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The University's role in developing Chinese entrepreneurship

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Abstract

Purpose

The purpose of this paper is to review the existing literature and conceptual developments to explore how and why universities should teach entrepreneurship.

Design

This is a theoretical paper which draws on the rich seam of existing literature to develop theory about enterprise education purpose and pedagogy.

Findings

Universities are uniquely able to provide the right sort of education that will produce "better" entrepreneurs. In turn, these better entrepreneurs are better enabled to produce and successfully implement the innovation that drives economic growth.

Practical implications

These are twofold. The paper raises awareness of the importance of the university's role for developing the right sort of entrepreneurship. It also highlights important pedagogic points that will realise the full potential of a university entrepreneurial education.

Originality

The paper largely synthesises existing work, but conceptualises and presents the material in a new way.

The University's role in developing Chinese entrepreneurship

The importance of entrepreneurship for economic and social growth is now well recognised across the world (Chen et al, 2011; Jack and Anderson, 1998) so that government policies now reflect a wish to promote and encourage enterprise (Li and Matlay, 2006). Yet because of the very nature of entrepreneurship, top down policies may well facilitate enterprise; but are less able to promote the individual skills, knowledge and attitudes that characterise successful enterprise (Dodd and Anderson, 2001). Thus there appears to be a gap between policy and practice (Matlay, 2005). Whilst this is a universal problem (Heinonen and Hytti, 2010), there are some uniquely Chinese dimensions, not least in maintaining the spectacular entrepreneurially driven growth (Anderson and Lee, 2008; Li and Matlay, 2005) that has characterised the Chinese economy. In this paper I am interested in establishing how universities can contribute to filling the gap between aspirations and action. By drawing on existing work, I attempt to theorise this gap, then try to show how universities can capitalise on what they do best, and how they can use their expertise and capability to enable the right type of entrepreneurship.

I first examine the key role of entrepreneurship for economic development arguing that innovation is the crucial function for growth. Although innovation is typically seen as highly desirable and advantageous at both firm and national levels, I argue that we often overlook the high failure rate of firm level innovation. But stepping back and looking at the bigger picture, this innovation failure is masked by the total number of innovations. I propose an evolutionary perspective; essentially that a large number of new firms are constantly “trying out”, experimenting with innovation. This then is a Darwinian landscape where successful innovation produce desirable change, but the unsuccessful wither and die; yet in doing so make room for the successful. In this way, entrepreneurship renews, reenergises and invigorates the economic environment. This leads me to argue that what is called for is more successful innovation, and hence more successful entrepreneurs. Increasing the number of small businesses is important, more is better because having more businesses increases the number of all innovations. But just as all business environments are not alike (Li et al, 2003), all businesses are not alike; a critical factor appears to be better businesses and more successful Schumpertian entrepreneurs. Yet innovation involves more than merely managing, it encompasses attitudes, values as well as practices (Pyysiäinen et al, 2006). To be an innovator in a competitive environment requires not only a growth strategy (Anderson and Atkins, 2001) but skilled practitioners. I consider how universities can capitalise on their own unique capabilities of knowledge creation and knowledge dissemination to better enable these nascent entrepreneurs. I begin by briefly considering the part played by entrepreneurship in China's long history.

The modern critical role for entrepreneurship in China is highlighted by history. As Lin (1995) explains, in the 13th Century China used the most sophisticated agricultural systems, so that Chinese fields probably produced the highest yields in the world. By the 14thC, China had almost every element that economists and historians consider to be the factors that helped create the 18thC British Industrial Revolution (Needham, 1969). Moreover, China's technological achievements were remarkable; gunpowder, the magnetic compass, paper and printing. Lin (1995) argues these significant inventions facilitated the West's transformation from the Dark Ages to the modern world, but notes how all were invented in China. At that time China was probably the most cosmopolitan, technologically advanced and economically powerful civilization in the world. Yet despite these early advances in

