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Understanding the Entrepreneurship through Knowledge Spillover: A Critical Reflection

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Abstract:

One's aim to be an entrepreneur can be affected by the context in which one makes a decision to start a new firm as suggested by the knowledge spillover theory of entrepreneurship. An entrepreneurial research more precisely explained how knowledge creates more opportunities and further exploited by the self-employers to produce the innovative products. Through the establishment of a new-fangled firm by commercializing innovative ideas, human capital (entrepreneur) for the knowledge spillover obliges as a channel not only for subsequent creative activities to turn them out into innovation but also through the allocation of resources which enhanced the overall economic effectiveness. Contemporary theories related to different context like the entrepreneurship, strategy, economic development, geographical variations put forward a theory of knowledge spillover of entrepreneurship which explicates why people prefer to be an entrepreneur as career choice but also why this further staples necessarily and essentially for the competitioness and economic growth.

Key words: knowledge paradox, spillover entrepreneurship, knowledge spillover theory of entrepreneurship and economic growth

INTRODUCTION

Knowledge has been developed virtually for all of the traditional units of economic analysis taken as a vital foundation of effectiveness straddling from different levels (individual, institutional, regional and national). Different researchers have examined strategic prominence of knowledge originated from the factual concept that is considered as a vibrant, valuable and sporadic resource, not as such easy to imitate and emulate, making it a contributing factor towards sustainable competitive edge and corporate performance (Barney 1991; Kogut and Zander 1992; Grant 1996; Teece et al.1997). However, debate is how numerous levels of economic exploration construct knowledge, access and eventually make it a beneficial element that is not well cleared yet. According to the endogenous theory, Lucas (1988) and Romer (1986, 1990) anticipated that investment in new knowledge gives benefits the overall geographic context characteristically a country. In the economic development, a general postulation of the very approach is that newly fashioned knowledge is inevitably accessible to all economic agents. In a knowledge-based economy, knowledge is regarded as a public good from which all economic agents will take an advantage ('knowledge spillovers') that will ultimately accelerate the economic growth.

In the last twenty years or so, a new and promising research field has been initiated which links the endogenous growth theory and the knowledge spillover entrepreneurship theory. According to Endogenous Growth Theory, economic growth is the result of internal forces (not the external ones). It states that the investment in human capital, innovation and knowledge are significant contributors to economic growth. Similarly, the Knowledge Spillover Theory of Entrepreneurship states that people start a new firm because they are not able to commercialize their ideas and knowledge within the context of an incumbent firm or organization.

However, competitiveness and economic growth are not only addressed by the investment in the new knowledge as subsequently proposed by the 'Swedish and European paradox. A general paradox obliquely assumed from these two paradoxes linked with knowledge that further depicts the projected levels of economic growth and competiveness is not guaranteed by the high levels of investment. So in short, balanced levels of growth and competiveness do not necessarily and mechanically decoded by the knowledge investments. Research on KSTE basically focuses and addresses the set of three questions i.e., "what is the role of knowledge spillovers on entrepreneurship?" "Where do these knowledge spillovers come from?" and "what is the impact of knowledge based entrepreneurship on society?" KSTE answers these by adopting a broad perspective of how knowledge spillover occurs and thus results in wealth creation/growth.

LINKING KNOWLEDGE SPILLOVER ENTREPRENEURSHIP TO GROWTH

Employees having a robust determination by a general configuration of entrepreneurship explained how to make use of new knowledge and create an incumbent firm with the purpose of apprehending their very vision. The entrepreneurs create and exploit knowledge in order to produce new products: (a) provoke different risks due to innate uncertainty Developing new knowledge into new products the entrepreneurs: (a) generate knowledge more specifically to access the marketability and likelihood of the new-fangled technology.

Hence Baumol (2002) appeals a "David-Goliath Symbiosis which harmonizes nascent entrepreneurial firms as well as the larger ones. Entrepreneurs usually invest more in the innovative technological knowledge and face uncertainty.

An entrepreneur by starting up a new business factually 'bets' what product or services she offers or would be offering by

confronting somewhat risk. She believes that probable returns are better than potential loss by starting a new firm.

