HUMAN CAPITAL INVESTMENTS AND DECISION-MAKING IN ENTREPRENEURSHIP

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ABSTRACT

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Every year, entrepreneurs launch millions of new ventures in the hopes of transforming their new ideas of solving business problems into legitimate and successful businesses. However, the vast majority will fail for a variety of reasons, ranging from management team failures to a lack of consumer interest. To mitigate these risks, entrepreneurs commonly turn to their business models and financials, giving due diligence to ensure they have sufficient assets and growth for moving forward. However, human capital, including the employees hired, their relevant skills and knowledge, and the skills attributed to the founding team, arguably deserves significant attention as well, particularly during early phases of the startup. Not only can employees contribute toward a growing business through their personal networks and skills, but they could also be essential for general venture growth and success. Therefore, human capital investments like initial hiring efforts and long-term sustained investments both require consideration, and if done properly, they can prove vital for not just supporting a business but also ensuring the venture's long-term viability in the market.

This paper outlines the general entrepreneurial ecosystem, including the lifecycle of a startup, founder characteristics, and the key players to establish necessary context. The focus then shifts toward human capital and defining human capital itself, human capital investments, and the components, including soft and hard skills of employees and founders alike. This provides an overview of the benefits of human capital and begins to answer the inquiry as to why human capital is both complex yet essential. Lastly, the paper poses two questions: how do ventures choose to initially invest in human capital and effectively assess associated risks, and how can entrepreneurs increase the likelihood that the investments made are beneficial for the long-term? Detailed answers are provided for both, with both serving as useful general guidelines for entrepreneurs to follow in navigating the complexities of human capital investments.

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INTRODUCTION

With new and dramatic ideas of changing the world, millions of entrepreneurs step forth into the business world with a desire to take a new product, process, or idea to market. Despite tremendous initial enthusiasm and promise, founders often discover that entrepreneurship and the journey in taking an initial idea to market is undoubtedly difficult; while 100 million startups are launched annually, only 10% succeed and successfully sell their products (Griffith, 2014). Failure has become all but a business cliché and common story, with founders attributing the closures of their businesses to countless reasons: lack of funding, failure to grab consumer attention early, growth that was never manifested or was too fast for the startup's capabilities, and so forth. The world of entrepreneurship presents these challenges and more, and founders of all stages, including those who have tried before and those who are new to the entire process, seek means of reducing risks to make their ideas finally come to fruition.

In seeking means of securing success, startups often focus primarily on their financials and the soundness of their business model: Is there a viable market for the proposed product or service? How big is said market? Does the business have an operational model in place for production, sale, and all other business processes to deliver the product or service? How can the business secure funding, and from whom? These questions do require due diligence, but often overlooked is the side of human capital: the people who made up the business, including the founder, initial team and employees, and the relevant investments made in their abilities, skills, and knowledge. Human capital strategy among startups tends to play by the founder's intuition, as human capital and the hiring of employees is arguably viewed more as a flexible and easily managed task. However, nearly 60% of new ventures fail due to problems with human capital and the teams that make up the business (de Mol, 2019). People that cannot work well together, particularly

within the founder-employee dynamic, can hinder the identification of new opportunities, team effectiveness, and most importantly, productivity. Lack of proper investments in the skills or knowledge of a business can lead to loss of competitive advantage and productivity, which can prove fatal to a new business. Therefore, increasing focus has been placed on the importance and relevance of human capital investments, particularly as businesses begin looking toward expanding their employee base.

Given the fast growth pace and demands of the entrepreneurial sphere, entrepreneurs are soon faced with the task of choosing whether or not they should hire new employees, when the opportune time is, and what skills are needed in the business. However, these seemingly facile considerations quickly grow more complex, because while financial questions typically consider risks of returns, payback periods, and so forth, human capital investments themselves also carry risks. Some include financial implications, but other beckon more serious implications, like effects on leadership, culture, and productivity, all of which can dramatically influence the health of an entrepreneurial venture. Furthermore, human capital requires reinvestments like trainings, educational opportunities, and others to mitigate long-term depreciations or risks. Questions surrounding which types of investments and when they should be made also become worthy considerations to bear in mind for entrepreneurs. Therefore, holistically, human capital investments demand equal, if not more, attention in helping entrepreneurial ventures succeed in a unique environment of risk and uncertainty.

Given the important implications of human capital investments, this paper seeks to outline human capital particularly within entrepreneurship and bridge the gaps in knowledge between existing human capital theory with practices used by entrepreneurs. According, this paper details

the entrepreneurial environment and founders, as both are relevant context for what human capital entails and why it is important. Following this outline are attempts to answer two primary questions: how do ventures choose to initially invest in human capital and effectively assess associated risks, and how can entrepreneurs increase the likelihood that the investments made are beneficial for the long-term? Through dissecting human capital within entrepreneurship and then answering the posed questions, entrepreneurs of all stages can benefit from utilizing the provided knowledge to develop comprehensive human capital investment strategies. The first question can be analyzed on the basis of practices from successful ventures to identify general trends, while the second question can be examined through applying human capital theory. Through this holistic examination, the generated information can help startups in surviving a uniquely risk-prone environment to benefit employees, founder, and customers alike to turn an initial idea into a feasible business, particularly for novice entrepreneurs.

ENTREPRENEURSHIP AT A GLANCE

To understand how human capital impacts a new venture, it is important to first discuss how entrepreneurs begin their business journey and what the entrepreneurial environment dynamics are like to establish context for how human capital investments become relevant. Entrepreneurial ventures typically follow a distinct lifecycle, earmarked by typical stages and milestones. In analyzing this lifecycle, it quickly becomes evident that founders and the initial team they work with play a large role in how the startup advances and succeeds, making initial team dynamics also worthy of investigation. Lastly, the entrepreneurial environment is distinct in the major stakeholders that influence each other and the associated risks with building a new business. These three factors therefore are briefly outlined to demonstrate the context for later discussions on human capital investment decision-making within entrepreneurship.

Life of a Startup

In general, entrepreneurial ventures tend to proceed through four distinct stages: startup, transition, scaling, and exit, with each stage defined by the founder and beginning team's primary challenges (Picken, 2017). A founder's initial challenge during the startup phase is clearly defining, refining, and validating the given business concept they want to bring to market. Analysis of the business concept typically includes the given market opportunity, proposed business model, and market strategy for delivering the product or service to customers. During this stage, risks are rather minimal, but resources are also limited. Consequently, organization tends to be loose and fluid.

Following the initial startup stage is transition, in which firms gain a foothold in the market and begin to grow more structured and disciplined, most often in preparation for future growth. Next is the scaling phase, in which the founding team has an established organization and now must develop a sustainable business model. This process usually involves adding significant resources, leveraging processes and partnerships, and acquiring greater capital, be it human, intellectual, technological, or financial capital. Here, focus for the venture shifts from maintaining the business to obtaining market leadership and distinct competitive advantage. Notably, the informalities and fluid decision-making processes of earlier stages are no longer effective, and human capital begins to play a particularly stronger role; employees become more specialized, human resource capabilities are more developed, and more formal procedures are set into place (Picken, 2017). Finally, a venture may seek an exit upon satisfactory growth, which typically occurs from an initial public offering, private sale, or merger/acquisition. Cumulatively, these life stages for a startup allows a nascent startup to transform into a disciplined business.

Arguably, the transition stage is most vital because this brief period is when an unstructured, loose startup finally sets in organized processes and secures its business model, often after some success in the market. The founders are faced with an ever rapidly growing business and must both acquire and protect additional resources for growth, particularly in terms of human capital; the transition stage is when experience and competence are at highest demands, and both early management teams and new employees are necessary to keep up with skills that are needed by the business. In fact, new ventures that fail to respond during this stage and expand their human capital capabilities often fail, with nearly half surviving for more than 5 years regardless of the established business model or idea (Picken, 2017). However, while management inexperience or mismanagement is an often-cited reason for failure, premature scaling efforts such as hiring too many people was also a common reason for failure (Picken, 2017). This is because rapid scaling and attempts to accommodate for a too rapidly growing organization can easily outrun the capacity of the business and run resources dry. Therefore, this dichotomy of failure begins to highlight the importance of human capital investments and proper balance; with too little, the business will not be able to scale properly, and with too much, the business could quickly overwhelm itself, both of which lead to the same outcome: failure of the venture.

Entrepreneurial Founder Teams

The people who usually launch startups are also worth consideration, given that founding teams largely influence how the business develops, the culture that is formed, and ultimately how employees and other stakeholders are impacted.

Personal Attributes

Beginning with personal characteristics, founders of startups usually are in their 40s, chose to launch a business usually within a field of their expertise, and have had some prior relevant work experience. In particular, founders with at least three years of prior work experience in the same business industry as their proposed idea's market are 85% more likely to launch a startup that is successful relative to their less experienced counterparts (Azoulay, 2018). The average amount of founders for a given startup is 1.72 people, suggesting that initial teams are initial solopreneurs or two or three founders. Data supports this conclusion; among startups that had raised more than $10 million dollars in funding, 45.9% had just one founder, 31.9% had two, and 15% had three (Kamps, 2016). Startups with fewer people also tend to have higher success rates and greater revenues. This is explained possibly by the fact that fewer salaries have to be paid, decisions can be made more quickly and definitively, and solopreneurs are more likely to take risk (Zetlin, 2019). Qualitatively, successful founders are usually possess high creativity, self-awareness, strong performance under stress, excellent verbal skills, and the ability to make risky decisions (Farmbrough, 2019).

Novice and Habitual Entrepreneurs

A distinction can be made more generally between novice and habitual entrepreneurs as well. As suggested by the terms, novice entrepreneurs are those who are in the process of launching a business for the first time, whereas habitual entrepreneurs have had repeat experiences, albeit successful or not. Habitual and novice entrepreneurs typically are distinctly different in their motivations, actions, and expectations for their startups. Novice entrepreneurs, for instance, are typically motivated to start their business more out of necessity relative to habitual entrepreneurs (Davidsson, Gordon, & Steffens, 2009). More specifically, novice entrepreneurs tend to see their

ventures as an end in itself, whereas habitual entrepreneurs are more growth-motivated and even starting an additional business in itself is a growth step.

For actions, habitual entrepreneurs are more so under a tighter gestation period, meaning they are seemingly under greater time pressures and complete more gestation-related activities relative to their novice peers. Habitual entrepreneurs also make decisions related to ceasing a business more decisively, primarily because they are more experiencing with information collection and opportunity definition. While information collection refers to gathering data and relevant input on the status of the given venture, opportunity definition centers on the business model and its anticipated place in the market. Naturally, novice entrepreneurs are slower moving in both activities since they are learning through the process and take information on a careful basis.

Lastly, for expectations, habitual entrepreneurs typically expect that their business will have a higher chance of survival than what novice entrepreneurs would anticipate for their ventures. However, novice entrepreneurs are also more likely to expect that achieving survival for the business is easier. This is primarily attributed to the contention that habitual entrepreneurs are biased towards overconfidence while novice entrepreneurs are biased toward optimism (Davidsson, Gordon, & Steffens, 2009). However, overconfidence also acts as a benefit to habitual entrepreneurs, since it can be necessary for making risky decisions and habitual entrepreneurs can draw on their direct knowledge from past successes or failures of business creation. While these are just some of the differences, they underline how founders themselves can be influenced by self-accumulation of human capital; in other words, business knowledge and skills relevant to the venture formation process prove consequential in how founders act accordingly for future ventures.

The Environment of Entrepreneurship

The sphere of entrepreneurship has several key parties that play a role in determining the success or failure of the business. Associated with this environment are also plentiful risks, primarily in terms of financial repercussions. Therefore, providing a quick overview of the parties involved beyond just the founder and the general risks of entrepreneurs better establishes an understanding of how entrepreneurs operate.

The Key Players

Generally, the main parties involved in entrepreneurship include the entrepreneurs themselves, mentors, investors, incubators, corporations, the government, service providers, and the consumers (Deeb, 2019). The entrepreneurs bring their business and product to market, primarily in the hopes of capturing market share to sustain profitability. Mentors support entrepreneurs, particularly those who are novices, in refining the proposed business model and strategy and consult with the entrepreneurs as necessary to make decisions. Incubators serve a similar purpose but usually operate in a more public domain, whereas mentors are usually leveraged from private and personal networks. Incubators can provide startup accelerator programs, formal education programs, trainings, and forums for entrepreneurs to interact and discuss with one another. These resources can prove helpful in testing new market ideas or brainstorming in particular.

Next is arguably one of the most important players: investors. Investors come in several forms, including individual angel investors, organized angel networks, venture capitalism firms, private equity, corporations, and personal networks like family and friends. Per intuition, investors usually demand some form of return on their investments, be it an equity share in the company,

debt, or strong returns on projects. Given this, investors can have significant influence in how a business grows and is run by the founder.

Additionally, government plays a role in the entrepreneurial ecosystem primarily through regulations. For instance, a government can shape policies on tax breaks, profits, funding laws, and other regulations that impact how a business runs financially. Therefore, startups are often keen in picking their areas of business based on regulatory considerations as well (Deeb, 2019). Service providers can also prove useful, as they typically include lawyers, accountants, recruiters, agencies, advisors, and consultants. These providers are utilized per the entrepreneur's needs and also bring in advice or knowledge, granted that the services are usually for the short-term.

Lastly, the consumers largely dictate the demand for the entrepreneur's proposed good and service, and consumer factors like market, consumer taste, sensitivities, and market trends should be considered to help gauge potential success. These broad overviews of the different players demonstrate that while they are many diverse groups, they all interact tightly and create influences on how a successful entrepreneur should shape their venture and product/service accordingly.

General Risks of Entrepreneurship

Startups are as diverse as the industries that they launch in. While the top three industries with the most startup launches are health, financial services, and consumer products/services, startups also launch in more niche industries from security to government services (Canal, 2018). Given this diversity, the risks associated with startups are multifaceted and vary accordingly with the

industry. However, more generally, entrepreneurs face many similar risks that are more so associated with the process of building and launching a business than the industry-specific risks. Listed below are a few common areas of risk that entrepreneurs face.