science, technology, and institutions, China did not take the next step. China fell behind the West because China did not make the shift from invention to continuing innovation. There are a number of accounts of why this was so (Anderson et al, 2002), but Elvin (1973) explains it simply as a lack of entrepreneurship in early China. But in modern times have seen radical change (Redding, 1990; Anderson et al, 2003); Tan (2001) proposes that the Chinese entrepreneur has “become the Genie just released from its lamp” (p. 361). Malik (1997; 185) comments that when Deng’s government permitted entrepreneurship, the “traditional entrepreneurial spirit sprang up in almost every corner of China”. So entrepreneurship has become established in China, but continuity in promoting enterprise and producing capable entrepreneurs is now a key role for all institutions. Moreover, in the wake of globalisation, successful innovation should take account of local practices (Harbi et al, 2011; Atherton, 2008) and the rapid changes in the environment (Jack et al, 2008; Dodd et al, 2010). To deal with these issues, Chinese entrepreneurs need to be equipped with a range of capabilities (Anderson and Jack, 2008).

Entrepreneurship’s current popularity as an economic solution is matched by the variety in how it is conceived (Atherton, 2004). Venkataraman, (1997: 120) tells us “... there are fundamentally different conceptions and interpretations of the concept of entrepreneur and the entrepreneurial role”, whilst Anderson and Starnawska (2008) argue that entrepreneurship, as severally conceived and broadly understood, is simply too broad to be constricted in a single, universal classification. Thus the width and flexibility of the entrepreneurship concept allows it to be used in different ways, so that policy makers and practitioners may develop quite different expectations of the entrepreneurial role (Anderson et al, 2000). But conceptual issues aside, the point of departure for this paper is the widespread acceptance of the value of entrepreneurship as the engine that drives the economy of most nations. Jack and Anderson (1999) argue that entrepreneurship’s anticipated role includes the creation of new industries, employment and wealth creation. Thus the function of entrepreneurship is seen to be a mechanism for economic and social adjustment. Roberts (1991) asserts there a positive correlation between countries that have experienced an increased role of entrepreneurial activity and higher rates of subsequent growth (Chorev and Anderson, 2006a). But if entrepreneurship produces these economic benefits, we need to understand how entrepreneurship actually works. I propose that we can address this at two different levels, firm level and national level.

At the level of the individual firm, growth is produced by entrepreneurial innovation (Schumpeter, 1911; Freel and Robson, 2004). At a national economic level, the sum of successful innovation represents a competitive advantage of that country. The contribution of innovation to national economic growth is well established in the literature, both theoretically and empirically (Wong et al, 2005; Anderson et al, 2011). Carree and Thurik’s (2003) extensive surveys of the literature on the relationship between entrepreneurship and economic growth find that entrepreneurship contributes to economic performance by introducing innovations, creating change, creating competition and enhancing rivalry. Harbi et al (2009) explain that Schumpeter’s argument is that technologically intensive industries bring about innovations that carry a premium of higher entrepreneurial rents (Schumpeter, 1911). Schumpeter’s ideas mean that innovation is more than merely inventing; entrepreneurship is the successful application of innovation (Roberts, 1991).

We acknowledge Baumol’s (2004) point that virtually all economic growth since the 18thC is ultimately attributable to innovation. But, and this is an understated and often overlooked caveat, we must also take account of the riskiness of innovation. Too often innovation is simply “read off” as a good thing to do without considering how often it fails, yet innovation

is fraught with high failure rates (Rosenbusch et al, 2011). Because any innovation is by definition new and untried (Chorev and Anderson 2006b), more innovations fail than succeed (Rizova, 2006; Berggren and Nacher, 2001). But innovation failures are experienced at firm level, whilst innovation successes impact at national level. Accordingly improving the success rate of firm level entrepreneurial innovation will have a beneficial effect on national prosperity. This then is an entrepreneurial task, to produce better entrepreneurship.

I argued that the success and failure of innovation is mostly experienced at the firm level. Firms that have a greater capacity to innovate are able to respond better to competitive pressures (Anderson et al, forthcoming) but that the sum of innovation success matters at the national level. The relationship can be seen as the entrepreneurial process operating within the national environment. This reflects the argument that whilst entrepreneurship is usually conceptualised as a private practice (Dodd and Anderson, 2007), entrepreneurial outcomes are experienced in the public domain, (Anderson and Smith, 2007). One way of reconciling these levels is to see the entrepreneurial environment as evolutionary in a Darwinian sense (Anderson et al, 2009). Here “fitness” and hence survival of the fittest, is the appropriateness of the firm, and its innovations, for the current and prevailing entrepreneurial environment. Each individual firm tries out an innovation; those that get it right succeed, those that don’t, fail. We can envisage this as a grand socio-economic experiment, where the processes of variation, selection and retention respond to macro-environmental pressures. In this grand small business experiment, “good” innovations rise to the surface, whilst those that are less “good”, sink to the bottom. This is the process aspect of Schumpeter’s *creative destruction*, where entrepreneurs constantly and continuously seek out new combinations and better ways of doing business. The old is replaced by the new as the changes fit into the changing environment.

