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Entrepreneurship and Economic Development: Theory, Evidence and Policy

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ABSTRACT

Entrepreneurship and Economic Development: Theory, Evidence and Policy*

This paper provides an overview of the state of the art of the intersection of development economics and entrepreneurship. Given the relative neglect of entrepreneurship by development scholars it deals with (i) recent theoretical insights from the intersection of entrepreneurship and development studies; (ii) the empirical evidence on the relationship between entrepreneurship and development; and (iii) fresh insights for entrepreneurship policy for development that emerges from recent advanced in this area, including female entrepreneurship in developing countries.

JEL Classification: M13, O10, O17, O40

Keywords: entrepreneurship, development, small business, private sector development, innovation, business

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1. Introduction

Adam Smith, founding father of modern economics 'detested business men' (Lewis 1988: 35). Development scholars and development economists in particular have, if not detesting business men or entrepreneurs, (benignly) neglected them. Following Leff (1979: 51) many development scholars took the position that "entrepreneurship is no longer a problem" or a "relevant constraint on the pace of development" in developing countries. Entrepreneurship scholars on other hand have been more concerned with the *who, why* and *how* of entrepreneurship rather than with the impact of entrepreneurship on development or developing countries (Bruton et al. 2008; Shane 1997); a state of affairs described as a 'scholarly disconnect' (Audretsch et al. 2007).

Why does this matter? First, it is widely believed that entrepreneurship is beneficial for economic growth and development. Second, entrepreneurship has been remarkably resurgent over the past three decades in countries that achieved substantial poverty reduction, such as in China. Third, donors and international development agencies have turned to entrepreneurship to improve the effectiveness and sustainability of aid.

However, the theoretical and empirical cases for understanding the role of entrepreneurship are not yet solid. Evidence on whether entrepreneurship matters for economic growth is not straightforward; how entrepreneurship has been promoted and how it contributed to development in countries like China and the East Asian Tigers is still a matter of contention; and whether and why private-sector development initiatives may be effective is not well understood (see also Naudé, 2010a).

Closer scrutiny of the relationship between entrepreneurship and economic development is therefore needed. In order to stimulate the development-entrepreneurship discourse it may be necessary to first attempt to formalize or reconcile the role of entrepreneurship in the "grand ideas" of development economics, and to consider how this resonates with available evidence, and what this means for policy.

There are at least three "grand" ideas in development economics. The first is that development requires a structural transformation of what, how and where production and consumption takes place: from low-value added, low productivity and rural-based activities to more productive, higher value added activities in services and manufacturing located in cities. The second idea is

that development is a multi-dimensional concept that requires more than just the eradication of income poverty. The third is the idea that market failures are prevalent and that the state has an important coordinating and regulatory role to play in development.

All of these grand ideas are currently at the forefront of thought in development, and much of what development scholars are occupying themselves with either directly or indirectly resort under the umbrellas of these ideas.

Accordingly this paper provides an overview of the state of the art in terms of development and entrepreneurship. It is concerned with the theoretical insights from the intersection of entrepreneurship and development studies; with the empirical evidence on that relationship between entrepreneurship and development; and on the fresh insights for entrepreneurship policy for development that emerges from recent advanced in this area.

2. Theoretical perspectives on entrepreneurship in development

2.1 Concept, definitions, evolution and relevance for development

The evolution in scholarly views of entrepreneurship is reflected in the categories of *behavioral*, *occupational*, and *synthesis* definitions.

Schumpeter (1950; 1961) famously defined the entrepreneur as the coordinator of production and agent of change (‘creative destruction’). As such the “Schumpeterian” entrepreneur is above else an innovator. Scholars who share this view of entrepreneurship do not consider entrepreneurship to be very important in earlier stages of economic development – they see the contribution of entrepreneurship to be much more important at later stages of development, where economic growth is driven by knowledge and competition. At earlier stages of development, entrepreneurship may play a less pronounced role because growth is largely driven by factor accumulation (Ács and Naudé, 2013).

Other behavioural definitions allow for a more substantial role for entrepreneurship in developing countries. Kirzner (1973) views the entrepreneur as someone who facilitates adjustment to change by spotting opportunities for profitable arbitrage (and ‘disequilibrium’ situations in the market). This view has resonated among scholars who emphasize the

opportunity-grabbing-for-profit nature of entrepreneurship (Shane and Ventakaram 2000) particularly in developing countries where market disequilibria may be common.

