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Unicorns and agency theory: Agreeable moral hazard?

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ABSTRACT

The number of unicorns, startups valued over $1 billion, has steadily risen over the past decade. The abnormally high valuation of a unicorn from investors is based on their potential to disrupt a market and create a new paradigm. With this as the backdrop, this piece asks the question, what theoretical tools do we have to understand unicorns? Specifically, we explore agency theory. We argue that if principals and agents agree on the goal of disruption, then perhaps the agency problem that does occur in unicorns is beneficial, not a cost. Further, we argue that the principals of unicorns do want agents to take higher than normal risks with their investment to disrupt a given market. From this phenomenon, we introduce the concept of agreeable moral hazard and its use in the unicorn setting. Not only does the concept of agreeable moral hazard provide theoretical implications for future research, but it also highlights the need for more research to test existing theory on the unicorn population.

Introduction

Startup unicorns are pre initial public offering (IPO) ventures that have been valued over $1 billion. Just a few years ago, there were only a handful of these companies in the world, which is why they are referred to as unicorns (Schindehutte, 2016). As of the beginning of 2019, there are 328 ventures that would be considered unicorns, with anticipation that more are quickly on the horizon (CB Insights, 2019). While it has been claimed that studying unicorns are a distraction from understanding "real" entrepreneurship (Aldrich & Ruef, 2018), this paper demonstrates that unicorns represent a unique and new sample of ventures to expand upon existing theory. From a theoretical standpoint, scholars have argued that due to the congruence of goals between investors and ventures to grow and make money, agency problems are less applicable (Arthurs & Busenitz, 2003). While seemingly true in its traditional application, we dissect a key element of agency theory, moral hazard, to explore how it may impact unicorns differently than more traditional ventures.

Agency theory states that problems will arise when the goals of the owner or principal (venture capital firm) no longer align with the agent (entrepreneur), and where the agent may not operate in the best interest of the principal (Eisenhardt, 1989; Jensen & Meckling, 1976) which is widely known as the principal-agent problem (Bendickson et al., 2016a; 2016b). In this case, we anticipate there will be varying alignment issues between the venture capital (VC) firm and the entrepreneur. A key element of agency theory is moral hazard. While research in different disciplines defines moral hazard in different ways, we align with the most generalized definition of moral hazard: an agent taking higher than normal risk with the principal's money. Historically, moral hazard has been seen negatively, providing inefficiencies and unnecessary costs for the principal. While we agree with the negative connotation of moral hazard in traditional settings, we introduce the concept of agreeable moral hazard, providing a new perspective on moral hazard in the unicorn population. Because of the overarching drive of unicorns to disrupt markets—defined more generally as a form of Schumpeterian shocks (Schumpeter, 1934) rather than the theory of disruption (Christensen, 2006)—we argue that the investors desire for entrepreneurs to take higher

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than normal risks with their money.

Where moral hazard is relevant is not necessarily that the principal and agent agree to take higher than normal risks, but in how that risk is operationalized in market actions. While investors, especially VCs, consider themselves experts in the area they are investing in, the nature of disruption is fraught with uncertainty, raising questions about the usefulness of previous market interactions. With no definitive tactics for disruption, this creates room for information asymmetry, where the venture has more information about all of its market experiments than the investor. Without enacting atypical strategies and taking higher than normal risk, the entrepreneur cannot achieve disruption. With this, the venture must make quick iterations in the market to solidify its value proposition. Because of this quickness and rush to disruption, consensus among all of the principals on the proper strategic action cannot be achieved. Hence we argue that there is a level of agreed upon moral hazard, or agreeable moral hazard occurring in unicorns for goal congruence of disruption to continue. In other words, because the venture is moving quickly and making many decisions in its disruptive pursuit, we argue that investors want the venture to take higher than normal risk with their money and that the investors may not be aware of all of the market actions of the venture and its associated risks. Yet, this is uniquely acceptable by the investor in the unicorn context.

