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January 2007

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Disease Epidemics And Entrepreneurial Tipping Points: Models Of Venture Viability From Customer And Financier Perspectives

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Abstract

Whereas discovery is fundamental to entrepreneurship, there is low understanding of how and why some discovered opportunities spread through market systems. We draw from epidemiological theories of how contagious viruses spread through human populations and propose adaptations of epidemic principles to describe venture spread patterns. We profile venture ideas via epidemiological dimensions (contact rate, market size, adoption rate, useful life). Next, we cross-reference those dimensions to entrepreneurial and financier orientation dimensions. Implications are relevant to the strategic decisions of entrepreneurs and investment decisions of financiers.

Background

Discovery is essential to entrepreneurship (Eckhardt & Shane, 2003). It is defined by circumstances in which new goods, services, raw materials, and organizing methods can be introduced into a market system through formation of novel means, ends, or means-ends relations (Casson, 1982; Shane & Venkataraman, 2000). The inherent novelty means that any given venture offering may have never been seen before, and may never be seen again. Neglected or fostered by such circumstances, ventures have potential evolve, generate value, and bear upon future decisions (Sarasvathy, 2001). Processes driving these phenomena are a rich area of inquiry, and research engaging the peculiarities and intricacies of entrepreneurial discovery continues to emerge in the literature (Chandler, DeTienne, & Lyon, 2003; Oviatt & McDougall, 2005; Murphy, Liao, & Welsch, 2006).

Opportunities are basic to any theory of the entrepreneur (McMullan & Shepherd, 2006). Yet, why such paltry numbers of them evolve into viable ventures is less clear. At genesis, rooted in sources of experience, relationships, technology, and timing, an opportunity is in the purview of an individual. In early stages, new venture ideas are frequently invisible to other market actors, who are nonetheless in similar circumstances (Shane, 2000). Although discovery has aspects of a science of the specific (Jacobson, 1992), the entrepreneurship process, which transpires over time, entails system-level post-discovery dynamics. How might these dynamics vary based on the nature of a venture offering? Our purpose is to draw from epidemiological theory about viral spread in human populations based on the characteristics of viruses. We use epidemiological models and theories (Murray, 1989) in conjunction with entrepreneurship theory (Lumpkin & Dess, 1996) to offer some ideas instrumental to engaging the issues.

Theoretic Relevance

Entrepreneurship includes the discovery, evaluation, development, and exploitation of future resources, goods, and services (Venkataraman, 1997). Discovery is necessary but not sufficient for entrepreneurship because social processes are required for the reification eventual viability of a business venture. Such viability requires adoption and support from customers, employees, and financiers. Thus, factors related to transactions in the context of a social system are important and, as such, interpersonal interaction has been used to explain how information about new ideas is communicated (Sterman, 2000).

The diffusion and spread of ideas and new products feature patterns and tipping points no less than diseases. As susceptible human populations occupy both contexts, viral spread is can be seen as analogous to entrepreneurial growth (Sterman, 2000: 341). As a developed field of study, epidemiology explains the spread of diseases in populations (Anderson, 1994). Popular press (Gladwell, 2002) and viral marketing research (Rosen, 2000) have used epidemiologically-influenced models to explain the idea spread. Entrepreneurship research has yet to use core principles of epidemiological theory (Murray, 1989) describing virus characteristics to forecast the tipping point when ventures receive begin to receive intense attention from future customers and financiers. Our undertaking is intended to make a contribution in this area.

Epidemiological Theory

For a virus to spread, it must be transmitted across individuals with a contagiousness that permeates a population via transmissions from infectives to susceptibles. Similar to the contraction of a virus by one who is susceptible to it, an idea can be adopted by one who finds it idea suitable. In both contexts, independently of the (a) virus/idea itself, diffusion and spread involve (b) communication through various direct channels (c) in a social structure (d) over time (Rogers, 1962: 19). The model assumes some individuals know about the new idea (or carry the virus) whereas, at the same time, others do not. Social interaction is required. Thus, diffusion entails social dynamics, and multiple models have been offered to explain these phenomena.

