

Research on Influences of Individual Social Network on Startups of Returned Migrant Workers

Dan Yang

School of Management
China West Normal University
Nanchong, China 637002

Abstract—Researches show, social network has been a great help and promotion for the business establishment and operation. Based on returned rural migrant workers at X city, Sichuan Province, this article makes a questionnaire survey on 112 startup owners who are returned rural migrant workers, and Factor Analysis Method is used to research the roles of individual social network in the business startup and operation. The research results show, 6 factors among individual social networks including families relatives, clients, suppliers, banks, opponents and local authorities have played an important role in the business startup, of which, clients and suppliers have obvious effect in promoting the business operation. During the business establishment and operation, startup owners should make full use of three social resources including external workers, industrial institutions and local authorities.

Keywords—social network; returned rural migrant workers; business startup; Sichuan province

I. INTRODUCTION

Michael Song et al (2008) thought that social network is a collection of a string of nodes connecting social relations (such as friendship and transaction, etc) [1]. Seen for researches related to social networks, the objects in social networks can be persons, groups, organizations, areas and regional economy and so on. As a resource circulation channel and resource, social network is an efficient means for small enterprises to get resources and achieve the business development. With the developing economy around the world, social network has been playing a more and more important role in developing small enterprises, which are mainly reflected in three aspects: First of all, enterprises may get complementary resources to make up for the deficiency of the enterprises; second, information function mainly includes information availability, timeliness and reference; at last, helpful social network can promote exchanges and communications between employees, promoting the union and trust inside small enterprises in order to form a sound environmental atmosphere in enterprises.

Seen from RBV theory, the business startup cannot be separated from supporting resources, and the foundation for an enterprise to win in competition and develop is to get adequate resources to survive itself (Baron, 2004) [2].

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Practices prove that medium and small enterprises may get a great number of helps from social network such as business resources; besides, it has a key role for cooperation and exchanges between enterprises. There are many research achievements concerning the enterprise operation and development through social network, yet few researches are conducted on the business startup by farmers, especially little is done under the Chinese national situations. Therefore, this article takes returned rural migrant workers as objects, analyzing the influences of social network on their business startup and trying to draw a conclusion with theoretical significance and practical value.

II. LITERATURE BACKGROUND

Startup is a course of information access and resources integration, in addition to individual factors, the startup also widely depends on individual resources. Luo (1997) [3]'s researches on small enterprises in Taiwan show, small enterprises owners tend to get capitals and market opportunities through individual network. Zhao, et al (2005) [4]'s researches prove that startup owners have make full use of social network to dig up chances that startup owners find in startup resources, the bigger the social network scale is, the more individual can get social resources, the more help and solutions they will get when facing uncertain environment. In the meantime, some scholars have conducted empirical researches on the influences of individual social network on startup intention. Jiang Jianyong (2012) [5]'s researches prove that individual social network has obviously positive influence on the startup intention. Wu Xiaobo et al (2014) [6] have proved that individual social network, through some of media of self efficiency in startup, can produce positive influence on the startup intention. Most of researchers (Zhu Feng, et al, 2013 [7] and Zhu Honggen, et al 2013[8]) have discovered that the social network of startup owners plays an important role in forming the startup intention.

During individual startup, the strong ties in social network of startup owners, especially the attitudes of family members, will influence how they treat and evaluate the startup; likewise, for many startup owners, whether startup owners will launch startup or not will need the emotional support of family members and friends. In addition, potential startup owners have limited resources, it is necessary for them to have the helps from family members, relatives and

friends to overcome the restriction in resources, so the strong ties they hold can strengthen their confidences in startup, solidifying their intention in startup. Sequeira (2011) [9]'s researches proved that individual strong ties can reinforce their intention in startup and promote the initial startup conducts, however, individual weak ties may promote to carry out the initial startup.

During the business operation and development, both formal and informal networks are important parts of social networks for small business owners, of which, the formal network mainly includes cooperative enterprises or organizations, relevant laws and regulations, the informal network mainly includes the business owner's family members, relatives, friends, clients, suppliers and so on. Granovetter (1973) [10] divides the relations in social network into strong ties and weak ties. The strong ties are based on a network where family members or friends are core parts, higher confidences exist between them. Relying on the strong ties, the business owners speed up the information transfer, promote cooperation is problem solution so as to increase the enterprises' performances [11].