Behavioural definitions also stress the risk-taking dimension of entrepreneurship. Kanbur (1979:773) described the entrepreneur as one who 'manages the production function' by paying workers wages (which are more certain than profits) and shouldering the risks and uncertainties of production. Such definitions are seen as very relevant for developing country contexts characterized by high risk and uncertainty. The predominance of small firms in developing countries – the bulk of entrepreneurship studies in developing countries are concerned with small and medium enterprises (SMEs) - has been postulated to be a symptom of economy-wide uncertainty, where the probability of success is small (Wiggens 1995).

Policy implications follow from these views, for instance that government policy for promoting entrepreneurship should reduce uncertainty and transaction costs. Policy though, is only a proximate cause for risk and uncertainty and in recent years development scholars have recognized 'institutions' (the "rules of the game") as the ultimate determinant of development. Institutions affect not only the supply but, perhaps even more importantly, the allocation of entrepreneurship. According to Baumol (1990:895) entrepreneurial ability can be allocated towards productive, unproductive, or even destructive activities. He defines entrepreneurs as 'persons who are ingenious and creative in finding ways that add to their own wealth, power, and prestige'. Underdevelopment is not due to an insufficient supply of entrepreneurs, but due to institutional weaknesses that result in a "lack of profit opportunities tied to activities that yield economic growth" (Coyne and Leeson 2004:236).

In economic theory entrepreneurship has been modeled as an occupational choice between self-employment and wage-employment (see Lucas 1978, Evans and Jovanovic 1989, Murphy et al. 1991). Hence someone will become an entrepreneur if profits and the non-pecuniary benefits from self-employment exceed wage income plus additional benefits from being in wage employment. Entrepreneurship is thus often synonymous with self-employment. Because self-employment is often not by choice but by necessity, a distinction if often made in between necessity and opportunity entrepreneurs – as in for instance the Global Entrepreneurship Monitor (GEM – see Reynolds et al. 2005).

A synthesis definition has been offered by Gries and Naudé (2011: 217) that combines behavioural and occupational views and relates entrepreneurship to the three big ideas in development economics as discussed in the introduction. As such, this definition to an extent reflects some of the evolution in the scholarly thinking about entrepreneurship, and defines entrepreneurship as "**the resource, process and state of being through and in which individuals utilize positive opportunities in the market by creating and growing new business firms**.".

As a *resource*, entrepreneurship has the instrumental value that it is accorded in economics; as *process* it accords to the attention given in management studies on the start-up, growth and exit of firms and as *state-of-being* it recognizes that entrepreneurship is not limited to being instrumental, it is often valued in itself (as will be explained in greater detail below).

This definition emphasizes the process value of entrepreneurship and describes entrepreneurial opportunities in a broader sense than is usual in the literature. For instance, Shane and Venkataraman (2000) define an `opportunity' as when goods can be sold at a profit. From a development perspective this is inadequate because it implies that utility from entrepreneurship depends only on monetary gains. 'Opportunities' should include situations when persons can create new firms that will further the kind of lives they desire.

Their use of the adjective 'positive' in relation to opportunities reflects a subjective assessment that while entrepreneurial *ability* may be allocated to destructive activities (as in Baumol 1990) it should not be defined as entrepreneurship if it detracts from either individual or societal welfare.

Whereas scholars viewed entrepreneurship initially as being restricted to innovation and business creation, the view has expanded towards one where entrepreneurship is seen more appropriately as a social phenomenon that reflects the broader institutional characteristics of a society. Entrepreneurship is not only concerned with business success, as measured by profits, but also with subjective welfare and non-economic wellbeing. Entrepreneurship is a catalyst for structural change and institutional evolution.

The following sub-sections will consider the contribution that entrepreneurship can make to illuminate the three "big ideas" in development economics.

2.2 Structural economic transformation and entrepreneurship

One of the seminal contributions to development economics has been dual economy models, inspired by Lewis (1954), utilized to explain the structural transformation of underdeveloped economies. Gries and Naudé (2010) expand the Lewis-model distinction between a traditional and modern sector with the micro-foundations of optimizing households, firms and labour market matching. They also distinguish between mature and start-up entrepreneurs, between large firms and small firms, and between necessity and opportunity-driven entrepreneurship. In their model the transformation from a low-income, traditional economy to a modern economy involves significant changes to production methods, a process of change where entrepreneurs provide essential roles, including providing innovative intermediate inputs, permitting specialization and raising productivity and employment.