The primary risks are associated with failing to find a market need or addressable consumer type. Nine of the top 20 reasons for startup failures are directly attributed to customers, be it either failing to find a consumer base or not meeting customers' needs (Yohn, 2019). This is a risk because entrepreneurs can have superior technology, data, and brand name, but if there is no underlying business model that solves a particular pain point in the market in a scalable way, then the business is bound for failure. Therefore, entrepreneurs will often take market risks by trying to pre-emptively gauge a market and profitability despite their uncertainties about said market and the consumer demands. Another failure type associated with this is product design flaws, in which a venture could have developed functional products but did not use the product to solve customers' needs accordingly. This is particularly dangerous since entrepreneurs might not always be able to readily anticipate how customers will use their products (Yohn, 2019). However, common mitigations include garnering feedback early in the prototyping process, acting on consumer input, and taking precautions in initial launches in the market.

Another area of risk is associated with failing to bring the right people on board and institute an appropriate culture for the venture. In fact, another seven of the top 20 reasons for startup failure were attributed to the lack of proper human capital and alignment of the founding team with employees or the founding team with investors. This not only underlines again the importance of careful human capital investments but also that poor management, leadership, or structure can prove detrimental even to a budding business (Yohn, 2019). Entrepreneurs take risk in choosing

who to trust, hire, and work with, and they take risks in building partnerships or more institutionalized structure within the company. However, these risks may be necessary to mitigate the risk of failing to build a successful team.

Finally, the last main area of risk is financials. Every investment, whether in a new project, additional capital, or a partnership runs the risk of a greater cost incurred than return on investment. In an environment of financial pressures, where investors and other interested parties seek returns on their investments while at the same time reducing their own risks, founding teams are pressured to turn projects into success. However, with the scaling of a business comes risks in how quickly costs are incurred, what kinds of costs are incurred, and potential sunk costs (Yohn, 2019). Therefore, entrepreneurs must prioritize a focus on maintaining sound investment strategies and adopting achievable scalability and growth.

Holistically, a majority of startups will fall victim to these areas of risk. Although the entrepreneurial ecosystem is complex and risky, some risks are essential for success despite initial uncertainties. With these risks in consideration, discussion can now turn towards further highlighting exactly what human capital is, why it is important for entrepreneurship, and why it is arguably essential for mitigation of risks and greater chances of venture success.

OVERVIEW OF HUMAN CAPITAL

In broad terms, human capital generally entails the skills possessed by the labor force that are considered as assets. These assets typically include level of education, intelligence, health, and immeasurable qualities like work ethic, dedication, and loyalty. Traditional human capital theory holds that while not all labor is equal, investments including higher education, health, and

trainings can be used to enhance the value of human capital, primarily in terms of productivity and subsequently profitability (Goldin, 2014). This also suggests that the primary importance of human capital stems from its economic value and potential for growth and development provided to companies and countries alike. Evaluating human capital on the basis of productivity, therefore, is particularly helpful given that productivity serves as the basis for economic metrics like gross domestic product and total factor productivity.

Impacts of Human Capital

While human capital is typically analyzed for its economic and growth potential, the impacts of human capital overall can be categorized under three considerations: individual, organizational, and societal impacts (Kwon, 2009). Beginning with the individual, a person within the labor market that is either employed or actively seeking work is most impacted by the possibilities of increased individual income and upward mobility. On the basis of profitability, firms tend to identify high-productivity individuals, since high productivity is often associated with benefitting organizational profitability in the long-run. These same individuals also tend to have a higher possibility of promotion in the internal market. For individuals in the external market, or those who are typically structurally or frictionally unemployed, a person's quality of human capital primarily impacts their job-seeking and employment opportunities. For instance, people can be impacted by the ability to access job-related information like employment opportunities and part-time/seasonal jobs, which can largely be shaped by the dynamics of human capital. Lastly, as suggested previously, people are able to invest in their own human capital, oftentimes encouraged by social and economic factors like success in attaining employment (Schultz, 1993).

On an organizational level, human capital has wide-sweeping implications and impacts on a business from a cultural, economic, and operational standpoint. While the full effects of human capital on a business are difficult to observe, there are generalities that can be extracted from the influence of human capital (Schultz, 1993). In broad terms, human capital is often associated with the core competencies and competitive advantage of a business. With time, workers tend to become more skilled in their work field and their knowledge of the position, business itself, and relevant markets grows. While the value of this growth in skill and knowledge is often measured by productivity, such as output, human capital advancements also has immeasurable benefits to a company, including strategy development, organizational management and design, potential for innovation, and future potential economic value added (Lawler, 2009). Human capital lends toward competitive advantage primarily because in-house expertise of employees can benefit the innovative process, such as anything from developing a new product to redesigning an existing process. High quality human capital also enhances the productivity of labor and physical capital, since it often "takes human capital to make human capital" and those who operate machinery, processes, or operations usually grow more specialized as their careers progress (Schultz, 1993).

Finally, the impacts of human capital on society stem from a combination of both the individual and organizational levels of impact. From a basic economic viewpoint, countries primarily operate economically on the basis of the gross domestic product (GDP), which is typically calculated as the value of all goods and services produced by the citizens of a given country. Therefore, higher-value human capital is linked to production of either greater quantity or greater valued goods and services, which directly contributes towards a country's GDP and its economic success. Beyond economics, quality of human capital possesses the possibility of shaping sociopolitical factors as well, such as "democracy, human rights, and political stability on

common consciousness of citizens" (Kwon, 2009). This is most often attributed to the idea that as people specialize skills and integrate into a given business or the labor market, they become more informed of societal influences like government policy and regulations since the labor market is driven by social and economic influences.

The Labor Market

In considering the impacts of human capital, the labor market is the primary source in which the value of human capital manifests, as the labor market is a major component of any given economy and shapes how human capital, alongside goods and services, are impacted by demand and supply. In general, the employees provide the supply primarily in terms of their quality of human capital, with particular emphasis on relevant skills for employment. Employers provide the demand, since they choose who to hire. In a macrolevel view, these demand and supply curves tend to be measured by both international and domestic dynamics, including immigration, demographic characteristics like age distribution and income level, and global events. However, the microlevel is primarily concerned with human capital considerations, such as how firms decide who to hire, what wages, benefits, and salaries are set to properly reward relevant human capital levels, and how firms interact with employers. Both the microlevel and macrolevel considerations therefore contributed toward how economies perform, primarily in terms of future economic growth and existing economic value.

Increasingly, the labor market has shaped human capital primarily by dictating what skills are heavy in demand. As such, people tend to react accordingly to support their own quality of human capital for increasing opportunities of employment. For example, the labor market has increasingly been rewarding social skills; between 1980 and 2012, the amount of jobs with a

high level of social interaction required and demand for interpersonal skills rose by 12% (Deming, 2017). This example illustrates how the labor market influences human capital both through the jobs that are offered and the corresponding compensation and rewards that are granted and associated with particular skills or jobs. Therefore, employees and employers alike assess labor markets intently with a primary focus on quality of human capital, as human capital can have significant implications on a firm's successes in hiring, retention, and ultimately profitability for the company and shareholders.

Labor markets also typically follow the marginal productivity theory. Under this theory, the compensation that employees receive from their work, be it salaries or benefits, reflects the value of their output both in terms of quantity and quality of work. This is because firms are profitable from selling the goods and services produced by employees, and high productivity encourages the production of high-quality offerings (Hudson, 2013). Therefore, this also supports the notion that labor markets reward high productivity, and productivity itself is shaped by workers' natural ability, work effort, and the investments employers make into human capital, all of which can be assessed through the demand and supply of labor markets.

HUMAN CAPITAL IN ENTREPRENEURSHIP

Beyond the general scope of impacts and benefits from human capital and within labor markets, entrepreneurs in particular can significantly change their business by leveraging human capital. Given the unique environment of entrepreneurship and the risks faced especially by new and emerging businesses, founders may be inclined to tap into labor markets for new talent, be it for mitigating risk or seeking innovation. This desire is reflected by the growth rate of newly founded companies, in which most ventures tend to start small and expand rapidly in the short-

term often through acquiring new employees, working capital, or assets (Moog, 2002). Although entrepreneurs should be careful in assessing their hiring needs, the labor market itself, and potential employees, successful human capital investments can prove to be efficient and profitable for a new, growing, or established venture alike.

Also notable is that entrepreneurs lend a significant hand in employment. Small businesses, particularly those that had only existed for a year or less, were a principal driver of job creation in the United States, with nearly all net jobs coming from young or high-impact businesses (Fairlie & Miranda, 2016). Self-employed business owners themselves contribute strongly to job creation, with nearly 10% of total employment in the United States coming from self-starting founders. Given that small businesses, particularly new ones, serve as a primary source for hiring employees, entrepreneurs and new ventures are not only impacted by human capital; they also play a particularly powerful and unique role in both just shaping how human capital transforms and how the economy operates.

Potential Benefits of Human Capital Investments

Generally, there are two primary types of entrepreneurial activities/operations: innovative and managerial (Ehrlich, Li, & Liu, 2017). Managerial activities focus on effective utilization of existing capabilities and resources for current production and profitability. These activities also generally encompass the search for new resources, particularly funding. Innovative activities serve as a means of connecting the "market for goods" to the "market for ideas." This encompasses the entire chain of activities involved in taking a new idea into market as innovation, which includes discovering, refining, and implementing new breakthroughs into new products or processes that can be translated into greater economic and financial gain.

Accumulating human capital at a sustainable rate relevant to the stage of the venture can enhance the effectiveness of both types of activities, which in turn benefits a venture both in the short- and long-term. Beyond activities, human capital investments can introduce new dynamics of teamwork and leadership, which allows founders in particular to become more effective in managing not just the business but also the people and teams they work with. This, in turn, allows human capital to have a hand in shaping the culture of a company for the long-term.

Managerial Activities

One of the most central managerial activities that human capital can impact is in initial operations of a business and early growth efforts. Generally, start-ups most often hire their first employee within one year after the establishment of the business (Fairlie & Miranda, 2016). While hiring can help fill an immediate need of a particular skill, long-term employment can also operate on a snowball effect, in which firms that absorb employees progressively can become more apt in future growth for both revenues and future hiring needs (Gimeno, Folta, Cooper, & Woo, 1997). This may also be attributed to the tendency that in the long-run, well-performing companies generally perform better upon the dissipation of poor-performing companies that either drop out of the market or are absorbed through a merger or acquisition. Therefore, since entrepreneurial ventures generally adopt a quick growth rate after initial expansion, successful human capital acquisitions can arguably provide safeguards for long-term viability as well.

Human capital investments can also support the exploitation of opportunities through the acquisitions of financial resources and launch of ventures (Gaskell, 2019). Qualitatively, increasing the amount of people hired broadens the network a company has at its disposal to not only raise funds for existing projects but also secure future potential revenue and funding

streams. In particular, human capital helps a venture increase diversity in its network on three dimensions: the internal workforce, open cultures, and the external networks associated with the company. The internal workforce benefits from having high talent, as productivity increases and is generally associated with higher compensation. Diverse human capital also encourages an open culture, in which employees can interact across organizational silos which can support innovation and creative thinking. For external networks, employees can bring in their own connections to benefit the business through new potential customers and sources of knowledge.

More quantitatively, human capital serves as the most frequently used criteria for evaluating venture performance and the riskiness associated with investing in the given firm. Venture capitalists also scrutinize human capital on the basis of their experience with the company, ability to generate future projects, and grow through using the resources at the company's disposal (Davis, Marvel, & Sproul, 2016). While venture capitalism funding is oftentimes hailed as an ultimate source of security, human capital indirectly impacts even a firm's ability to appeal to not just venture capitalists but also other sources of investment.

Lastly, the applications of human capital to everyday operations can prove essential for maintain existing levels of operation, the most common managerial activity. The concern with this managerial activity primarily focuses on the leadership of the given venture and ability to mobilize resources as necessary to adjust for income opportunities or projects. This implies that not only is securing human capital vital but also that retaining human capital is just as important. The progressive accumulation of entrepreneurial human capital operates not only on a dimension of how many people are working for the given venture but also how much more that human capital can be advanced and what types of investments can be made (Ehrlich, Li, & Liu, 2017).

Therefore, if a firm consistently invests in its human capital or reorients as necessary, the firm not only continues to benefit from its employees but also can benefit from organizational impacts, such as greater employee loyalties, workplace satisfaction, and consequently profitability potential (Ehrlich, Li, & Liu, 2017).

Innovative Activities

Innovative activities are particularly important for a firm's long-run rate of economic growth. While managerial activities are centered on sustaining the business and achieving a modest growth rate, innovative activities service a more competitive purpose, oftentimes with a goal of outpacing other competitors, achieving long-term sustainable growth rates, and protecting the value of existing business practices. Therefore, since innovative activities serve as a middle ground between innovations and marketable applications, human capital plays a particularly strong role in driving growth through innovation. Thus, the concept of innovative entrepreneurial human capital typically focuses on the specific type of commercial knowledge that provides the capacity to transform basic knowledge into marketable products through the involvement of human capital that a firm has at its disposal (Ehrlich, Li, & Liu, 2017).

Human capital contributes toward innovative activities primarily through product-process innovation or management innovation (Santos-Rodrigues, Dorrego, & Jardon, 2010). For the former, human capital contributes intellectual capital, which is primarily measured by knowledge or capability. Such intellectual capital is important for both the discovery and implementation of new product or process changes; these oftentimes include making input intake and productivity more efficient, lowering flow rate or bottlenecks in operation management, or complementing, supplementing, or augmenting an existing product, all of which support competitive advantage.

For the latter, management innovation primarily focuses on organization management, such as leadership and hierarchy structures, internal company culture, and human resource procedures. Human capital supports this through more qualitative variables, such as employees' resonance with their company values, commitment to the organization, and communication transparencies within (Santos-Rodrigues, Dorrego, & Jardon, 2010). Therefore, human capital generally supports an organization's ability to both manage its people well and put both resources and skills to use for gaining competitive advantages.