Numbers clearly matter; the more firms that are trying out new things, the more likely more good innovations will arise. So promoting more new business seems a good thing to do; more new firms are more likely to develop products or services that “fit” the rapidly changing environment. But as well as the shifting environment (Anderson et al, 2011), the entrepreneurial evolutionary model also needs to take account the skills and abilities of the entrepreneurs to adapt (Irvine and Anderson, 2004). They are not Richard Dawkins “blind watchmakers” randomly creating new combination. Instead, many entrepreneurs are skilled and knowledgeable; sentient, self reflective and cognisant beings capable of judgement (Anderson et al, 2009) as they combine self and circumstances (Anderson, 2000) to produce innovation. This is a social scientific equivalent of the Lamarckian view (Harbi and Anderson, 2010) that organisms evolve in order to adapt to changes in their environment, as opposed to the Darwinian view that genetic mutations are random and that, when the environment changes, the mechanism of natural selection promotes the survival of the fittest.

Nor are all environments equal. Harbi and Anderson, (2010) show how different environment produce different types of entrepreneurial outcomes, but a key point is that entrepreneurs can challenge and even change institutions and environments (Anderson and Warren, forthcoming). Baumol (1990) notes that although there are some variations in entrepreneurial supply across countries, the biggest difference lies in the contribution of entrepreneurship to productive or unproductive outcomes. Another distinction between types of entrepreneurship, nuancing Baumol’s constructive and destructive, is the difference between opportunity and necessity entrepreneurship. The GEM studies (General Entrepreneurship Monitor) employ these categories to explain why the level of entrepreneurship in developing countries is sometimes higher than in developed countries.

Necessity entrepreneurship is related to the absence of employment options, whereas opportunity entrepreneurship denotes an active choice to start a new enterprise based on opportunity and employing innovation. In China, Yang and Li (2008) suggest that the competition in many industries is still “dysfunctional”, with firms often stuck on competing on volume and low price, rather than on developing innovative capabilities, so entrepreneurship in the form of product innovation is minimal (Li and Atuahene-Gima, 2001). Local firms often simply imitate other firms’ products and technology.

Conceptually we can understand this position as Minniti and Lévesque (2008) explain how entrepreneurial individuals react to their environment by a model rooted in endogenous growth theory. They show that, at equilibrium, high levels of economic growth can be achieved through an increasing number of *either* imitators or research based entrepreneurs. They argue that when the cost of technological change is sufficiently high, and labour is not employed in innovative activities (imitative labour), an increase in the imitation rate has a positive effect on economic growth. Their model accounts for countries such as China, where sustained growth levels coexist with an absence of significant expenditure in R and D, but with remarkable extent of imitation activity. However, and this seems to be a crucial question, how long can this be sustained in the dynamics of rapidly developing competitor countries like Vietnam or Cambodia?

To summarise my arguments thus far, I have claimed that entrepreneurship plays a key role in growth because of innovation. To set this in context, I proposed a Lamarckian evolutionary model of national entrepreneurial activity where entrepreneurs use their skills and knowledge to produce innovation. In this model, more entrepreneurship is good; but I have also highlighted that not all entrepreneurship is equal, some – the more innovative that fits the prevailing circumstances best- is much better at producing growth. Moreover, innovation also needs to be successfully implemented. We can see that this places considerable emphasis on the need for the right type of entrepreneur. Such entrepreneurs must be knowledgeable, able to combine different forms of knowledge (Harbi et al, 2011), well connected to both changing institutions (Jack et al, 2010) and to other people (Dodd and Anderson, 2002; Jack et al, 2004). These then are the factors that stretch beyond the mere technical competence of entrepreneurs (Liao and Sohmen, 2001)and these also signal the key role that universities have to play in shaping attitudes, supplying knowledge and generally enabling our students as enterprising customers and endowing them as the universities’ entrepreneurial products (Anderson and Jack, 2008).

