high-tech entrepreneurs to validate the stages, phases, and ages components of the model. Steve Jobs was a charismatic entrepreneur whose business successes held worldwide interest. His career path was highly visible. Future research on the career paths of other high-tech entrepreneurs will determine if his career path was highly unique. The rate of change and innovation in the high-tech industry demands an equally innovative approach to the study of entrepreneurial careers.

References

- Bell, E. (2012). Ways of Seeing Death: A Critical Semiotic Analysis of Organizational Memorialization. *Visual Studies*, 27(1): 4-17.
- Bell, E. & Taylor, S. (2011). Beyond Letting Go and Moving On: New Perspectives on Organizational Death, Loss and Grief. *Scandinavian Journal of Management*, 27(1): 1-10.
- Bloomberg Business Week (Oct 10, 2011). Steve Jobs: 1955-2011.
- Brannback, M. & Carsrud, A. (2008). Do They See What We See? A Critical Nordic Tale about Perceptions of Entrepreneurial Opportunities, Goals and Growth. *Journal of Enterprising Culture*, 16(1): 55-87.
- Brockhaus, Robert H. (1982). The Psychology of the Entrepreneur. *Encyclopedia of Entrepreneurship*, p. 39-57. Available at SSRN: <http://ssrn.com/abstract=1497760>.
- Burrows, D. (October 6, 2011). Apple's Stock Dips After Death of Steve Jobs. In CBS News. Retrieved January 13, 2013, from http://www.cbsnews.com/8301-505123_162-49042941/apples-stock-dips-after-death-of-steve-jobs/.
- Cassar, G. (2007). Money, Money, Money? A Longitudinal Investigation of Entrepreneur Career Reasons, Growth Preferences and Achieved Growth. *Entrepreneurship & Regional Development*, 19: 89-107.
- Circle ID Reporter. (January 27, 2010). Steve Jobs: Apple is a Mobile Device Company. In Circle ID. Retrieved January 25, 2013, from http://www.circleid.com/posts/steve_jobs_apple_is_a_mobile_device_company.
- Cohan, P. (April 18, 2013). 7 Reasons Apple is More Doomed Than You Think. In Forbes. Retrieved April 20, 2013, from <http://www.forbes.com/sites/petercohan/2013/04/18/7-reasons-apple-is-more-doomed-than-you-think/>.
- Cole, A. H. (1965). An Approach to the Study of Entrepreneurship: A Tribute to Edwin F. Gay. In Aitken, H.G.J. (Ed.), *Explorations in Enterprise* (pp. 30-44). Cambridge, MA: Harvard University Press.
- DeCaro, F.P., DeCaro, N. & Bowen-Thompson, F.O. (2010). An Examination of Leadership Styles of Minority Business Entrepreneurs: A Case Study of Public Contracts. *Journal of Business & Economic Studies*, 16(2): 72-78.
- DeMartino, R., Barbato, R. & Jacques, P.H. (2006). Exploring the Career/Achievement

- and Personal Life Orientation Differences between Entrepreneurs and Non-entrepreneurs: The Impact of Sex and Dependents. *Journal of Small Business Management*, 44(3): 350-368.
- Economic Institute Report commissioned by Engine Advocacy, December 2012.
- Erikson, E.H. (1963). *Childhood and society*. New York: W.W. Norton & Company.
- Fleming, W.J. (1979). The Cultural Determinants of Entrepreneurship and Economic Development : A Case Study of Mendoza Province, 1861-1914. *Journal of Economic History*, 39(1).
- Fossen, F.M. (2012). Gender Differences in Entrepreneurial Choice and Risk Aversion: A Decomposition Based on a Microeconomic Model. *Applied Economics*, 44: 1795-1812.
- Giannantonio, C.M. & Hurley-Hanson, A.E. (2006). Applying Image Norms across Super's Career Development Stages. *Career Development Quarterly*, 54(4): 318-330.
- Ginsberg, A. (1988). Measuring and Modeling Change in Strategy: Theoretical Foundations and Empirical Directions. *Strategic Management Journal*, 9: 559-575.
- Guth, W. & Ginsberg, A. (1990). Guest Editors' Introduction. Corporate Entrepreneurship, *Strategic Management Journal* (Special Issue), 11.
- Hagen, E. (1960). The Entrepreneurs as Rebel against Traditional Society. *Human Organization*, 19(4): 185-187.
- Hall, D. T. (1976). *Careers in Organizations*, Pacific Palisades, CA: Goodyear.
- Hughes, N. (October 6, 2011). Apple Rivals, Partners & Press Pay Tribute to Steve Jobs. In Apple Insider. Retrieved January 13, 2013, from http://appleinsider.com/articles/11/10/06/apple_rivals_partnerspress_pay_tribute_to_steve_jobs.
- Isaacson, W. (2011). *Steve Jobs*. New York: Simon & Schuster.
- Katz, J. (1994). Modeling Entrepreneurial Career Progressions: Concepts and Considerations. *Entrepreneurship Theory and Practice*, 19(2): 23-36.
- Kaser, M.C. (1978). Russian Entrepreneurship. In Mathias, P. & Potsdan, M.M. (Eds.). *The Cambridge Economic History of Europe*, 27.
- Lawrence, B. S. (1988). New Wrinkles in the Theory of Age: Demography, norms, and performance ratings. *Academy of Management Journal*, 309-337.
- Lawrence, B. S. (1996). Interest and Indifference: The Role of Age in the Organizational Sciences. In Ferris, Gerald R. (Ed.), *Research in Personnel and Human Resources Management*, 14. Greenwich, CT: JAI Press, 1-60.
- Leonard, P. Y., Mathews, B. & Bowes, J. (1987). Mid-Life Women: Research and Implications. Conference Paper, ED 295 074.
- Levinson, D. (1978). *The Seasons of a Man's Life*. New York: Knopf.
- Livesay, H.C. (1982). Entrepreneurial History. In Kent, C.A., Sexton, D.L. & Vesper, K.H. (Eds.). *Encyclopedia of Entrepreneurship*, Upper Saddle River, NJ: Prentice-Hall
- May, J. (2011, June 13). After the One-Hit Wonder. *Wall Street Journal - Eastern Edition*, p. R1-R4.
- McClelland, D.C. (1961). *The Achieving Society*. Princeton NJ: D. Van Nostrand Co.
- Mill, J. S. (1848). Principles of political economy with some of their applications to social philosophy. London: John W. Parker.
- Moses, A. (October 6, 2011). Historic Day Online: Twitter reaction to Steve Jobs' Death Hits Record. In The Sydney Morning Herald. Retrieved January 13, 2013, from <http://www.smh.com.au/technology/technology-news/historic-day-online-twitter->