This paper provides implication to both theory and practice. By introducing the idea of agreeable moral hazard, we extend agency theory beyond its largely negative implications. Agency may have benefits in certain settings, specifically with unicorns, and may serve a very useful strategy. This paper also provides new logic as to how any firm may be able to achieve disruption. By having principals willing to have agents take higher than normal risks with their money allows a platform for those agents to try to disrupt markets. If agents cannot take certain actions towards disruption, the outcome of disruption will not occur. The following sections will explore existing thought on agency theory and moral hazard, along with understanding how unicorns differ from other populations of firms. From this, we introduce the concept of agreeable moral hazard and its implications.

Literature Review

Agency Theory

Agency theory describes a problem that arises when one party (the principal) hires another party (the agent) to perform a service in which the agent has decision-making responsibilities (Jensen & Meckling, 1976). The theory operates under the assumption that both parties in the agency relationship are utility maximizers acting in their own self-interests (Eisenhardt, 1989; Jensen & Meckling, 1976). As a result, the agency problem arises in the relationship when the goals and interests of the agent and principal diverge, when it is challenging for the principal to monitor or check the behavior of the agent, and when the principal and agent's risk preferences differ (Bosse & Phillips, 2016; Eisenhardt, 1989). Agency theorists use a contract as the unit of analysis to describe the relationship between the principal and agent, thus, maximizing the optimal contract is essential to mitigate opportunistic behavior.

One facet of the agency problem is moral hazard, which occurs when the agent's actions are self-serving, such as shirking (Gomez-Mejia & Balkin, 1992). Moral hazards are likely to emerge in environments with high information asymmetry and managerial freedom (Gomez-Mejia & Balkin, 1992). Adverse selection, another aspect of the agency problem, refers to a misrepresentation of the agent's abilities (Arthurs & Busenitz, 2003). Moral hazards and adverse selection can emerge as a result of asymmetric information—when one party in the agency relationship possesses knowledge that the other party does not. Accordingly, agency theory suggests the implementation of monitoring devices and incentive structures to reduce these agency costs (Tosi Jr & Gomez-Mejia, 1989), specifically moral hazard.

Moral Hazard

The term moral hazard was originated from the insurance literature (Rowell & Connelly, 2012; Zeckhauser, 1970), but also became popular in economic probability and decision-making (Dembe & Boden, 2000; Hale, 2009; Holmstrom, 1979). In the insurance literature, moral hazard is said to be present because insurance is perceived as an incentive for people to behave carelessly (Dembe & Boden, 2000). For example, moral hazard is present when an individual can be reckless with a rental car if he or she paid a small amount of money for complete insurance on the vehicle. The deposit insurance literature suggests that moral hazard may arise in the banking industry because banks may be more inclined to "gamble" or engage in risk-taking behaviors at a cost to taxpayers (Yilmaz & Muslumov, 2008). In other words, moral hazard occurs when the agent takes higher than normal risk with the principal's money.

This risk has been assumed to only benefit the agent and be to the detriment of the principal. With a negative connotation, moral hazard has been described as hidden actions by agents (Arrow, 1984), unobservable behaviors resulting in consequences that are observable (Mirrlees, 1999). In the organization literature, moral hazard has been viewed

through the lens of agency issues surrounding risk and information (Mitnick, 1992). The foundation of this concept is rooted in economic logic, attributing moral hazard and adverse selection to issues with monitoring and incentivizing agent behavior in the principal-agent relationship. Since it is often difficult to verify that the agent is performing in the best interest of the principal, moral hazard can be problematic without the appropriate controls, incentives, and rewards in place.

Traditional VC Literature and Moral Hazard

While entrepreneurs almost always have some stake in the venture (e.g. money, patents, efforts, time, and so forth), in pursuit of starting an entrepreneurial venture, funding provided by VCs enables entrepreneurs to benefit by bearing less risk (Murad, 2015). While VCs typically understand risk due to their often extensive industry experiences, because the venture capitalist may not be able to monitor or verify how the entrepreneur allocates the funds, and take advantage of the knowledge, moral hazard emerges leaving the venture capitalist unaware of some of the risks taken (Bergemann & Hege, 1998). Additionally, moral hazard unfolds as the entrepreneur could shirk and use the invested capital for other expenditures (Bergemann & Hege, 1998).