Audretsch (1995) stated as a promising discussion on the importance small and entrepreneurial firms in creating innovation and economic growth. In his book "Innovation and Industry Evolution", he says that these small and medium startups are most important factors in creating economic wealth as they drive growth in the economy. These days, this discussion is now been an independent research field named KSTE (knowledge spillover theory of entrepreneurship). It involves scholars from all over the globe to take part. Contrary to the fact that technological innovation and advancement is introduced by the efforts of large and well established firms. Audretsch (2006) argued that it is mostly done by these SMEs and startups. It is because SMEs are always in the search of finding ways to move in upper tiers in cheaper ways and this can be done by updating the current technology. Audretsch (1995) gave this by properly testing the hypothesis.

KNOWLEDGE SPILLOVERS

Acs and Audretsch (1988) argued that venture creation is just because of knowledge spillover. While these incumbent firms are often not able to understand the potential of these opportunities (because they are unwilling to adopt new ideas and do not want to test new things), the entrepreneurs utilize these knowledge spillovers in venture creation. These thoughts basically strengthen the tradition that knowledge is the primary source of technological and commercial opportunities and ultimately of economic growth. As Acs et al. (2012) argued that by giving it new framework, it explains the heterogeneity of growth rates between nations and regions. KSTE is basically concerned with examining the contextual variables (those from interpersonal characteristics) which keeping the intrinsic motivation among entrepreneurship as constant. Researcher

says that these variables are in particular for those incumbent organizations where knowledge is created but not fully commercialized for economic development; this is where knowledge spillover occurs. While this knowledge is not opted for commercialization, it is then gathered by the willing economic agents i.e., entrepreneurs.

THE GEOGRAPHY OF ENTREPRENEURIAL CAPITAL

Although one of reasons, entrepreneurs are mostly localized and the marginal costs of the reason transferring capital are getting trivial across the globe. This can be argued by analyzing the variables that drives entrepreneurship. In general, to start a new business is linked to the opportunities an entrepreneur recognizes in a region and these opportunities can be general or specific. High economic output will result in high opportunities for the entrepreneurship, because of large market size. He also argued that having a high regional R&D knowledge helps in attaining knowledge of new technology and also creates opportunities for knowledge based startups. It means it will result in knowledge spillover and hence, venture creation. This main linkage of knowledge spillover with entrepreneurship. Acs and Armington (2004) also argues on the similar point of views that human capital entrepreneurship, at least knowledge based or innovative entrepreneurship.

KNOWLEDGE SPILLOVER THEORY OF ENTREPRENEURSHIP

Audretsch (1995) and Audretsch et al. (2006) investigated a crucial implication of the knowledge spillover theory related to entrepreneurship as a broader context which is richer in knowledge will create more opportunities and while comparing it with those contexts that have no as such sufficient knowledge

will ultimately generate less entrepreneurial opportunities. So in developed countries, knowledge has been taken as a vital source as the context of entrepreneurship (Audretsch, 2007).

Nevertheless, across different geographic regions, a conduit of knowledge spillovers through entrepreneurship by the potential of individuals is not consistent. Somewhat knowledge spillovers is taken as a function not only in terms of personal and eccentric preferences but also how the other regional factors like entrepreneurial behaviors are being socially accepted and how the individuals are willing to confront risk by creating new firms and like bankers and venture capitalist are eager to face risks and benefits along with. In any region, there can be different factors like legal, social and institutional are more attuned to entrepreneurship with the endowment of high level of 'entrepreneurship capital. Shane (2003, p. 145) examined that certain entrepreneurs not only make their decisions in a vacuum to exploit potential opportunities but also affected by the overall context in which they perform. An entrepreneur with the characteristics of her region of residence directly impact on the generation and exploitation of opportunity. Though knowledge is entrenched in different regional context which is precisely essential for the construction and exploitation of knowledge and differences is there in terms of knowledge resources and knowledge spillovers (Glaeser et al.1992, Jaffe et al. 1993, and Audretsch and Feldman 1996). Certain differences in potential regions depict the rationale of regional context in standings of start-up rates. Ruggles et al. (2003) scrutinized that self-employment rate (entrepreneurship) in West Palm Beach, Florida is four times greater than the other respective rate as in Springfield, Ohio. According to ZEW (2006) investigated that Munich (Germany's high-tech region) ' have working-age residents have 20 times in high-technology firms higher start-up than their corresponding proteasome East German regions and larger knowledge-intensive sectors have higher differences in regional

