

ENTREPRENEURSHIP THEORIES AND EMPIRICAL RESEARCH: THE NEXUS OF ENTREPRENEURSHIP DEVELOPMENT

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Abstract

Abstract

Entrepreneurship theories and research remain important to the development of the entrepreneurship field. This paper examines six entrepreneurship theories with underlying empirical studies. These are Economic entrepreneurship theory, Psychological entrepreneurship theory, Sociological entrepreneurship theory, Anthropological entrepreneurship theory, Opportunity-

Based entrepreneurship theory, and Resource-Based entrepreneurship theory. These theories offer us a fairly good opportunity to refocus our efforts at integrating the diverse viewpoints.

Key words: Entrepreneurship Theory, Empirical Research, Entrepreneurship Development

Introduction

Several theories have been put forward by scholars to explain the field of entrepreneurship. These theories have their roots in economics, psychology, sociology, anthropology, and management. The multidisciplinary nature of entrepreneurship theories is given a close examination with its implication on entrepreneurial development in this article.

Economic Entrepreneurship Theories

The economic entrepreneurship theory has deep roots in the classical and neoclassical theories of economics, and the Austrian market process (AMP). These theories explore the economic factors that enhance entrepreneurial behaviour.

Classical Theory

The classical theory extolled the virtues of free trade, specialization, and competition (Ricardo, 1817; Smith, 1776). The theory was the result of Britain's industrial revolution which took place in the mid-1700 and lasted until the 1830s. The classical movement described the directing role of the entrepreneur in the context of production and

distribution of goods in a competitive marketplace (Say, 1803). Classical theorists articulated three modes of production: land, capital, and labour. There have been objections to the classical theory. These theorists failed to explain the dynamic upheaval generated by entrepreneurs of the industrial age (Murphy, Liao, & Welsch, 2006).

Neo-classical Theory

The neo-classical model emerged from the criticisms of the classical model and indicated that economic phenomena could be relegated to instances of pure exchange, reflect an optimal ratio, and transpire in an economic system that was basically closed. The economic system consisted of exchange participants, exchange occurrences, and the impact of results of the exchange on other market actors. The importance of exchange coupled with diminishing marginal utility created enough impetus for entrepreneurship in the neoclassical movement (Murphy, Liao & Welsch, 2006).

Some criticisms were raised against the neo-classical conjectures. The first is that aggregate demand ignores the uniqueness of individual-level entrepreneurial activity. Furthermore, neither use nor exchange value reflects the future value of innovation outcomes. Thirdly, rational resource allocation does not capture the complexity of market-based systems. The fourth point raised was that efficiency-based performance does not subsume innovation and non-uniform outputs;

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known means/ends and perfect or semi-perfect knowledge does not describe uncertainty. In addition, perfect competition does not allow innovation and entrepreneurial activity. The fifth point is that it is impossible to trace all inputs and outputs in a market system. Finally, entrepreneurial activity is destructive to the order of an economic system.

Austrian Market Process (AMP)

These unanswered questions of the neo-classical movement led to a new movement which became known as the Austrian Market Process (AMP). The AMP, a model influenced by Joseph Alois Schumpeter (1934), concentrated on human action in the context of an economy of knowledge. Schumpeter (1934) described entrepreneurship as a driver of market-based systems. In other words, an important function of an enterprise was to create something new which resulted in processes that served as impulses for the motion of market economy.

Murphy, Liao, and Welsch (2006) contend that the movement offered a logic dynamic reality. In explaining this, they point to the fact that knowledge is communicated throughout a market system (e.g. via price information), innovation transpires, entrepreneurs satisfy market needs, and system-level change occurs. If an entrepreneur knows how to create new goods or services, or knows a better way to do so, benefits can be reaped through this knowledge. Entrepreneurs effectuate knowledge when they believe it will procure some individually-defined benefits.

The earlier neoclassical framework did not explain such activity; it assumed perfect competition, carried closed-system assumptions, traced observable fact data, and inferred repeatable observation-based principles. By contrast, AMP denied assumptions that circumstances are repeatable, always leading to the same outcomes in an economic system. Rather, it held entrepreneurs are incentivized to use episodic knowledge (that is, possibly never seen before and never to be seen again) to generate value.

