



Entrepreneurial Skills and Human Capital

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Researchers studying entrepreneurship have understood the importance of different forms of capital in creating and growing business and the effect that these businesses have on overall prosperity. The focus for entrepreneurship researchers has been on the "hard" assets of financial and physical capital. Many of the studies have begun to increasingly emphasize the knowledge and value of the skills that people bring to their work, as well as the effect that these inputs have on the economic development. In addition, increases in human capital measures have a positive influence on entrepreneurship.

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1. Introduction

General human capital

Researchers studying entrepreneurship have understood the importance of different forms of capital in creating and growing business and the effect that these businesses have on overall prosperity. Political decision-makers have also long recognized the role that businessmen play in a country's economic well-being. Historically, the emphasis for entrepreneurship researchers and policy makers has been on the "hard" assets of financial and physical capital. However, in the 1960s, the southern impulse began to move towards the knowledge and value of skills that people bring to their work, as well as the effect that these inputs have on the economic development and overall prosperity of a region. Pioneering researcher Theodore Schultz suggested that these skills represent a form of capital that is as important for economic growth as other forms of capital (Schultz). The stock of acquired knowledge, skills, and abilities of human beings has been labeled as human capital (Hornbeck and Salamon). This capital represents the accumulated human resources of education, training and experience (Leuenberger & Bartle) and is considered capital because it produces income and other useful results over long periods of time (Becker). The fundamental work comes from Nobel laureate Gary S. Becker, who crystallized and confirmed the importance of human capital for the economic well-being of individuals, as well as for the country in which they live. While its emphasis has been on formal education, its findings are relevant to the wider range of human capital inflows, especially training and experience, that it recognizes. He also distinguished between general human capital and specific human capital. General human capital is training that can be used to increase productivity between firms, where specific human capital is useful for increasing productivity in a specific firm, but would not be useful in other firms (Becker). He also notes that some training is relevant for groups of companies in industries, geographical areas or the like. Becker sees human capital as heterogeneous, being qualitatively different in the types of education, on-the-job training and informal learning, etc. Two researchers, Polachek and Siebert, in their UK data studies, confirm that human capital theory explains gains in terms of skills acquired in school and at work. Human capital



investment does not always take place in full-time schooling. Educational investment opportunities often come in smaller units: you can go to part-time school, take an adult education course, or train "at work" while working simultaneously (Polachek and Siebert). It also confirms that the return on investment is not constant throughout a person's life cycle. Rather, earnings profiles show a concave curve, rising rapidly during the first years of work, then leveling and decreasing in subsequent years. Much of the discussion about general human capital involves details about the production and management of related political efforts. In the field of policy, one of the main questions in any field subject to potential public policy factors is the justification for the existence of public intervention. In the example of discussion, Juffras and Sawhill provide justification for political contributions to human capital. They argue that there are a number of imperfections in the human capital market which make reliance on market mechanisms unlikely to produce the best level of human capital for the economy. Their full argument follows well-known justifications for public intervention to improve the functioning of a market. Speaking about the aspect of managing human capital policies, in the second example of discussion, Fosler argues that the key components of a human capital strategy should contain three elements: the size and composition of the workforce, the capacity of workers and productivity. These two streams of thought adopt a macro vision that shows the orientation of a large part of human capital scholarships. Another topic of human capital research is the relationship between human capital and entrepreneurship.

Entrepreneurship and human capital In addition to improving the economic wealth of entire regions, increases in human capital measures have a positive influence on entrepreneurship. There are numerous studies on the relationship between human capital and business performance, which tend to show long-term business performance as being positively related to higher levels of human capital. We will present aspects of human capital associated with entrepreneurial success, regardless of the level of long-term performance of the business. The immediate problem is how to define "success" in entrepreneurship. There are a wide variety of values used in research to determine success. These include various business size indicators, various growth measures and many financial profitability measures (Unger, Rauch, Frese and Rosenbusch). Numerous studies combine starting a business with a number of financial performance used as a threshold to determine the "success" of a new business. We prefer to avoid a definition that uses such measures, given that there is no standardized or accepted level of financial "success" for small businesses, nor is there a small archetypal business against which to make such comparisons. There are also defining ambiguities with indicators such as net income, profit and the like. Establishing a level of financial "success" for a new business is a study in itself, the conclusions of which would fuel significant interpretive criticism. Consequently, the emphasis is on research focused on whether entrepreneurship results in a business operating, regardless of the level of financial performance. Starting a business and staying in business are then the main indicators of "success". For start-up entrepreneurs, starting a business is a success, and for active entrepreneurs, staying in business is a success. Staying in business should not be seen as passive. Rather, according to the assumptions underlying the study of entrepreneurship, it means learning and adapting, overcoming obstacles and possibly growing a business. The question that needs to be asked is what specific entrepreneurial human capital (condensed into the word "skills") is needed for an entrepreneur to start a business and stay in business.