contexts. In the broader aspects of entrepreneurship Carlton (1983); Bartik (1989); and Reynolds et al. (1994) assumed regional differences in their start-up rates and have variations in regional income, unemployment, tax rates, population density and firm size. Certain theoretical contribution in the new economic structure, as endogenous growth theory (Krugman 1991, 1998, Romer 1986, 1990); Lucas Jr. 1988) addressed substantially the role of geography as a driving force economic growth. Hence, regional determinants entrepreneurship provide a solid base in the empirical inquiry as knowledge spillover theory presented a clear explicit linkage between knowledge and entrepreneurship within the spatial context. In econometric analyses of regional differences while firm. new different regional research development employment (R&D) or R&D investment considered as a regional knowledge variables. But KSTE has no clear definition because of its boundaries still blurring. This calls for the systemization of the theory by taking the stock of the developed knowledge as Qian and Acs (2013) stated that there are still missing's and ambiguities in KSTE. KSTE brings theories together contemporary and thoughts entrepreneurship with prevailing theories of economic growth.

MULTILEVEL APPROACH

Economic growth is anticipated more conducive in case of high levels of entrepreneurial capital while there is an inverse relationship between the economic growth and entrepreneurial opportunities. Entrepreneurial intentions are taken as a simultaneous consideration on two levels: individual and regional-level which ultimately deals to overcome glitches. Knowledge context so taken on these two levels like individual (family and friends) and regional level (on the whole) while have an impact on the entrepreneurial intentions in an adequate manner as considered by the multilevel analysis.

Therefore. in broader aspect, there are two different constituents of the literature which seems essentially isolated so far: on one strand, one of determinants of entrepreneurship is on the individual-level (person-specific) as supported by the emergent and ironic literature. As Davidsson and Honig (2003); Arenius and De Clerco (2005); Ucbasaran et al. (2008) presented an ample pragmatic indication in literature: before taking an occupational choice either choose entrepreneurship (self- employment) depends not only on the individual characteristics, competences and expertise but also on the individual's accrued social capital. On another perspective as on macro-oriented support deals with the new firm creation which is subject to the comprehensive regional setting like regional macroeconomic and institutional conditions (Carlton 1983; Reynolds et al. 1994; Rocha and Sternberg 2005).

SUMMARY AND CONCLUSIONS

Following the endogenous growth theory it has been demonstrated that investment in new knowledge panacea for increasing the level a unemployment and stagnant economic development. Therefore, as it is proven by two paradoxes: Swedish and European that investment in nascent knowledge may not ensure the competitiveness and growth in society. It is elucidated well why knowledge investment lead to an imbalanced effect on different levels (individual, institutional and regional) and further knowledge screening hinders the commercialization knowledge spillovers. Hence, knowledge filtering lead to missing uncommercialization by firms which generates the entrepreneurial opportunities for those regions that have high level of entrepreneurship capital in generating the promising opportunities for the stagnant economic growth. Evidence provided on base of a data set from the 440 German counties (Kreise) encompasses a significant relationship between the

regional economic growth and the entrepreneurship capital which ultimately results in a positive impact of investment in nascent knowledge on the knowledge entrepreneurship. Consequently, development of innovative technological advancement through research and development induce directly and indirectly through knowledge spillover entrepreneurship with the creation of opportunities. Transformation of knowledge will remained uncommercialized while exploiting knowledge in making new products and services. We finally conclude from these verdicts that in the process of knowledge spillover's role on entrepreneurship can't be neglected and play a crucial role in the knowledge spillover entrepreneurship society. Hence, strategic practical exposure suggests that it's not a sufficient parameter to produce an economic growth and competitive advantage based on the knowledge investments. Relatively, investments in new don't necessarily and ultimately result knowledge commercialization and spillover of knowledge for promoting entrepreneurship taken as an integral function of public policy.

