

Impact of Social Networks on Entrepreneurial Success of Mobile Phone Retailers

Komal Ibrahim¹, Nadeem-Uz-Zaman², Bilal Sarwar², Noor Muhammad², Hadi Hassan Khan², Mumraiz Khan Kasi²

¹Sardar Bahadur Khan Women University, Quetta; ²Balochistan University of Information Technology, Engineering and Management Sciences, Quetta
Email: bilal.sarwar@buitms.edu.pk

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Abstract

This paper attempted to explore the impact of advice, adversarial network, and friendship networks degree centrality on the entrepreneurial success of mobile phone retailers. The total sample consisted of 199 entrepreneurs in Quetta city. Data were collected using a partly borrowed questionnaire of 19 items (13 for achievement 6 for business success). The results of the hierarchical regression analyses showed that there was a positive relationship between friendship and advice network degree and a negative significant relationship between entrepreneurial success and adversarial network degree. So, supportive social networks play a vital role in entrepreneurial success, where rivalry network centrality disrupt entrepreneurial success. If the entrepreneurs have a higher social network those entrepreneurs are successful in the market.

Keywords: Entrepreneurial success, social networks, advice network, friendship network, and adversarial network.

Introduction

Entrepreneurial activity has a multiplier effect on the economic development and growth of a country (Acs, Desai, & Hessels, 2008; Audretsch, Belitski, & Desai, 2015). Entrepreneurs take the risk to establish and manage new firms and bring innovation to existing products and services (Gartner, Shaver, Gatewood, & Katz, 1994). Entrepreneurs need small financial incentives and wealth to create new ventures and then reinvest the profits in a local business. From society, entrepreneurs drive physical and other resources to carry out their businesses (Aldrich & Zimmer, 1986; Burt, 1992; Korsching & Allen, 2004). Social networking is an important element in the success or failure of entrepreneurs. Some of the resources that entrepreneurs acquire from their social networks include support, knowledge, and advice (Larson, 1991). At the same time, they face rivalry from the competitors in the same industry.

Elements in the society determine the entrepreneurial activity taking place in any market. Therefore, a social network-based appraisal offers valuable insights into the study of entrepreneurship (Aldrich & Zimmer, 1986; Greve & Salaff, 2003; Hoang & Antoncic, 2003; Zahra, 2007). In this research, the impact of three social networks (1) friendship, (2) advice, and (3) adversarial is studied on the entrepreneurial success of the retailing of mobile phones. The friendship network gives both moral and physical support to the retailers. On the other hand, through the advice networks retailer acquire knowledge and information. Whereas the adversarial network contains the rivals who compete with the business.

As no prior research has been carried out on this topic, this study adds significantly to the field of network-based theory of entrepreneurship (Aldrich & Zimmer, 1986). Accordingly, through

the application of social network analysis, we provide evidence of the dependence of entrepreneurial success of mobile retailing on the three networks in particular social networks in general. Practically, the study might help improve the entrepreneurial prospects of retailers in the mobile phone industry.

Therefore, this study aims to examine how adversarial, friendship and advice networks affect the entrepreneurs' success in the mobile phone retail business in Quetta.

Entrepreneurial Success

Entrepreneurial success can be defined through profitability, sustainability, or personal wealth generated by the owner (Amit et al, 2000; Perren, 1999) or merely the length of time a firm stays in business (Vesper, 1990; Watson et al, 1998; Taoqmina & Lao, 2007; Dafina, 2008). The entrepreneur may be successful by different factors, but they are more determinant of their business success (Olakitan & Ayobami, 2011; Wach, Stephen & Gorgievski, 2016). The profit growth that is made by the business is called entrepreneurial success (Ahmed, 2010). The entrepreneurial success can be measured by both financial and non-financial performance of the entrepreneur's turnover, sustainability and growth also define the success, and others have concentrated on the entrepreneurial characteristics as indicators of success (Gupta & Muita, 2013). When the entrepreneurs are successful, he or she is either able to quickly respond to uncontrollable changes or it is so innovative that it promotes to change in environment (Sahlman, 1999).

Network-based Theory of Entrepreneurship

Entrepreneurship is a mental activity that brings innovation and creates new goods and services which are different from others (Shane & Venkataraman, 2000). In an overall context of doing business, an entrepreneur is one who takes risks to own and manage an economic venture (Gartner, shaver, Gatewood, & Katz, 1994). In turn, the entrepreneur earns rewards in the form of profits. However, all the entrepreneurs are not equally successful since just creating a product is not enough.