2. Entrepreneurship, education and experience

The researchers identified and tried to explain both general human capital and specific human capital. General human capital refers to broad and transferable measures, such as education and work experience, while specific human capital refers to more specialized skills, such as entrepreneurial, managerial and technical skills or previous experience in owning a business (Diochon et al.). Findings related to the link between general human capital and entrepreneurship are far from uniform, as the following examples demonstrate. Cooper et al., in their study of entrepreneurs, found that business performance in the early stages (survival and growth) seemed to be improved by the level of education of the entrepreneur. They assumed that education can lead to a higher level of problem-solving skills, as well as increased commitment, motivation and discipline, which contributed to both marginal survival and the growth of new projects. General human capital was also represented by gender and race. In their study, the racial minority was linked to lower odds of both marginal survival and growth, and gender was only significantly increasing. The researchers concluded that overall human capital is just as well rewarded in self-employment in new businesses with higher survival and growth rates as in employment. Adding to the rare literature on self-employment, Montgomery, Johnson, and Faisal found that when startup and survival are modeled simultaneously, human (general) capital seems to increase the likelihood of self-employment, but not the likelihood of self-employment. succeed (in contrast to the financial capital that positively affects both). A study by the US Small Business Administration shows that support for higher levels of education is associated with a faster growth in the number of self-employed. Cheng considers that previous work experience (especially previous self-employment) positively affects the transition to self-employment, and Rotefos and Kolvereid confirm that entrepreneurial experience is the only important factor in predicting the outcome of starting a business. A number of start-up and survival studies have produced varying results. DeClercq & Arenius showed a positive relationship between an individual's level of education and their likelihood of starting a business and a strong effect on entrepreneurially relevant knowledge. Cressy found that human capital is the true determinant of survival in the beginning. Taylor also observed a significant positive effect of human capital experience on business longevity, and Bates found education to increase business longevity. However, a study by Diochon et al. of Canadian entrepreneurs did not disclose dimensions of overall human capital that would be associated with success in starting a business. This finding is consistent with Davidsson and Honig who researched with Swedish entrepreneurs that education and professional experience are not related to the formation of companies. Despite this lack of uniformity in findings, a group of researchers managed to draw some generalized conclusions from the meta-analysis of 70 quantitative studies on the relationship between human capital and entrepreneurial success. It is recognized that the literature remains fragmented, with different studies regarding the conceptualization of human capital, the choice of success indicators and the study of contexts such as industry, country and age of business (Unger, Rauch, Frese and Rosenbusch). They also acknowledge that their study did not include qualitative studies or quantitative studies that did not meet certain criteria. Despite these limitations, a small but strong relationship has been found between human capital and entrepreneurial success. The relationship was greater for what they called the results of human capital investments (knowledge and skills) than for the investments themselves (education and experience). The human capital-success relationship was also stronger for the relationship with high human capital burdens compared to the low link with burdens and for young firms compared to old firms (Unger, Rauch, Frese and Rosenbusch). They recommend that future



research investigate learning processes, the acquisition of knowledge and the transfer of knowledge to entrepreneurial tasks.