Seen from the literatures, we can find that the individual social network of startup owners may provide resources support for the business startup, operation and development, and to rely on individual social network to promote the business development has become an important mode for small business development. Formation of social network is a necessary condition for any business startup and successful operation. The individual external social network of startup owners can meet what the business development needs and promote the business development.

III. RESEARCH DESIGN

X city, Sichuan Province is selected as research object in this article, and from Sep 2017 to Oct 2017, a survey was conducted on 112 returned rural migrant workers who started businesses at hometown. The questionnaires targeted three dimensions including importance of individual social network, actual effect and communication frequency, five-point Likert scale method and spss21.0 software was adopted for data analysis. With regard to the gender composition, male recipients surveyed account for 52.7%, female 47.3%; most are young people, those aged 21-30 surveyed account for 47.3%, those aged 31-40 account for 30.4%; those aged 41-50 account for 9.8%; those aged 20 or less account for 7.1% only. Refer to "Table I", "Table II", and "Table III" for descriptive statistics of startup owners in social network.

TABLE I. DESCRIPTIVE STATISTICS OF IMPORTANCE OF INDIVIDUAL SOCIAL NETWORK TO STARTUP

Type	Min Value (M)	Max Value (X)	Average (E)	Standard Deviation
Family members and relatives	1.00	5.00	4.1429	1.02980
Classmates and friends	1.00	5.00	3.8929	1.02542
Clients	1.00	5.00	4.3393	.98231
Suppliers	1.00	5.00	4.3125	.87024
Bank or financial institution	1.00	5.00	4.1250	.96912
Opponents	1.00	5.00	4.0982	.86950
Other industrial enterprises	1.00	5.00	3.6786	.97919
Agency Service	1.00	5.00	3.5179	1.05679
Industrial association and society	1.00	5.00	3.7143	.99030
Authorities	1.00	5.00	4.1429	.92860

Seen from "Table I", with regard to the importance to small businesses, startup owners think that the relations in ten points all are mighty important, of which, family members and relatives, clients and suppliers and authorities have the highest average value for startup, reaching 4.0+, which turns out that most business owners value the supports from family members and relatives, clients and suppliers and authorities.

TABLE II. DESCRIPTIVE STATISTICS OF ACTUAL EFFECT OF SOCIAL NETWORK SUPPORTING THE STARTUP

Type	Min Value (M)	Max Value (X)	Average (E)	Standard Deviation
Family members and relatives	1.00	5.00	3.7589	.94197
Classmates and friends	1.00	5.00	3.8304	.94810
Clients	1.00	5.00	4.1786	.89255
Suppliers	1.00	5.00	4.0000	.92998
Bank or financial institution	1.00	5.00	3.9018	.86603
Opponents	1.00	5.00	3.6964	.95709
Other industrial enterprises	1.00	5.00	3.5446	.96692
Agency Service	1.00	5.00	3.6607	1.04454
Industrial association and society	1.00	5.00	3.7232	.97915
Authorities	1.00	5.00	3.9018	1.02192

"Table II" indicates, in the actual effect of individual social network of startup owners in startup, only the average value of clients and suppliers reaches 4.0+, which turns out that though the business owners value the supports of family members and relatives, clients, suppliers and authorities, actually only the supports of clients and suppliers are highest. The results prove the research conclusion of Burt (1992) [12]: Generally the weak ties vague to define can provide the most important commercial chances for a business and promote its development.

TABLE III. DESCRIPTIVE STATISTICS OF COMMUNICATION FREQUENCY

Type	Min Value (M)	Max Value (X)	Average (E)	Standard Deviation
Family members and relatives	1.00	5.00	3.9643	.86918
Classmates and friends	1.00	5.00	3.7768	.90752
Clients	1.00	5.00	4.0804	.86095
Suppliers	1.00	5.00	4.0000	.99549
Bank or financial institution	1.00	5.00	3.6786	.90259
Opponents	1.00	5.00	3.6250	.83962
Other industrial enterprises	1.00	5.00	3.4554	.93855
Agency Service	1.00	5.00	3.4821	.98623
Industrial association and society	1.00	5.00	3.6696	.98993
Authorities	1.00	5.00	3.6339	1.01338

"Table III" indicates that most business owners often keep communications with ten social networks of their own, of which, the communication frequencies with clients and suppliers are the highest, whose average value reaches 4.0+. It turns out that in the opinion of the business owners, the communications with the two may bring the max help to the business development.

