

# Exploring Cooperation Behavior and Use of Information Sources in Micro-Enterprises

Shiuh-Nan Hwang, Chiayu Tu, and Jen-Shyang Chen

**Abstract**—Past research has used various views and theories to probe into the causes of entrepreneurial success of micro enterprises. However, at present, views based on different levels have been neglected. From the perspectives of social networks, cooperation behavior and the use of information sources at the enterprise level and at the entrepreneur level, this study explored the effect of the innovative behavior of micro enterprises on entrepreneurial success, in order to find the academic implications of cooperation behavior and the use of information sources in micro enterprises on entrepreneurial success, and to provide suggestions for practical application.

**Index Terms**—Micro-entrepreneurial, cooperation, information, consumer, family, innovation.

## I. INTRODUCTION

With the change of industrial environments, enterprise privatization and the loosening of governmental regulations on enterprise operations, the entrepreneurial population has gradually increased, causing venture business to become an important activity to enhance economic development. Vigorous entrepreneurial activities will increase new business, which creates new job opportunities and enhances overall economic development [1]. However, entrepreneurial activities are not always successful. According to past research, lower innovation capability will hinder entrepreneurial activities [2].

This study believes that networks are useful for offering information and suggestions during the entrepreneurial process. In the past, many research findings have demonstrated that entrepreneurs acquire new ideas or information through networks [3]. Therefore, information is important for venture business [4]. In entrepreneurial activities, besides actual cooperation and exchange, internal and external information sources on knowledge switching are critical, and can even influence innovation capability in enterprises [5]. Past research has studied the effect of internal information in entrepreneurial activities on entrepreneurial performance (e.g., [6]). However, the scope of internal information in enterprises is narrow and the operational field is limited; thus, information application is rare. In other words, external orientations are more likely to gather a rich array of information, and are more likely to do

so with greater speed [6]. Past research has suggested the importance of external sources of information as determinants of innovation in the manufacturing sector [7]. [8] found a positive relationship between information utilization to make marketing decisions and subsequent firm performance.

According to past research, social networks influence entrepreneurial intentions and subsequent nascent behavior [9], social networks involve individuals' family, friends or acquaintances [10]. These people can directly influence the interests, intentions and decision-making processes of nascent entrepreneurs embedded in their personal networks [11]. Past research on the correlation between social networks and venture business mostly treats social networks as one variable (e.g., [12], [13]). Although these studies have demonstrated the importance of social networks for venture business, they only focus on certain factors, while fail to provide a thorough comparison or empirical research on family members [14], [15]. [16] referred to the importance of family socialization by inspiring autonomy, as well as the delivery of personal networks that provide valuable resources. This research argues that family members should be regarded as a key factor in studies on the entrepreneurial field.

In this study, the external relationships of micro enterprises were divided into cooperation and the use of information sources. Cooperation was defined as a kind of specific exchange activity having tangible resource exchanges, in which the two parties' contact is long and frequent. The use of information sources was defined as a kind of intangible information exchange, in which the two parties' contact is not necessarily long, but each piece of information is important for micro enterprises.

## II. RESEARCH FRAMEWORK

### A. Social Network and Entrepreneurship

This study used the social network theory in an attempt to find how enterprises obtain suggestions or resources by social relationships in order to trigger entrepreneurial activities. There have been numerous past findings on the relationship between social networks and venture business (e.g., [3]). For instance, [17] found that Chinese managers obtain information from individuals in their social networks. [14] argued that entrepreneurs can enlarge their networks to get crucial information and resources from others. In entrepreneurial activities, entrepreneurs require information, capital, skills, and labor. Although entrepreneurs may already have some resources, they must expand their social relationships to supplement any shortage [14]. Past studies have demonstrated that social networks can suggest

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entrepreneurial success and that entrepreneurs' personal networks will influence entrepreneurial performance [12, 18]. In other words, entrepreneurs' relationships with other resources are important for establishing enterprises [19], [20]. In order to increase the span of action, entrepreneurs must rely on their personal networks; otherwise, it will be difficult for new micro enterprises to obtain resources with limited cost [12], [21]. However, social networks are not fixed, and they depend on entrepreneurs' social relationships and different needs [14]. This study suggests that entrepreneurs' social networks can be divided into business and individual relationships, that is, business networks and personal networks [22].

#### B. Effects of Market Partners' Cooperation and Use of Information Sources on Innovation

Reference [23] pointed out that changes in the logic of value creation indicate that the role of the customer is changing, and that employees in a number of businesses can no longer meet customers on a daily basis. This idea implies that traditional products and services cannot meet the requirements of consumers. Previous research has indicated that consumers are considered as a resource in providing information and/or wealth for many enterprises. Therefore, consumer cooperation enables consumers to create value with the enterprises [24]. The ideas provided by consumers can improve new products and services [25].

From the service logic perspective, consumers play an important role in service innovation [24]. In the transaction or creation of ideas, service cannot simply exist in the enterprises or consumers [26]. In other words, the inseparable nature of service means that enterprises should participate in consumption and production with the consumers [27]. If enterprises can cooperate with the consumers, they will increase the opportunity of other consumers accepting the innovation. Subsequently, enterprises can increase the confidence of the consumers and reduce innovations that entail the risky development of services or products [23]. Micro enterprises rely on consumer consumption as well as consumer feedback. Hence, the suggestions of the consumers are important for the development of new products and services. Thus, this study proposed the following:

**Proposition 1:** When cooperation behavior between micro enterprises and their consumers is high, there is a significantly positive effect on product and service innovation.

Reference [28] demonstrated that the information acquired by suppliers and consumers significantly influences innovation. Since the 1970s, many studies have suggested that consumers, as information sources, have become the key factors to improve products (e.g., [29], [30]). Information is treated as a powerful knowledge source that can enhance the competitive advantages of an enterprise. The consumers' information provides enterprises with complementary knowledge and a source of solicited information on new/evolving needs, as well as information on post-launch improvements [31].

The consumers' information usually represents their desire and expected model. For instance, the consumers' information can disclose their favorite brands or the value

of prices and quality instead of variety and novelty [32]. Thus, the consumers' information is important for enterprises. The consumers' needs and likes can be generalized by understanding and analyzing the information, which significantly influences the following innovation activities and entrepreneurial performance. There can also be more information exchange between enterprises and suppliers in areas such as product design, production processes, and demand forecasts. By information exchange, more kinds of innovation can be efficiently combined in product design and production, allowing enterprises to rapidly respond to market demand [33] and increase entrepreneurial performance. Thus, this study proposes the following:

**Proposition 2:** The use of consumer information on micro enterprise product innovation and service innovation has a significantly positive effect.

### III. CONCLUSION

This study suggested that the innovation activity development of micro enterprises depends on more than the entrepreneurs' personal factors. Social networks in the external environment also significantly influence the innovation activities of micro enterprises. This study divided social networks into the dimensions of enterprises and entrepreneurs, including consumers' and entrepreneurs' family. Through cooperating with these social networks, the entrepreneurs expect to obtain useful resources in order to enhance their innovation activities. The analysis and use of these resources will influence innovation activities differently. By studying the two different dimensions, this research enhanced academic views and provided suggestions for practical use.

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