Development of Transformational Leadership

Expansions of human capital and even reinvestments introduce new avenues for a startup company to refine leadership skills, particularly for founders. If integrated and adapted correctly, the leadership of a founder and the executive team can further benefit the business in the long-term. In making leadership more understandable and tangible, the concept of transformational leadership commands particular attention especially among startups and new businesses because of its ability to synergize with and support firm innovation, organizational learning, and the creativity skills of employees (Birasnav, Rangnekar, & Dalpati, 2011). As an overview, transformational leadership theory holds that leadership exists and succeeds when a leader works with their teams and employees to identify changes, create a corresponding vision to guide the team to make the change, and then execute the change together, all in tandem with each other. Transformational leadership itself is defined by idealized influence, inspirational motivation, intellectual stimulation, and individual consideration. This means that such a leadership style is manifested by a founder who can command systematic change in the organization as needed, inspire workers to stay motivated, challenge workers by integrating them in decision-making, and recognizing and promoting employees on the basis of strong performance. This two-way

dynamic therefore establishes that transformational leadership, being developed by human capital expansions, and also in turn support human capital through effective management (Birasnav, Rangnekar, & Dalpati, 2011).

Company Culture

Lastly, hiring people begins to build a sphere of culture beyond just the founder's control; this is inherent because culture determines how engaged employees are and for how long they can be retained by the company. Investments in human capital therefore can also enhance human resources capabilities, since managing people often becomes a bigger priority within the company. Human capital investments also enable employees to draw greater ability in taking on their roles and recognizing it in the broader picture of the company's overall goals. For instance, the type of work that employees are engaged in should have a direct tie to the business's outputs and customers, as making a clear connection helps workers readily identify the outputs and results from work. Other human capital investments, such as training programs and re-trainings, can be made for existing workers to also bolster company culture through a demonstration of support for employees in achieving their work tasks (Birasnav, Rangnekar, & Dalpati, 2011). Founders should therefore be actively conscious of their growing culture and develop corresponding company values and environment, as doing so can enhance the benefits from human capital investments.

Potential Risks of Human Capital Investments

Despite the potential to grow a business through human capital investments, such investments also inherently carry risks. In particular, founders find that navigating uncertainty in the labor market especially for the first time can prove difficult. Other areas of concern include finding the

talent with the appropriate skills, the ability to retain hired employees, and the ability to quickly mobilize resources to make human capital investments profitable in the long-run. Therefore, entrepreneurs must be aware of the potential negative ramifications in human capital investments.

Depreciation or Obsolescence of Skills and Abilities

Skill obsolescence generally refers to the process of depreciation of skills, in which a worker's given skill set gradually becomes less value-productive with time. While there are different types of skill obsolescence, the typical risk factors include job-skills obsolescence, in which employers begin to demand different skills and the labor market responds accordingly, emergence of new technologies, and the transitions between different industries or firms (van Loo, Grip, & Steur, 2001). For technologies in particular, this risk is becoming more apparent with the advent of online software, hardware systems, and communication systems that frequently require updates. Oftentimes, skill obsolescence can be attributed toward a stagnant work position, in which the given tasks are repetitive and require little adaptation or updating. Our causation factors include lack of resources and trainings to learn new skills, poor management and leadership, and misguided strategic vision from the firm.

Employee Turnover

Entrepreneurs in particular run risks of high employee turnover, in which people who are hired leave the company shortly after being hired. Causes frequently include dissatisfaction with work, the work environment, or the founder's leadership style. Other common causes include interpersonal issues, lack of proper recognition or compensation for work, high workloads, and lack of workplace flexibility policies. Regardless of the cause for employee turnover, employee

turnover itself can prove costly and detrimental to a new company mostly because of the incurred direct costs (Hall, 2019). In 2017, for instance, turnover cost small employers nearly 33% of the employee's annual salary, primarily because of the cost of hiring a replacement for said worker (Hall, 2019). These expenses are attributed to direct costs like hiring costs, interview expenses, onboarding and initial trainings, and compensation or benefit packages.

Beyond direct costs, high employee turnover carries hidden indirect costs. On average, it can take eight to twelve weeks to replace a knowledge worker and then another month to bring them to full productivity. This lost time represents an opportunity cost to the firm, in which had the position been filled for the same amount of time, the firm would have produced greater value (Hall, 2019). Other effects are primarily concerned with employee morale; frequent leaves and hiring periods can damage employee morale, which in turn has implications on their overall productivity and the company culture. Given that entrepreneurial cultures are most frequently determined by and initially set by the founders themselves, the dynamic between workers and the founder is especially important as employees begin to play a growing role in shaping the culture of the venture.

Non-Conforming Alignment with Company Culture

More than half of new business leaders and founders urge that company culture and engagement must be prioritized, as they serve as the top talent challenges faced by new businesses in particular (Bersin, 2015). This urgency is significantly higher relative to just 20% of new business leaders last year who were concerned with company culture. The main reason is that as the economy grows significantly, with unemployment reaching low numbers of near 2%, employees are gaining in their bargaining power within the labor market. This implies that

employees have more ability in their demands for company cultural values, resources, or expectations that they seek from an employer. While high employee bargaining power may present an issue initially to new ventures, the main concerns stem from post-employment, as there are risks that even with demands met, employees may not be fully aligned to their work or the culture of the company. Gallup presents that only 31% of employees are engaged at work, while 51% are disengaged and 17.5% are actively disengaged (Bersin, 2015). Engagement is measured on the basis on hours spent at work relative to output from the relevant position.

Meanwhile, companies that do actively focus on culture are becoming pinnacles of employment for employment-seekers; in startup stage, for instance, companies like Facebook and Yelp fostered collaborative, open work spaces and consistently provided outlets for employees to express creativity, such as employee poster boards, forums, and events. While new ventures may not always have these resources at their disposal, the emphasis that should be drawn is on the importance of aligning employees with the culture. If founders fail to set a clear cultural direction, employees run the risk of becoming quickly disengaged, be it actively or passively, and decreases productivity. This, in turn, incurs the associated direct and indirect costs with maintaining an unproductive employee and in worse circumstances, replacement and retraining.

Trade-Offs Between Wealth and Control

Initial investments in human capital, primarily through hiring new employees, presents the unique challenge to the founder: what is the proper balance between wealth and control? Hiring new employees and expanding the team puts these two concepts at tension; while founders need to attract outside resources to continue sustainable growth and build wealth, they are also tempted to keep as much control as possible (Wasserman, 2012). The problem arises in finding a

balance between the two, which inherently depends mostly on the founder's motivations. Founders who prioritize wealth tend to produce greater financial gains but have lesser control, while those who attempt to maintain as much control as possible are more likely to achieve greater control and lesser financial gains. Choosing one or the other is primarily influenced by motivations like work and personal vision, alongside intellectual challenge, altruism, and prestige. However, the main risks for the business and founder alike is that too much sacrifice of wither or can tank the success of the business, both from a cultural and financial standpoint (Wasserman, 2012).

Other Risks

Other risks of human capital are wide-reaching and often unpredictable, mostly because the inherent risks are dependent on the type of skill being demanded, the company that is looking to hire, the company's capabilities and flexibilities in allocating resources, and so forth. Generally, other risks focus on scalability, such as what pace and who new ventures should decide to hire after initial hiring efforts. Other concerns stem from timing of hiring, which considers the state of the economy and labor market as well, and the type of labor that should be hired. For instance, entrepreneurs also have at their disposal work-for-hires, contract work, part-time work, and full-time labor, among other types. Choosing which one is most appropriate carries associated risks, primarily in the form of costs. Holistically, in considering these risks, entrepreneurs must consider them carefully and develop a clear timeline before progression. Specific recommendations as well as mitigations for human capital investment risks as mentioned previously are outlined and detailed in later sections.

INITIAL HUMAN CAPITAL EXPANSIONS

With an overall understanding of initial founder teams, the environment of entrepreneurship, and the general importance of human capital, focus now turn towards existing practices entrepreneurs undertake in considering human capital investments. As detailed previously, founding teams are inevitably confronted with the need for additional human capital; high scalability and long-term growth require relevant skills and people for sustaining and ultimately growing the business. Without the proper team and ability to meet the demand for specialization, startups can quickly fail in the transition stage. Given the outlined potential risks associated with human capital investments, however, the initial desire to expand human capital is also particularly riddled with uncertainties. Choosing the opportune time to hire and reducing risks in the people who are hired can have long-term financial and growth implications. Therefore, it is important to first examine why and how successful entrepreneurs make their initial human capital investments. This includes their motives for hiring and the practices or tendencies they rely on to enter the labor force market. These trends can therefore help identify some practices that have led to reducing risks in the initial entry into human capital expansions and achieving growth within the business.

Motives for Hiring Additional Employees

In beginning the search for additional talent and growth, both novice and habitual entrepreneurs focus on three primary end goals from their initial hiring efforts. First, human capital proves vital for the creation and discovery of new entrepreneurial opportunities, so entrepreneurs will oftentimes seek individuals who are already well-experienced and well-connected (Alvarez & Barney, 2007). Second, human capital investments can aid in the acquisition of financial resources, connections to investors, and the launch of new ventures. Third, human capital generates additional knowledge, skills, and branding for the venture, all of which benefit the

creation of advantages for both new and late-stage ventures. These three motives guide entrepreneurs' initial human capital expansion efforts and largely define future recruitment efforts as well.

New Entrepreneurial Opportunities

The search for additional human capital investments stems from the entrepreneur's desire to create and act on new entrepreneurial opportunities. In defining entrepreneurial opportunity, human capital theory broadly defines it as the ability to act on competitive imperfections in the context of existing industries and markets. More specifically, the concept refers to the ability to achieve an economic goal that is currently being unaddressed or unfulfilled by the market and competitors. This is primarily observed in the form of disruptive innovation, in which entrepreneurs are able to seek new opportunity to act on a market or consumer problem that has yet to be addressed by any existent company or venture. In consideration of this definition, therefore, entrepreneurs act on two elements: the first is changes in technology, regulation, and society, all of which disrupt the status quo. These three influences generate an environment in which entrepreneurs become enabled to both create opportunity and utilize the novelty to draw in additional human capital. The second element is conversely the knowledge, actions, and learning of ways that the venture can utilize in the creation of new products and services. More specifically, human capital investments lend toward this goal because additional hires frequently bring in market knowledge as well (DeTienne & Chandler, 2007). Given that people seeking employment oftentimes will search for opportunities in similar markets to their previous work experiences, entrepreneurs are able to act on this alignment of employees to market to better understand relevant consumer problems and general industry developments. This oftentimes in

turn leads to more diverse team creation, which benefits the venture's development process and new product creations.

Financial Investments and Resources

In additional to the ability to create new opportunities, human capital investments can significantly supplant the search for financial investments and resources. In initial stages of the venture, entrepreneurs largely rely first on most immediate connections, primarily including family and friends. The next demographic of focus for funding becomes angel investors, who simply benefit the venture without any significant effect on the venture's equity holdings. Given that angel investors will more often contribute more short-term funds, these financial resources serve to help a new venture establish itself but lend little toward long-term growth. However, venture capitalism and related sources of funding become the subsequent most popular form of funding after angel investors and personal family and friends connections are exhausted, and entrepreneurs tend to rely more heavily beyond personal networks to secure said sources of funding. This is significant because venture capitalism largely supports the basic phase in entrepreneurial stage that is venture emergence (Dimov, 2010). Contrary to common belief, venture capital plays very little role in the funding of basic innovation development, with as little as 6% of all funds contributed by venture capitalists going to startups from as early as 1998 (Harvard Business Review, 1998). However, venture capitalism money greatly catalyzes and sustains the subsequent stage of venture emergence. Within this stage, ventures go through multiple steps, broadly involving the accumulation of venture emergence accomplishments, process of becoming a legal entity, development of prototyping, and prototype testing with initial consumers. Nearly 80% of venture capitalism money supports the building of infrastructure required to help further grow the business. This aligns directly with the entrepreneur's goal of

long-term growth through human capital investments; given that human capital investments become the second largest source of funds consumed in a venture, an investment in further human capital indicates both the desire and ability to grow the venture.

In turn, acquisition of talent supports two goals: the first is an indicator to venture capitalists and investors of the venture's maturity, financial flexibility, and future potential for growth, as expansion of a business inherently largely relies on the employees and talent. In realistic application, human capital is assessed by venture capitalists on the basis of number of employees hired, retention rate, average tenure within the business, and return on investment of human capital investments. Human capital also is the most frequently used selection criteria when assessing potential venture performance, indicating that even after investments are made, venture capitalists will rely on human capital as a measure for future potential investments that could be made (Zacharakis & Meyer, 2000). Second, employees lend toward connections. Given that the entrepreneurship sphere is heavily dependent on construction of interpersonal networks, entrepreneurs largely seek to discover individuals who can in turn connect the venture to new sources of funding. This largely supports connections to earlier sources of funding too, as employees can also connect to their personal network and angel investors for additional financial support of the venture.

Accumulation of Knowledge and Skills

Lastly, human capital brings additional knowledge, skills, and branding for the venture, which allows for the creation of new advantages. Human capital theory, in its development and early applications to entrepreneurship, distinctly highlights that people have varying extents of knowledge and skills that can be translated into tangible economic value. As the theory was

refined, it suggested that human capital can arguably be of a higher utility when it applies to a specific task that an entrepreneur requires to be completed. In practical terms, this means that new hires best utilize their prior experience and education when their old and new experiences align in common factors or response items, like similar work tasks. This aligns with how early-stage entrepreneurs will typically orient their recruitment search efforts; in a survey of 344 ventures, entrepreneurs rated personal investments in experience and education among new hires as the most important factor in hiring considerations. Examples of metrics used in assessing education oftentimes included years of education or type of degree obtained. The second most coveted characteristic was prior startup experience or prior business ownership. These preferences therefore point towards entrepreneurs' desires to align new hires with the venture on the basis of skills they have to offer and probable fit for the position.

Further demonstrating the entrepreneur's desire to acquire talent with relevant knowledge and skills is existing hiring patterns. Human capital's particular utility with regards to the task at hand suggests that high task relatedness allows for entrepreneurs to both best utilize talent and generate incentive for future investment in hired talent (Marvel, Davis, & Spoul, 2014). Consequently, employment efforts will frequently center on particular positions that need to be filled in the short-term. Marvel, Davis, and Spoul note that, in their typology of human capital, this hiring pattern is apparent among individuals who tend to have research and development or marketing experience.