IV. RESEARCH AND ANALYSIS

Before the factor analysis, first, just analyze the questionnaire reliability. Statistics show, the questionnaire's Cronbach's alpha is 0.963, it means the questionnaire reliability of this article is high, and the questionnaire data is creditable. KMO value is 0.765, which turn out the

questionnaire has higher validity, applicable for the factor analysis.

This article adopts the factor analysis method to analyze the support importance, actual effect and communication frequency, the common factors are extracted according to characteristic value exceeding 1, and the varimax orthogonal rotation is used for twiddling factors, and the items with the same components are grouped.

A. Factor Analysis of the Supports of Individual Social Network to Startup Importance

Factor analysis is conducted on the support importance in the questionnaire to get the total variance explained, refer to "Table IV".

TABLE IV. TOTAL VARIANCE EXPLAINED CONCERNING THE SUPPORTS OF INDIVIDUAL SOCIAL NETWORK TO STARTUP IMPORTANCE

No	Total Variance Explained								
	Initial Characteristic Value			Extracted Load Quadratic Sum			Rotation Load Quadratic Sum		
	Total	Variance percentage	Accumulated %	Total	Variance percentage	Accumulated %	Total	Variance percentage	Accumulated %
1	3.583	35.833	35.833	3.583	35.833	35.833	2.633	26.331	26.331
2	1.821	18.213	54.046	1.821	18.213	54.046	1.981	19.811	46.142
3	.940	9.405	63.451	.940	9.405	63.451	1.731	17.309	63.451
4	.813	8.127	71.578						
5	.675	6.748	78.325						
6	.546	5.458	83.784						
7	.509	5.088	88.872						
8	.445	4.445	93.317						
9	.393	3.927	97.244						
10	.276	2.756	100.000						

Extraction method: main component analysis

Seen from "Table IV", characteristics values of the first three factors are bigger, which can explain the 63.451% variations of ten variables, rename the three factors: first,

external personnel; second, industrial agencies, third, authorities. The max variance method is used for orthogonal rotation to get a factor load matrix as shown in "Table V".

TABLE V. FACTOR LOAD MATRIX CONCERNING THE SUPPORTS OF INDIVIDUAL SOCIAL NETWORK TO STARTUP IMPORTANCE

Factor Type	Variable	Components		
		1	2	3
External personnel	Importance of supports from family members and relatives	.823	.177	-.008
	Importance of supports from classmates and friends	.733	-.043	.163
	Importance of supports from clients	.819	.272	-.101
	Importance of supports from suppliers	.491	.534	-.035
Industrial agencies	Importance of supports from opponents	.685	-.047	.396
	Importance of supports from other industrial businesses	.031	.589	.297
	Importance of supports from agency service	.140	.326	.770
Authorities	Importance of supports from banks or financial institutions	.034	.219	.834
	Importance of supports from industrial associations and societies	.076	.698	.383
	Importance of supports from authorities	.092	.773	.113

B. Factor Analysis of the Supports of Individual Social Network to Startup Effect

Likewise, factor analysis is conducted on startup effect under the individual network support in the questionnaire to get the total variance explained, refer to Table VI.

TABLE VI. TOTAL VARIANCE EXPLAINED CONCERNING THE SUPPORTS OF INDIVIDUAL SOCIAL NETWORK TO STARTUP EFFECT

No.	Initial Characteristic Value			Extracted Load Quadratic Sum			Rotation Load Quadratic Sum		
	Total	Variance percentage	Accumulated %	Total	Variance percentage	Accumulated %	Total	Variance percentage	Accumulated %
1	5.535	55.346	55.346	5.535	55.346	55.346	2.490	24.904	24.904
2	.920	9.200	64.546	.920	9.200	64.546	2.433	24.327	49.231
3	.753	7.526	72.072	.753	7.526	72.072	2.284	22.841	72.072
4	.684	6.838	78.911						
5	.572	5.720	84.630						
6	.505	5.048	89.678						
7	.380	3.797	93.475						
8	.292	2.924	96.399						
9	.204	2.044	98.443						
10	.156	1.557	100.000						

Extraction method: main component analysis

Seen from "Table VI", characteristics values of the first three factors are bigger, which can explain the 72.072% variations of ten variables, rename the three factors one by

one external personnel; industrial agencies and authorities. Then the max variance method is used for orthogonal rotation to get a factor load matrix as shown in "Table VII".