The Gries-Naudé structural change model of entrepreneurship also builds on earlier work of Rada (2007), Peretto (1999) and Murphy et al (1991). In Rada (2007) entrepreneurs 'trigger' an investment in the modern sector once they have perceived profitable opportunities and facilitate the re-allocation of production factors from the traditional to the modern sector. Peretto (1999) provided a modified endogenous growth model that implied long-run structural transformation depends on the degree to which an economy can make a transition from a growth path driven by capital accumulation ('the Solow economy') to a growth path driven by knowledge accumulation (the 'innovation-driven' economy).

In structural change, entrepreneurial ability has been accorded center stage. Murphy et al (1991) provided a model that described firm size and the growth of the economy as a function of entrepreneurial ability. Nelson and Pack (1999) assigns a key role to the 'effectiveness of entrepreneurial ability' which they see as a vital determinant of the rate of assimilation of technology (1999:420) – as in Michelacci (2003) where entrepreneurial ability is vital for R&D. In Nelson and Pack (1999) a 'rapid' expansion of skilled labour can only be absorbed if entrepreneurial ability is high, and that without entrepreneurial ability the returns to physical and human capital is low.

In the Gries-Naudé (2010) model the process of structural change as facilitated by high ability entrepreneurs lead to firms adopting more complex production methods and producing more complex and specialized intermediate inputs. As a result, the technological intensity of a country's economic structure increases (Ciccone and Matsuyama 1996). These structural changes have interesting implications for the development of entrepreneurship itself, so that entrepreneurship may be itself endogenous in the development process.

Ciccone and Matsuyama (1996) make a distinction between consumer goods and intermediate goods. If a particular economy produces a limited range of intermediate goods, they show that the final (consumer) goods sector will use 'primitive' production methods and will have little demand for sophisticated, new inputs. This will lead to lower incentives for potential entrepreneurs to start-up new firms. The economy can get stuck in such an underdevelopment trap with primitive production in its (small) modern sector. They also point out that there might, in such an 'underdevelopment trap' be a case for assistance to new start-ups since these can provide both pecuniary and technological externalities, If they start producing new intermediate goods, these will induce final good producers to demand more, in turn improving the incentives for other entrepreneurs to start-up firms due to greater demand and the example provided in the application new technology. In this model, start-ups face positive costs that include R&D activities in bringing a new good to the market.

That entrepreneurs create a positive externality through bringing new goods to the market and in the process showcase new technology has been extended by Hausmann and Rodrik (2003) who point out that entrepreneurs provide not only these technological externalities in bringing new goods to market, but pecuniary externalities by providing information on the profitability of new activities. Entrepreneurs fulfill a 'cost-discovery' function in making sunk costs in a new activity which *ex ante* may or may not be profitable, but which will provide information *ex post* on such profitability to other entrepreneurs - information that often lacks in developing countries.

Finally, an aspect of duality that is particularly pertinent to the debate on entrepreneurship in development is that between the formal and informal sector (Maloney 2004). De Paula and Scheinkman (2007) find that informal firms are often a form of 'evasive' entrepreneurship in order to evade taxes or regulations, or to engage in illegal trade. They also find that they are less efficient, less able to obtain finance, and more likely to be dominated by entrepreneurs of low

ability. Thus the informal sector is much like the traditional or subsistence sector in typical dual economy models, and growth may be enhanced by encouraging entrepreneurs of high ability to 'migrate' to the formal sector.

2.3 Multi-dimensional development and entrepreneurship

The entrepreneurship literature generally takes a restricted view of development. Most empirical studies on the relationship between entrepreneurship and development have similarly been limited to GDP, productivity and employment growth as proxies for development – and not multi-dimensional development (Ács et al. 2008, van Praag and Versloot 2007). Yet entrepreneurship can also contribute to multi-dimensional well-being by what people can achieve through their capabilities (Gries and Naudé, 2011). This notion of human development -or human flourishing - has been pioneered by Sen (2000), Nussbaum (2000) and others.

This capabilities approach can inform both theoretical thinking on and measurement of entrepreneurship. It views entrepreneurship is a human *functioning*[2] that can be valued as an end, and not just as a means to other ends. It can enrich human capabilities if people's complementary capabilities are expanded so that they can choose *not* to be entrepreneurs. An important implication is that the demand for entrepreneurs is not a derived demand as in the instrumentalist view (as e.g. in Casson et al., 2006). Individual level data from the Global Entrepreneurship Monitor (GEM) show evidence of an inverse U-shape relationship between entrepreneurship and national happiness. Opportunity-motivated entrepreneurship may contribute to a nation's happiness, but only up to a point. Not everybody should become entrepreneurs, and the happiness of a nation cannot be –indefinitely increased by increasing the numbers of entrepreneurs (Naudé et al. 2013).