Rogers (1962) described the classic model of diffusion in terms of adoption mechanisms. Adoption entails contact with venture offering and subsequent decisions of whether or not to utilize it. Spread rates of extreme acceleration exhibit the classic epidemic model and curve, as exhibited in Figures 1 and 2. Although the model describes viral spread in terms of contact rate, population, infectivity, and duration, it does not explain the genesis of the virus. A zero point is an assumed equilibrium condition; in an entrepreneurship context, therefore, initial startup processes are out of bounds. Early development, as it were, is driven by indirect effects from outside the model. In an entrepreneurial context, such effects include advertising, media reports, and other indirect social channels (Sterman, 2000: 332). Although such elements become important when populations become large, they are unable to describe boom and bust cycles, dynamic pricing levels, variation in quality, competition, and other market factors that require feedback mechanisms and feature fluctuation patterns.

As diffusion in a population is dynamic and chronological by nature, it is useful to determine the recovery rate of carriers. In epidemiological models, the rate corresponds to average recovery time of infected parties. In an entrepreneurial context, discontinuation rate is the average point at which current adopters become former adopters. Past adopters are not prone to readopt the idea after discontinuation. Similarly to the varying contagiousness levels of infected parties in an epidemiology context, only current adopters in an entrepreneurship context communicate information about the venture idea actively to others in the market system in meaningful ways.

The addition of discontinuation events led to models with population segments of susceptible, infective, and removed (SIR) classes. SIR models describe these classes, who catch the disease (S), carry it (I), and are recovered, immune, or removed (R). Murray (1989: 611) depicts the process programmatically via the schematic,

S -> I -> R

The Bass diffusion model (Bass, 1969) describes diffusion via adoption mechanisms and external awareness. It overcomes the startup problem faced by simpler models because it admits that susceptibles in a large population contact a virus or venture idea via indirect and external sources. Whereas the Bass model describes contraction from direct sources identically to earlier models, it also assumes a probability of adoption based on exposure to external and indirect sources. Such influences account for a constant percentage of infectives in a given time interval. In idea diffusion contexts, the Bass model figures an adoption rate (AR),

$$AR = aP + ciPA/N$$

In which a = advertising effectiveness, aP = adoption from advertising per time period, and ciPA/N = adoption from word of mouth. As Sterman (2000: 333) explains, the model overcomes the startup problem because external sources are the only source of adoption when adopter population is zero. External sources decrease as the pool of susceptibles is depleted. Figure 3 shows both s-shaped curves in the Bass diffusion model.

Bass models treat total population as a constant. When used to explain viral spread in an environment that can change in size, therefore, some assumptions are liable to be violated. In entrepreneurial contexts entailing innovations or new products with short life cycles, its assumptions are reasonable. However, diffusion over long time frames strains the model because new dynamics emerge (e.g., demographic shifts). As well, mutations to the virus can occur.

Virus mutations can change the quality and robustness of a virus. As this kind of variance is liable to shift contagiousness, it also has an effect on the percentage of the population susceptible to it. The spread dynamics incurred by viruses mutating over time are different from fleeting ones. In entrepreneurial contexts, innovations serve a function similar to viral mutation. Such phenomena are not described by the Bass model. Yet, they occur in entrepreneurial contexts, for example, in the form of discontinuous changes in fashion or technology. Additionally, the Bass model does not explain immunity effects. In an entrepreneurship context, an immunity effect is reflected by experience with an innovation over its useful life lowering susceptibility to continue using the offering. Despite such shortcomings, these models are useful tools for considering venture diffusion.

Proposition 1: Epidemiological models are useful for explaining venture viability and spread in a market population.

Epidemiology and Tipping Points

Once individuals no longer carry a virus, they are not likely to be infectious to others and are not prone to reinfection. A disease will not spread in a population if the rate at which individuals become immune is faster than the rate at which carriers infect susceptibles. In the same way, new venture ideas will not spread if users discontinue use before influencing others to do so. As such, if a disease is "too fatal" or adoption "too fleeting," epidemic spread is not likely. On the other hand, imbalance between contagiousness and susceptibility can open the way to tipping points. If the infection / influence rate maintains a much faster rate than recovery, a tipping point event is likely to ensue. When infection rate greatly outruns recovery, the resulting spread pattern may approximate an s-shaped curve.