Thus, the AMP was based on three main conceptualizations (Kirzner, 1973). The first was the arbitraging market in which opportunities emerge for given market actors as others overlook

certain opportunities or undertake suboptimal activity. The second was alertness to profit-making opportunities, which entrepreneurs discover, and entrepreneurial advantage. The third conceptualization, following Say (1803) and Schumpeter (1934), was that ownership is distinct from entrepreneurship. In other words, entrepreneurship does not require ownership of resources, an idea that adds context to uncertainty and risk (Knight, 1921). These conceptualizations show that every opportunity is unique and therefore previous activity cannot be used to predict outcomes reliably.

The AMP model is not without criticisms. The first of the criticisms is that market systems are not purely competitive but can involve antagonist cooperation. The second is that resource monopolies can hinder competition and entrepreneurship. The third is that fraud /deception and taxes/controls also contribute to market system activity. The fourth is that private and state firms are different but both can be entrepreneurial and fifth, entrepreneurship can occur in non-market social situations without competition. Empirical studies by Acs and Audretsch (1988) have rejected the Schumpeterian argument that economies of scale are required for innovation. The criticisms of the AMP have given impetus to recent explanations from psychology, sociology, anthropology, and Management.

Psychological Entrepreneurship Theories

The level of analysis in psychological theories is the individual (Landstrom, 1998). These theories emphasize personal characteristics that define entrepreneurship. Personality traits need for achievement and locus of control are reviewed and empirical evidence presented for three other new characteristics that have been found to be associated with entrepreneurial inclination. These are risk taking, innovativeness, and tolerance for ambiguity.

Personality Traits theory

Coon (2004) defines personality traits as “stable qualities that a person shows in most situations”. To the trait theorists there are enduring inborn qualities or potential of the individual that naturally makes him an entrepreneur. The obvious or logical question on your mind may be “What are the exact

traits/inborn qualities?" The answer is not a straight forward one since we cannot point at particular traits. However, this model gives some insight into these traits or inborn qualities by identifying the characteristics associated with the entrepreneur. The characteristics give us a clue or an understanding of these traits or inborn potential. In fact, explaining personality traits means making inference from behavior.

Some of the characteristics or behaviors associated with entrepreneurs are that they tend to be more opportunity driven (they nose around), demonstrate high level of creativity and innovation, and show high level of management skills and business know-how. They have also been found to be optimistic, (they see the cup as half full than as half empty), emotionally resilient and have mental energy, they are hard workers, show intense commitment and perseverance, thrive on competitive desire to excel and win, tend to be dissatisfied with the status quo and desire improvement. Entrepreneurs are also transformational in nature. They are lifelong learners and use failure as a tool and springboard. They also believe that they can personally make a difference, are individuals of integrity and above all visionary.

The trait model is still not supported by research evidence. The only way to explain or claim that it exists is to look through the lenses of one's characteristics/behaviors and conclude that one has the inborn quality to become an entrepreneur.

Locus of Control

Locus of control is an important aspect of personality. The concept was first introduced by Julian Rotter in the 1950s. Rotter (1966) refers to Locus of Control as an individual's perception about the underlying main causes of events in his/her life. In other words, a locus of control orientation is a belief about whether the outcomes of our actions are contingent on what we do (internal control orientation) or on events outside our personal control (external control orientation).

In this context the entrepreneur's success comes from his/her own abilities and also support from outside. The former is referred to as internal locus of control and the latter is referred to as external locus of control. While individuals with an internal locus of control believe that they are able to control

life events, individuals with an external locus of control believe that life's events are the result of external factors such as chance, luck or fate. Empirical findings that internal locus of control is an entrepreneurial characteristic have been reported in the literature (Cromie, 2000; Ho & Koh, 1992; Koh, 1996; Robinson et al., 1991). In a student sample, internal locus of control was found to be positively associated with the desire to become an entrepreneur (Bonnett & Furnham, 1991).

Rauch and Frese (2000) also found that business owners have a slightly higher internal locus of control than other populations. Other studies have found a high degree of innovativeness, competitive aggressiveness, and autonomy reports (Utsch et al., 1999). The same is reported of protestant work ethic beliefs (Bonnet & Furnham, 1991), as well as risk taking (Begley & Boyd, 1987).