Entrepreneurial skills While many variables of entrepreneurial competence have not yet been formally operationalized in academic research, there are a number of skills mentioned in both academic and popular literature that are commonly accepted as having an influence on successful entrepreneurship. Skills are those personal assets of human capital that lead to successful entrepreneurship. These assets can be in the form of what the entrepreneur knows or understands or what he is able to do, both resulting from education and experience. To capture the whole concept of human capital under the term “skills”, one can adopt the definition of skills offered by Boyatzis and Kolb, who define an ability as a combination of skills, knowledge and experience that allows a person to do "something". This definition is broad enough to include the various aspects of human capital. It also incorporates the idea of success into focusing on doing something good. Academic studies of entrepreneurship present a wide range of skill combinations that are associated with successful entrepreneurship. The authors rarely define success, but detail the types of activities, perspectives or guidelines that are at least necessary for entrepreneurship. In reviewing studies and literature on this topic, the motley nature of studies has made conceptualizing the whole a difficult task. Consequently, the easiest way to summarize existing skills literature was to reinforce the conclusions about skills in large groups, from a more general to a more specific abstraction. Thus, we can distinguish three levels of skills, each of which serves as a composite of studies.

1) The first skill group was labeled Meta-Level skills, competencies, or other terms by different authors. These are the more abstract skills that interact with other conceptualizations of entrepreneurship. For example, they can be seen as a function of individual personality traits or the different roles that the entrepreneur plays in starting and developing the business. Many of the older skill-based studies began with assessments of the Meta-Level skills required for entrepreneurship. For example, Smilor identifies leadership, communication, listening, negotiation, and the creation and management of change as necessary “personal knowledge”. Similarly, Chen et. al highlights the importance of being a risk taker, manager and innovator. Boyatzis and Kolb, using the executive skills profile in assessing entrepreneurial skills, show adaptation, helping and delegating, information collection and analysis, planning, technology management, goal setting and management, action, entrepreneurship, leadership and relationships, as appropriate for entrepreneurship. More recent studies have also focused on the abstract level of skills. Wickham sees industry knowledge, general management skills, people skills and personal motivation as factors of entrepreneurial performance. Duening conceptualizes this level as various entrepreneurial “minds” and details the five minds of the entrepreneur: recognition of opportunities, design, risk management, resilience and achievement. Pyysiainen et. al. use the term Meta-Level skills to distinguish innovation, risk-taking, pursuit of opportunities and growth-oriented as necessary entrepreneurial skills at the meta-level. Plumly et. al. uses the term competencies and considers communication, creative thinking, leadership, analysis, strategic planning and teamwork to be necessary competencies. Nehete et. al. calls this level of competence “entrepreneurial orientation” and sees autonomy, innovation, risk-taking, proactivity and competitive aggression as important entrepreneurial orientations.

2) The next grouping of skills used by researchers is more concrete and often oriented towards the functions of a business. The authors use a number of different terms for this skill level. They can be called organizational skills because they refer to the functions of the



business organization. Smilor calls the necessary skills "organizational know-how" and distinguishes marketing, finance and accounting, as well as production and manufacturing. Chen et al. use the term tasks, showing marketing, management, innovation, risk-taking and financial control as necessary tasks (they also detail about 20 specific activities within these five task organizations). Gerber emphasizes finance, marketing, sales, management, enterprise management (business planning) and operations, while Plumly et. al. see the importance of negotiation, development of new products, technological innovation, recognition of opportunities, market entry, legal and creating a link from vision to action. Jusoh et. al. recognize marketing and advertising, time management, finance and accounting, customer service, human resources, law, sales, supplier management, administrative planning and management as important or essential. Mariotti & Glackin identify marketing, finance, operations and leadership as fundamental organizational skills for entrepreneurs. Nehete et. al. differentiates entrepreneurial skills and business skills. Entrepreneurial skills occupy a kind of middle ground between meta-level and organizational skills. These include moving from an idea to a business, starting and developing a business, creativity, innovation, taking risks and identifying market opportunities. Business skills are more organizational in nature and include finance, legal, marketing, management, operations, human resources and the development of a business plan.