REFERENCES

- Acs, Z J, and C Armington. "Employment growth and entrepreneurial activities in cities." *Regional Studies* 38 (2004): 911-927.
- Acs, Z J, and D B Audretsch. "Innovation in large and small firms: An empirical analysis." *The American Economic Review* 78, no. 4 (1988): 678-690.
- Acs, Z J, D B Audretsch, Braunerhjelm, and B Carlsson.

 "Growth and entrepreneurship." Small Business

 Economics 39, no. 2 (2012): 213-245.
- Alexander, T, C Fitch, R Goeken, P Hall, S Ruggles, and M Sobek. *Integrated public use Microdata series: Version* 3.0. 2003. http://www.ipums.org.

- Arenius, P, and D De Clercq. "A network-based approach on opportunity recognition." *Small Business Economics* 24, no. 3 (2005): 249-265.
- Audretsch, D B. "Innovation and Industry Evolution." *MIT Press, Cambridge*, 1995.
- Audretsch, D B. "The Entrepreneurial Society." Oxford University Press, New York, 2007.
- Audretsch, D B, and M P Feldman. "R&D spillovers and the geography of innovation and production." *American Economic Review* 86, no. 3 (1996): 630-40.
- Audretsch, D B, M Keilbach, and E Lehman. " Entrepreneurship and Economic Growth." Oxford University Press, New York, 2006.
- Barney. "Firm resources and sustained competitive advantage." Journal of Manaegement 17, no. 1 (1991): 99-120.
- Bartik, T J. "Small business start-ups in the United States: Estimates of the effects of characteristics of states." Southern Economic Journal 55, no. 4 (1989): 1004.
- Baumol, W J. "Entrepreneurship, innovation and growth: the David-Goliath symbiosis." *Journal of Entrepreneurial Finance and Business Ventures* 7, no. 2 (2002): 1-10.
- Davisson, P, and B Hoing. "The role of social and human capital among nascent entrepreneurs." *Journal of Business Venturing* 18, no. 3 (2003): 301–331.
- Glaeser, E, H Kallal, J Scheinkmann, and A Shleifer. "Growth in cities." *Journal of Political Economy 100*, 1992: 1126-1152.
- Grant, R. M. "Toward a knowledge-based theory of the firm." Strategic Management Journal 17 (1996): 109-122.
- Jaffe, A B, M Trajtenberg, and R Henderson. "Geographic localization of knowledge spillovers as evidenced by patent citations." *Quarterly Journal of Economics* 108, no. 3 (1993): 577.

- Kogut, B, and U Zander. "Knowledge of the firm, combinative capabilities, and the replication of technology." *Organization Science* 3, no. 3 (n.d.): 383-397.
- Krugman, P. "Increasing returns and economic geography." Journal of Political Economy 99, no. 3 (1991): 483-499.
- Krugmen, P. "What's new about the new economic geography?" Oxford Review of Economic Policy 14, no. 2 (1998): 7-17.
- Lucas, R E Jr. " On the mechanics of economic development." Journal of Monetary Economics 22, no. 1 (1988): 3-42.
- Qian, H, and Z J Acs. "An absorptive capacity of knowledge spillover entrepreneurship." *Small Business Economics* 40, no. 2 (2013): 185-199.
- Reynolds, P, D J Storey, and P Westhead. "Crossnational comparisons of the variation in new firm formation rates." *Regional Studies* 41 (1994): 443-456.
- Rocha, H O, and R Sternberg. "Entrepreneurship: The role of clusters theoretical perspectives and empirical evidence from Germany." *Small Business Economics* 24, no. 3 (2005): 267-292.
- Romer, P. M. "Endogenous technological change." *Journal of Political Economy* 98 (1990): 71-102.
- Romer, P.M. "Increasing returns and long-run growth." *Journal of Political Economy* 94, no. 5 (1986): 1002-1037.
- Shane, S, and T Stuart. "Organizational endowments and the performance of university startups." *Management Science* 48, no. 1 (2002): 154-170.
- Teece, D J, G Pisano, and A Shuen. "Dynamic capabilities and strategic management." *Strategic Management Journal* 18, no. 7 (n.d.): 509–533.
- Ucbasaran, D, P Westhead, and M Wright. "Opportunity identification and pursuit: Does an entrepreneur's human capital matter?" *Small Business Economics* 30, no. 2 (2008): 153-173.