Although the literature on whether entrepreneurship matters for multidimensional development is scant, there has been more research on the subjective wellbeing (or or job satisfaction) of entrepreneurs (mostly measured as the self-employed). The evidence so far suggests that entrepreneurs experience higher levels of job satisfaction than employees (Anderssen 2008, Benz

[2] The term *functionings* is central in the capabilities approach, and refers to 'valuable activities and states that make up people's well-being' (Alkire, 2005:1) and includes 'working, resting, being literate, being healthy, being part of a community, being respected' (Robeyns, 2003:6).

and Frey 2008, Blanchflower 2004,). They have also been found to be healthier, less prone to negative feelings and depression, and to experience flow and 'procedural utility' (Block and Koellinger 2009).

2.4 Market failures, the state and entrepreneurship

The third "grand idea" in development economics concerns market and state failures. In the aftermath of World War II, when development economics was founded, the belief was that market failures were important to understand underdevelopment. During the 1980s, the government was seen as similarly subject to failure. Hence, under a set of principles for market-oriented reform described as the 'Washington Consensus', a reduction of the role of the state and the liberalization of markets. The implicit assumption was that the supply of entrepreneurship would be forthcoming once the constraints imposed by state interference were loosened. After the global financial crises of 2008 and 2009 wherein market liberalization and 'Washington Consensus' type policies were found to be complicit, the regulatory role of the state has been revived.

One role of the state that has received more attention is in industrial policy (Szirmai et al. 2013; Ács and Naudé, 2013). Here, old models of import-protection and state-owned enterprises have made place for policies that rely more on the private sector and entrepreneurship, but with government still playing an important role to address market failures in the entrepreneurial start-up and growth process. For example some have argued that entrepreneurial entry may be sub-optimal due to the externalities that may justify 'self-discovery' through supporting innovation by SMEs and new firm start-ups, for example by reducing regulations and requirements or providing subsidized credit (Hausmann and Rodrik 2003).

In contrast, others have argued for taxing (regulating) entrepreneurship because it may cast negative externalities. De Meza and Webb (1987) make the case that credit market imperfections may lead to 'overinvestment' when banks cannot accurately judge entrepreneurial ability. Because banks cannot observe any entrepreneur's ability *ex ante*, interest rates on start-up capital will reflect average entrepreneurial ability. If the proportion of entrepreneurs of low ability increases, it will result in higher borrowing costs, which impose a negative externality on entrepreneurs of high ability, who will consequently borrow and invest less. The entry of

entrepreneurs with low ability might also hinder development because such entrepreneurs may have less productive workers, who will earn reduced wages as a result, and in turn reduce the opportunity costs of self-employment, thereby causing the entry of even more low-ability entrepreneurs (Ghatak et al. 2007:2).

There is thus a clear case for the state to play a role in addressing the market failures that plague entrepreneurial start-up and innovation activities (Ács and Naudé, 2013). More research is needed to clarify this role, given the fact that many countries simultaneously exhibit various stages in different sectors.

The *how* of state support for entrepreneurship is an essential but vexing issue. For instance, private-sector development policies have tended to shy away from targeting entrepreneurs in specific sectors or industries for fear of distorting markets, and for fear of government failure – especially fearing the potential for such selective support to encourage rent-seeking and corruption. The design of entrepreneurship policies is therefore a delicate art, and one that needs (more) rigorous evidence.

3. Empirical Evidence

3.1 Macro-level Relationship

Three important databases describe the entrepreneurial activity of countries: the *International Labour Organization* (ILO) measures self-employment, the *Global Entrepreneurship Monitor* (GEM) measures start-up rates of new firms, and the *World Bank* measures the registration of new firms. It is worth noting that these databases are concerned with formal as opposed to informal firms (for comparison of these databases, see Desai 2010).

Studies using these databases have uncovered two sets of results. First, there is a lack of clear empirical evidence of whether entrepreneurship drives economic growth, productivity, or employment. Studies find a mixed bag of results. Second, there seems to be a U-shaped relationship between entrepreneurship and a country's level of economic development, as measured by GDP per capita (Naudé, 2010b).

The U-shaped relationship implies a higher rate of entrepreneurial activity in low-income countries than in middle-income countries (Wennekers et al. 2005). This result may reflect that entrepreneurs in developing countries are less innovative and tend to be proportionately more 'necessity' motivated (Ács et al., 2008, Gollin 2008). Higher levels of GDP may therefore be associated with more 'innovative' forms of entrepreneurship. Another implication is that rather than causality running from entrepreneurship to development, the causality may also run from development to entrepreneurship.