The nub of my argument is that there seems to be some sort of “natural” rate of entrepreneurial supply. Obviously this “natural” rate is shaped by prevailing political, social and economic circumstances and in China we have seen a remarkable increase in the numbers of entrepreneurs in response to political change and economic opportunity. But we have also seen that many of these businesses are not very innovative and are thus less likely to maintain the momentum of growth. Hence the issue for university educators is how can they improve the quality of these entrepreneurs? This raises an important question for university entrepreneurship education. Is the university sector properly pursuing policy aspirations for more innovative entrepreneurs by teaching the instrumental skills of small business plans and enthusing students to start low value-added new ventures (Jack and Anderson, 1999)?

Previously, I have argued that universities fulfil a unique place in society. Universities, and only universities, are unique as creators and disseminators of higher level knowledge. This knowledge is more than the every day practical knowledge that can be assimilated by

experience. It can be described as theoretical knowledge, and importantly it is the kind of knowledge that enables a critical ability. This kind of knowledge production and dissemination, through research and teaching is both the remit and purpose of universities. Yet entrepreneurship is conceptualised as a process which is both an art and a science. Moving to consider how these aspects can be taught, the science of SME management is seen as teachable within a conventional pedagogic paradigm. However the art is seen as more problematic; it is experiential, founded in innovation and novelty but based on heuristic and creative practices. As academics we cannot replicate the experiences of successful entrepreneurs, but we can use their experiences to develop theory and this theory will help to bridge the abyss between the art and the science of entrepreneurship. Thus I am arguing that the university's role is two fold, to teach *about* entrepreneurship and also *how* to be entrepreneurial. Many training courses by non higher education can usefully deliver the basics of small business management, even of new business planning. But only universities have the abstract knowledge to teach about entrepreneurship. It can also be argued that the higher level capabilities of universities permit them to teach about *how* to start a better business.

I have made a clear distinction between abstract, theoretical knowledge and experiential learning. I have no wish to denigrate experiential learning in any way. Indeed, learning by doing is the essence of the grand experiment I discussed earlier. But experiential learning has to be by trial and error, learning what works and what doesn't work. So it is slow, but importantly, also restricted to the trajectory of experience. As academics we are all very aware of the limitations of even the best entrepreneurial "war story" when we invite a successful entrepreneur to speak to our students. They are very useful as illustrations, as wonderful exemplars and offer an instrumental example to which our students can aspire. But each is a one-off, and may be both context and time bound. In contrast, abstract theoretical knowledge is akin to a helicopter view of many "one-offs". As academics we can go beyond the singular. We can see patterns in events and make connections between variables. We can develop explanations of why something works. We can do this at an abstract level which draws out the similarities and differences between contexts and processes. Thus theoretical knowledge is possibly even the most practical of knowledge!

Moreover, this is precisely what universities do well; we research so that we can understand. When we have understood then we can inform others about what we ourselves have come to understand. Whilst this is general role for all universities, it takes on a special importance for entrepreneurship education. This is because entrepreneurship education is a pairing of the art and the science of enterprise. As Anderson and Jack (2008) argued, good entrepreneurs combine the conceptual knowledge of a professional with the applied knowledge of a technician. Yet they also have to blend the artisan skills of doing, crafting the business, with the creativity of an innovative artist. This is a tall order, but universities are the obvious, and clearly the best, providers. Entrepreneurial pedagogies can provide the right mix of abstract and applied knowledge and set it in the context of understanding the nature and processes of an innovative milieu (Anderson et al, 2011b).

Hence, I argue that universities should not only teach the basic management skills of setting up a new business. This is basic, albeit fundamental, and can be taught by many. The focus of the university role should be about enhancing entrepreneurship and not about a production line for the creation of low value generating SMEs. Our strengths, as universities, lie in developing higher level skills and nurturing analytic ability. In short, the production of reflective practitioners. Reflective practitioners are individuals who, through their knowledge and critical ability, are capable not only of starting new businesses, but also of

ensuring the continuing viability of businesses by enhancing their capacity to innovate successfully. Moreover, the university can both enthuse and inform students from a convincingly informed position.