Since new ventures of high growth potential tend to center their focus on issues of new product development, product management, and product marketing, all three lend toward a desired short-term focus on individuals who can provide tangible experience. Similarly, managerial skills are

also highly coveted, as project management and operations management are fields within ventures that can benefit well from individuals having the relevant skills. In terms of knowledge, knowledge is defined as a clear understanding of principles, facts, processes, and how such concepts interact with one another. Knowledge itself lends toward greater usefulness when is related to a particular domain or set of entrepreneurial activities. Therefore, entrepreneurs will tend to hire individuals with high knowledge of customer problems, knowledge, and ways of supporting markets. As discussed earlier, this also supports the goal of discovery of opportunities and subsequent value.

Current Hiring Practices Among Successful Ventures

Beyond motivations, there are also distinct trends in how successful entrepreneurs, defined as those who were able to take their business beyond the transition stage, chose to invest in human capital. These trends include timing of the investments in human capital, searching place for labor, and type of labor hired for the business. There are also typical characteristics of successful hires that have been brought into ventures, which provides further insight on the type of people that have helped bring ventures to fruition. By analyzing these overall practices and characteristics, general conclusions can be deduced from what initial human capital investment practices could help a venture achieve long-term growth and survivability.

Timing of Investments in Human Capital

From existing practices, entrepreneurs typically hire within one to two years from launching their business. According to the KFS Labor Module, a database collecting information on nonemployer startups, 38% of businesses hired their first employee while 7.8% went out of business. In the second year, 26% hired their first employee while an additional 9.5% went out of

business. The probability of hiring decreased to below 1% consistently for each following year (Fairlie & Miranda, 2016). This data is supported by data collected from the US Bureau of the Census and iLBD, which are sources that provide restricted-access information on nonemployer and employer businesses in the United States' private sector. From this data, nearly 16.2% of the studied ventures hired their employees within the first year of business and 2.3% hired in the second year, with hiring rates decreasing below 1% for each following year. 70% of firms exited their respective industry and closed their business before they could hire anyone. Granted 90% of startups eventually fail, the data also suggests that startups that fail tend to lack any initial human capital investments relative to those that succeed. While this is not a definitive causation, the data does demonstrate that human capital needs are pressing since entrepreneurs hire quickly and that human capital proves to be a critical step towards growth in the transition stage.

Given that entrepreneurs typically hire within one or two years, the question becomes why entrepreneurs seem to be hard-pressed to hire in the short-term. Beyond the possible motivations described previously, a possible explanation for why entrepreneurs are quickly faced with the decision to hire is the trade-off of an entrepreneur's time and money. Revenue generation is typically sourced primarily from the entrepreneur's time and money (Corbett, Roels, & Yoo, 2016). Without hiring anyone, an entrepreneur's time becomes more valuable than sources of funds in achieving sustainable growth for the venture. This is because as a firm expands, an entrepreneur is faced with an increasing number of tasks, with some activities difficult to designate to others in the business. The entrepreneur, therefore, quickly becomes the bottleneck and hiring quickly becomes viewed as a means of buying time. Time in particular is valuable, since it is not fungible; unlike money, time cannot be stored, saved, or created. Additionally, as a firm grows, the bottleneck effectively shifts from money to time of the founding team. Given

that, hiring an additional employee is strongly dependent on how much relief and time an additional employee can provide to the entrepreneur. Turning to human capital investments provides a means of a more effective trade-off, in which less productive money is turned into more valuable time. Employees themselves, if properly trained and skilled, can fill prior roles occupied by the founding team, so cumulatively, these effects increase the capacity for accelerating future growth.

Initiating human capital investments quickly also aligns with the general lifecycle of a startup. The first stage, as outlined previously, is the startup phase, in which the founding team first seeks its initial investors, refines its business model, and begins experimenting with their anticipated market (Picken, 2017). However, this phase transpires very quickly, typically lasting only a couple months since ventures are usually faced with scalability issues early. The transition phase then sets in, and it is in this stage that human capital investments become relevant and vital. With higher growth goals and more investor pressure, the transition phase can become demanding for the investor team. Entrepreneurs therefore often turn to human capital for the necessary skills, time, and specialization to ultimately help the business achieve high growth standards.

Although successful firms typically hire their first employee and begin human capital investments in one or two years, the question becomes whether hiring early is a beneficial move for venture success. After all, hiring too early can also inhibit growth; several firms try to scale too quickly and run out of cash. As outlined previously, hiring an employee is also a long-term cost and can be costly if the employee does not provide the necessary marginal benefits to the company. Additionally, an increase in either hiring cost or time has been shown to lower the revenue in the given hiring period and can consequently slow future growth (Corbett, Roels, &

Yoo, 2016). Given these risks, should firms still hire their first employee within two years despite the risks and the fact that, among ventures that stay in business, most ventures choose to do so? In contextualizing the reasons for success among successful startups, the answer holds as yes. More specifically, firms that adopted a one-stage-look-ahead (OSLA) policy tended to fair better than their counterparts not only in hiring people but also in sustaining their venture. The OSLA policy holds that, on a cash-basis, there is a cash and resources threshold that entrepreneurs can use to gauge the feasibility of hiring. This resources threshold is determined by just the next stage in the lifecycle for the firm; if hiring is not projected to prove detrimental to the revenue streams and growth projected for just the next stage, then hiring can be pursued safely (Corbett, Roels, & Yoo, 2016). Typically, the OSLA policy holds particularly strong for the transition stage, supporting the notion that a one to two year period for initial hiring efforts is appropriate for scaling a business safely and effectively.

Cumulatively, existing practices among successful entrepreneurs indicates that acting on human capital investments in the short-term, particularly within a year or two, can prove to be a vital step towards sustaining future growth. This is supported by the notion that time and money of the founding team become trade-offs, with time growing increasingly valuable as the firm matures. A one-to-two year basis is not a strict and lone standard, however; using the OSLA policy, firms can gauge if they have the resources and structure in place to hire. Other variables that were not analyzed but could act as influences include state of the labor market, demand for particular skills, and state of the economy. Entrepreneurs should use the one-to-two year basis as a general guideline but account for firm and economic factors in acting on hiring possibilities.

Searching Place for Labor

An important question to be posed is where successful hires are usually hired from. While previously the answer seemed tailored toward the labor market in general, the labor market in itself is very broad in terms of where the labor is sourced from. Searching for labor, therefore, does incur costs to an entrepreneur, so seeking labor efficiently becomes arguably as important as bring the labor into the firm. In practice, entrepreneurs generally turn toward networking to find their first few employees. Networking generally involves the players of the entrepreneurial ecosystem, as outlined previously. For instance, entrepreneurs often turn to referrals from friends and family, industry colleagues and advisors, incubator communities, and service organizations like accountants, attorneys, consultants, and organization members. Start-ups will tend to find not just their first employee through networking but also the subsequent 15-20 employees, should they manage to reach that scale (Wall Street Journal, 2020).

This tendency does not necessarily support the idea that leveraging networking is the best strategy to find employees, as nearly all entrepreneurs rely on their network, but it does further underline an important function of human capital: networking potential. As established previously, entrepreneurs frequently make their first hire with the motivation of bringing in a larger network of resources, and initial hires tend to be able to contribute said network. This supports the notion that human capital investments can lend upon themselves, or the concept that it takes human capital to make human capital.

Term of Labor

The two predominant types of labor that startups select from are permanent full-time employees and independent contractors. Startups tend to initially focus on one or the other, but the long-

term becomes more mixed. Therefore, an analysis in the benefits and drawbacks of both helps distinguish how each type of labor can prove beneficial depending on the stage of the business and the immediate business need.

Beginning with permanent full-time employees, full-time workers are those who work on a contract of hire. The contract outlines all expectations and job responsibilities as well as compensation and benefits to be provided to the employee. The primary benefit of full-time employees is that entrepreneurs get to retain control over the function that the employee performs and consequently can reduce risk of out-of-norm behaviors. The contract grants control over particular job functions, trainings, and restrictions the employee undertakes so long as there is an employee willing to fill the position. Furthermore, startups often experiment with offering forms of equity to full-time employees like shares in the company, which can build valuable soft qualities of employees like trust and loyalty to the particular business. However, the main drawbacks of full-time employment stem from mandated state and local regulations that ensure employees' rights as well. This means that there are regulations regarding compensation, overtime, employee rights, and so forth, all of which must be abided by. Full-time employees can also prove costlier; beyond greater hiring and search costs, full-time employee expenses also include payroll taxes, FICA taxes, unemployment and worker's compensation insurance, and matching programs such as that for 401ks (Wolters Kluwer, 2020).

The other popular form of labor that startups turn to is independent contractors, a form that is becoming increasingly popular in supply in the labor market. In particular, 40% of the United States' labor force is expected to become independent contractors by the end of 2020 (Neuner, 2013). As implied by the term, independent contracts still operate under a given contract or

verbal agreement but are employed on the basis of just work as required. This means independent contracts, unlike full-time employees, are typically only utilized for certain projects or tasks as opposed to being generally free for any given work function. The trend toward independent contractors goes beyond entrepreneurs' control and more so results from worker tastes; people seek more flexibility in their work role, hours worked, and destination of work, all of which are more so enabled in flexibility by the advent of technology (Neuner, 2013). In assessing the benefits and drawbacks of independent contractors, they mostly act in opposite to full-time workers. The primary benefits include that there are very few responsibilities for tax and reporting purposes for contractors, and since contract work is on a per-work-as-needed basis, there is more flexibility in cutting it short as needed or preventing the incurrence of many long-term costs. However, the main drawbacks stem from control; beyond deadlines and tasks, entrepreneurs cannot dictate how the tasks should be done, cannot stop the independent contractors from working for other firms at the same time, and cannot set fixed work hours. Thus, independent contractors can prove beneficial to a startup for a more short-term need.

The question that arises from this analysis is which form of labor becomes most beneficial for the entrepreneur to employ. Among typical practices at startups, the answer is primarily that a mix of both is most useful, with each type of labor used at distinct points in the life of the startup. For instance, entrepreneurs that follow the lean model tend to start with utilizing independent contractors, most typically contract-to-hire. This enables a short-term freeing up of time in a critical growth period but also prevents too heavy an investment. Once a startup has reached the end of the transition phase and more so becomes focused on scaling, then they typically switch toward more full-time employees. This aligns with the startup lifecycle because the transition and scaling phases are when more functional and structural policies are set in place (Picken,

2017). This facilitates the onboarding and retention of more long-term, permanent labor since compensation plans are made clearer, employees can become more specialized in their roles, and founders can better manage their human resource capabilities. It must be acknowledged that there are more specific types of labors startups can use, such as student employees, volunteers, and even friends and family, but relative to full-time employees and contractors, these types are used much more infrequently and carrier lower associated weight in impact. Thus, based on existing trends in labor hires among successful ventures, independent contractors can be useful for the short-term while full-time employees can be utilized if the firm has the structure and cash resources at hand to do so.

Characteristics Among New Hires

Beyond the term of labor, there are also distinct trends among the hires that are brought into entrepreneurial ventures. One notable trend is that new ventures disproportionately hire and employ young workers, or those typically in their 20s and 30s, as both full-time employees and independent contractors. On average, these young employees tend to earn higher wages than young counterparts working at more developed businesses, primarily because entrepreneurs seek to draw in highly skilled talent (Ouimet & Zarutskie, 2014). Young employees, however, also tend to be more selective in the startups that they join, because they prioritize businesses with high potential for growth on the condition of how likely the business is to succeed as well.

Several explanations exist as to why younger employees tend to be more so drawn into entrepreneurship, with common trends including their relevant and fresher skill set, higher risk tolerance, and joint dynamics. Although hiring younger employees does not ensure higher productivity or higher quality in human capital, the characteristics of employees at successful

ventures are more notable given that they align with a typical founder's goals, such as having higher risk tolerance. This also suggests that hiring for these characteristics could benefit a firm's human capital investments not only because relevant skills and knowledge are brought in, but also alignment can take form at a time when the venture is just beginning to set in structure.

In addition to age, successful ventures typically seek hires who possess pre-entry experience and higher education. In particular, recent strides have been made among entrepreneurs in reaching out to MBA candidates and graduates (Moules, 2019); in a study by the Graduate Management Admission Council, nearly 62% of self-described start-ups planned on hiring MBA candidates in the coming year, up from just 45% in the prior year. Higher education individuals also have reason to join new ventures; among commonly cited reasons include the ability to have their skills make immediate impact, resonance with the venture's purpose, and leadership scalability (Moules, 2019). However, successful ventures have gone beyond just examining track record as proof of compatibility and also look for resonance with the company's purpose and intention to learn. Candidates often express flexibility in the skills they learn, and in the startup environment, this flexibility to quickly learn and willingness to shift lends towards a venture's ability to mobilize its resources (Gaskell, 2019). In turn, higher mobilization enables a firm to react more quickly to unexpected turns in demand or the general economy, competitive responses, and investor demands.

Qualitatively, successful employees have also possessed several common characteristics in their behaviors and personalities. For instance, desirable traits among new hires include being action-oriented and detail-oriented, as being so encourages the employees themselves to take risks as necessary which further brings in potential opportunity (Sundheim, 2013). Other characteristics

include ambitious, autonomous, marketable, and passionate. While these are all soft qualities and traits, they often are pursued in the spirit of allowing the venture to sell itself better on the basis of the hired talent and employees as well. As established previously, for instance, investors heavily rely on the hired people and their qualifications as a positive indicator for sustainable and secure growth. Additionally, entrepreneurs have increasingly sought strong social skills and interpersonal communication abilities among new hires, as both the amount of jobs and types of jobs demanding such skills have increased by nearly 12% from 1980 to 2012 (Deming, 2017). These qualitative traits cumulatively lend toward reducing the riskiness of a hired employee and can make for greater productivity, both of which are valued in new ventures.