Need for Achievement theory

While the trait model focuses on enduring inborn qualities and locus of control on the individual's perceptions about the rewards and punishments in his or her life (Pervin, 1980), need for achievement theory by McClelland (1961) explains that human beings have a need to succeed, accomplish, excel or achieve. Entrepreneurs are driven by this need to achieve and excel. While there is no research evidence to support personality traits, there is evidence for the relationship between achievement motivation and entrepreneurship (Johnson, 1990). Achievement motivation may be the only convincing personological factor related to new venture creation (Shaver & Scott, 1991).

Risk taking and innovativeness, need for achievement, and tolerance for ambiguity had positive and significant influence on entrepreneurial inclination (Mohar, Singh, & Kishore, 2007). However, locus of control (LOC) had negative influence on entrepreneurial inclination. The construct locus of control was also found to be highly correlated with variables such as risk taking, need for achievement, and tolerance for ambiguity. The recent finding on risk taking strengthens earlier empirical studies which indicate that aversion to risk declines as wealth rises, that is, one's net assets and value of future income (Szpiro, 1986). In complementing Szpiro's observation, Eisenhauer (1995) suggests that success in entrepreneurship, by

increasing wealth, can reduce the entrepreneur's degree of risk aversion, and encourage more venturing. In his view, entrepreneurship may therefore be a self-perpetuating process. Further evidence suggests that some entrepreneurs exhibit mildly risk-loving behavior (Brockhaus, 1980). These individuals prefer risks and challenges of venturing to the security of stable income.

Sociological Entrepreneurship Theory

The sociological theory is the third of the major entrepreneurship theories. Sociological enterprise focuses on the social context. In other words, in the sociological theories the level of analysis is traditionally the society (Landstrom, 1998).

Reynolds (1991) has identified four social contexts that relate to entrepreneurial opportunity. The first one is social networks. Here, the focus is on building social relationships and bonds that promote trust and not opportunism. In other words, the entrepreneur should not take undue advantage of people to be successful; rather success comes as a result of keeping faith with the people.

The second according to him is the life course stage context which involves analyzing the life situations and characteristic of individuals who have decided to become entrepreneurs. The experiences of people could influence their thoughts and actions so they want to do something meaningful with their lives.

The third context is ethnic identification. One's sociological background is one of the decisive "push" factors to become an entrepreneur. For example, the social background of a person determines how far he/she can go. Marginalized groups may violate all obstacles and strive for success, spurred on by their disadvantaged background to make life better. The fourth social context is called population ecology. The idea is that environmental factors play an important role in the survival of businesses. The political system, government legislation, customers, employees and competition are some of the environmental factors that may have an impact on the survival of a new venture or the success of the entrepreneur.

Anthropological Entrepreneurship Theory

The fourth major theory is referred to as the anthropological theory. Anthropology is the study

of the origin, development, customs, and beliefs of a community – in other words, the culture of the people in the community. The anthropological theory says that for someone to successfully initiate a venture the social and cultural contexts should be examined or considered.

Here emphasis is on the cultural entrepreneurship model. The model says that a new venture is created by the influence of one's culture. Cultural practices lead to entrepreneurial attitudes such as innovation that also lead to venture creation behavior. Individual ethnicity affects attitude and behavior (Baskerville, 2003) and culture reflects particular ethnic, social, economic, ecological, and political complexities in individuals (Mitchell et al., 2002a). Thus, cultural environments can produce attitude differences (Baskerville, 2003) as well as entrepreneurial behavior differences (North, 1990; Shane, 1994).

Opportunity-Based Entrepreneurship Theory

The opportunity-based theory is anchored by names such as Peter Drucker and Howard Stevenson. An opportunity-based approach provides a wide-ranging conceptual framework for entrepreneurship research (Fiet, 2002; Shane, 2000).

Entrepreneurs do not cause change (as claimed by the Schumpeterian or Austrian school) but exploit the opportunities that change (in technology, consumer preferences, etc.) creates (Drucker, 1985). He further says, "This defines entrepreneur and entrepreneurship, the entrepreneur always searches for change, responds to it, and exploits it as an opportunity". What is apparent in Drucker's opportunity construct is that entrepreneurs have an eye more for possibilities created by change than the problems.