In order to protect their investment, traditional VC literature has identified two strategies for VCs to prevent moral hazard: 1) staged investments and 2) board positions. According to Wang and Zhou (2004, p. 1) "key characteristics in venture capital financing are staging the commitment of capital and preserving the option to abandon the project." To reduce moral hazard, staged investments are used to guide decision makers to produce an advantageous outcome for VCs (Gompers, 1995). Staged financing enables VCs to invest capital at different phases of the project. "Each financing round is usually related to a significant stage in the development process, such as completion of design, pilot production, first profitability results, or the introduction of a second product" (Cornelli & Yosha, 2003, p. 1). Entrepreneurs may occasionally withhold negative information regarding the status of the project to avoid putting the venture's financing at risk. This includes implementing tactics to improve their reputation at a cost to the VC (Gompers, 1995). In order to protect their investment and reduce moral hazards, VCs monitor the entrepreneur's progress and, if necessary, threaten to terminate funding, (Wang & Zhou, 2004).

Similarly, the board of directors examine risks closely to reduce moral hazard in relation to the use of internal and external resources (Singh & Harianto, 1989). The board's decision-making guides the overall performance of the company (Zahra & Pearce, 1989), and research has shown that board members take a more active role in the strategy-making process of venture-backed firms (Fried et al., 1998). VCs take a board position in order to monitor and influence how their money is spent (Rosenstein et al., 1993). Thus, traditional literature indicates that investors increase their mentoring and control function as the venture becomes more risky (e.g. Khanin & Turel, 2013). However, does this still apply to unicorns?

Proposition Development

Unicorns

Traditionally, VCs look for businesses that can multiply their investment (i.e. 10x), with the logic that they have already proven a market, and with this investment they can scale to reach a probable performance measure that satisfies the investors (Gompers, 1995; Sullivan, 2017). While unicorns may not be void of needing similar logic as a basis, the bigger goal is disruption of a market, which provides a hope that even more money can be made beyond estimates based on historical market conditions. Not unlike the innovation premium that shows why certain public firms trade at higher values (Dyer et al., 2011), there is perhaps a disruption premium that VCs are willing to pay to be part of the economic benefit of a paradigm shift in the market. Because of this disruption focus, we argue that VCs and ventures enact nontraditional strategies, such as giving ventures a longer than normal runway to get to profitability. When profits are helpful, but not necessary for a $1 billion company, this sample of ventures may need their own theoretical evaluations.

Why Unicorns Differ

There is very little research on the specifics of unicorns, and most often, they are lumped into venture capital conversations (Bellavitis et al., 2017; Kenney & Zysman, 2018). While unicorns do utilize venture capital, there are stark differences in these ventures, which is why unicorns are valued so much higher than other venture-backed startups. In fact, an analysis conducted by CB Insights (2018) found that only 1% of startups funded by VCs ever reach unicorn status, further illustrating its distinctiveness from other venture types. Unicorns receive much higher valuations based on the hope that they can be the first to disrupt existing large industries by creating a paradigm shift. This goal of disruption separates unicorns from other ventures and is how large investors get attracted to the venture. These investors put up the capital in the hopes that their unicorn is the "home run" venture that will create significant wealth

(Griffith & Primack, 2015). Thus, both the investors and the venture have goal congruence on disruption.

