

Evolution of Network between Start-up and Consumer: The Role of Trust

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Abstract. Entrepreneurial network plays a significant role in launching and sustaining a new venture. There are substantial researches discussing how the overall network develops. However, to date, few attention is paid to explore the dynamic evolution of the networks between a new venture and the consumer. After reviewing related literature, this paper proposes a model and corresponding propositions to explain how startup-consumer networks evolve as startups grow on the basis of two key network attributes(i.e., tie strength and network owner)from the trust perspective.

Introduction

Compared with large enterprises, start-ups rely more on social networks to seek protection[1].Due to liability or weakness caused by newness and the transition economy background in China, start-ups face the daunting odds of controlling all resources needed to ensure growth. Nevertheless, beneficial entrepreneurial networks exactly enable entrepreneurs to deal with the predicament of congenital deficiency and resource constraints mentioned above. As is known to all, entrepreneurial networks involve a variety of parties (eg., government, suppliers, financing institutions, consumers), among which consumers, who purchase and experience the products or services provided by startups, have an active influence on the growth of new ventures. Therefore, startup-consumer network forms a crucial segment of the whole entrepreneurial network[2]. The development and increasing application of Internet information technology have given rise to a series of new economic models (eg.,social community economy), where the distance between enterprise and consumer is dramatically shortened. Consequently, establishing a user-centered service or product pattern makes up the foundation of corporate development. New ventures thereby need to attach great importance to relationships with consumers so as to facilitate sustainable development.

When developing markets in the new economic model, startups often begin with their families and other familiar people (eg., friend, acquaintance), followed by gradually cultivating public praise through facilitating user interaction, precipitation, transformation and fission on a variety of social platforms. In this way, new ventures progressively form their own brand and promote their further development. During this process, the startup-consumer network evolves rather than remains unchanged, which has become an important issue worth exploring. However, existing studies on entrepreneurial network either statically examined the impacts of the overall network and its subtypes(eg.,government network, business work) and attributes(eg., network scale, tie strength) on entrepreneurial activities or explored the evolution of the overall network. It's such a pity that little research, to date, has investigated how startup-consumer network evolves and its underlying mechanism.To fill this research gap, this paper manages to probe into this evolution and its potential driving mechanism. According to extant research, tie strength is a typical network attribute. Entrepreneurial networks are usually made up of individual network and organizational network. Besides, trust is often regarded as a critical factor in relationship building. Therefore, we will explore the evolution process by incorporating these three elements and proceed as follows. First, we briefly review literatures concerning the interface between social networks and entrepreneurship. Second, we discuss the reason why trust matters in the evolution of startup-consumer networks. Third, we propose a theoretical model and corresponding propositions to explain how startup-consumer networks evolve as startups grow on the basis of two key network attributes(tie strength and

network owner) from the trust perspective. Finally, we present implications of the model and offer suggests for potential research in the future.

Social Networks and Entrepreneurship

The introduction of social network theory into entrepreneurship research may be traced back to Birley (1985), in which entrepreneurial network was defined as the relationship between the entrepreneurs and external environment, such as suppliers, government, research institutions, financial institutions, consumers, etc.[3]. According to the existing research, that entrepreneurial network is of great significance for successful entrepreneurship has reached a broad consensus [3,4,5]. Entrepreneurs could obtain information[6], advices[7], legitimacy[8] and other valuable resources through the network.

The value of the network comes from the quality of the relationship, that is, the possibility of resources exchanging between two actors in the network, which is affected by the tie strength [9]. According to Granovetter(1973), the strength of a tie is a kind of relationship characteristics, consisting of four elements, i.e., intimacy, emotional intensity, amount of time and reciprocal service. And ties can be divided into strong ties and weak ties in the light of these four dimensions, among which strong ties are characterized by intimate sharing, frequent contact, mutual exchange and long-standing and tend to exist between individuals and their relatives as well as close friends, whereas weak ties are short-term and superficial relationships without communication and exchange frequently and often lie in acquaintances and friends other than relatives or intimate friends. In addition, Granovetter (1973) analyzed the advantages and disadvantages of these two kinds of ties. He believed that strong ties provide low-cost resources and reliable information, which may be highly repetitive, however. Weak ties, in contrast, act as the bridge of new ideas as well as information and bring a variety of resources. Their biggest advantage is to increase the likelihood of connecting to other social systems, providing access to someone else[9]. Substantial investigations incorporating tie strength into entrepreneurship research have been undertaken to explore the effect of these two kinds of ties on firm growth afterward, yet there hasn't reached a consensus on what tie is more valuable for new ventures among scholars.