In the popular business press, the tipping point concept derives from contagiousness, large-scale ramifications, and dynamic idea spread patterns (Gladwell, 2002). Epidemiological models define a tipping point mathematically (Murray, 1989). The reproduction rate associated with the diffusion of an effect is defined by the number of new cases produced by a given (I) before recovery (R) status and the probability of transacting with a susceptible (S) case. In terms of an entrepreneurial venture offering in a market system, reproduction rate is described by

$$cid(P/N) > 1$$

in which c is contact rate, i is percentage of adopters, and d is average active usage period. P is population of potential adopters and N is the total population. This model shows a tipping point occurs when reproduction rate equals one. Sterman (2000: 341) explains that if reproduction rate is greater than one, the spread dynamic approximates a fad or fleeting trend instead of the s-shaped curve in Figure 6. (Figure 1 depicted a curve describing such an effect.) When P is low enough to bring the rate sufficiently below one, the effect is precluded from spreading.

Proposition 2: Epidemiological models are useful for explaining the nature and occurrence of "tipping points" in the spread of a venture idea.

The Entrepreneurial Context

The spread of venture ideas reflects epidemiological models. Potential customers come into contact with new venture ideas directly (e.g., meeting a current customer) or indirectly (e.g., advertising). Through the richness of direct contact, uncertainty is mitigated. Questions can be answered, for example, making an adoption decision more simple. For example, financial services professionals provide incentives for word of mouth advertising among current and potential customers to generate new business. Advertising is effective for spreading the word about a venture idea more widely and quickly than word of mouth, but such indirect contact makes for slower adoption decisions.

Epidemic modeling uses virus characteristics such as (1) communicability, (2) longevity of incubation period, (3) terminality, (4) carrier period duration, and (5) immunity characteristics to explain the speed, duration, spread, and intensity of viral spread. Like susceptibles and infectives in epidemiological theory, potential customers and financiers are also susceptible and more or less liable to be "infected" by a venture idea. Therefore, epidemic modeling is applicable in those contexts.

Characteristics of Venture Offerings

The characteristics of a venture idea affect how quickly it may be adopted by customers. Epidemiologic models, similarly, refer to the infectivity and other characteristics of a virus. For example, in an entrepreneurial context, the most well known venture idea for buying and selling books online (i.e., Amazon.com) took years for many customers to adopt because online purchasing was utterly novel. Uncertainty was high because customers did not want to enter credit card information online, keeping initial adoption rates low. For venture ideas with more precedent, as in the improvement of an existing product, adoption rates may be faster because uncertainty around purpose and value is lower. For example, Starbuck's offered an improvement in the quality of coffee in terms of coffee taste and the experience of visiting a coffee shop. Although the offering was more expensive than the average cup of coffee, initial adoption rate was faster than Amazon's because customers were more immediately certain about what they were getting (i.e., coffee).

Epidemiology describes viral spread via recovery rates and immunity. In an entrepreneurial context, the useful life of venture ideas also varies. Sometimes venture offerings approximate fads or fashions. Other times they are ubiquitous and indelible, based on length of time adopters will continue to use them and how long before interest wanes. Useful life varies based on the nature of a venture idea. For example, Apple's iPod, once adopted, tends to be used regularly and continuously. Although the idea of a portable music player is not novel (e.g., the Walkman), high storage capacity distinguishes it as an improvement over previous offerings, making for a fast adoption rate. Ability of users to listen to wide ranges of music or podcasts appropriate to changing interests lowers the recovery rate. Taken together, these aspects extend useful life - immunity takes longer to develop. By comparison, the "pet rock" enjoyed a fast adoption rate when introduced. However, unlike the iPod, the pet rock does not offer rich variety of experiences and is not dynamic. As such, the recovery rate of adopters was high, as immunity developed quickly, and the useful life was short. The result was a fleeting trend instead of a venture idea that had staying power in the marketplace.

Given that venture spread reflects viral spread, entrepreneurial firms can take on specific strategies to promote spread based on the nature of their offerings. Drawing from the characteristics of a venture idea and its expected spread dynamics in epidemiological sense, entrepreneurs and financiers can make better decisions with respect to firm performance and investments.

Proposition 3: Epidemiological models are useful for formulating venture strategy and orientation with respect to procuring resources via customer and financier channels.

Spread Dynamics

We use four elements from epidemiological theory that affect the spread dynamics of a virus in a population (contagiousness, population size, infectivity, carrier period) and adapt them to the entrepreneurial context. These basic elements are (1) contact rate, (2) market size, (3) adoption rate, and (4) useful life. These dimensions are liable to affect the spread dynamics of a venture idea similarly to how they affect the spread of a virus. Therefore, there are more or less appropriate entrepreneur and financier orientations based on varying profiles of them.