3) With the specific task of making a business plan, Nehete et al. provide a foray into the lightly covered territory of functional-level skills, the third skill group. This level is the first that is oriented towards the idea that the entrepreneur must undertake specific activities based on skills in the entrepreneurial process and the management of an entrepreneurial business. However, these functional skills are also combined with higher level skills and there is little consensus or consistency in the few studies on functional skills. Quite a number of studies detail the activities involved in starting a business, but very few academic studies provide details on the functional skills that are needed for positive entrepreneurial outcomes. Bharadwaj et. al. considers that certain skills are important and should be the subject of business advice. These include the development of business plans, marketing, e-commerce, financial projections and accounting. In Bharadwaj et. al., individual counseling was important, as was the degree of individualization of the entrepreneurial training program. Chen et al. al. focuses on sales and finance for the delimitation of functional level skills. These are associated with the self-efficacy of the entrepreneur, although the authors do not opine to what extent they are associated with real success. They present a market analysis, the establishment and fulfillment of market share objectives, sales objectives and profit objectives as marketing-oriented skills. In terms of funding, these include performing a financial analysis, developing a financial system and internal controls, and controlling costs. It also identifies the development of information systems, time management by setting goals and defining organizational roles, responsibilities and policies. One of the few studies available to the public for the operationalization of variables are made by Diochon et. al., which details the financial management capacity and confirms its importance. Financial management capacity involves tasks such as keeping formal records, using the accrual of accounting and establishing a separate business audit account. Unlike academic studies, entrepreneurship training programs and resources often include specific functional tasks, such as learning how to produce financial statements and use accounting software, how to develop a business plan, or prepare a marketing plan. This is the area in which the need for certain skills becomes highly individualized depending on the type of business, industry and the size of the company. Trying to capture similarities across the entrepreneurial spectrum is an emerging field and one



that has been largely in the field of popular publications and training programs, rather than academic research. Gerber finds seven disciplines essential to entrepreneurial success. These are described in terms of being a leader in important areas of business. Each of these areas has a significant number of segmentations, specific business activities or understandable perspectives. This detail is too voluminous to be reported, but can be summarized to some extent in terms of functional skills or a similar concept. Under the discipline of Enterprise Leader, Gerber recommends making a vision for the company, writing a business plan and developing key business indicators.

Discipline of market leadership requires identifying target markets, understanding how customers think and make decisions, and establishing business from the rest. Financial Leader maximizes the company's value by minimizing operating expenses and optimizing operating revenues. The management leader develops a culture that embraces change and builds an authoritative guide to the company's operations. The Fulfillment Leader customer designs and builds performance systems by analyzing current customer performance status and innovating or improving performance systems. Lead Conversion Leader converts revenue opportunities into revenue, maximizing potential customer conversion and maximizing existing customers. Finally, Lead Generation Leader brings potential customers, reaching target markets with impact through different channels. Mariotti & Glackin provide more details for segmenting fundamental organizational skills in marketing, finance, operations and leadership. In marketing, more specific tasks include market research, developing a marketing mix and plan, pricing and credit strategies, and marketing and sales communication. Financing involves understanding the initial, fixed and variable costs, using financial statements and understanding cash flows, taxes and financing strategies. Operations include addressing legal issues and risk management, specific business operations, locations, facilities and arrangement, and human resource management. Leadership involves leadership, ethics, integrity, entrepreneurial opportunities and social responsibility. Lichtenstein and Lyons seem to be at the forefront of the skills-based analysis of entrepreneurs, both for theory and practice. I use a different grouping in the classification skills so far. Their grouping uses four dimensions: Technical Skills, Managerial Skills, Entrepreneurial Skills and Personal Maturity. These skill sizes are then separated into five levels, from low skill to high skill. Technical skills, according to Lichtenstein and Lyons, involve the ability to perform key business operations. Managerial skills involve the ability to effectively organize and manage operations. Entrepreneurial skills involve the ability to identify market opportunities and create solutions to capture those opportunities. Personal maturity includes self-awareness, willingness and ability to take responsibility, emotional development and creative ability.

3. Conclusion

The general purpose of entrepreneurial development policies, including those involved in human capital development, is to facilitate the successful exploitation of available opportunities, the resulting public good being the enhancing the economic development. This facilitation is achieved by reducing the impediments to entrepreneurship and by reducing the risk for the parties involved, through public intervention taking into account the entrepreneurial education and business counselors.



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