Stevenson (1990) extends Drucker's opportunity-based construct to include resourcefulness. This is based on research to determine the differences between entrepreneurial management and administrative management. He concludes that the hub of entrepreneurial management is the "pursuit of opportunity without regard to resources currently controlled" (pp.2).

Resource-Based Entrepreneurship Theories

The Resource-based theory of entrepreneurship

argues that access to resources by founders is an important predictor of opportunity based entrepreneurship and new venture growth (Alvarez & Busenitz, 2001). This theory stresses the importance of financial, social and human resources (Aldrich, 1999). Thus, access to resources enhances the individual's ability to detect and act upon discovered opportunities (Davidson & Honing, 2003). Financial, social and human capital represents three classes of theories under the resource-based entrepreneurship theories.

Financial Capital/Liquidity Theory

Empirical research has showed that the founding of new firms is more common when people have access to financial capital (Blanchflower et al., 2001; Evans & Jovanovic, 1989; Holtz-Eakin et al., 1994). By implication this theory suggests that people with financial capital are more able to acquire resources to effectively exploit entrepreneurial opportunities, and set up a firm to do so (Clausen, 2006).

However, other studies contest this theory as it is demonstrated that most founders start new ventures without much capital, and that financial capital is not significantly related to the probability of being nascent entrepreneurs (Aldrich, 1999; Kim, Aldrich, & Keister, 2003; Hurst & Lusardi, 2004; Davidson & Honing, 2003). This apparent confusion is due to the fact that the line of research connected to the theory of liquidity constraints generally aims to resolve whether a founder's access to capital is determined by the amount of capital employed to start a new venture (Clausen, 2006). In his view, this does not necessarily rule out the possibility of starting a firm without much capital. Therefore, founders access to capital is an important predictor of new venture growth but not necessarily important for the founding of a new venture (Hurst & Lusardi, 2004).

This theory argues that entrepreneurs have individual-specific resources that facilitate the recognition of new opportunities and the assembling of new resources for the emerging firm (Alvarez & Busenitz, 2001). Research shows that some persons are more able to recognize and exploit opportunities than others because they have better access to information and knowledge (Aldrich, 1999; Anderson & Miller, 2003; Shane, 2000, 2003;

Shane & Venkataraman, 2000).

Social Capital or Social Network Theory

Entrepreneurs are embedded in a larger social network structure that constitutes a significant proportion of their opportunity structure (Clausen, 2006). Shane and Eckhardt (2003) say that "an individual may have the ability to recognize that a given entrepreneurial opportunity exists, but might lack the social connections to transform the opportunity into a business startup. It is thought that access to a larger social network might help overcome this problem" (pp.333).

In a similar vein, Reynolds (1991) mentioned social network in his four stages in the sociological theory. The literature on this theory shows that stronger social ties to resource providers facilitate the acquisition of resources and enhance the probability of opportunity exploitation (Aldrich & Zimmers, 1986). Other researchers have suggested that it is important for nascent founders to have access to entrepreneurs in their social network, as the competence these people have represents a kind of cultural capital that nascent ventures can draw upon in order to detect opportunities (Aldrich & Cliff, 2003; Gartner et al., 2004; Kim, Aldrich, & Keister, 2003).

Human Capital Entrepreneurship Theory

Underlying the human capital entrepreneurship theory are two factors, education and experience (Becker, 1975). The knowledge gained from education and experience represents a resource that is heterogeneously distributed across individuals and in effect central to understanding differences in opportunity identification and exploitation (Anderson & Miller, 2003; Chandler & Hanks, 1998; Gartner et al., 2005; Shane & Venkataraman, 2000).

Discovery Theory:

It includes Individual/Opportunity (I/O) nexus view, which lays emphasis on the identification, existence, and exploitation of opportunities and their influence on individuals. The individuals and the opportunities have influence on each other. For example, an opportunity comes into existence only when an individual identifies it. Simultaneously, an individual takes up the entrepreneurial activity

because of the existing opportunity.

This theory approaches three assumptions in entrepreneurship, which are as follows:

- a. Opportunities have an objective component and their existence does not depend on whether the individual identifies these opportunities or not.
- b. Every individual is different from others. Therefore, different individuals have different ability of recognizing opportunities. In addition, according to the discovery theory, individuals are always alert to the existing opportunities and this alertness is not a deliberate search, but the constant scanning of environment by individuals.
- c. Risk bearing is an essential part of the entrepreneurial process. The first and second assumptions of the discovery theory also support the risk bearing condition of entrepreneurship. As per these two assumptions, individuals can only discover and avail themselves of opportunities, but cannot create opportunities. They apply a unique combination of resources, which means they do things differently to bring innovation.