In conclusion, macro-level empirical work has been concerned with how entrepreneurship influences economic measures of development, such as GDP, productivity, and employment. Very few studies have considered non-monetary or subjective measures.

3.2 Micro-Level Relationship

Most micro-level studies focus on the why and how of entrepreneurship, not its impact on development. Nevertheless studies on the productivity, innovativeness, and growth and female entrepreneurs provide insights on whether and how entrepreneurship matter for development. One lesson is that innovative entrepreneurship matters most for development.

Van Praag and Versloot (2007) consider the literature on the impact of entrepreneurship on employment, innovation and productivity growth. They find that entrepreneurs do not spend more on R&D than their counterparts, although the quality and efficiency of their innovation is higher, and that their contribution to productivity growth is low. The majority of entrepreneurs would earn higher incomes as wage employees, and while entrepreneurs create more jobs relative to non-entrepreneurs, the quality of jobs they create is lower. Hence not all entrepreneurs drive development, and not all entrepreneurs are innovative (Shane 2009, Stam and Wennberg 2009).

As these findings refer to the impact of the average entrepreneur, it perhaps suggests that focusing on the average entrepreneur may not be the best policy stance. It may be better to focus on the small subset of innovative entrepreneurs that do make a difference. Studies find that innovative firms, particularly in high-tech sectors, have on average higher levels of productivity, tend to do enjoy higher employment growth, and cause positive spillovers for other firms (Stam

and Wennberg 2009). A study of manufacturing firms in Brazil, with the focus on a panel found that firms who engaged in technological innovation experienced higher growth in employment; net revenue, labour productivity, and market share (Kannebley et al. 2010).

Female entrepreneurs in developing countries have attracted greater attention in recent years given the key role of women in development and the still widespread discrimination. Evidence to date suggests that a variety of reasons contribute to explaining observed differences in entrepreneurial behaviour between women and men. Some of these differences include that women entrepreneurs' businesses tend to be smaller and to provide less employment grow than those owned by men. Women's businesses also tend to be less profitable than those of men and generate lower sales turnover than men, even in same industry comparisons (Minniti and Naudé 2010).

These differences in entrepreneurial propensity and performance between men and women reflect disadvantages and discrimination in education and the labour market. Labour market discrimination against women has been argued to lead to a self-selection of the most highly talented women into labour markets. As a result, less talented women will opt for self-employment, a characteristic reflected in their enterprises' lower survival and growth rates. Furthermore, many women may not have sufficient confidence in their ability to start a firm (Langowitz and Minniti 2007). Yueh (2009) discuss the case of women entrepreneurs in China and supports the idea that lack of self-confidence is a significant constraint hindering women entrepreneurial entry in developing countries.

As a result they also lack access to credit and face higher start-up costs. Horrell and Krishnan (2007) report that female-headed households often lack assets or incomes, and that this constrains their ability to diversify their economic activities. In this regard a large number of studies have found that access to micro-credit has improved women's decision-making autonomy, and general household welfare and consumption.

In conclusion, although much has been learned about the obstacles faced by female entrepreneurs, much less is known about how the level of aggregate activity influences women's decisions about entrepreneurship and even less about how the latter contribute to development. The lack of a systematic approach and data has prevented, so far, the formulation of a

comprehensive and robust theory of female entrepreneurship and development. A solid understanding of how the distinctive characteristics of female entrepreneurship are accounted by existing models of growth would be very desirable for both science and policy'.

4. Enhancing the developmental impact of entrepreneurship

Given the "grand ideas" in development economics the main policy considerations for enhancing the developmental impact of entrepreneurship are to improve the quality and allocation of entrepreneurial ability; and reduce the need for necessity entrepreneurship. Both considerations require better quality and quantity of research and data-generation.

Improving the quality of entrepreneurial ability means not only improving the skills and education of entrepreneurs, their 'human capital', but focusing on the innovative abilities of entrepreneurs. It is innovative entrepreneurship that is most desirable for growth. Innovation policy ought therefore to be a central focus of entrepreneurship promotion in developing countries as it is in advanced economies. Entrepreneurs in developing countries have a much greater propensity for innovation than is often recognized in the literature or by policy-makers.