The intent of disruption can be viewed as a Schumpeterian shock (Schumpeter, 1934; 1942), where unicorns typically add technology in hopes to create a new market, displace existing competitors in an industry, and/or displace existing businesses in many segments by providing a product that consolidates industries. Unicorns tend to couple technology with an innovative business model that removes many of the flaws of the existing market transactions and costs (Chesbrough, 2007; 2010; Zott & Amit, 2007). Most unicorns are leveraging technology to redefine consumer behavior and effect some transformational change. What is more important is that most unicorns are competing in already competitive markets, resulting in disruption of the status quo. For example, businesses like Dropbox, Uber, and Zillow provide new ways to do things consumers were already doing; save electronic documents, get a taxi, or buy a house, yet easier with fewer transaction costs. For investors, it is the hope that these ventures become the new market paradigm, which could generate unforeseen wealth for every owner. Perhaps the ultimate goal is to create a blue ocean strategy (Kim, 2005), where a venture is able to disrupt many industries at once, making it nearly impossible for incumbents to respond. With this, the principals will get to experience monopolistic-like rents for their investment for an extended period of time.

Next, unicorns differ in long-term orientation. This great hope for tremendous wealth due to disruption includes a willingness from the investors for unicorns to experiment and find their way to a sustainable business model that creates a new market norm. Investors of unicorns expect to give leeway to the ventures if the venture stumbles, as it is expected that changing the paradigm will not be easy. In fact, the larger valuations and investments are there to provide a cover for the venture to survive tough times while it figures out how to make money, and fight incumbents should they try to outspend the new venture. For example, investors of SpaceX understand that they will not see a return until the venture seeks an IPO, which will take several years as the venture builds out the private space exploration industry (Sheetz, 2018). Additionally, with disruption being the key driver and knowing that this could take several years to start paying back dividends, a longer timeframe is also given for revenue and profits.

Profitably as an emphasis also somewhat drastically differs. Because of the long-term orientation and being substantially backed by VCs, arguably be too big to fail, it is expected that unicorns will operate with sizable financial losses for a much more significant amount of time (Kenney & Zysman, 2018). The VC dollars allow these firms to create their technology, the platform, and develop the marketplace that currently does not exist in the existing organizational field (Zietsma & Lawrence, 2010). As seen with the freemium model (Kumar, 2014), the drive is to grow a user base first and a revenue model second. If the venture is able to attract a loyal customer base with a freemium model, as that base grows, the venture will have a more accurate understanding of what those customers may be willing to pay for, or the data from those customers may be even more valuable. For example, prior to achieving unicorn status, Slack, a business software company, attracted thousands of users on a weekly basis. Consequently, the company was able to attract $120 million in financing and reach a valuation of $1 billion (Griffith & Primack, 2015). VC money gives the unicorns deep pockets to survive the transformation from being a peripheral threat to a direct competitor (Greenwood & Hinings, 1996) while the venture discovers its sustainable business model.

Lastly, the disruptive nature of unicorns is not without its fights (i.e. the effects of trailblazing). Existing businesses rarely sit idly by as they get disrupted by a new entrant. With this, existing market leaders will utilize market and governmental forces to protect themselves from disruptive forces. For example, Airbnb's disruption of the hotel industry has resulted in them having to fight legal battles for the right to operate in important markets. Former CEO of Uber, Travis Kalanick, stated "You're changing the way cities work, and that's fundamentally a third rail. We're in a political campaign, and the candidate is Uber and the opponent is an asshole named Taxi" (Swisher, 2014, para 4). With focus on disruption, the venture and its owners are in for the fight to change the status quo, creating an underdog culture that everyone can rally behind to achieve the "impossible." With VCs often sitting on boards, the function of the board of directors to provide independent and balanced guidance may be compromised (Hillman & Dalziel, 2003; Pfeffer, 1973; Wagner III et al., 1998; Westphal & Zajac, 1997; Zahra & Pearce, 1989). To make their investment worth it, principals of unicorns may not only be more agreeable to founders taking nontraditional paths in order to cross the disruption finish line, but also in helping them along the way in achieving their audacious visions. For example, one investor of SpaceX told a reporter, "they are not invested first and foremost for financial upside, they've invested for the chance to play a small part in one of the very few private companies that will likely change the course of history" (Sheetz, 2018, para 3). This sentiment is not common for many venture-backed firms.