Overall Success Trends in Initial Human Capital Investments

From conducted research, several interesting trends emerge on how successful ventures were able to not only bring in new hires but also apply the human capital towards greater productivity and revenues. First, in regard to timing, new hires tend to be brought on within two years of the initial launch primarily because the trade-off between time and money of the founding team increasingly leans towards higher value for time and less value for money. That is, by making initial investments in human capital, founding teams free up time and can focus on ever-increasing demands for their time. Next, successful ventures generally adopted a mix of both full-time employees and independent contractors, with the former being more useful once adopted structures, policies, and specializations were clear and set in place. Lastly, successful hires that were initially brought into ventures often shared several personal characteristics, including but not limited to younger age ranges, higher pre-entry experience and higher education with a particular emphasis on MBAs, and desirable personal characteristics.

These trends in themselves do not guarantee that abiding by such guidelines alone would ensure success, but they do point toward actions and characteristics that entrepreneurs should utilize to reduce their risks in making initial human capital investments. As acknowledged previously, macro effects like the state of the labor market, economy, and industry also have an impact on how successful human capital investments become because skills in demand, types of jobs, and types of employees are consistently changing with time. However, these trends offer further security in that, regardless of the state of overall macro effects, entrepreneurs can still generally reduce their risk by taking into consideration the observed trends. Another acknowledgement to be made is differences in practices between habitual and novice entrepreneurs. While habitual entrepreneurs are described as more action-oriented and act faster on risks, to date there is not a conclusive or strong link in the differences between habitual and novice entrepreneurs in their hiring practices. Habitual entrepreneurs are more likely to respond that they would prefer to hire more people, but in assessing their hiring practices, they are more than likely to oblige by the observed trends as outlined previously (Davidsson, Gordon, & Steffens, 2009).

LONG-TERM CONSIDERATIONS OF HUMAN CAPITAL INVESTMENTS

Beyond initial human capital investments, entrepreneurs also seek long-term returns on human capital investments. Human capital itself runs long-term risks, including but not limited to obsolescence of employee skills, employee turnover and subsequent financial loss, and trade-offs between wealth and control for the founding team. Consequently, these long-term risks cause entrepreneurs to consider the question of how to ensure human capital investments can stay profitable and productive for the long-term. In answering this question, however, it becomes important to remember the different facets of human capital. As outlined by human capital theory, human capital entails the skills of employees themselves and their associated level of

education, intelligence, health, and immeasurable personal attributes. Such theory also holds that human capital can be maintained and improved through boosting any given attribute, with particular focus on higher education levels, relevant work experience, or applicable skills. Given this, entrepreneurs can leverage traditional human capital theory and existing successful human capital practices to decrease long-term risk and improve revenue streams, long-term profitability, and ultimately productivity.

Improvements to Human Capital

A primary means of ensuring that human capital investments are beneficial and productive for the long-term is to make additional, appropriate investments to either maintain or upgrade the level of human capital. These investments usually center on the different facets of employees that can be improved, including relevant skill set and operable knowledge, level of education, and motivations that provide economic value to the firm. These can be improved usually through offering the appropriate resources for employees and encouraging them to develop their own quality of human capital. Outlined below are areas of improvement that ventures can utilize to sustain levels of human capital and support long-term productivity of not just employees but also the associated processes and procedures that employees can influence.

Effective Training and Development

Granted that common long-term risks to quality of human capital include obsolescence of employee skills and knowledge and employee turnover, training and development can prove to be an effective means of mitigating such risks. In general, training is defined as planned efforts by a given company to facilitate job-related competencies, knowledge, skills, and behaviors. Development extends beyond training and includes the employee’s formal education, job

positions, relevant experiences, and personality that helps them prepare for future jobs or tasks. Cumulatively, the overall goals of training and development is to enhance employee learning, which is described as the process of employees "acquiring knowledge, skills, competencies, attitudes, or behaviors (Noe & Kodwani, 2017). Both are also oriented toward allowing employees to apply mastered knowledge, skills, and behaviors in daily job tasks or activities. New ventures and established businesses alike typically employ some form of formal training and development programs, ranging from courses and events to development programs.

Given that the forms of training and development are multitudinous in scale and reach, entrepreneurs may have difficulties choosing which ones to utilize and how to develop an effective training and development system, especially with scarce resources. While there is not a universally accepted model for building effective training and development nor is there a single model that guarantees success, the training design process is generally hailed as an effective guideline (Noe & Kodwani, 2017). Not only is the guideline intuitive, but it also is resource-conservative and can easily be tailored to a budding business since the guideline is meant for companies without significant trainings yet in place. In the process, founders can undertake seven distinct steps to refine their training programs for long-term success. The first is to conduct a needs assessment, usually through person and task analysis. This is meant to determine whether there is a clear need for training, which usually holds true for starting businesses. The second step is to ensure that employees have the basic skills necessary for training, not for their own positions. Third is to create a learning environment; among startups, typical tools include modeling, development of learning objectives, and feedback. Entrepreneurs in particular can utilize resources like incubators and universities for training modules, as well as online resources for skills development. Such means usually rely on a developed network as opposed to internal

resources, making this stage important yet also cost-effective. Step four and five are to ensure the transfer of training and develop an evaluation plan, respectively. These entail assessing mentor and manager support while setting in place evaluative measures that can be used to ensure that relevant learned skills are translated to the relevant work positions. The sixth step is choosing a training method, be it e-learning or a traditional method, and the final step is to monitor and evaluate the program. While these are general steps, the flexibility of the model enables entrepreneurs to tailor trainings dependent on the resources they have available, the network they have built, and the industry they are operating within (Noe & Kodwani, 2017). It is important to note that while this model follows a systematic step-by-step process, founding teams should be still keen to adopt the model as fit for their relevant business needs. For instance, some steps can be completed simultaneously. However, founders should still adopt a systematic approach and utilize this model as a guideline for refining their training programs in the firm.

The flexibility of training and development especially with the advent of technology lends towards a founder's ability to experiment with different forms, be it formal classes or online module training. While the effectiveness of various forms depends on the given firm, forms of training and development that center on knowledge management generally fare better than traditional trainings, regardless of the type of training. Knowledge management refers to the implementation of tools, processes, and cultures that improve the ability to create, use, and share knowledge. Applied to trainings and development, this means that forms of training and development that enable forums, means of distribution and storage of resources and knowledge, and sharing of knowledge are typically more successful. These forms include web-based knowledge management systems, threaded discussions, and practice forums. Such forms are amplified if they are linked to strategic business goals and objectives as well (Alavi & Leidner,

2001). Therefore, founders should seek training and development investments that enable employees to co-develop, share skills and knowledge, and essentially mentor each other in their development. This lends toward the ability of human capital to develop more human capital, a cycle that proves beneficial for the long-term quality of human capital investments.

Effective training and development have been associated with benefitting quality of human capital for the long-term. In fact, returns to training investments can see productivity increases of as high as 16% (Black & Lynch, 1996). Lagged training investments, meaning those that are more spread out and consistent over time, have also been shown to yield greater positive effects on productivity as opposed to short-term training investments only. As established previously, productivity is the primary measure used to indicate quality of human capital. This is primarily attributed to the fact that training and development boost a company's competitive advantage through contributions to intangible assets, particularly in the form of intellectual capital, social capital, and customer capital. Training and development have direct impacts on all three because they impact work know-hows, work-related competencies, and work relationships, all of which benefit both the founder and employees working for the firm. Finally, training and development produce financial rewards; according to the American Society for Training and Development, companies that invested the most in human capital development and trainings saw a shareholder return that was 86% higher than companies in the bottom half of the market and 46% higher than the market average. Thus, systematic investments in training and development programs by following the flexible training design model can effectively improve a growing venture both financially and socially, reaffirming the necessity of high-quality human capital in entrepreneurship. Even for cash-strapped startups and early ventures, training and development investments can extend productivity benefits and should be a primary focus of startups (Friedman, 2018).

Incentives for Education

As noted previously, entrepreneurs and founding teams increasingly pull from higher education pools of human capital to hire employees, with a particular focus on MBAs recently. Beyond the education level of people initially hired, however, an important consideration that should be made is the value of investments made in the education of existing employees. Generally, higher education incentives and level of education have been associated with higher employee productivity (Black & Lynch, 1996). Thus, even new ventures can benefit from offering educational resources for their employees to reinvest in their own education for the long-term benefit of the firm.

One of the most common education incentives that startups and established corporations tend to provide is tuition assistance. Employer tuition assistance often comes either through upfront employer contributions or employee reimbursement. These are most typically used to offer incentives for employees to complete their education or even return to pursue higher education levels. However, given the nature of startups and newer ventures, sustaining tuition assistance across many employees can quickly prove costly. Beyond this, labor markets have also tightened and fewer firms have offered tuition assistance in light of scaling costs; 66% of respondents in the Society for Human Resources Management's Employee Benefits analysis reported their companies offered tuition assistance in 2008, yet only 51% reported so in 2019 (Merrick, 2019).

Instead, an increasingly popular option for startups in supporting education is to utilize informal education methods, including startup courses and incubator courses or certifications (Noe & Kodwani, 2017). Similar to trainings and development, these courses and certifications serve to teach employees relevant skills for their positions and offer official indications of expertise and

sufficiency. With online offerings becoming popular as well including Lynda, startups increasingly have at their disposal cheap sponsorships they can utilize to increase employee knowledge and skill sets. Therefore, depending on the size of the firm and resources available, startups can experiment with educational resources to improve employee human capital and incentivize the development of greater skills and knowledge.

Leveraging Founder Human Capital

While entrepreneurs have many external tools like trainings and education incentives at their disposal, understanding the personal draw and venture attractiveness of the founding teams themselves in the perspective of both potential and current employees can prove just as helpful, if not more so. In becoming aware of personal characteristics and credibility, early-stage and repeat entrepreneurs can better pitch themselves, the work positions, and reasons to develop loyalties to the company, which in turn supports human capital infrastructure. Entrepreneurs should also be more willing to act on intrinsic motivation factors among employees as a draw to entrepreneurship, because long-term motivations for staying in work positions tend to shift toward intrinsic over extrinsic factors.

Intrinsic Motivations

From the founder's perspective, it may be of greater benefit to examine intrinsic motivations of employees rather than extrinsic motivations in the long-term to sustain productivity. This is because established corporate positions most often excel in extrinsic offerings, as the positions tend to be earmarked by two characteristics: stable income and job stability. Startups inherently struggle with meeting their labor requirements in this perspective because entrepreneurship incomes tend toward greater variability, and instability is a characteristic of the entrepreneurial

field itself. Small ventures especially tend to be strained by a lack of financial resources, which in turn can translate into fewer benefits and long-term financial incentives for employees (Hundley, 2001). This confirms the general notion that job quality tends to very dependent on the firm's size, age, and financial standing, as all three are external indicators to potential employees of the feasibility in working in the entrepreneurial field.

However, entrepreneurs tend to excel more within intrinsic factors. For instance, despite earning more variable incomes relative to corporate positions, entrepreneurs and employees alike reported higher degrees of work satisfaction and experience (Hundley, 2001). Explanations for this are often attributed to the fact that entrepreneurial positions offer intrinsic work characteristics unmatched by corporate roles, including higher degrees of independence, flexibility, and developed work skills. Entrepreneurship ventures also tend to have flatter hierarchies, lending toward employees being able to develop career paths for themselves and feel as though they possess more ownership and control over their decision-making. Thus, founders and early entrepreneurship teams should be conscious of intrinsic attractiveness to their positions and utilize that to their advantage. This stance can protect the value of human capital and incentivize the development of soft qualities, such as resonance with the company and personal satisfaction with work, both of which prove to be important long-term factors for maintenance of human capital investments.

Personal Qualifications

In regard to the founders themselves, one primary factor that can influence human capital retention and strength is a founder's personal qualification levels. Employees often attribute their own high qualifications to better jobs and higher earnings, which can often prove difficult for an

entrepreneur to contest against on an extrinsic appeal in the long-term (Bublitz, Nielsen, Noseleit, & Timmermans, 2017). However, founders can utilize their own experience to counter perceptions of instability or worriedness of long-term viability from employees' perspective. This can be achieved by relying on the verifiable qualifications of the founder, including previous education experiences and former trainings, prior work experience and subsequent track record, and current venture performance.

Additionally, high-skilled employees are more likely to work high- to medium-skilled founders, while medium-skilled workers tend to find founders of similar credibility level (Bublitz, Nielsen, Noseleit, & Timmermans, 2017). This use of a founder's credentials proves critical during the earlier stages of a venture in particular, because after ventures survive past three years, their survival curve tends to flatten, meaning more stability for the venture itself is achieved. This, in turn, suggests that a founder's qualifications need only prove efficient in early stages, as once stability is achieved, employees tend to become more confident in their role's long-term stability and the perception of the firm itself and the founder's qualifications become less important. It is also important to note that through a venture's development, a quality of human capital for the founding team itself generally improves. That is, founders also gain skills and knowledge as they work through greater work demands, including tasks like investment management and client relations (Kay, Martin, & McNally, 2012). Support for founding teams' human capital in turn lends towards the quality of human capital within the firm.

Educational Experience

Education experience of a founder, in particular, proves beneficial in the view of employee teams. In measurement, education experience is reviewed on the basis of years spent in

educational institutions, the institution itself, and completion of a degree. These formal metrics are oftentimes used by new hires and employees alike because one of entrepreneurship's key attractiveness features is the prospect of mentorship (Marvel, Davis, & Sproul, 2014). Because of flat hierarchy constructs, founders and management are often viewed as more accessible and experienced in their abilities to assess risk, manage risk, and make decisions in particular. As a result, education serves as an indicator of stability, because it reaffirms an image that the founder has the proper working and business knowledge for the venture itself.

Additionally, the more relevant the prior education of the founder is to the domains of knowledge within entrepreneurship, the more employees desire directly working in the same sphere. More specifically, if the founder's prior degrees or learnings are applicable to the industry they are in, the more potential employees will want to seek mentorship about that industry in particular. This is reaffirmed by the alignment incentive, which suggest that new hires and long-term employees often try to align their own passions and fields of interest with the founder in a bid to gauge team dynamics and work environment. Therefore, in their efforts to hire and retain talent, founders should not only use their own education as an indicator but also demonstrate how said experience is relevant to their given industry and how employees can subsequently benefit.