Contact rate refers to the levels of speed and ease by which individuals are exposed to the venture idea through direct or indirect channels. Contact rate is generally higher for simple product offerings that are easy to perceive immediately and understand (e.g., new clothing accessories). For more complex product offerings, such as an engineered product that requires training to use (e.g., a buzz saw designed for precision cuts), the contact rate is lower.

Market size refers to the number of customers who will potentially adopt the venture's product offering. Highly specialized product offerings (e.g., precision scales for weighing small objects) usually have a smaller market size because there are less individuals with the specific need that such offerings are intended to address. More general product offerings (e.g., bath towels) with wider appeal have a larger potential market size because there are more individuals with the appropriate needs.

Adoption rate refers to the rate of speed at which potential customers choose to adopt the product offering after coming into contact with it. Some venture ideas and product offerings have the quality of fads and fashions and are adopted very quickly by customers (e.g., certain toys for children). Other product offerings are adopted quickly because they are novel as well as clearly useful (e.g., microwave ovens). Some venture ideas and product offerings take a relatively longer time to be adopted, perhaps because their value is not immediately apparent or because they are quite different than established norms (e.g., selling books on the internet).

Useful life refers to the length of time a customer who adopted a venture idea will continue to use it. Useful life can vary dramatically and independently vis-à-vis other venture idea dimensions. For example, venture ideas that are adopted quickly may tend to have a short useful life (e.g., the pet rock). Venture ideas that are adopted quickly can also have a long useful life (e.g., portable MP3 music players). Some new product offerings that are adopted after a somewhat long period of time can have long useful lives (e.g., the electric guitar).

Entrepreneurial Orientation

The strategic orientation and decision-making of entrepreneurial firms can be more or less appropriate based on the spread dynamics of its venture ideas and product offerings. Here we draw from one model (Lumpkin & Dess, 1996) to describe how entrepreneurial firm orientation may vary based on the spread dynamic profile of a venture idea.

An innovative entrepreneurial orientation works well when contact rate is fast or slow. In the former case, an innovative orientation allows the venture to keep pace with the market expansion. In the latter case, it can help enable the venture to continuously seek new ways to reach customers more quickly. The innovative orientation may not work as

well in a large market as in a small one. The specialization required to reach a small market implies high levels of innovation and development. Of course, an innovation orientation can be instrumental to staying competitive in large markets too, but intense innovation is more likely critical in a small market. If the adoption rate of a spread dynamic is high, innovation may drive changes when no such changes are needed (i.e., too much technology push). At the same time, a lower innovation orientation may allow a venture to keep pace with the market when it takes considerable time getting to understand a venture offering before becoming a customer.

An entrepreneurial orientation of risk-taking is usually integral to venturing because it facilitates the discovery of unforeseen options. If the contact rate of a venture offering is low, however, high risk-taking can disrupt adoption with operational or product changes before potential customers have a chance to decide whether or not to adopt. If contact rate is high, risk-taking can meet the uncertainty of the market with new strategies and ideas through attempts to maximize contact. A risk-taking orientation can drive firm behavior that better meets the needs of a market that is large and diverse. Risk-taking may also inadvertently cost a firm significant resources.

Proactivity in an entrepreneurial venture's orientation varies in relevance based on the nature of the venture offering. When the contact rate of the venture offering is high, low proactivity can help forecast contingencies as information about the venture idea itself travels quickly through the marketplace. On the other hand, when the nature of the venture idea is such that information about it does not spread quickly through a marketplace, a venture orientation of high proactivity, and the action following from it, can be instrumental to achieving venture success. A proactive orientation can also be instrumental for reaching niches in a large market, but may not be as necessary if the market is small. Smaller markets with less turbulence do not call for as much proactivity to act in relation to future environmental change. A proactive orientation can be instrumental to taking steps to increase the adoption rate of a venture offering by customers. For example, disseminating information about a venture offering in advance of rollout can manage market expectations. However, some venture offerings do not lend themselves to a proactive orientation meant to promote adoption rate. Some venture ideas are well-suited to slower adoption rates (e.g., innovative novel products requiring significant training before use by customers).