- reaction-to-steve-jobs-death--hits-record-20111006-11ajb.html.
- Myuhi, K. (January 25, 2013). Is Apple Seriously Doomed? In *The Tech Next*. Retrieved January 25, 2013, from <http://www.thetechnext.net/1013/is-apple-seriously-doomed/>.
- Nabi, G., Holden, R. & Walmsley, A. (2010). From Student to Entrepreneur: Towards a Model of Graduate Entrepreneurial Career-Making. *Journal of Education and Work*, 23: 389-415.
- Peterson, M., Meckler, F. & Mark, R. (2001). Cuban-American Entrepreneurs: Chance, Complexity and Chaos. *Organization Studies*, 22(1): 31.
- Plehn-Dujowich, J. (2010). A Theory of Serial Entrepreneurship. *Small Business Economics*, 34(4): 377-398.
- Popper, N. (April 18, 2013). After Apple's Rise, a Bruising Fall. In *The New York Times*. Retrieved April 20, 2013, from http://www.nytimes.com/2013/04/19/technology/after-apples-rise-a-bruising-fall.html?pagewanted=all&_r=1&.
- Portes, A. Guarnizo, L.E. & Haller, W. (2002). Transnational Entrepreneurs: An Alternative Form of Immigrant Economics Adaption. *American Sociological Review*, 67: 278-298.
- Sawyer, J.E. (1958). Entrepreneurial studies. 1948-1958. *Business Historical Review*, 32: 434.
- Schumpeter, J. A. (1958). *The Economics and Sociology of Capitalism*. Princeton: NJ: Princeton University Press.
- Shaver, K. & Scott, L. (1991). Person, Process, Choice: The Psychology of New Venture Creation. *Entrepreneurship Theory and Practice*, 16(2): 23-45.
- Singh, G. & DeNoble, A. (2003). Early Retirees as the Next Generation of Entrepreneurs. *Entrepreneurship Theory and Practice*, 28: 207-226.
- Singh, G. & Verma, A. (2001). Patterns of Employment and Working Time Among Early Retirees of a Telecommunications Firm. In Houseman, S. & Nakamura, A. (Eds.). *Working Time in Comparative Perspective, Volume II: Studies of Working Time Over the Life Cycle and Nonstandard Work*. Kalamazoo, MI: Upjohn Institute for Employment Research.
- Stevenson, H. H., Roberts, M.J. & Grous-Beck, H.I. (1989). *New Business Ventures and the Entrepreneur*, Irwin, Homewood, IL, 1989.
- Super, D.E. (1980). A Life Span, Life Space Approach to Career Development. *Journal of Vocational Behavior*, 13: 282-298.
- Super, D. E. (1990). A life span, life-space approach to career development. In Brown, D. & Brooks, L. (Eds.). *Career Choice and Development*. San Francisco, CA: Jossey-Bass
- Super, D.E., Savickas, M.L. & Super, C.M. (1996). The life-span, life-space approach to careers. In Brown, D., Brooks, L. & Associates (Eds.), *Career Choice and Development*, 121-178.
- USA Today Money. (April 19, 2013). Apple Heads to Lows Not Seen Since Steve Jobs Died. In *USA Today*. Retrieved April 20, 2013, from <http://www.usatoday.com/story/money/markets/2013/04/18/apple-crash-steve-jobs/2094379/>.
- Velazco, C. (December 12, 2011). Steve Jobs Biography Is Amazon's Best-Selling Book Of The Year. In *TechCrunch*. Retrieved January 13, 2013, from <http://techcrunch.com/2011/12/12/steve-jobs-biography-is-amazons-best-selling-book-of-the-year/>.
- Weber, M. (2009). *The Theory of Social and Economic Organization*. New York: NY:

Simon & Schuster.

Wolverson, R. (March 14, 2013). The Best Age for a Start-Up Founder. In *Time*. Retrieved March 15, 2013, from <http://business.time.com/2013/03/14/ask-the-expert-the-best-age-for-a-start-up-founder/>.

Wright, M., Robbie, K. & Ennew, C. (1997). Serial Entrepreneurs. *British Journal of Management*, 8(3): 251-268.