Personal Working Knowledge and Ability

Founders must also emphasize their own working knowledge and ability. As defined previously, knowledge extends to a working understanding of basic business processes and, more importantly, the market and market dynamics. Ability, however, is defined under human capital theory at the individual level as general traits including but not limited to the ability to reason

inductively, make sound business decisions, execute on project implementations, and work efficiently under time pressures or deadlines. New hires and employees alike tend to value leaders' abilities because abilities are less likely to change over time yet are applicable across a wide variety of tasks.

In broad domains, ability is assessed in the areas of problem-solving, social, and technical skills. In more practical terms in the context of entrepreneurship, ability can influence factors like domain knowledge, selling and negotiating capabilities, planning, prototyping, decision-making, interpersonal communication, and ability to work in teams (Dimov, 2017). Additionally, while abilities cannot be learned in the same manner that knowledge is acquired, entrepreneurial ventures can acquire abilities through human capital investments in team members, alliances within the organization, and connections to other players in the market. This demonstrates why ability is valued on both sides; new hires and employees use ability as a metric to gauge working dynamic and trust in the firm, while founders seek ability that they otherwise lack or possess a shortage of within the organization. Therefore, founders should focus on ability areas they excel in and demonstrate said abilities through their prior experiences and the current venture's success. Measurable indicators, including retention rate of employees, testimonials of work experience, and background checks are all examples of tangible records that founders can and should utilize to their benefit to draw and retain talent.

Workplace and Position Flexibility

Another intrinsic motivating factor that founders should utilize in attracting talent is the flexibility of work environment and work position that entrepreneurship as a field inherently lends toward ventures. In entrepreneurship, a main draw across positions is the ability to discover

and create opportunity (Alvarez & Barney, 2007). Specifically, employees are more enabled to train across a variety of expertise and utilize said expertise to the benefit of entrepreneurial ventures; as a result, experienced hires tend to have more influence on business decisions made within the venture as they progress in their career path. In comparison to established corporate roles, despite their greater stability and long-term career viability, corporate roles lack in intrinsic motivators for utilizing employees in their creative abilities. Specifically, employees most often resign from corporate positions, as reported, due to lack of future incentive paths and lack of experienced growth in the given role, with growth measured on the basis of personal compensation, learning experience, and future career opportunity. In regard to career opportunity in particular, founders are able to excel in pitching flexibility on the basis that, because of entrepreneurship's heavy networking structure, employees become more enabled to reorient themselves should they choose to work in a different position within the given venture. In other words, horizontal job shifting is done more easily compared to established corporate roles because of less structure, flatter hierarchies, and greater networking capacities within the business (Marvel, Davis, & Sproul, 2014).

General Suggestions for an Intrinsic-Focused Approach

In consideration of these intrinsic motivation factors, new founders oftentimes become more compelled to either initiate new or recurring human capital investments. From a founder's perspective, most founders desire individuals who possess similar ability, work ethic, and decision-making capability as the founders themselves (Bublitz, Nielsen, Noseleit, & Timmermans, 2017). Therefore, highly skilled employees offer the alluring prospect of being strong assets for the venture and, more importantly, a team member that can work alongside the founder. In an assessment of intrinsic motivators of the founders themselves, most founders

indicated that in initial hiring decisions, they feared initial bad hires on a basis of a lack of trust or poor work ethic. However, as contended, founders should both utilize their own credentials and stay aware of intrinsic motivators from employees to build a comprehensive hiring strategy accordingly and increase long-term retention rates. An alignment of human capital investment, venture strategy, and founder start-up experience benefits both resource orchestration and innovation for the venture, which can prove vital not only for long-term sustainability of the venture but also long-term value of human capital investments (Symeonidou & Nicolaou, 2017).

Workplace Culture

In the long-term, with standardized structures and procedures increasingly being set in place, developed workplace culture of the startup also grows increasingly relevant to long-term human capital investment success. Generally, culture encompasses the shared and often unstated values of employees and the general firm. In practice, culture refinement includes setting clear company values, refining the type of work environment, and defining clear employee expectations, among other means of defining the company personality (Rogers & Paul, 2017). Below outlines means in which founding teams can refine their workplace culture for success and why doing so has wide-reaching implications for the firm and human capital.

Culture receives greater focus and attention among startups relative to corporations and more established businesses because of the vacuum created by a lack of more procedural human resource capabilities and capital. However, startup cultures generally excel in the facets of being more transparent, open for communication, non-hierarchal, adaptive, flexible, and more fast paced relative to established institutions (Rogers & Paul, 2017). While these characteristics typically aid in the recruitment of talent early on and incentivize early employees to connect with

the company culture and values, if the culture is not sustained and supported, employees can be quick to leave the company. Additionally, given the high growth-rate of success demanded of startups, culture refinement becomes a consistent challenge.

Given the challenge that culture presents and necessity for strong cultural presence, startups can adopt four defined people practices to protect their culture in the long-term and consequently reduce risks of turnover or dissatisfaction. The first step is to tightly link initiatives with business results; that is, for any major business decision ranging from investing in human capital through a given means or adopting a new strategic outlook, founders should demonstrate that all measures are deliberate for solving a business problem. This helps with culture building by aligning employees with company goals, and it allows employees to gauge how their work directly impacts such measures (Rogers & Paul, 2017). Next, startup founding teams should consistently seek feedback and evaluate accordingly. Employees offer significant insight on not just their work tasks and the outcomes of their positions but also possible short-sightings from the company. Third, founders can connect given initiatives to company culture. Since culture appears to be a large driver of long-term success, connecting initiatives directly to cultural goals benefits both in the long-term. Lastly, ventures can look beyond their organizations and at other successful startups and organizations that face similar challenges. Building in other outside parties in the entrepreneurial ecosystem, such as partnerships with incubators, other organizations, and service providers all can enhance not just company culture but also long-term partnerships, which has both financial and social implications. These general four steps serve as effective guidelines for how startups, given the nature of growth and their early cultures, and begin to think about refining and more clearly defining the company personality. In turn, human

capital investments benefit as employees become more knowledgeable about not just their goals and positions but also the company expectations and future outlook.

As noted previously, the focus on culture is not without merits; a majority of startups indicate that they are actively and heavily investing in their culture, oftentimes more so than onboarding (Rogers & Paul, 2017). Not only is culture important for employees, but culture can also support financial goals. In particular, investors and third-party benefactors factor in workplace culture in considering the stability and long-term viability for the company. Beyond investments, culture can also impact the brand, compensation plan structure, and consumer perception in the economy. While these are generalities, the importance is to highlight that culture is wide-reaching beyond just the scope of human capital investments and can greatly supplant long-term growth goals for the startup.

Overall Recommendations on Long-Term Human Capital Success

As described, there are three areas that novice and habitual entrepreneurs alike can utilize to increase the likelihood of success for their human capital investments in the long-term: direct improvements to human capital qualities, utilization of founders' own human capital, and refinement of workplace culture. Direct investments, particularly strong training programs and incentives for education, can support employee skills and satisfaction to effectively combat issues like skill obsolescence and employee turnover. Founders can also support these goals by leveraging the development of their own human capital; by improving their own education, work experiences, and intrinsic motivations, founders can motivate and incentivize employee loyalties while also developing their incentives to stay with the venture. Lastly, workplace culture proves to be a recurring focus, yet with clear people practices and values, a startup can leverage its

culture to its advantage. Cumulatively, these measures serve as effective means of extending human capital benefits beyond just the initial short-term value. This, in turn, supports goals of survivability, profitability, and productivity for the firm in the long-term as well.

CONCLUSION

While millions of startups are launched annually, only 10% will go on to succeed in the market (Griffith, 2014). Yet, despite a low success rate, novice and habitual entrepreneurs seek to bring the ideas to fruition and solve novel problems. In awareness of the risky process and environment of entrepreneurship, founding teams often turn to financial considerations and business model refinements to mitigate anticipated risks. However, human capital investment decisions arguably prove to be of greater, if not equal, urgency, since nearly 60% of startup failures are attributed to problems with human capital and the founding teams (de Mol, 2019). Despite potential risks, human capital itself offers many valuable benefits to a budding business including expansions of necessary skills, networks, and growth needed for the business. Given this, entrepreneurs are urged to focus on human capital both for initial hiring efforts, which proves to be a pivotal step in the development and maturity of a venture, and long-term human capital investments.

For initial hiring efforts, founding teams should pay particular attention to the timing of their investments, searching place for labor, type of labor, and trends among successful hires. In particular, trends among successful ventures have demonstrated that hiring within one to two years of business is valuable especially for the transition period of the startup. Successful ventures have also typically utilized their personal networks for finding labor, utilized independent contractors in the short-term and full-time employees in the long-term, and sought

highly-skilled, higher-educated workers. While these are not definitive factors for startup success, they suggest general guidelines that entrepreneurs can utilize in hiring to increase chances of success, granted considerations of their business and macro conditions as well.

For enhancing long-term productivity and benefits from both initial and following human capital investments, entrepreneurs can leverage direct investments in improving human capital, the quality of human capital from the founders, and refinement of workplace culture. Direct investments include refined training and development programs alongside educational support, both of which have been associated with higher productivity levels. Founders can support these investments using their own quality of human capital, and finally, culture creates an environment in which this human capital can thrive. Addressing all three areas should be a recurring focus for entrepreneurs, since human capital investments have wide-ranging reach in their implications from serving as indicators to outside investors to boosting employee morale and satisfaction.

Human capital is a complex issue to address, and investments in either people or their skills for a startup business can seem intimidating. In an environment that demands high growth while startups themselves are often strapped for resources, entrepreneurs should take due diligence in leveraging human capital investments as a useful tool, both for the short-term and long-term. Following general successful practices and utilizing tools as outlined before can benefit both financial and general company goals, all of which cumulatively can make a simple idea turn into a tangible, successful business in the market.

ANNOTATED BIBLIOGRAPHY

Alavi, M., & Leidner, D. (2001). Review: Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues. *MIS Quarterly, 25*(1), 107-136. doi:10.2307/3250961

This journal article dissects the concept of knowledge management, including overall definitions and applications. In general, knowledge management refers to the practice of collecting intellectual and other forms of intangible human capital and making such resources readily available for people in the company. These definitions and analyses are used to support arguments that human capital investments can support knowledge management, which in turn benefits the firm in the long-term.

Alvarez, S. A., & Barney, J. B. (2007). Discovery and creation: alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, *1*(1-2), 11–26. doi: 10.1002/sej.4

The article underlines how entrepreneurs tend to seek out additional entrepreneurial opportunities associated with their expansions in human capital. Consequently, they typically weigh the developed networks of others and leverage their own human capital to build networks for further financial and capital resources. This information is used to support the outline that founders will rely on networks in their search for human capital.

Azoulay, P. (2018, July 23). The average age of a successful startup founder is 45. Retrieved from http://mitsloanexperts.mit.edu/the-average-age-of-a-successful-startup-founder-is-45-pierre-azoulay/

This article describes the average age of successful startups among other founder characteristics, mostly discovered through a quantitative review of startups across the country. Typically, the average age is in the mid-40s, although age ranges can vary across different industries as well. This article was therefore used to provide context for the entrepreneurs who enter the market and the differences between novice and habitual entrepreneurs.

Bersin, J. (2015, August 3). Culture: Why It's The Hottest Topic In Business Today. Retrieved from https://www.forbes.com/sites/joshbersin/2015/03/13/culture-why-its-the-hottest-topic-in-business-today/#3f2fe8f9627f

The author focuses on the relevance of culture to a business in terms of employee satisfaction and productivity. In particular, the article produces on statistics demonstrating that employees tend to find themselves either disengaged or fully disengaged from their work and the company as well as associated reasons for such dissatisfaction. This information is used to underline the importance of strengthening the culture of a startup and leveraging unique characteristics to entrepreneurship.

Black, S., & Lynch, L. (1996). Human-Capital Investments and Productivity. *The American Economic Review, 86*(2), 263-267. Retrieved March 31, 2020, from www.jstor.org/stable/2118134

The authors connect human capital investments to impacts on productivity by conducting prior studies on startups and productivity primarily on the basis of human capital output. In particular, productivity has been positively linked to human capital investments occurring in the long-term. The authors also note that recurring and dispersed investments tend toward the more effective side than short-term bursts of investment.

Birasnav, M., Rangnekar, S. and Dalpati, A. (2011), "Transformational leadership and human capital benefits: the role of knowledge management", *Leadership & Organization Development Journal*, Vol. 32 No. 2, pp. 106-126. https://doi.org/10.1108/01437731111112962

The article provides the definition, relevance, and practices of transformational leadership, a primary form of leadership that has started to take shape as a result of human capital impacts. Accordingly, the article also underlines the role of knowledge management and the importance of being able to share knowledge transparently within a firm. Therefore, this knowledge is used to demonstrate an emerging leadership style that is often important to ventures that are just beginning to expand their human capital investments.

Bruce C. Martin, Jeffrey J. McNally, Michael J. Kay (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. Journal of Business Venturing, 28(2), 211-224, https://doi.org/10.1016/j.jbusvent.2012.03.002.

This article establishes the concept of entrepreneurship education and training (EET) and its relation to the success of entrepreneurs and their ventures. The authors conduct a quantitative review using 42 independent samples, finding that there is a statistically significant relationship between EET and entrepreneurship-related human capital assets and entrepreneurial outcomes. In essence, the authors argue that this suggests that individuals or groups with greater education, resources available, knowledge, and skills will achieve greater performance outcomes and have higher chances of their venture succeeding in any given industry. As the article notes, more quantitative studies including the ones the author perform in the article support this notion and suggest that traditional human capital theory holds true in entrepreneurship.

Bublitz, Elisabeth, Kristian Nielsen, Florian Noseleit, Bram Timmermans (2018). Entrepreneurship, Human Capital, and Labor Demand: a Story of Signaling and Matching. Oxford Academic, 27(2), 269–287., doi:https://doiorg.ezproxy.lib.utexas.edu/10.1093/icc/dtx027.