Competitive aggressiveness can be more or less appropriate depending on the nature of the venture offering. It is part and parcel of offerings with a high contact rate. As buzz about an idea spreads fast, an aggressive orientation keeps the firm responsive to competition. The orientation can be either offensive or defensive. Just as an offensive stance supports a high contact rate, a defensive stance can maintain status vis-à-vis competitors when contact rate is low. Competitive aggressiveness can help create a strong position if a market is large, whereas it may lead to market dominance in smaller markets. Thus, competitive aggressiveness can help maintain a fast adoption rate, but may be redundant if adoption rate is slow. If the venture offering lends itself to slow adoption (e.g., early television), a competitive aggressive orientation may drive behaviors that are redundant. When the useful life of a venture offering is long, competitive aggressiveness can be instrumental to defending venture position during the product offering's life cycle. With a short useful life, such an orientation can help prevent competitors from stealing market share between product life cycles.

As an entrepreneurial orientation, autonomy offers a variety of ways to respond to a firm's environment based on the nature of the venture offering. When contact rate is high, autonomy for making decisions enables venture team members to respond to contingencies as they emerge. Such responses are only helpful to the degree they create opportunities to boost contact rate, which implicates risk-taking. However, depending on the environment, autonomy may not boost the contact rate of the venture offering. In large markets, autonomy is a strategic enabler for responding to discontinuous change. In small markets, though not as critical, it can serve a similar function, particularly with regard to competition. As consumers in a marketplace quickly adopt a venture offering, an autonomy orientation facilitates responses to market dynamics. Such facilitation is attenuated if the potential market is small. If the venture offering has a long useful life, autonomy can lead to managing various relations with users during the period of the useful life. As well, autonomy is important if the product offering has a short useful life. It can promote innovation to extend usefulness or develop new product offerings for quick replacement of the offering when its short useful life expires. Table 1 summarizes relations between entrepreneurial orientation dimensions and venture idea diffusion characteristics.

Financier Orientation

Appropriate strategic orientations and decision-making by financiers, angel investors, and venture capital investors can also be delineated based on the characteristics of venture ideas and product offerings. Instead of the entrepreneurial orientation model, we use a model based on key investment decision factors. The model we present here includes five critical factors used by entrepreneurial venture financiers, including the second author, to evaluate proposed ventures. The dimensions of the model include market maturity, return rate, investment size, faith in the management team, and product uniqueness.

When a market is mature, investments are generally less likely because consumer taste for new things is lower. With fast contact, however, market maturity is not so important, as faster contact rates are favorable. Generally a larger market is better. However, size covaries with maturity: financiers understand there is better chance for viral spread if the market is young. As well, offerings with fast adoption rates have a greater chance of creating a "tipping point" in a large market. If the useful life of an offering is long, it increases the chance for viral effects. There is more chance for a higher return rates due to inherent switching costs, resulting in a better investment opportunity. If the useful life of an offering is short, it may be a fad. As such, unless the margins are large, expected return rates may not merit the investment.

Higher return rates are more likely with fast contact because there is a better chance of succeeding before competition develops. With a slower contact rates success is possible but there is an increased chance of competition before success is achieved, which lowers the probability of high return rates and makes financiers more cautious. There is better chance of achieving a high rate of return in a large market, increasing the attractiveness of large investments. With a smaller market, the best chance for a high rate of return is to "own" the market. Otherwise, there is more caution on the part of investors. As useful life facilitates larger investment flow, it also increases the chance of a high rate of return.

Larger investments are more feasible when contact rate is high since success or failure can be tracked more quickly, thus allowing financiers to be more confident in their investment. Market size is generally better when large from a financier's perspective. With slow adoption rates, there is still chance for success over longer time cycles. In such cases, the risk is such that the venture may deplete the investment before generating enough revenue to be viable. Financiers know that slow adoption rates also make for lower rates initially and thus warrant more caution.

Faith in the management team is important to financiers, who believe lack of management skill and poor strategizing are important reasons for failure. Financiers look for evidence entrepreneurs will make effective business growth decisions quickly when contact rate is high, and commit to smart strategic decisions when contact rate is low. Financiers value complex decisions in large heterogeneous markets, and the ability to handle the stress of rivalry in small markets. Similar to varying contact rates, financiers rely on a management team to make appropriate decisions based on varying adoption rates. When useful life is long, a customer service strategy may be important, whereas continuous innovation strategies are important if offerings are outdated quickly.

A unique offering adds a multiplier effect to fast contact because it increases the chance of exponential growth. For really unique products, a larger market allows for more rapid success. For financiers, there is not much investment value in products without uniqueness. Financiers understand that even though a very unique product may be a fad, such products can be profitable if contact and adoption rates are high and the venture is the first to market. Unique offerings with a long useful life are generally favorable investment opportunities, whereas short useful life offerings are perceived as somewhat less favorable. Table 2 presents a summary of the relation between the financier orientation dimensions venture idea diffusion characteristics.