As there is no certainty about the success of discovered opportunity, entrepreneurs bear risks by availing opportunity on the estimated probability of its success. Thus, the discovery theory states that opportunities are objectives, individuals are unique, and entrepreneurs are risk bearers.

2. Creation Theory:

Creation theory focuses on entrepreneurs and the creation of enterprises. Similar to the individual/opportunity nexus, the creation theory also approaches three assumptions in entrepreneurship.

The three assumptions are as follows:

- a. Opportunities are subjective in nature. The creation theory also emphasizes that opportunities are created through a series of decisions to exploit a potential opportunity. This theory asserts that opportunities do not have an existence without the actions of entrepreneurs. The creation theory is opposite to I/O nexus. The I/O model asserts that

opportunities are discovered by scanning the business environment and analyzing the market and industry structure. On the other hand, the creation theory supports the view that opportunities are created by hypothesis testing and learning. For example, consumer electronics organizations, such as Samsung, create opportunities by developing new products, trying out those products in the market, finding out the products that are reasonably successful, and filtering the successful products and improving their marketability.

- b. Opportunities are not recognized by individuals, but created by them. The creation theory suggests that entrepreneurship does not require differences in individuals, but differences in their decision making under uncertainty. According to the creation theory, an entrepreneur is someone, who organizes resources after evaluating the value of probable outcomes.
- c. Individuals bear uncertainty not risk. The creation theory suggests that entrepreneurs create opportunities and act on them after estimating the probability of their success. Thus, they bear uncertainty not risk.

The creative theory therefore suggests that opportunities are subjective, individuals are ordinary, and entrepreneurs are uncertainty-bearers.

Implications of Entrepreneurship Theory to Entrepreneurial Development

Basically, entrepreneurship development is the process of enhancing the skills as well as the knowledge gained through theory. Theory emerges to innovate entrepreneurship skills and knowledge. Schumpeter (1934) posits that the effective function of an entrepreneur is to create a venture and innovate it. According to this theory, also called the innovation theory or dynamic theory, an entrepreneur emerges because of individuals having certain psychological elements that is, will power, self-instructions and tolerance capacity.

Entrepreneurship theory helps new firms or ventures get better in achieving their goals, improve business and the nation's economy. This process of

entrepreneurship development is nothing but helping the entrepreneurs develop their skills, knowledge, through training, retraining and application of that training.

Entrepreneurship development is indispensable for many reasons. Some of the reasons are:

- Providing the ability to improve the standard of living and create wealth, not only for the business owner but owners of related businesses.
- Entrepreneurship development also helps to drive change with innovation, where new and improved ideas, and products enable new market to be developed (Robert (2005).

Conclusion

The purpose of this paper was to examine the theories and research outcomes of entrepreneurship. From the above discussions it is clear that the field of entrepreneurship has some interesting and relevant theories (ranging from economic, psychological, sociological, anthropological, opportunity-based, to resource-based) which are underpinned by empirical research evidence. This development holds a rather brighter future for the study, research, and practice of entrepreneurship.