Stimulation of innovation has not been paramount in most development agencies or donor's private-sector development programs, nor in national entrepreneurship support programmes. The only innovation relevant aspects of such support programs have been their concern to improve the general business environment, a prerequisite for innovation, and to argue for patent protection - and to a lesser extent basic research. Such policies tend to be more concerned with improving static and allocative efficiency, and not dynamic efficiency, which is more important for job creation and growth (Evenett 2005).

Attempting to improve dynamic market efficiency through raising innovation, and aiming to limit necessity entrepreneurship, may have implications for policy that runs counter to many current policies. For instance, many aim governments justify competition policy referring to the need to improve static and allocation efficiencies in markets. However, this may miss the fact that with underdeveloped financial markets in developing countries, raising competition might not improve dynamic efficiency. In the absence of financial markets, firms can only finance innovation through profits; if too much competition erodes their profits, it will also erode their

innovative activities. Reducing the need for necessity entrepreneurship may also imply policies to encourage job creation and provide social security, policies not popularly associated with an entrepreneurial economy.

Promoting innovative entrepreneurship in developing countries runs into further difficulties in that there is a broad lack of sufficient impact evaluations[3] with which to judge what works and what does not (Lerner 2009). Lopez-Acevedo and Tinajero (2010:2) mention that most existing evaluations typically do not consider biases due to unobserved firm heterogeneity or self-selection. Evaluations of entrepreneurship policy tend to be qualitative rather than quantitative, and cannot keep track with continual changes in programs over time. Many 'impact' studies also do not attempt to attribute impacts or outcomes to interventions, while lack of reliable SME data makes evaluation and cross-country comparisons of programmes difficult.

There is thus a need for much more rigorous empirical evidence as to what works and why, with respect to entrepreneurship policies. In the near future, most poor people may reside in so-called fragile states where an understandable lack of rigorous micro-level studies of firms and entrepreneurs limits the contribution of aid and other policies towards private sector development in conflict or post-conflict countries (Brück et al, 2011; 2013).

Despite the need for, and their contribution, one should be cautious of an undue reliance on randomized field experiments as the sole approach to inform appropriate policy formulation for entrepreneurship development (see also Deaton, 2009). What are needed are interdisciplinary approaches combining insights from randomized field experiments with anthropological fieldwork, and with the political economy of development. Such approaches offer promise for further evolution of the scientific field demarcated by the intersection of development economics and entrepreneurship.

5. Concluding Remarks

Reconsidering entrepreneurship's role in development leads to three novel realizations: First it provides fresh perspectives on three of the "grand" ideas in development economics; second,

[3] Impact evaluation (or attribution analysis) is 'a with versus without analysis: what happened with the programme (a factual record) compared to what would have happened in the absence of the programme (which requires a counterfactual, either implicit or explicit' (White, 2011:3).

entrepreneurship influences development outcomes positively as well as negatively; and third, entrepreneurship is in turn significantly determined by the dynamics of development.

Entrepreneurship is therefore a valid and important subject of study for development scholars, and development is a worthwhile subject of study for entrepreneurship and management scholars. The growing availability of more and better data from emerging and developing economies, the increasing adoption of rigorous evaluation methods in policy assessments, and likelihood and desirability of closer collaboration across disciplines, are all boding well for on the intersection of development and entrepreneurship.

References

Ács, Z.J., Desai, S. and Hessels, J. (2008). 'Entrepreneurship, economic development and institutions', *Small Business Economics*, 31: 219-234.

Ács, Z.J. and Naudé, W.A. (2013). 'Entrepreneurship, Stages of Development, and Industrialization' (In Szirmai, A., Naudé, W.A. and Alcorta, L. eds. *Pathways to Industrialization in the 21st Century*. Oxford: Oxford University Press. Chapter 14).

Alkire, S. (2002). *Valuing Freedoms: Sen's Capability Approach and Poverty Reduction*. Oxford: Oxford University Press.

Andersson, P. (2008). Happiness and Health: Well–Being among the Self–Employed, *Journal of Socio–Economics*, 37, 213–236.

Audretsch, D.B., Grilo, I. and Thurik, R. (2007). *Handbook of Research on Entrepreneurship Policy*. Cheltenham: Edward Elgar.

Baumol, W.J. (1990). 'Entrepreneurship: Productive, Unproductive and Destructive', *The Journal of Political Economy* 98(5): 893-921.

Benz, M. and Frey, B.S. (2004). Being Independent Raises Happiness at Work, *Swedish Economic Policy Review*, 11, 95–134.

Blanchflower, D.G. (2004). 'Self-Employment: More May Not be Better', *Swedish Economic Policy Review*, 11: 15-73.