Conclusion

Using epidemiological models in conjunction with entrepreneurship theory to facilitate forecasting venture offering spread patterns is a novel application. Although such models are clearly relevant, existing entrepreneurship theory has not drawn deeply enough from core principles describing viral spread and applied them to idea diffusion. Our paper is one initial attempt, and it stands to be developed much further in future research efforts. Such research, relating venture idea characteristics to dimensions of entrepreneurial and financier orientation, will add value to post-discovery dynamics in the entrepreneurship process. Such research will complement and enhance existing models of entrepreneurial discovery as well as further enhance entrepreneurship theory's applicability to practice.

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Figure 1. Classic epidemic model.

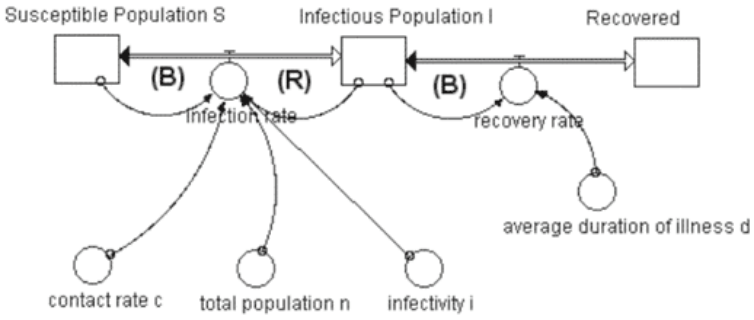

Figure 2. Classic epidemic model curve.

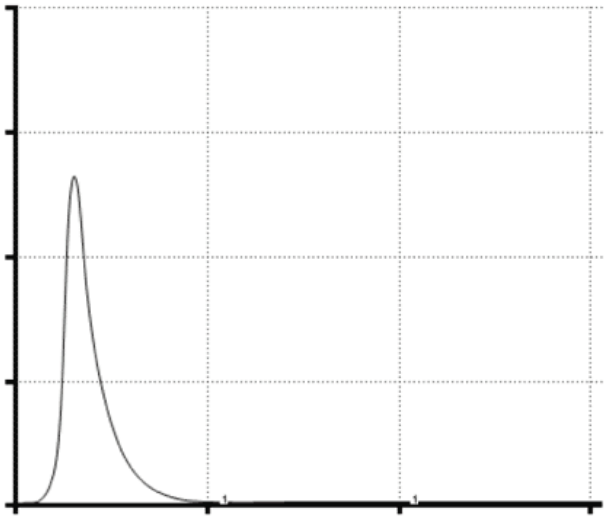

Figure 3. Bass model curves.

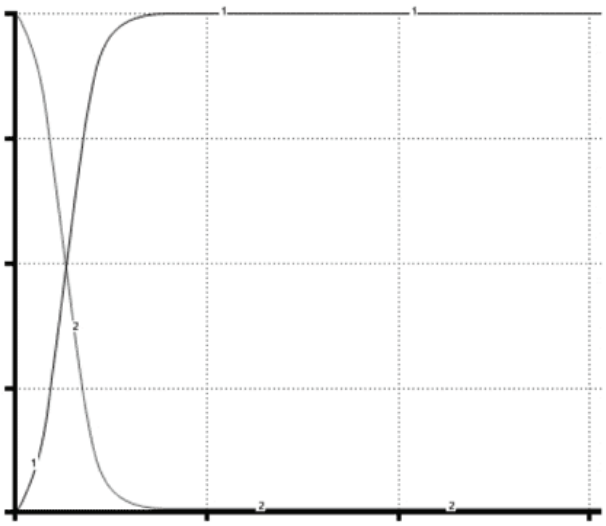

Table 1. Entrepreneurial orientation and venture diffusion dimensions.