References

- Acs, Z.J., & Audretsch, D.B. (1988). Innovation in large and small firms: An empirical analysis. *American Economic Review*, 78, 678-690.
- Aldrich, H.E. & Zimmer, (1986). Entrepreneurship through social networks. In Donald Sexton & Raymond Smilor (Ed.), *The art and science of Entrepreneurship* (pp. 3-23). New York: Ballinger.
- Aldrich, H.E. (1999). *Organisation evolving*. London: Sage Publications.
- Aldrich, H.E., & Cliff, J. (2003). The pervasive effects of family on entrepreneurship: toward a family embeddedness perspective. *Journal of Business Venturing*, 18, 573-596.
- Alvarez, S., & Busenitz, L. (2001). The entrepreneurship of resource based theory. *Journal of Management*, 27, 755-775.
- Anderson, A., & Miller, C. (2003). Class matters: human and social capital in the entrepreneurial process. *The Journal of Socio-Economics*, 32, 17-36.
- Baskerville, R.F. (2003). Hofstede never studied Culture. *Accounting, Organizations and Society*, 28(1), 1-14.
- Becker, (1975). *Human Capital*. Chicago, IL: Chicago University Press.
- Begley, T.M., & Boyd, D.P. (1987). Psychological characteristics associated with performance in entrepreneurial firms and smaller businesses. *Journal of Business Venturing*, 2, 79-93.
- Blanchflower, D., Oswald, A., & Stutzer, A. (2001). Latent entrepreneurship across nations? *European Economic Review*, 45, 680-691.
- Bonnett, C. & Furnham, A. (1991). Who wants to be an entrepreneur? A study of adolescents interested in a young enterprise scheme. *Journal of Economic Psychology*, 12, 465-78.
- Brockhaus, R.H. (1980). "Risk taking propensity of entrepreneurs. *Academy of Management Journal*, 23, 509-520.
- Chandler, G., & Hanks, S. (1998). An examination of the substitutability of founder's human and financial capital in emerging business ventures. *Journal of Business Venturing*, 13, 353-369.
- Clausen, T.H. (2006). *Who identifies and exploits entrepreneurial opportunities*. Retrieved from www.ccsr.ac.uk
- Coon, D. (2004). *Introduction to psychology* (9th Ed). Minneapolis: West Publishing Company.
- Cromie, S. (2000). Assessing entrepreneurial inclination: Some approaches empirical evidence. *European Journal of Work and Organizational Psychology*, 9, 1, 7-30.
- Davidson, P., & Honing, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 20, 121.
- Drucker, P.F. (1985). *Innovation and entrepreneurship*. New York: Harper & Row Publishers.
- Eisenhauer, J.G. (1995). The entrepreneurial decision: economic theory and empirical evidence", *Entrepreneurship theory & practice*. Retrieved from www.allbusiness.com
- Evans, D., & Jovanovic, B. (1989). An estimated model of entrepreneurial choice under liquidity constraints. *The Journal of Political Economy*, 97, 808-827.