The article examines how entrepreneurs can benefit by using their own credentials to draw in talent during the hiring process. The study focuses primarily on two international human capital markets: that in Germany and that in Denmark. Both demonstrate that high and middle-level skilled employees most tend to be drawn toward founders of matching, high credentials, while low-skill employees are more likely to work for multiple founders. From these findings, the authors argue that founders' qualifications are the most reliable and accessible metric for predicting recruitment choices over time. The study also accommodates for a variety of factors that play an influence, including industry, line of work, and firm establishment age.

Canal, E. (2018, October 23). The 10 Hottest Industries for Startups in 2018. Retrieved from https://www.inc.com/emily-canal/2018-inc5000-biggest-industries-us-businesses.html

The author outlines the primary industries that startups most often launch in, of which include healthcare services, consumer products and services, and financial services. This information is used to demonstrate the wide scope of industries that startups operate within. Consequently, the information is also used to show that unique risks arise for startups depending also on the given industry.

Ciccone, A., & Peri, G. (2006). Identifying Human-Capital Externalities: Theory with Applications. *The Review of Economic Studies, 73*(2), 381-412. Retrieved from http://www.jstor.org.ezproxy.lib.utexas.edu/stable/3700644

This article examines how aggregate human-capital externalities can explain cross-country economic developments. In quantitative studies, the article connects fundamental tenets of human capital theory to more recent applications in relevant industries. The article also presents a macroeconomic analysis of general trends in both demand and supply and the relevant impacts on human capital market changes. Therefore, the article contends that externalities in the market also tend to affect how human capital markets change and grow.

Dalborg, C., & Wincent, J. (2015). The idea is not enough: The role of self-efficacy in mediating the relationship between pull entrepreneurship and founder passion – a research note. *International Small Business Journal*, *33*(8), 974–984. https://doi.org/10.1177/0266242614543336

The authors demonstrate that founders must possess self-efficacy characteristics for their success in entering entrepreneurship as a field. Through a survey of 103 respondents, the authors contend that self-efficacy remedies the pull of entrepreneurship on founder passion and allows individuals to develop characteristics typical of successful, repeat entrepreneurs. The article also utilizes the survey results to examine typical motivations for new entrepreneurs as to what their ideas are of the field, how they plan to succeed, and their plans for growth, all of which have tremendous implications of the new business.

Deeb, G. (2019, April 8). How To Build A Startup Ecosystem. Retrieved from https://www.forbes.com/sites/georgedeeb/2019/04/04/how-to-build-a-startup-ecosystem/#244281e66130

The author provides an overview on the key players in the entrepreneurial ecosystem, including the entrepreneurs themselves, investors, service providers, incubators, employees, and consumers. These parties all work with one another and impact how ventures can eventually turn successful, largely depending on the types of relationships that are formed. Therefore, this information becomes important context for the role of human capital and how it interacts within the community.

Deming, D. (2017, June 6). Growing Importance of Social Skills in the Labor Market *. Retrieved from https://academic.oup.com/qje/article/132/4/1593/3861633

The author underlines how in the labor market, social skills are increasingly in demand in part because of the jobs that require such skills and the skills employers need for long-term success. This example is used as a quick citation to demonstrate how relevant skills shape labor markets and how employers too are impacted.

DeTienne, D. R., & Chandler, G. N. (2004). Opportunity Identification and Its Role in the Entrepreneurial Classroom: A Pedagogical Approach and Empirical Test. *Academy of Management Learning & Education, 3*(3), 242–257. https://doi.org/10.5465/AMLE.2004.14242103

The authors detail how new hires typically bring in relevant market knowledge, which contributes toward the quality of their human capital. In particular, if the human capital has had experience within relevant work experiences or projects similarly in line to the given venture, the human capital becomes especially beneficial.

Dimov, D. (2017). Towards a qualitative understanding of human capital in entrepreneurship research. International Journal of Entrepreneurial Behavior & Research, 23(2), 210 -227. https://doi-org.ezproxy.lib.utexas.edu/10.1108/IJEBR-01-2016-0016

The author posits that human capital can serve as a construct for predicting entrepreneurial outcomes. The challenge, however, lies in translating theoretical and qualitative variables into operationalization for entrepreneurs to effectively utilize. This article therefore takes a holistic approach, examining general characteristics of human capital hires like basic demographic variables, education, and prior work experience to identify overall trends in hires. This information is then extrapolated to how entrepreneurial ventures may benefit or deteriorate under hires' characteristics. The article also distinguishes among nascent, novice, and habitual hires to demonstrate how each type of founder will adapt their hiring approaches based on industry, number of people needed, and function of the venture itself.

Ehrich, I., Li, D., & Liu, Z. (2017, September). The Role of Entrepreneurial Human Capital as a Driver of Endogenous Economic Growth.

The authors distinguish between managerial and innovative entrepreneurial activities; managerial ones center on daily operations while innovative ones center on the process of taking ideas from raw start to market. In distinguishing the two, the authors also outline how the activities differ and the role that human capital plays in each.

Farmbrough, H. (2019, June 3). New Report Identifies Key Characteristics Of Successful Startup Entrepreneurs. Retrieved from https://www.forbes.com/sites/heatherfarmbrough/2019/06/03/new-report-identifies-key-characteristics-of-successful-startup entrepreneurs/#27fc98d821d3

This article identifies some of the key qualitative traits among founders that may lend toward venture success, of which include grit, high creativity, focus, and focus. These traits can help a foundering team work well together and establish clear managerial attitudes for the firm, which

later helps to pave the way for human capital investments. Therefore, understanding these attitudes in the context of founding teams is important.

Fairlie, R.W. and Miranda, J. (2017), Taking the Leap: The Determinants of Entrepreneurs Hiring Their First Employee. J Econ Manage Strat, 26: 3-34. doi:10.1111/jems.12176

This detailed study provides data from the US Census Bureau and data on nonemployer and employer startups to outline common characteristics among new ventures in their initial hiring decisions. Among the discovered trends include timing of investments, type of people who typically invest in human capital, and relations to founder characteristics. This information is therefore tied particularly to the conclusion that human capital investments are made on a short-term basis.

Friedman, A. (2018, July 12). 7 Compensation Strategies for Cash-Strapped Startups. Retrieved from https://hbr.org/2018/07/7-compensation-strategies-for-cash-strapped-startups

Given the often cash-strapped and resource-limited nature of startups, the author lists alternative compensation strategies to save startups money and retain talent. Among these strategies include performance pay, expense coverage before taxation payment, and investments in training and development. These strategies are used in the paper to present potentially effective means of utilizing available strategies to still draw in talent.

Gaskell, A. (2019, May 1). Why Human Capital Is The Key To Startup Success. Retrieved from https://www.forbes.com/sites/adigaskell/2019/05/01/why-human-capital-is-the-key-to-startup-success/#2e05f4db105b

The author provides overviews of how human capital is relevant particularly for the growth phases of a startup. This is because while human capital can bring in additional skills and talent as needed, attached to human capital is their associated networks and resources they can offer, which prove vital for strapped startups. These points are used to support how human capital is applied within the startup culture and why it should be a central focus.

Griffith, E. (2015, March 2). Startups are failing because they make products no one wants. Retrieved from https://fortune.com/2014/09/25/why-startups-fail-according-to-their-founders/

The author highlights the main statistic that only 10% of startups that launch will successfully survive in the market. The low success rate is often attributed to founder or management team issues, of which include mismanagement, lack of the proper capital, or scaling either too slowly or too quickly.

Gimeno, J., Folta, T., Cooper, A., & Woo, C. (1997). Survival of the Fittest? Entrepreneurial Human Capital and the Persistence of Underperforming Firms. *Administrative Science Quarterly, 42*(4), 750-783. doi:10.2307/2393656

The authors underline that in the long-term, human capital investments can lend upon themselves; in other terms, human capital can create more human capital. This becomes a

relevant long-term benefit, because founders can utilize in-house knowledge to their advantage to support the long-term value of human capital investments.

Goldin, C. (2014). Human Capital.

The author provides overall definitions of human capital and the relevance of human capital investments. These elements include the knowledge, skills, and talent relevant for firms as well as the means in which human capital investment can be supported, such as education and job trainings.

Gordon, Scott, Davidsson, Per, & Steffens, Paul (2009) Novice vs. habitual entrepreneurship: Differences in motivations, actions, and expectations. In Gillim, L M (Ed.) *Regional Frontiers of Entrepreneurship Research: Proceedings of the 6th AGSE International Entrepreneurship Research Exchange.* Swinburne University of Technology, CD Rom, pp. 27-42.

The authors detail the differences between novice and habitual entrepreneurship based on intensive studies and behavioral analyses. The main conclusions stem from the personal attribute differences, such as how habitual entrepreneurs tend to be more quick moving and decisive in the risks that they take. These qualitative differences drive significant change in not only how ventures are formed but also the quality of human capital that takes form.

Hall, J. (2019, May 9). The Cost Of Turnover Can Kill Your Business And Make Things Less Fun. Retrieved from https://www.forbes.com/sites/johnhall/2019/05/09/the-cost-of -turnover-can-kill-your-business-and-make-things-less-fun/#55ba6ff17943

The article underlines the direct and indirect costs associated with turnover and how employee turnover proves to be a challenge for any business. The direct costs tend to be associated with hiring and training efforts, while indirect costs include opportunity costs and lost time. These risks put into context how entrepreneurs should put in careful effort in hiring so as to mitigate turnover risks, both in the short-term and long-term.

Hudson, K. (2013). Labor Markets. In V. Smith (Ed.), *Sociology of Work*: *An Encyclopedia* (Vol. 1, pp. 517-521). Thousand Oaks, CA: SAGE Reference. Retrieved from https://link-gale-com.ezproxy.lib.utexas.edu/apps/doc/CX3721200198/GVRL?u=txshracd2598&sid=GVRL&xid=f331206a

This book outlines the labor markets by providing overall definitions that the demand and supply curves entail. The demand curve is the employers that seek people to fill positions with relevant skills, while the supply curve is driven by the number of employees with the skills available for filling said positions. The book further details the dynamics that can affect the labor markets, including macroeconomic conditions.

Kamps, H. J. (2016, August 26). Breaking a myth: Data shows you don't actually need a co -founder. Retrieved from https://techcrunch.com/2016/08/26/co-founders-optional/

The author provides statistics that demonstrate that most founders usually work and launch their businesses alone of with few partners. The data is based on a review of US-based startups and

focuses on the founders who launched their business regardless of their success and duration of survival. Based on this data, the information is used to support the notion that startup founders tend to operate initially with low levels of human capital.

Kwon, D.-B. (2009, October 27). Human Capital and its Measurement.

The author underlines the key layers of impact that human capital has, with particular regards to individual, organization, and societal influences. These three layers tend to interact with one another as well, as human capital investments have extensive sweeping influences. Therefore, these three areas are used in the paper to outline overall impacts of human capital.

Lawler, Edward E., Make Human Capital a Source of Competitive Advantage (October 20, 2008). Marshall School of Business Working Paper No. MOR 16-09. Available at SSRN: https://ssrn.com/abstract=1311431 or http://dx.doi.org/10.2139/ssrn.1311431

This thesis outlines the contention that human capital should be leveraged as a source of competitive advantage. Since human capital includes intellectual and knowledge capital, the writer contends that human capital provides immeasurable benefits, including company brand improvement, resonance with the company, and scaling benefits. Therefore, human capital should be considered in the development of a new venture particularly in preparation for the scaling stage.

Lazear, E. (2005). Entrepreneurship. *Journal of Labor Economics,23*(4), 649-680. doi:10.1086/491605

This journal article presents a theory arguing that entrepreneurs must act as jack-of-all-trades, in that they must have business, social, and technical acumen as opposed to just skilled workers in one skill. This therefore implies that those with more balanced skills are also more likely to become entrepreneurs. To support this theory, the author presents a framework that illustrates how, even before entering the venture, those with varied work and educational outcomes will be more equipped to tackle the learning curves that entrepreneurship presents. This implication is important because it transfers the implication that new hires should exhibit similar traits in order to better resonate with the venture's cause and their relevant position.

Marvel, M. R., Davis, J. L., & Sproul, C. R. (2016). Human Capital and Entrepreneurship Research: A Critical Review and Future Directions. *Entrepreneurship Theory and Practice*, *40*(3), 599–626. https://doi.org/10.1111/etap.12136

This journal article synthesizes findings across 109 articles across multiple entrepreneurship/management journals over the last two decades. From this data analysis, the authors organize the overall discussion of human capital in entrepreneurship in terms of multi-theory approaches, methods, constructs, and study focuses. In creating this organization, the authors reason that the body of entrepreneurship literatures has vast potential for growth; further research into the overall risk environment, human capital appetites for learning, growth, and flexibility, and future implications could offer ventures tremendous values in future years. The authors also develop a typology of human capital to recognize research-supported trends from two decades of research.

Merrick, A. (2019, August 16). Education Benefits Present a Learning Opportunity. Retrieved from https://www.shrm.org/hr-today/news/hr-magazine/spring2019/pages/education -benefits-present-learning-opportunity.aspx

The author underlines key statistics demonstrating that undergraduates and students are shifting in their focus from having education sponsorship to being able to pay off their loans. This is primarily attributed to the weight of debt that student loans in particular can carry. This information is used to argue that entrepreneurs can leverage the change in educational focus to support new hires for the long-term at the firm.

Mol, E. de. (2019, March 21). What Makes a Successful Startup Team. Retrieved from https://hbr.org/2019/03/what-makes-a-successful-startup-team

The author underlines key reasons as to why startup teams fail, particularly in regard to the management of teams. In particular, 60% of startups fail because of human capital or management team misdirection. This statistic and the provided information in the article are used to emphasize the relevance of human capital in guiding the success of startups.

Moog, P. (2002). Human Capital and its Influence on Entrepreneurial Success. *Historical Socia l Research*, *27*, 157–180. doi: https://www.ssoar.info/ssoar/bitstream/handle/docum ent/3395/ssoar-hsr-2002-no_4__no_102-moog-human_capital_and_its_influence. pdf?sequence=1

The author provides information on how firms tend to start small but then expand rapidly, particularly through acquiring new assets like working capital and human capital. These expansions can lend toward the growth of a business, particularly during the transition phase.