Agreeable Moral Hazard

As stated above, moral hazard is defined as taking higher than normal risk with someone else's money. In most situations, moral hazard is negative so that the principal does not get taken advantage of while the agent reaps the benefits of using someone else's money. However, we propose that principals of unicorns accept some element of moral hazard from the founders in order to find their way to successfully disrupt a market. While there is never a fully blank check, founders need a level of autonomy and the ability to experiment to test potentially radical ideas in the market (Dew et al., 2009; Lumpkin et al., 2009). Without the ability to enact non-traditional strategies, the unicorn will not be able to take the necessary experimental steps to unearth a disruptive and sustainable business model (Brush et al., 2015; Osterwalder & Pigneur, 2010; Smith et al., 2010; Zott & Amit, 2007). In other words, should normal governance mechanisms take hold, having the principals concerned about preventing moral hazard, the process will encourage traditional thinking and action versus something that might be paradigm shifting (Fisher, 2012).

Theranos, the now defunct unicorn focused on revolutionizing the blood diagnostics industry (Carreyrou, 2018), is an example demonstrating that agreeable moral hazard exists and also shows that there is a point where its effects can be detrimental to the principals. Theranos proposed a proprietary single stick method for testing hundreds of medical tests. Their proposed technology and methodology should have allowed them to offer hundreds of blood tests for a fraction of what traditional testing methods cost. After two years of near universal praise, a report published in October of 2015 by the Wall Street Journal called into question the validity of its tests and kicked off a series of negative stories about the company (Carreyrou, 2015). FDA regulators found deficiencies in Theranos's processes for monitoring quality, vetting suppliers, and handling customer complaints (FDA, 2015).

When asked about these issues, Theranos founder Elizabeth Holmes frames them as a communication failure. She says that the company has been so focused on building the technology that they have failed to communicate important truths about phlebotomy and the blood diagnostics industry. For instance, blood tests are not subject to FDA regulation and that there is no official arbiter of validity or methodologies for new technologies. In essence, her argument is that Theranos is blazing a trail. Further, she argues that just because regulators have not caught up yet, it does not mean their tests are invalid.

With this trailblazing argument, the investors rallied behind Theranos and even more investors joined to help the company disrupt the market. Elizabeth Holmes fraudulently sold the impossible vision to investors that had very little knowledge in this industry. It has been reported that the investors asked very few questions to validate the venture's claims, and solely focused on being part of this venture that could "change the game" in healthcare (McKenna, 2018). These investors wanted Theranos to take higher than normal risk with their money in the hope that much greater wealth would be created. However, Elizabeth Holmes took advantage of agreeable moral hazard, resulting in a loss of nearly $700 million (McKenna, 2018).

The Theranos example demonstrates that agreeable moral hazard has a limit and is dependent on the intentions of the founders. However, mature unicorns, such as Airbnb, Uber, or SpaceX, have shown the results and benefits of agreeable moral hazard when not taken advantage of. Collectively, these three ventures are now worth roughly $123 billion, and are anticipated to keep growing as they continue their disruption of markets and sustain their revenue streams. While Elizabeth Holmes crossed the line to take advantage of investors, arguably, Elon Musk, founder of Tesla and SpaceX, has found a way to optimize agreeable moral hazard. Investors of SpaceX want Musk to be taking higher than normal risks and pushing ideas to their limit (De Lea, 2018). Musk and his investors have found agreeable moral hazard, which has created many benefits for all involved. Thus, we propose:

Proposition 1. Principals of unicorn or soon-to-be unicorn ventures (a) desire and (b) aid those ventures to take higher than normal risks (c) to a certain point (inverted-U relationship) with their investments to disrupt markets.

Proposition 2. The above relationships (i.e. agreeable moral hazard) do not occur in traditional venture-backed (non-unicorn) startups.