	Contact rate		Market size		Adoption rate		Useful life	
	fast	slow	large	small	fast	slow	long	short
Innovativeness	New ways to reach customers faster; but could reduce an already high contact rate via analysis paralysis	Exploring new alternatives and finding new ways to reach customers more quickly	Continuous innovative activity promotes fitness in a heterogeneous dynamic market system	Developing a product offering to fit a specific niche; evolving into a form that owns the market	High innovation and transient changes may proclude some customers from adopting	Lower innovation orientation keeps pace with customers needing time to adopt existing offering	High innovation not as necessary to replace / update products	High innovation orientation ensures newer product available to replace non-useful one
Risk-taking	increases the likelihood of engaging the market with various new offerings	can hinder venture fitness by taking unnecessary risks that disrupt adoption processes	continuous risk-taking is important, an appropriate way to find the right strategy for a large and diverse market	risk-taking is inherent to venture growth but not as critical to success as in a large market	May drive changes to offering that unintentionally lower its adoption rate, but also may promote wider and faster exposure	Can open the way to incremental innovations that increase adoption rate	Could potentially shorten an existing long useful life of a venture idea	Could lead to venture alterations that raise the useful life of an existing product / service
Proactivity	Low proactivity acceptable because word travels fast and idea spreads quickly through market	High proactivity necessary to make contact with customers	Very high proactivity to penetrate many diverse areas of large market	Good for dominating markets when customers and competitors are known well	Can take steps that persuade market adoption to be faster or maintain existing adoption rate	Good for keeping pressure on market to promote faster adoption	may not be as important if venture offering has long useful life	high proactivity important for meeting the market with new offerings or activity
Competitive aggressiveness	supports the inertia of high velocity contact and supports idea diffusion offensively	can serve to maintain an existing market position defensively and prevent usurping by competitors	necessary to grow and create a dominant position in a large market	Can more easily establish dominance and ownership in a small market	can be important for keeping on top of fast adoption-based venture growth	can be initially redundant if market is slow to adopt venture offering, but can help sell the offering	can help defend venture position during useful life of offering	can help deter competitors from stealing market share between offering life cycles
Autonomy	facilitates immediate responses to market dynamics as venture idea buzz spreads quickly	no direct effect unless autonomous ad hoc decisions to boost contact rate are viable options for a venture	high self direction in a large market is a strategic enabler for responding to contingencies	autonomy may not be necessary as small specific market may have precise needs to be filed	facilitates immediate responses to market dynamics as venture offering usage spreads through the market environment	no direct effect unless ad hoc responses to market needs can promote faster adoption	can maintain venture position by managing customer relations during the period of the useful life	freedom to pro-mote innovation for replacement of expired product offerings or pro-longing of useful life as necessary

Table 2. Financier orientation and venture diffusion dimensions.

	Contact rate		Market size		Adoption rate		Useful life	
	fast	slow	large	small	fast	slow	long	short
Market maturity	Better chance the new product will take off regardless of market maturity	Increased chance of competition preventing the new venture from achieving an adequate market share	Better chance to create buzz and achieve a viral marketing effect if young market. Less likely to try something new if mature market.	Even with market saturation there may not be enough customers to insure success	More potential for tipping point regardless of the market maturity	Increased chance of running out of money before generating enough revenue	Increases the chance of viral marketing effect to take place because venture offering is in existence longer	A fad even with exponential growth; may not allow for a sustained company life
Return rate	Higher chance of achieving breakeven faster; higher rate of return before competition develops	Less likelihood of achieving a high return rate before competition enters	Greater chance for a high rate of return	Decreases chance for a high rate of return	Better chance for high rate of return based on market dominance	Lower chance for high rate of return	Higher chance for high rate of return due to the advantage inherent in the switching cost	Chance for high rate of return if the margins are great
Investment size	Large investments are okay over time because success or failure can be evaluated rapidly	Smaller investments early on make more sense	More attractive and amenable to large investment	Attractive for correspondingly small investments	Enables larger and faster investment flow as success is achieved	Investors are more cautious until success is proven	Better chance of attracting a large investment over time	Attracts a large investment if success if achieved very rapidly with a high rate of return
Faith in management team	Team must make good decisions quickly	Team must make the right decisions over longer periods	Can team make complex strategic decisions?	Team must handle high rivalry and intense competition	Team must make good decisions quickly	Team must make the right decisions over longer periods	Team must plan for customer service as necessary	Team must continually innovate to make new offerings
Product uniqueness	Better chance of achieving exponential growth; low uniqueness will not benefit	Lower chance of initiating exponential growth	Allows success more rapidly for very unique products; no advantage for low uniqueness products	Very unique ventures can achieve success by "owning" the market	Possibly a fad or fashion	Be prepared for long haul	Favorable investment opportunity	Higher risk or fad; short-term opportunity

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