References

- Anderson, A.R., (2000). "The Protean entrepreneur: the entrepreneurial process as fitting self and circumstance". *Journal of Enterprising Culture* Vol. 8, pp 201–234.
- Anderson, A.R., Harbi, S.E., Amamou, M. (2011), "Innovation culture and the economic performance of Tunisian ICT firms", *International Journal of Technoentrepreneurship*, in press
- Anderson, A.R., Atkins, M. (2001) "Business strategies for entrepreneurial small firms", *Strategic Change*, Vol.10, No.6, pp. 311-324
- Anderson, A.R., Li, J.H., Harrison, R. (2002), "The effects of firm ownership and culture on total quality management in China", in Alon, I. (Ed.), *Chinese Culture, Organizational Behavior and International Business Management*, Praeger, New York, NY.
- Anderson, A. R., M. Starnawska (2008). "Problems of definition, description and meaning", *International Journal of Entrepreneurship and Innovation*, Vol.9, No. 4, pp 221-230.
- Anderson, A.R., Jack, S.L., (2008) "Role typologies for enterprising education: the professional artisan?", *Journal of Small Business and Enterprise Development*, Vol. 15 No. 2, pp.259 - 273
- Anderson, A. R., Smith, R., (2007). "The moral space in entrepreneurship: an exploration of ethical imperatives and the moral legitimacy of being enterprising". *Entrepreneurship and Regional Development*, Vol. 19, No. 6, pp. 479-497.
- Anderson, A.R., Lee, E, Y-C, (2008), "From tradition to modern; Attitudes and applications of guanxi in Chinese entrepreneurship", *Journal of Small Business and Enterprise Development*, Vol. 15 No. 4, pp. 775-787
- Anderson, A.R, Li, J.H, Harrison, R., Robson, P. (2003), "The increasing role of small business in the Chinese economy", *Journal of Small Business Management*, Vol. 41 No. 3, pp. 310-16.
- Anderson, A.R., Drakopoulou-Dodd, S., Scott, M.G. (2000) "Religion as an environmental influence on enterprise culture – The case of Britain in the 1980s", *International Journal of Entrepreneurial Behaviour & Research*, Vol. 6 I, No. 1, pp.5 – 20
- Anderson, A.R., Drakopoulou Dodd, S., Jack, S.L. (2009), "Aggressors; Winners; Victims and Outsiders, European Schools' Social Construction of the Entrepreneur", *International Small Business Journal*, Vol.27, No.1, pp. 126-136

- Anderson, A.R., Warren, L., (2011), "The entrepreneur as hero and jester; enacting the entrepreneurial discourse", *International Small Business Journal*, forthcoming
- Anderson, A. R. Osseichuk Russell, E., Illingworth, L., (2011) "Rural small businesses in turbulent times Impacts of the economic downturn", *International Journal of Entrepreneurship and Innovation*, Vol.11, No, 1, pp. 45-56
- Anderson, A.R., Benavides-Espinosa M., Mohedano-Suances, A. (2011), "Innovation in services through learning in a joint venture", *Services Industry Journal*, 31(12) forthcoming
- Anderson, A.R., Harbi, S.E., Amamou, M. (2011b), "Innovation culture and the economic performance of Tunisian ICT firms", *Technoentrepreneurship*, forthcoming
- Atherton, A., (2008) "From "fat pigs" and "red hats" to a "new social stratum": The changing face of enterprise development policy in China", *Journal of Small Business and Enterprise Development*, Vol. 15, No. 4, pp.640 – 655
- Atherton, A. (2004), "Unbundling enterprise and entrepreneurship: from perceptions and preconceptions to concept and practice", *International Journal of Entrepreneurship and Innovation*, Vol. 5, No 2, pp 121–127.
- Baumol, W., (1990). Entrepreneurship: productive, unproductive and destructive. *The Journal of Political Economy*, Vol. 98, pp 893–921.
- Baumol, W. (2004), *The free market innovation machine; analyzing the growth miracle of capitalism*, Princeton University Press, Princeton.
- Berggren, E., Nacher, T., (2001), "Introducing new products can be hazardous to your company: use the right new-solutions delivery tools", *Academy of Management Executive* Vol. 15, No. 3. pp. 92–101.
- Carree, M. A., Thurik, R. (2003), "The Impact of Entrepreneurship on Economic Growth", in David B. Audretsch and Zoltan J. Acs (eds.), *Handbook of Entrepreneurship Research*, Kluwer-Academic Publishers, Boston pp. 437–471.
- Chen, Z., Sun, Y., Newman, A., (2011), "Entrepreneurs, organizational members, political participation and preferential treatment: Evidence from China", *International Small Business Journal*, Vol. 29, No. 3, in press
- Chorev, S., Anderson, A.R. (2006a), "Success in Israeli high-tech start ups; critical factors and process", *Technovation*, Vol. 26 No. 2, pp. 162-174.
- Chorev, S. Anderson, A.R. (2006b), "Marketing in high-tech start-ups: overcoming the liability of newness in Israel", *International Entrepreneurship and Management Journal*, Vol. 2 No. 2, pp. 281-97.
- Dodd, S.D., Jack, S. and Anderson, A.R. (2010), "Network practices and entrepreneurial growth", *Scandinavian Journal of Management*, Vol. 26 No. 2, pp. 121-33