On the one hand, many scholars insisted that strong ties are highly significant for the development of entrepreneurial enterprises by promoting resource acquisition and tacit knowledge transfer. Aldrich , Rosen , and Woodward (1987) found that younger firms (less than 3 years) were more likely to benefit from strong ties than older firms[10]. Coleman (1988) regarded strong ties as the most functional form of social capital[11], which plays an important role in resource acquisition[12]. Especially when it comes to the emergence stage of a new venture, strong ties can bring a range of resources, including social support, financial capital, information, etc., which, in turn, may improve the venture's capacity to respond to the environment changes[13]. Larson and Starr (1993) believed that start-ups should obtain key resources needed for entrepreneurial activities via relationships with entrepreneurs' families and friends[5]. Based on a large survey, Brüderl and Preisendörfer (1998) discovered that strong ties value more than weak ones when taking venture survival as a measure of entrepreneurial success [14].

On the other hand, other scholars think that weak ties, rather than strong ties, provide more novel and nonredundant information, which is beneficial to increase the breadth of the resources obtained by startups[15]. A wide range of resources will undoubtedly provide sufficient capital for startups to enhance innovation capability, thus promote their growth. Burt (1992) considered that tight network is more constraint than advantage for new ventures [6]. Only the structural holes in the loose network can benefit startups. A startup should jump out of the close networks and cultivate weak relationships so as to achieve long-term success [16,17]. Studies have shown that leading companies are more likely to increase non-repetitive links, hence increase network diversity[6]. Klyver and Schott (2011) suggested that weak ties tend to provide new information, which is conducive to strengthen opportunity perception for entrepreneurs[18]. As thus, weak ties pave the way for discovering new profit points.

In view of differences mentioned above, some scholars suggested balancing these two kinds of ties, yet there is no specific analysis towards how to make a tradeoff. However, studies based on dynamic perspectives may provide some insight into the problem. Through an empirical research, Yang Jun and Zhang Yuli (2009) found there was no significant relationship between ties strength and start-up performance and therefore suggested investigating the role of entrepreneurial networks play in different stages of new firms from a dynamic perspective [19]. Favourable social networks could facilitate startups' rapid growth, which may in turn urge networks to evolve in order to meet the changing needs of ventures. With the growth of entrepreneurial enterprises, entrepreneurs' reliance on exchange relationships on the basis of tie strength and network owner may vary. The process through which entrepreneurial networks move as a new venture grows is relatively complex but, as yet, has received little attention. According to the existing research, the majority of scholars focused on the effects of entrepreneurial networks on entrepreneurship with a static view and a few studies explored the development of the overall network. Moreover, although startup-consumer tie has been consistently identified as an important component in entrepreneurial network, there are still very few discussion carried out about this type of relationship. Accordingly, by drawing lessons from trust research, we seek to explore how the startup-consumer network evolves as the startup goes through different stages (i.e., existence, survival, growth and maturity) and its mechanism based on tie strength and network owner.

Why Trust Matters in the Evolution of Startup-consumer Networks?

As is known to all, entrepreneurs cannot control all the necessary resources to launch and sustain a new venture. This deficiency partially stems from startup's lack of track records and legitimacy, known as the liability of newness, which increases the difficulty for entrepreneurs and entrepreneurial enterprises to require help from important resource providers [20]. Whether a new venture could overcome this disadvantage and obtain necessary resources depends on the ability of entrepreneurs to build a sustainable exchange relationship with resource owners, to a great extent [21]. Moreover, trust plays a significant role in the relationship building process [22]. Since entrepreneurs are unwilling or unable to fully communicate information about the startup, resource providers are often faced with information asymmetry, leading to adverse selection. So trust helps a new venture to seek resources in spite of short of necessary information and evidence of legitimacy [23], thereby being a critical determinant of entrepreneurial success. Likewise, trust is the foundation for building startup-consumer relationship for consumer acting as an important resource provider for a new venture.