Moules, J. (2019, June 28). Start-ups are hunting valuable MBA hires. Retrieved from https://www.ft.com/content/5d4b0e30-926e-11e9-b7ea-60e35ef678d2

The author notes the key trend of how startup founding teams now are looking increasingly toward MBA demographics for hiring purposes. This information is important to support the notion that higher education is being more valued by firms that are in the startup space.

Nabamita Dutta, Russell S. Sobel (2018). Entrepreneurship and human capital: The role of financial development. International Review of Economics & Finance, 57, 319-332, https://doi.org/10.1016/j.iref.2018.01.020.

The authors focus on the impacts of tertiary enrollment and financial development on entrepreneurship. The article frequently contrasts against standard human capital and economic theory, contending that traditional factors like education and experience may not support a venture because both can stifle creativity and innovation. The article then shifts toward an approach of examining financial development, of which includes the given country's economic development, sources of capital raising like private capital, liquid liabilities, and bank deposits, and the venture's overall stage of development. From this focus, the authors conclude that both tertiary enrollment and human capital factors have the most impact on ventures that are in lower levels of financial development, with impact dwindling as financial development reaches higher levels in general.

Neuner, J. (2013, March 22). 40% of America's workforce will be freelancers by 2020. Retrieved from https://qz.com/65279/40-of-americas-workforce-will-be-freelancers-by-2020/

The author primarily highlights the statistic that 40% of America's workforce is slowly becoming freelance work. This supports the notion that independent contractors are becoming an increasingly popular form of work given that Americans seek greater job flexibilities. Therefore, this labor market trend can prove helpful for entrepreneurs, particularly those looking to fill short-term needs.

Noe, R. A., & Kodwani, A. (2020). *Employee training and development* (7th ed.). New York, NY: McGraw-Hill Education.

This book chapter underlines the importance of relevance of employee training and development by adopting a detailed perspective on what such training and development concepts entail. The book also proceeds to outline how such training and development programs can be developed, particularly through the training design process. This distinct seven-step process proves valuable for developing cost-effective and resourceful training programs.

Ouimet, P., & Zarutskie, R. (2014). Who works for startups? The relation between firm age, employee age, and growth. *Journal of Financial Economics*, *112*(3), 386–407. doi: https://doi.org/10.1016/j.jfineco.2014.03.003

The authors study the question of who ends up working for startups by linking the factors of firm age, employee age, and growth. They find that younger, new firms tend to disproportionately hire younger people. Possible explanation for this trend includes the idea that younger people can be more risk tolerant, have joint dynamics with the founding team, and possess relevant skills. This information is used to support general trends identified among new hires in entrepreneurship.

Patel, N. (2015, September 2). 90% Of Startups Fail: Here's What You Need To Know About The 10%. Retrieved from https://www.forbes.com/sites/neilpatel/2015/01/16/90-of-startups-will-fail-heres-what-you-need-to-know-about-the-10/#62a1d6d86679

The article outlines both the success and failure rates of startup firms and some of the attributing reasons as to why successful firms tend to fare well in the markets. Among these successful trends include the ability to connect a product directly to a consumer need, acting with agility, and protecting against long-term risks. These considerations are used to outline the urgency that startups should adopt not only in anticipating the long-term but also in pre-growth phases.

Picken, J. C. (2017, July 5). From startup to scalable enterprise: Laying the foundation. Retrieved from https://www.sciencedirect.com/science/article/pii/S0007681317300605

The author outlines the stages that are startup follows, which includes the following in order: startup, transition, scaling, and exit. These stages are defined mostly by the founding team's challenges associated with each step, with strong focus typically being given to the transition stage. It is in this stage that the venture solidifies itself for the long-term.

Ries, E. (2017). *The startup way: how modern companies use entrepreneurial management to transform culture and drive long-term growth*. New York: Currency.

This book underlines what culture entails for a business, either established or newly formed, alongside the facets of culture. More specifically, elements of a strong culture include having clear values, communications with employees, and personal alignments. These definitions are used to provide context on what culture at a startup encompasses.

Rogers, E., & Paul, J. (2018, July). Strategic People Practices in Startup Organizations. PDF.

This online article outlines what culture in particular entails in a startup and why founding teams have placed tremendous investment and focus on refining their culture. The process of developing culture is a continuous challenge, yet properly addressing it with time pays significant benefits in the future. The article also utilizes survey data to gauge the focus among founder teams on culture and cultural elements.

Saul Estrin, Tomasz Mickiewicz, Ute Stephan (2016). Human capital in social and commercial entrepreneurship. Journal of Business Venturing, 31(4), 449-467, https://doi.org/10.1016/j.jbu svent.2016.05.003.

The three authors examine social and commercial entrepreneurship, contending that the two forms require unique configurations of human capital and different levels of investment. The article contends that each form offers a unique value proposition: commercial generates profit and typically specializes in a consumer good/service, while social entrepreneurship focuses on addressing a present social issue. The article then poses two multilevel frameworks for analyzing the commonalities and differences between social and commercial entrepreneurship, with the most important distinctions lying in types of skills in demand, moderating effects on human capital-entrepreneurship relationship, and the rule of law.

Santos-Rodrigues, H., Dorrego, P. F., & Jardon, C. F. (2010). The Influence Of Human Capital On The Innovativeness Of Firms. *International Business & Economics Research Journal (IBER)*, *9*(9). https://doi.org/10.19030/iber.v9i9.625

The authors outline how human capital contributes to both innovative and managerial activities. While managerial activities tend to be centered on daily, short-term operational tasks, innovative activities are those associated with transforming a business idea into a market valued product or service. Human capital impact seeps throughout these activities, allowing a benefit to new ventures in particular if leveraged carefully and practically.

Schultz, T. (2006, July 26). The Economic Importance of Human Capital in Modernization.

The author supports the notion that human capital supports human capital. Beyond the benefit between human interactions, the machinery and outside processes that all humans influence also benefit from increasing human capital influences. This conclusion is used to support the notion that human capital benefits extend beyond just employees.

Sundheim, K. (2016, February 26). 15 Traits Of The Ideal Employee. Retrieved from https://www.forbes.com/sites/kensundheim/2013/04/02/15-traits-of-the-ideal-employee/#3ef66121161f

This article lists key qualitative traits that are desirable among employees, of which include action-oriented, intelligent, ambitious, autonomous, and fit for the startup culture. While these are all soft traits, they can be used as a guideline for the type of people entrepreneurs can seek to work for their venture.

Tan, E. (2014). Human Capital Theory: A Holistic Criticism. *Review of Educational Research*, *84*(3), 411–445. https://doi.org/10.3102/0034654314532696

The author focuses on general human capital theory and its change from an economics framework to that which supports general business practices, including but not limited to entrepreneurship. Despite being a fundamental basis to how hires are viewed, how companies make hiring decisions, and how human capital markets are studied, human capital theory has received wide criticism. These critiques include its broad scope, lack of quantitative support, and generalities. However, the article structures the analysis in a manner that presents each historical concern and then a relevant counterargument to each, which in turn supports the soundness of human capital theory even in emerging industries.

van Loo, J., de Grip, A. and de Steur, M. (2001), "Skills obsolescence: causes and cures", *International Journal of Manpower*, Vol. 22 No. 1/2, pp. 121-138. https://doi.org/10.1108/01437720110386430

The authors outline how skill obsolescence is a long-term detriment to the quality of human capital, particularly because as skills grow irrelevant so too does productivity and profitability. The journal article also outlines what skill obsolescence entails, the forms in which it manifests, and possible mitigations for preventing long-term skill obsolescence.

Wall Street Journal. (2020). How to Attract Talent to a Small Company. Retrieved from https://guides.wsj.com/small-business/hiring-and-managing-employees/how-to-attract-talent-to-a-small-company/

The article notes how most of the initial employees that work for a startup come from personal networks. This usually extends to the first 15 to 20 employees of the venture, dependent on the size and nature of the business. This conclusion is used to highlight the strategy that human capital can be used to extend such networks and lend toward future hiring efforts.

Wasserman, N. (2013). *The Founders Dilemmas: Anticipating and Avoiding the Pitfalls That Can Sink a Startup*. Princeton University Press.

The book analyzes the primary pitfalls of entrepreneurial ventures that can ultimately cause them to fail, with particular focuses on different types of dilemmas. At every stage in which a venture forms, grows, and becomes established, entrepreneurs face a slew of dilemmas including but not limited to career, relationship, role, hiring, and investor dilemmas, with the influence of each depending on the stage that the venture has reached. Within hiring dilemmas in particular, the main concerns circle around finding the right time to hire, in which factors of consideration

include financial standing of the venture, willingness of the founder to give up equity, and overall value proposition that the venture has to draw in talent. The book also briefly touches on the barriers to human capital markets and the draw that founders have in utilizing their venture to quickly grow team sizes.

Wiklund, J., & Shepherd, D. A. (2008). Portfolio Entrepreneurship: Habitual and Novice Founders, New Entry, and Mode of Organizing. *Entrepreneurship Theory and Practice*, *32*(4), 701–725. https://doi.org/10.1111/j.1540-6520.2008.00249.x

This article distinguishes between novice and habitual entrepreneurs by using a cohort of 2,253 entrepreneurs and build a portfolio of common characteristics. The authors' research concludes that both types of entrepreneurs have distinct internal modes of organizing. In particular, habitual entrepreneurs are most influenced by their past mistakes and lessons and will carry that over to their new ventures, even if the newer ventures are in different industries. Furthermore, the article provides analysis on what makes novice entrepreneurs turn into habitual ones. The predictive factors examined in the article include the ventures' human capital, or educational and startup experience, and social capital, including business networks and linked with government support agencies. This means that entrepreneurs typically evolve their management methods and evolve from an internal form to a more independent form of organization.

Wolters Kluwer. (2020). Are Your Workers Subject to Payroll Taxation? Retrieved from https://www.bizfilings.com/toolkit/research-topics/managing-your-taxes/payroll-taxes/are-your-workers-subject-to-payroll-taxation

This article briefly outlines the tax responsibilities for corporations who accept full-time employees, including the payroll taxes and other associated expenses that must be paid. The article also explains what types of employees qualify and which payroll taxes apply. This information is used to provide context on the costs associated with full-time labor.

Wright, M., Hmieleski, K. M., Siegel, D. S., & Ensley, M. D. (2007). The Role of Human Capital in Technological Entrepreneurship. Entrepreneurship Theory and Practice, 31(6), 791–806. https://doi.org/10.1111/j.1540-6520.2007.00202.x

The four authors dissect what human capital characteristics are most desired among technological entrepreneurship ventures. They contend that technological entrepreneurship is increasingly focused on the technical capabilities of incoming hires, including coding in various languages. However, they note that labor markets often do not have sufficient supply in the high-demand skill areas. As a result, entrepreneurs change their hiring strategies and also focus on product development, learning capability, and academic background. Lastly, the authors distinguish how entrepreneurs of different experience, including those deemed nascent, novice, or habitual, will structure their early stage technological ventures. In particular, habitual entrepreneurs will lend from their prior experience and be more liberal with their hiring decisions, as they are better equipped to accommodate for potentially short hires and recognize what their ventures need in skill and talent.

Yohn, D. L. (2019, May 1). Why Startups Fail. Retrieved from https://www.forbes.com/sites /deniselyohn/2019/05/01/why-start-ups-fail/#6f76fbee28a5

This article examines the top 20 reasons as to why startup fails on the basis of studies conducted on startups in the United States. Among the top reasons include issues with the management team and style of the founding team, culture disruptions, and failure to listen to customers. These statistics lend toward the drawn conclusion that culture and people serve as both strengths and potential weaknesses if not focused on with due diligence.

Yoo, O. S., Roels, G., & Corbett, C. J. (2016). The Time–Money Trade-Off for Entrepreneurs: When to Hire the First Employee? *Manufacturing and Service Operations Management*, *18*(4), 461–607. doi: https://doi.org/10.1287/msom.2016.0587

This article produces a study that examines the time-money dynamic and trade-off for founding teams, with particular regards to the difference between the short-term and long-term. The authors find that as a venture ages, a founding team's time gets progressively more valuable than the funds. This study is used to support the contention that human capital becomes more valuable in the long-term on the grounds that it saves time for founding teams, which can then be put to other productive uses.

Zacharakis, A., & Meyer, D. (2000). The potential of actuarial decision models: Can they improve the venture capital investment decision? *Journal of Business Venturing* , *15*(4), 323–346. doi: https://doi.org/10.1016/S0883-9026(98)00016-0

The journal article notes how venture capitalists usually use human capital investments as a primary assessment factor in assessing their own potential investments. As such, human capital investments tend to be a supportive and positive indicator, as they suggest that the firm is beginning or in the process of sustained growth. This point emphasizes the contention that human capital also supports financial goals of a venture.

Zetlin, M. (2019, April 30). A Study of 3,526 Companies Shows 1 Decision Makes Startups More Successful. Most Founders Do the Opposite. Retrieved from https://www.inc.com/ minda-zetlin/solo-founders-entrepreneurs-success-nyu-wharton-research.html

The author outlines how, based on a detailed study of over three thousand companies, solo founders seemingly fare better than their counterparts with multiple partnerships or a founding team. Explanations are primarily attributed to the fact that solopreneurs may be able to act on decisions quicker and take risks more decisively without too much weight. This information was used to support the notion that there is reasoning as to why entrepreneurs may be convinced to start their business alone.

BIOGRAPHY

Danny Li was born in Indianapolis, Indiana in 1997, moved to upstate New York before middle school, and then moved to Texas before high school. Currently, he is enrolled as a Canfield Business Honors Program, Plan II Honors Program, and Finance major at The University of Texas at Austin and plans to graduate in May 2020. In college, he has been actively involved in student organizations like the Asian Business Students Association, Texas Blazers, The Project, and The Pans of Texas, all of which enable him to provide mentorship and learn new skills. After graduation, he plans to join the Deloitte Strategy & Operations team as a Business Analyst, where he will work in the consulting industry to support businesses nationally.