- Dodd, S.D, Anderson, A.R., (2007) "Mumpsimus and the mything of the individualistic entrepreneur", *International Small Business Journal*, Vol. 25, No. 4, pp 341–360
- Dodd S.D., Anderson A. R. (2001). "Understanding the enterprise culture: Paradigm, paradox and policy", *The International Journal of Entrepreneurship and Innovation*, Vol. 2, Number 1, 13-26
- Dodd S.D., Jack, S.L., Anderson, A.R. (2002) "Scottish Entrepreneurial Networks in an International Context", *International Small Business Journal*, Vol. 20, No. 2, pp. 213–219.
- Elvin, M., 1973, "*The Pattern of the Chinese Past*", Stanford University Press, Stanford, CA
- Freel, M. S. Robson, P. J. A. (2004) "Small firm innovation, growth and performance. Evidence from Scotland and Northern England", *International Small Business Journal*, Vol. 22, No., 6, pp. 561–575.
- Harbi, S.E., Anderson, A.R., (2010) "Institutions and the shaping of different forms of entrepreneurship", *Journal of Socio-Economics*, Vol. 39, No. 3, pp. 436-444
- Harbi, S., Amamou, M. Anderson, A.R. (2009), "Establishing high-tech industry: the Tunisian ICT experience", *Technovation*, Vol. 29 Nos. 6/7, pp. 465-81.
- Harbi, S., Anderson, A.R., Amamou, M., (2011) "Knowledge sharing processes in Tunisian small ICT firms", *Library Review*, Vol. 60, No.: 1, pp.24 – 36
- Heinonen, J., Hytti, U., (2010), "Back to basics: the role of teaching in developing the entrepreneurial university", *International Journal of Entrepreneurship and Innovation*, Vol. 11, No. 4, pp. 283-292
- Irvine, W., Anderson, A.R., (2004) "Small tourist firms in rural areas: agility, vulnerability and survival in the face of crisis", *International Journal of Entrepreneurial Behaviour and Research*, Vol. 10, No. 4, pp. 229-246.
- Jack, S. L., Anderson, A. R., (1998), *Entrepreneurship education within the condition of Entrepreneurology*, Proceedings of the Conference on Enterprise and Learning, Aberdeen, September; copy available from the University of Aberdeen
- Jack, S. L., Anderson, A. R., (1999) "Entrepreneurship education within the enterprise culture: Producing reflective practitioners", *International Journal of Entrepreneurial Behaviour & Research*, Vol. 5, No. 3, pp.110 - 125
- Jack, S.L., Dodd, S.,D., Anderson, A. R.,(2004), "Social structures and entrepreneurial networks: the strength of strong ties", *International Journal of Entrepreneurship and Innovation*, Vol. 5, No 2, pp 107–120.
- Jack, S.L., Dodd, S.D., Anderson, A.R., (2008). "Change and the development of entrepreneurial networks over time: a processual perspective". *Entrepreneurship & Regional Development*, Vol. 20, No. 2, pp. 125-159.
- Jack, S.L., Moulton, S., Anderson, A.R., Dodd, S.D., (2010), An entrepreneurial network evolving: Patterns of change, *International Small Business Journal*, Vol. 28 no. 4, pp. 315-337

Li, J. and Matlay, H. (2006) "Chinese entrepreneurship and small business development: an overview and research agenda", *Journal of Small Business and Enterprise Development*, Vol. 13 , No.: 2, pp.248 – 262

Li, J., Matlay, H. (2005), "Graduate employment and small businesses in China", *Industry & Higher Education*, Vol. 19 No. 1, pp. 45-54.