Trust is defined as the willingness to take on the risk of being injured on the basis of positive expectations of others [24]. Trust is a multidimensional psychological construct that includes emotional and cognitive components. Previous studies have shown that perceptions of other people's ability and goodwill are the main sources of trust [25]. According to different psychological processes, trust can be divided into affective trust and cognitive trust. Affective trust is based on the emotional connection and the positive feelings shared between the two entities [26]. When individuals attribute a partner's behaviors to selfless and sincere motivation, the emotional trust between them develops [27]. In the early stage of a business, entrepreneurs are more likely to seek help from those who are willing to admit their vulnerability, such as family and close friends. Those people are also more inclined to help entrepreneurs. Cognitive trust is a kind of evidence-based trust. To be more precise, cognitive trust is often based on evidence of trustworthiness, such as ability or knowledge [24]. Therefore, Cognitive trust is conducive to reduce uncertainty.

Extant studies suggests that affective trust and cognitive trust may be more important or less important in a specific period of network development. In the initial stage of entrepreneurship, entrepreneurs rely primarily on preexisting strong ties [20], and mainly obtain the necessary resources from family and friends due to affective trust [3]. As entrepreneurial enterprises grow, entrepreneurs' personal network, which initially based on family and friends, actively expand and incorporate more weak ties [5]. Meanwhile, new ventures gradually set up weak ties with other organizations and, hence, interorganizational network. During the process, it need both affective trust and

cognitive trust to guarantee the operation of strong ties and the development of weak ties. After the early development, a new venture gains legitimacy and forms its own brand as well as reputation, thereby depending more on organizational network rather than individual network. The business activities carried out by the startups offer resource providers more trustworthy evidences, which, in turn, boost their perception toward the new ventures. As a result, cognitive trust is further developed, while affective trust still exists[5].

Model Building

Based on the analysis above, consumers make up an important link of entrepreneurial network and act as important resource providers. In addition, in view of the importance role trust plays in network formation, we introduce trust mechanism to explore the evolution process of startup-consumer network and propose a theoretical model (Fig. 1):

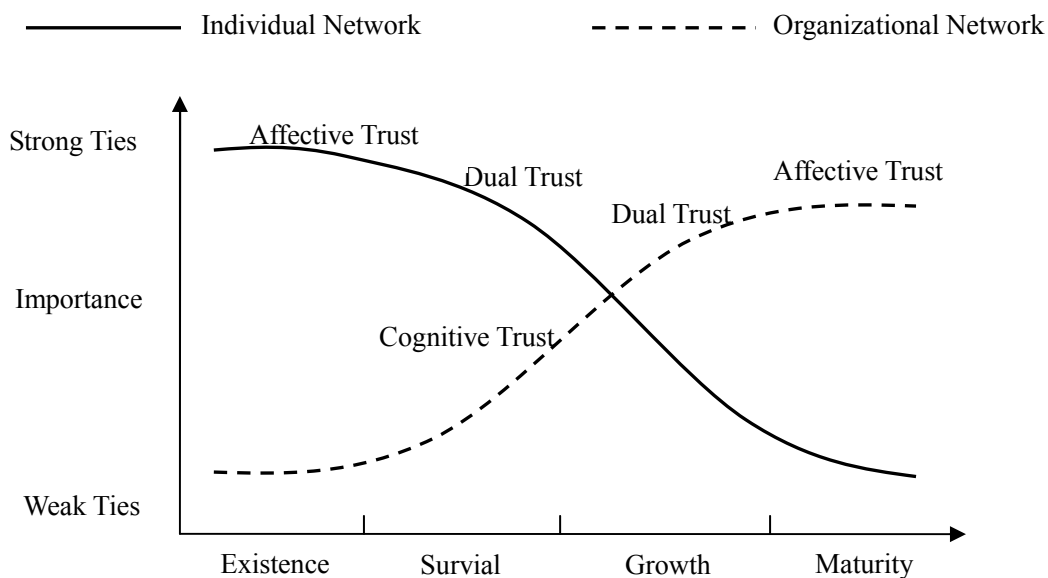


Figure 1. Finite Startup-consumer network evolution model based on the trust perspective

Stage I: Existence. In this stage, startups face high uncertainty. The reason why consumers are willing to purchase a new venture’s product or service is more based on their affective trust in the venture’s founder, whose family and close friends thereby occupy the dominant position in the startup’s market during this period. Accordingly, startup-consumer network derives from entrepreneur’s individual preexisting strong ties[28]. During this period, enterprise is formally established and it starts to erect weak ties. On account of inadequate resources and legitimacy, i.e., inherent problem, startups rely heavily on the founders’ individual strong ties. In addition, entrepreneur’s original individual network is expanded through business contacts and weak ties are developed consequently. This suggests the following proposition:

Proposition 1: Startup-consumer networks in the stage of existence consist primarily of entrepreneur’s strong ties driven by affective trust, such as relationships with family and close friends. Meanwhile, startups begin to erect its weak ties.