Block, J. and Koellinger, P. (2009). I Can't get No Satisfaction -Necessity Entrepreneurship and Procedural Utility, *Kyklos*, 62 (2), 191–209.

Brück, T., Naudé, W.A. and Verwimp, P. (2011). 'Small Business, Entrepreneurship and Violent Conflict in Developing Countries', *Journal of Small Business and Entrepreneurship*, 24 (2): 161-178.

Brück, T., Naudé, W.A. and Verwimp, P. (2013). 'Business under Fire: Entrepreneurship and Violent Conflict in Developing Countries', *Journal of Conflict Resolution, 57 (1): 3- 19.*

Bruton, G.D., Ahlstrom, D. and Obloj, K. (2008). 'Entrepreneurship in Emerging Economies: Where Are We Today and Where Should the Research Go in the Future', *Entrepreneurship Theory and Practice*, January : 1-14.

Casson, M., Yeung, B., Basu, A. and Wadeson, N. (2006). *The Oxford Handbook of Entrepreneurship.* Oxford: Oxford University Press.

Ciccone, A. and Matsuyama, K. (1996). 'Start-up Costs and Pecuniary Externalities as Barriers to Economic Development', *Journal of Development Economics*, 4: 33-59.

Coyne, C.J. and Leeson, D.T. (2004). 'The Plight of Underdeveloped Countries', *Cato Journal*, 24(3): 235-49.

Deaton, A. (2009). 'Instruments of Development: Randomization in the Tropics, and the Search for the Elusive Keys to Economic Development,' *The Keynes Lecture*, British Academy, 9 October 2008,

De Meza, D. and Webb, D. (1987). 'Too Much Investment: A Problem of Assymetric Information', *Quarterly Journal of Economics*, 102(2): 281-92.

De Paula, A. and Scheinkman, J.A. (2007). 'The Informal Sector', *NBER Working Paper 13486*, Cambridge MA: National Bureau of Economic Research.

Desai, S. (2011). 'Measuring Entrepreneurship in Developing Countries' (In Naudé, W.A. ed. *Entrepreneurship and Economic Development*. Basingstoke: Palgrave Macmillan. Chapter 4).

Evans, D.S., and B. Jovanovic (1989). 'As Estimated Model of Entrepreneurial Choice Under Liquidity Constraints', *Journal of Political Economy* 97(4): 808-27.

Evenett, S.J. (2005). 'What is the Relationship between Competition Law and Policy and Economic Development?' (In Brooks, D.H. and Evenett, S.J. eds. Competition Policy and Development in Asia. London: Palgrave MacMillan. Pp.1-26).

Ghatak, M., Morelli, M. and Sjöström, T. (2007). 'Entrepreneurial Talent, Occupational Choice and Trickle Up Policies', *Journal of Economic Theory*, 137(1): 27-48.

Gollin, D. (2008). 'Nobody's business but my own: Self-employment and small enterprise in economic development', *Journal of Monetary Economics*, 55 (2) : 219-233.

Gries, T. and Naudé, W.A. (2010). 'Entrepreneurship and Structural Economic Transformation', *Small Business Economics Journal*, 34 (1): 13 – 29.

Gries, T. and Naudé, W.A. (2011). 'Entrepreneurship and human development: A capability approach', *Journal of Public Economics*, 3 (1): 216-224

Hausmann, R. and Rodrik, D. (2003). 'Economic Development as Self-discovery', *Journal of Development Economics*, 72(2): 603-33.

Horrell, S. And Krishnan, P. (2007). 'Poverty and Productivity in Female-Headed Households in Zimbabwe', *Journal of Development Studies*, 43 (8): 1351-1380.

Kanbur, S.M. (1979). 'Of Risk-Taking and the Personal Distribution of Income', *Journal of Political Economy*, 87(4): 769-97.

Kannebley, S., Sekkel, J.V. and Araujo, B.C. (2010). 'Economic Performance of Brazilian Manufacturing Firms: A Counterfactual Analysis of Innovation Impacts', *Small Business Economics*, 34 (3): 339-354.

Kirzner, I.M. (1973). *Competition and Entrepreneurship*. Chicago: University of Chicago Press.

Langowitz, N. and Minniti, M. (2007). 'The Entrepreneurial Propensity of Women', *Entrepreneurship Theory and Practice*, 31 (3): 341-365.

Leff, N. (1979). 'Entrepreneurship and Economic Development: The Problem Revisited', *Journal of Economic Literature*, 17: 46-64.