Li, J-H., Anderson, A.R., Harrison, R.T. (2003) "Total quality management principles and practices in China", *International Journal of Quality & Reliability Management*, Vol. 20, No. 9, pp.1026 - 1050

Li, H., Atuahene-Gima, K. (2001)." Product innovation strategy and the performance of new technology ventures in China". *Academy of Management Journal*, Vol. 44, No. 6, pp. 1123–1134

Liao, D. and Sohmen, P. (2001), "The development of modern entrepreneurship in China", *Stanford Journal of East Asian Affairs*, Vol. 1, pp. 27- 33.

Lin, J.Y. (1995), "The Needham Puzzle: Why the Industrial Revolution Did Not Originate in China", *Economic Development and Cultural Change*, Vol. 43, No. 2, 269-292

Malik, R. (1997). *Chinese Entrepreneurs in the Economic Development of China*. Praeger, Westport, CT.

Matlay, H., (2005) "Entrepreneurship education in UK business schools:: Conceptual, contextual and policy considerations", *Journal of Small Business and Enterprise Development*, Vol. 12 , No. 4, pp.627 - 643

Minniti, M., Levesque, M., (2008)," Recent developments in the economics of entrepreneurship", *Journal of Business Venturing*, Volume 23, No. 6, pp. 603-612,

Needham, J. (1969,) "The Grand Titration: Science and Society in East and West", Allen & Unwin, London

Pyysiäinen, J., Anderson, A. R, McElwee, G., Vesala, K. (2006), "Developing the entrepreneurial skills of farmers: some myths explored", *International Journal of Entrepreneurial Behaviour & Research*, Vol. 12 No. 1, pp. 21-39.

Redding, G.S. (1990), *The Spirit of Chinese Capitalism*, Gruyter, Berlin.

Rizova, P.S., (2006), "Are You Networked for Successful Innovation?" *MIT Sloan Management Review*, Vol. 47, No. 3, pp. 49-55

Roberts, E.B., (1991). "Strategic transformation and the success of high technology companies." *International Journal of Technology Management*, Special Publication on the Role of Technology in Corporate Policy, Vol. 6, pp. 59–80.

Rosenbusch, N., Brinckmann, J., Bausch, A., (2011) "Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs," *Journal of Business Venturing*, Volume 26, No. 4, pp. 441-457,

Schumpeter, J. A., (1911), *Theorie der wirtschaftlichen Entwicklung. Eine Untersuchung ueber Unternehmergeinn, Kapital, Kredit, Zins und den Konjunkturzyklus*, Berlin: Duncker und Humblot; translated by Redvers Opie, 1934 & 1963, *The Theory of Economic Development: an Inquiry into Profits, capital, credit, Interest and the Business Cycle*, Oxford: Oxford university Press.

Tan, J., (2001). "Innovation and Risk-Taking in a Transitional Economy: A Comparative Study of Chinese Managers and Entrepreneurs," *Journal of Business Venturing*, Vol. 16, No. 4, pp 359–376.

Venkataraman, S. (1997). *The distinctive domain of entrepreneurship research: An editor's perspective*. In J. Katz & R. Brockhaus (Eds.), *Advances in entrepreneurship, firm emergence, and growth*, Vol. 3, pp.119-138. JAI Press, Greenwich, CT

Wong, P. W., Ho, Y. P., Autio, E. (2005). "Entrepreneurship, innovation and economic growth: Evidence from GEM data". *Small Business Economics*, Vol.24, pp. 335-350.

Yang, J., Li, J. (2008). "The development of entrepreneurship in China". *Asia Pacific Journal of Management*, Vol. 25, No.2, pp. 335-359.