Stage II: Survival. In reaching this stage, the main task of the business is to ensure its survival, which suggests it should expand the market. Given that the original consumer group consists of family and close friends cannot meet this demand, a startup has to expand its market in a variety of ways. Due to low legitimacy, namely, lack of market acceptance, the startup needs to extend its network in order to obtain sufficient market shares based on the original networks. Thereinto incorporating weak ties like friends of friends into the network by use of social media may be the most convenient and effective approach, especially in the new economic modes. During the process,

the reason why consumers choose to buy the product may be based either on the affective trust in the entrepreneur or on the cognitive trust in the entrepreneur. Startups take advantage of strong ties to develop weak ties, whose significance gradually increases. At this stage, the startup continues to establish weak ties with outside entities. Moreover, it gradually boosts its legitimacy through past exchanges, cultivating its own brand and reputation. A small number of consumers create exchange relationships with a startup, for they recognize its ability and performance. As a result, organization-

al networks are further developed. Based on what mentioned above, the following proposition is suggested:

Proposition 2: Startup-consumer networks in the stage of survival mainly consist of entrepreneur's strong ties and weak ties, thus driven by dual trust (i.e., affective trust and cognitive trust). During the process, startups progressively develop its weak ties through which a few consumers are achieved.

Stage III: Growth. The task facing startups at this stage is to achieve rapid growth [29,30]and, hence, a broader market is needed. As a consequence, weak ties become more and more important. Through the efforts of the survival stage, a new venture makes it accepted in the market progressively. Consumers exchange with the venture primarily based on their recognition of the past performance of the startup's products or services, and, in turn, erect cognitive trust in the venture. At the same time, those consumers who trust the startup rationally in the previous period begin to form brand loyalty and emotional connection with the startup, thereby driven by affective trust. At this stage, corporate networks expand rapidly and begin to play a more significant role for startups than individual networks. Based on what mentioned above, the following proposition is suggested:

Proposition 3: Startup-consumer networks in the stage of growth begin to switch from individual level to corporate level and are still driven by dual trust. During the process, corporate weak ties based on cognitive trust develop quickly, while a few consumers make consumption decisions based on affective trust.

Stage IV: Maturity. Through the earlier stages, startups come to establish a good reputation in the public and corporate network with excellent product quality, brand and gradually improving service [31].Furthermore, loyal consumers present routine purchase behaviors. In the light of 80-20 rule, startups should be concerned more with those customers who have affective commitment toward the brand. They would focus more on maintaining strong ties with specific consumer groups rather than extending weak ties. At this stage, the importance of the founder's individual networks, who occupy a secondary or subordinate position, decrease significantly compared with corporate networks. This suggests the following proposition:

Proposition 4: Startup-consumer networks in the stage of maturity consist primarily of corporate strong ties based on affective trust consumers have in startups.

Summary

The importance of entrepreneurial networks for startups is unanimously recognized in the theory and practice field. In addition, a few scholars have explored the dynamic evolution of these networks, which is based on the overall network, however. Researches focus on specific network (eg., government network, consumer network) may draw more precise conclusions, thereby provide more pertinent advices for entrepreneurial practice. The significance of startup-consumer network is highlighted in the new economic mode, so issues with respect to the development of this type of network and its driving force need to be studied. Accordingly, we introduce the trust perspective to probe into the dynamic evolution of startup-consumer network and its mechanism by focusing on tie strength and network owner, upon which a dynamic evolution model of the network is erected. This paper fills the research gap of startup-consumer network evolution and enrich entrepreneurship research on one hand. On the other hand, it provides guidance for new ventures to gain access to consumers and further expand their markets. For future research, multi-case study can be conducted

to modify the theoretical model proposed in this paper, based on which empirical investigation could be undertaken to test the modified model with big-sample questionnaire.

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