TABLE VII. FACTOR LOAD MATRIX CONCERNING THE SUPPORTS OF INDIVIDUAL SOCIAL NETWORK TO STARTUP EFFECT

Factor Type	Variable	Component		
		1	2	3
External personnel	Effect of supports from family members and relatives	.084	.715	.467
	Effect of supports from classmates and friends	.279	.800	.163
	Effect of supports from clients	.248	.553	.354
	Effect of supports from suppliers	.400	.703	.016
Industrial agencies	Effect of supports from opponents	.688	.320	.339
	Effect of supports from other industrial businesses	.827	.348	.217
	Effect of supports from agency service	.758	.218	.306
Authorities	Effect of supports from banks or financial institutions	.184	.211	.844
	Effect of supports from industrial association and society	.440	.392	.660
	Effect of supports from authorities	.474	.116	.714

C. Factor Analysis of Communication Frequencies through Individual Social Network

At last, factor analysis is conducted on the communication frequencies through the individual network to get the total variance explained, refer to "Table VIII".

TABLE VIII. TOTAL VARIANCE EXPLAINED CONCERNING THE COMMUNICATION FREQUENCIES THROUGH INDIVIDUAL SOCIAL NETWORK

No.	Total Variance Explained								
	Initial characteristic value			Extracted load quadratic sum			Rotation load quadratic sum		
	Total	Variance percentage	Accumulated %	Total	Variance percentage	Accumulated %	Total	Variance percentage	Accumulated %
1	4.196	41.964	41.964	4.196	41.964	41.964	2.468	24.677	24.677
2	1.504	15.035	56.999	1.504	15.035	56.999	1.803	18.032	42.709
3	.967	9.671	66.670	.967	9.671	66.670	1.666	16.661	59.370
4	.908	9.080	75.750	.908	9.080	75.750	1.638	16.379	75.750
5	.674	6.735	82.485						
6	.568	5.683	88.168						
7	.449	4.494	92.662						
8	.337	3.371	96.034						
9	.234	2.336	98.370						
10	.163	1.630	100.000						

Extraction method: main component analysis

Seen from "Table VIII", characteristics values of the first four factors are bigger, which can explain the 75.750% variations of ten variables, rename the four factors one by one family members and friends, external personnel;

authorities and industrial agencies. Then the max variance method is used for orthogonal rotation to get a factor load matrix as shown in "Table IX".

TABLE IX. FACTOR LOAD MATRIX CONCERNING THE COMMUNICATION FREQUENCIES THROUGH INDIVIDUAL SOCIAL NETWORK

Factor Type	Variable	Component			
		1	2	3	4
Family members and friends	Communication frequencies with family members	.148	.061	.821	.189
	Communication frequencies with classmates and friends	.205	.181	.826	.184
External personnel	Communication frequencies with clients	-.057	.283	.242	.835
	Communication frequencies with suppliers	.241	-.057	.148	.841
Authorities	Communication frequencies with banks or financial institutions	.162	.775	.096	.214
	Communication frequencies with authorities	.276	.818	.103	.010
Industrial agencies	Communication frequencies with opponents	.760	.281	.005	.302
	Communication frequencies with other industrial businesses	.843	.068	.200	.125
	Communication frequencies with agency service	.805	.293	.218	-.055
	Communication frequencies with industrial association and society	.551	.495	.349	-.089

V. CONCLUSION

- During the business startup and operation by returned rural migrant workers, six factors in the social society including family members and relatives, clients, suppliers, banks or financial institutions, opponents and authorities play an important in the startup; clients and suppliers have the most obvious effect in promoting the business operation, therefore, the business owners are willing to keep frequent communications with clients and suppliers.
- Within the social network of startup owners, main factors for the startup of returned rural migrant workers include: external personnel (clients and suppliers), industrial agencies (opponents, other industrial businesses and agency service) and authorities (banks, industrial association and governmental sectors). In order to succeed in startup, the returned rural migrant workers have to make full use of the social network resources of the three points.

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