Lerner, J. (2009). *Boulevard of Broken Dreams*. Princeton: Princeton University Press.

Lewis, W.A. (1954). 'Economic Development with Unlimited Supplies of Labour', *The Manchester School*, 28(2): 139-191.

Lewis, W.A. (1988). 'The Roots of Development Theory' (*In* Chenery, H.B. and Srinivasan, T.N. *eds*. *Handbook of Development Economics*, volume 1. Elsevier.).

Lopez-Acevedo, G. And Tinajero, M. (2010). 'Mexico: Impact Evaluation of SME Programs Using Panel Firm Data', *Policy Research Working Paper 5186*, The World Bank.

Lucas, R.E. (1978). 'On the Size Distribution of Business Firms', *Bell Journal of Economics*, 9: 508-23.

Maloney, W.F. (2004). 'Informality Revisited', *World Development*, 32: 1159-78.

Michelacci, C. (2003). 'Low Returns in R&D Due to Lack of Entrepreneurial Skills', *The Economic Journal* 113: 207-25.

Minniti, M. and Naudé, W.A. (2010). 'What do We Know About the Patterns and Determinants of Female Entrepreneurship Across Countries?', *The European Journal of Development Research*, 22 (3): 277-293.

Murphy, K., Schleifer, A. and Vishny, R. (1991). 'The Allocation of Talent: Implications for Growth', *Quarterly Journal of Economics*, 106(2): 503-30.

Naudé, W.A. (2010a). *Entrepreneurship and Economic Development.* Basingstoke: Palgrave Macmillan.

Naudé, W.A. (2010b). 'Entrepreneurship is not a binding constraint on growth and development in the poorest countries', *World Development*, 39(1): 33-44.

Naudé, W.A., Amorós, E. and Cristi, O. (2013). 'Surfeiting the Appetite may Sicken: Entrepreneurship and the Happiness of Nations', *Small Business Economics*, early online.

Nelson, R.R. and Pack, H. (1999). 'The Asian Miracle and Modern Growth Theory', *The Economic Journal*, 109(457): 416-36.

Nussbaum, M.C. (2000). *Women and Human Development: The Capabilities Approach*. Cambridge: Cambridge University Press.

Peretto, P.F. (1999). 'Industrial Development, Technological Change, and Long-Run Growth', *Journal of Development Economics*, 59: 389-417.

Rada, C. (2007). 'Stagnation or Transformation of a Dual Economy through Endogenous Productivity Growth', *Cambridge Journal of Economics*, 31: 711-40.

Reynolds, P.D., Bosma, N. Autio, E. Hunt, S. DeBono, N. Servais, I. Lopez-Garcia P.and Chin N. (2005). 'Global Entrepreneurship Monitor: Data Collection Design and Implementation 1998–2003', *Small Business Economics*, 24: 205–231.

Robeyns, I. (2003). 'The Capability Approach: An Interdisciplinary Introduction. Mimeo: Amsterdam School of Social Sciences, Dec.

Schumpeter, J.A. (1950). *Capitalism, Socialism and Democracy*. New York: Harper & Row.

Schumpeter, J.A. (1961). *The Theory of Economic Development*. New York: Oxford University Press.

Sen, A. (2000). *Development as Freedom*. New York: Anchor Books.

Shane, S. (1997). 'Who is Publishing the Entrepreneurship Research?', *Journal of Management*, 23(1): 83-95.

Shane, S. (2000). **'**Prior Knowledge and the Discovery of Entrepreneurial Opportunities**',** *Organizational Science*, 11 (4): 448-469.

Shane, S. and Venkataraman, S. (2000). 'The Promise of Entrepreneurship as a Field of Research', *Academy of Management Review*, 25(1): 217-26.

Stam, E. and Wennberg, K. (2009). 'The roles of R&D in new firm growth', *Small Business Economics* 33.1: 77-89.

Szirmai, A., Naudé, W.A. and Alcorta, L. (2013). *Pathways to Industrialization in the 21st Century*, Oxford: Oxford University Press.

Van Praag, M. and Versloot, P.H. (2007). 'What is the Value of Entrepreneurship? A Review of Recent Research', *Small Business Economics*, 29: 351-382.

Wennekers, S., Van Stel, A., Thurik, R. and Reynolds, P. (2005). 'Nascent Entrepreneurship and the Level of Economic Development', *Small Business Economics*, 24: 293-309.

Yueh, L. (2009). 'China's Entrepreneurs', *World Development*, 37 (4): 778-786.