Implications and Conclusion

This article introduces the concept of agreeable moral hazard, while also subsequently demonstrating the need for more research focused specifically on unicorns. Agreeable moral hazard provides a pathway for scholarship to understand the relationship between principals and agents in a setting focused on disruption. Because there are congruent goals on disruption between the two, we propose that opposite forces occur from the traditional principal-agent costs, where principals expect agents to take higher than normal risks with their money to create a paradigm shift in existing markets. This agreeable moral hazard is required for founders to test new ideas in the market. Additionally, the VCs that have invested high dollar amounts into the unicorns

need these ventures to successfully create a paradigm shift in the markets to make their potentially inflated investment worth the gamble. Without agreeable moral hazard, traditional governance perspectives hold, and will most likely not result in moon shot disruption.

This also shows that these moon-shot investments are thought about differently than other venture-backed firms. This paper points out the fallacy in lumping the unicorns into all VC discussions. Unicorns are very different from traditional venture-backed firms based on their goals and strategies. We are not the first to explore issues within the agency theory framework that differ based on firm size (e.g. Bendickson et al., 2015). However, by exploring the concept of agreeable moral hazard and the differences from traditional agency theory, our article points out that unicorns are a unique population to test existing theory. Just as the Chinese setting provided the outlet to test existing theory in that unexplored setting (e.g. Tang et al., 2017), unicorns provide a similar population to contradict, extend, or create theory.

Another implication of this article is that agreeable moral hazard may be a necessary, but not sufficient element for any organization trying to disrupt a market. One could argue that any organization focused on reducing agency costs will never desire agreeable moral hazard. If the agents cannot ever experiment, disruption will rarely occur (Fisher, 2012). Argued from a different perspective, most organizational governance structures form a board to protect the principals' investments and prevent moral hazard through three primary roles (Singh & Harianto, 1989; Zahra & Pearce, 1989). The three major roles boards play are service, strategy and control (Zahra & Pearce, 1989). The board's control role is to ensure that the agents are performing in a manner that will protect the shareholders' interest (Chapin, 1986). How this is setup in the organization has been shown to influence the type of research and development pursued by the organization (Baysinger et al., 1991). Ideas that are more radical may never reach the board, as the firm may self-filter out nontraditional ideas. It is extremely difficult to estimate market demand when considering disruption. With this creates problems for marketing, finance, and legal departments to approve projects to go any further than just an idea. Structurally speaking, it would appear to be difficult to pursue disruption without agreeable moral hazard.

Our paper is not without limitations yet some of which may lead to fruitful areas of future research. First, while we present our ideas for propositions theoretically, we did not conduct a study to test these. Scholars could look to empirically test these ideas by collecting data on risk-taking at unicorns (and soon to be unicorns) to better understand decision making at these firms as it pertains to risk. Then, by collecting preferences for risk in smaller startups (i.e., VC-backed firms that are not of or nearing unicorn status), comparisons and conclusions could be further explained. Related, in terms of smaller startups, scholars may want to assess whether these propositions apply when VCs are involved and/or would they also apply to an entrepreneur seeking other types of funding (e.g. seed funding)?

Secondly, in practice, it can be observed that certain public companies seem to be responding to market contingencies differently than others. For instance, how can Amazon not only think about, but quickly execute on more radical ideas than the world leader Wal-Mart? Or, how can Google and Facebook span into other realms? While path dependency plays a role (Greener, 2002; Sydow et al., 2009; Vergne & Durand, 2010), future research can further expand upon the practical implications of agreeable moral hazard. For instance, what role do lawyers and their power in the firm play in disruption and agreeable moral hazard acceptance? Is agreeable moral hazard beneficial?

From a theoretical standpoint, more must be understood about agreeable moral hazard. What are the boundary conditions of agreeable moral hazard? What environments create agreeable moral hazard, and what elements make it a positive or negative for the firm? How does a firm reach agreeable moral hazard and how is it defined within firms? What role does trust play in this relationship, and what individual-level variables matter, as in the Theranos example? How might agreeable moral hazard align or differ with the Christensen's (2006) Theory of Disruption or the effectuation literature (Sarasvathy, 2001)? In what context might agency problems be beneficial? By developing this idea we hope to launch a starting point for further research and discussion as there is certainly more to unpack in regards to agreeable moral hazard.

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