- Fiet, J.O. (2002). *The systematic search for entrepreneurial discoveries*. Westport, CT: Quorum Books.
- Frese, M. (2000). *Success and failure of micro business owners in Africa: A psychological approach*. Greenwood, Westport, CT.
- Gartner, W.B., Shaver, K.G., Carter, N.M., & Reynolds, P.D. (2004). *Handbook of entrepreneurial dynamics*. Thousand Oaks, CA: Sage Publications.
- Ho, T.S., & Koh, H.C. (1992). Differences in psychological characteristics between entrepreneurially inclined and non-entrepreneurially inclined accounting graduates in Singapore. *Entrepreneurship, Innovation and Change: An International Journal*, 1, 43-54.
- Holtz-Eakin, D., Joulfaian, D., & Rosen, H. S. (1994). Sticking it out: Entrepreneurial survival and liquidity constraints. *Journal of Political Economy*, 1, 102.
- Hurst, E., & Lusardi, A. (2004). Liquidity constraints, household wealth, entrepreneurship. *Journal of Political Economy*, 2, 112.
- Johnson, B. (1990). Toward a multidimensional model of entrepreneurship: The case of achievement and the entrepreneur. *Entrepreneurship: Theory & Practice*, 14, 39-54.
- Kim, P., Aldrich, H.E., & Keister, L.A. (2003). Access (not) denied: The impact of financial, human and cultural capital on becoming a nascent entrepreneur. Working paper.
- Kirzner, I.M. (1973). *Competition and Entrepreneurship*. Chicago, IL: University of Chicago.
- Knight, F.H. (1921). *Risk, uncertainty, and profit*. Library of Economics and Liberty. Retrieved from www.econlib.org/library/Knight/knRUP1.html
- Koh, H.C. (1996). Testing hypotheses of entrepreneurial characteristics: A study of Hong Kong MBA students. *Journal of Managerial Psychology*, 11, 12-25.
- Korunka, C., Frank, H., Lueger, M., & Mugler, J. (2003). The entrepreneurial personality in the context of resources, environment, and the startup process-A configurational approach. *Entrepreneurship Theory and Practice*, 28(1), 23-42.
- Landstrom, H. (1998). *The roots of entrepreneurship research*, Conference proceedings, Lyon, France, November 26-27.
- McClelland, D.C. (1961). *The achieving society*. NJ: Van Nostrand, Princeton.
- Mitchell, R.K., Smith, J.B., Morse, E.A., Seawright, K.W., Peredo, A., & McKenzie, B. (2002a). Are entrepreneurial cognitions universal? Assessing entrepreneurial cognitions across cultures. *Entrepreneurship, Theory and Practice*, 9-32.
- Mohar, Y.M.S., Singh, J., & Kishore, K. (2007). Relationship between psychological characteristics and entrepreneurial inclination: A case study of students at University Tun Abdul Razak. *Journal of Asia Entrepreneurship and Sustainability*, 8. ProQuest Information and Learning Publishers.
- Murphy, J.P., Liao, J., & Welsch, P.H. (2006). A conceptual history of entrepreneurial thought. *Journal of Management History*, 12, 9-24.
- North, D.C. (1990). *Institutions, institutional change, and economic performance*. New York: Norton
- Pervin, L.A. (1980). *Personality: Theory, assessment and research*. New York: John Wiley & Sons.
- Rauch, A., & Frese, M. (2000). Psychological approaches to entrepreneurial success: A general model and an overview of findings. In Cooper, C. L., & Robertson, I. T. (eds.), *International Review of Industrial and Organisational Psychology*, 10, 1-41.
- Reynolds, P.D. (1991). Sociology and entrepreneurship: concepts and contributions. *Entrepreneurship: Theory & Practice*, 16(2), 47-70.
- Ricardo, D. (1817). *On the principles of political economy and taxation*. London: John Murray.
- Robinson, P.B., Stimpson, D.V., Huefner, J.C., & Hunt, H.K. (1991a). An attitude approach to the prediction of entrepreneurship. *Entrepreneurship theory and practice*, 15(4), 13-32.
- Robinson, P.B., Huefner, J.C., & Hunt, H.K. (1991b). Entrepreneurial research on student subjects do not generalize to real world entrepreneurs. *Journal of Small Business Management*, 29, 42-50.
- Rotter, J. (1966). Generalised expectancies for internal versus external control reinforcements. *Psychological Monographs*, 80, Whole No. 609.
- Say, J.B. (1803). *Traité D'économie Politique, ou Simple Exposition de la Manière Dont se*

- Forment, se Distribuent, et se Composent les Richesses, A.A. Renouard, Paris.
- Schumpeter, J.A. (1934). *The theory of economic development*. Cambridge, MA: Harvard University Press.
- Shane, S.A. (1994). The effect of national culture on the choice between licensing and direct foreign investment. *Strategic Management Journal* 15, 627-642.
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organisation Science*, 11, 448-469.
- Shane, S.A., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*.
- Shane, S.A. (2003). *A general theory of entrepreneurship: The individual-opportunity nexus*. Cheltenham: Edward Elgar.
- Shane, S.A. & Eckhardt, J.T. (2003). Opportunities and entrepreneurship. *Journal of Management*, 29(3), 333-349.
- Shaver, K.G., & Scott, L.R. (1991). Person, process, choice: the psychology of new venture creation. *Entrepreneurship Theory & Practice*, 16, 23-45.
- Smith, A. (1776). *An inquiry into the nature and causes of the wealth of nations*. London: Methuen Publishers.
- Stevenson, H., & Harmeling, S. (1990). Entrepreneurial management's need for a more "chaotic" theory *Journal of Business Venturing*, 5, 1-14.
- Stevenson, H.H., & Jarillo, J.C. (1990). A paradigm of entrepreneurship: Entrepreneurial management. *Strategic Management Journal*, 11, 17-27.
- Szpiro, G. (1986). Measuring risk aversion: An alternative approach. *Review of Economics and Statistics*, 68, 1156-1159.
- Utsch, A., Rauch, A., Rothfuss, R., & Frese, M. (1999). Who becomes a small scale entrepreneur in a post-socialist environment: On the differences between entrepreneurs and managers in East Germany. *Journal of Small Business Management*, 37(3), 31-41.
- Venkataraman, S. (1997). The distinctive domain of entrepreneurship. In Katz, J.A. (Ed.), *Advances in Entrepreneurship: Firm Emergence and Growth*, 3, 119-38.