Entrepreneurial success can be defined as a tangible element like profitability, sustainability, personal wealth, etc. (Perren, 1999). It is the ability of a successful entrepreneur that he can satisfy the stakeholder by manages their resources in a good way to meet his objective and goals. The entrepreneur may be successful by different factors, but they are more determinant of their business success (Olakitan & Ayobami, 2011). They need resources and capabilities to create products and services or grow their business (Toft-kehler, Wennberg, & Kim, 2013). Among them, social resources play a defining role in their success (Aldrich & Zimmer, 1986; Hoang & Antoncic, 2003).

Advancement in the field of social network analysis has opened doors for many non-network-based areas to study aspects of the field that could otherwise remain unexplored. The same is true for entrepreneurship (Aldrich & Zimmer, 1986; Greve & Salaff, 2003; Hoang & Antoncic, 2003; Zahra, 2007). Aldrich and Zimmer (1986) proposed that entrepreneurial activities are embedded into its social environment- loosely known as the network-based theory of entrepreneurship. The authors further proposed that that social networks can be important in understanding entrepreneurship (Aldrich & Zimmer, 1986). Over years, studies have been using numerous elements of the social network in investigating different areas of entrepreneurship (Hoang & Antoncic, 2003; Klyver, Hindle, & Mayer, 2008).

The entrepreneurs are dependent on the networks because with the help of their networks they can get advice and support from experts such as accountants, consultants, and lawyers (Ramsden & Bennett, 2005), also from researcher and training institutions, government bodies, and customer and suppliers (Ritter & Gemunden, 2004). With the help of networking, the entrepreneur can influence the success of a business venture, but the network theory suggests that the ability of owners to gain access to resources not under their control in a cost-effective way (Zhao & Aram, 1995).

The entrepreneurs get the needed resources through their social networks which are essential for entrepreneurial success (Jarillo, 1989). When the entrepreneurs use their networks, it will reduce the risk of failure and increase the chances of success (Julien, 1993). Many studies show that there are positive relations between social networks and entrepreneur's success. According to Duchesneav & Gartner (1990) that the successful firm will use their professional advice. The financial performance of entrepreneurs is positively related to advisory services (Ken, 1994).

Entrepreneurs communicate with different people during the establishment and even after the establishment of a new venture, it will show the size of the network the entrepreneur has. If the entrepreneurs are a higher number of contacts it means he or she will receive very useful information, resources and that entrepreneur is more successful than those who have the lower number of contacts. The size of the network is very important for entrepreneurial success.

For successful entrepreneurial ventures networking is very important it will observe from recent work on entrepreneurship and networking. For developing a successful venture networking is playing a very important role it was observed by Setyawati, Shariff & Saud (2011). Social networks enhance the learning and entrepreneurial capabilities (Lechner, Dowling & Welppe, 2005). The entrepreneurs need information, raw materials, technology, or knowledge about the existing markets and it will be possible by social networks

In the mid of 1990, the first cellular mobile service was introduced in Pakistan. In Pakistan, the use of mobile phones was limited, only the rich peoples have used mobile phones. There is very tough competition now due to the increase in the mobile phone of different international companies in Pakistan. The mobile phone will generate revenue it will enhance entrepreneurship, reduce information asymmetries and market inefficiencies. The cost of running a business will reduce through mobiles. In Pakistan, many people start a small business of mobile phones and they are successful (Bhavnani, et al., 2008).

Since 2000 the mobile retail business is growing in Quetta. People are more aware of technology and technological advancement. Now a day's mobile retail business is at its best in Quetta lot of markets and retailers are busy selling and purchasing mobile products and accessories. This is due to the technological awareness and interest of people in technology and social media. The business of mobile retail business increases day by day and it is a very successful business in Quetta.

Networks are the very important context of business studies, in the literature, it has received a large amount of attention (Hakansson & Ford, 2002). The network can be defined as the link of nodes that are connected by some sets of relationships (Cook & Emerson, 1978; Hoang & Antoncic, 2003).

In business success, social networks play an important role. When an entrepreneur is connected to many people in networks, he or she will get useful information, ideas, resources, assistance, and economic capital. A social network is a set of social relations that can connect people and it is very important for entrepreneurial success (Birley, 1985).

For entrepreneurial success, social networks are very beneficial (Renzulli, et al, 2000). According to Renzulli, et al (2000) with the help of social networks the entrepreneurs directly reach the number of people who can help the entrepreneur in their new venture. This contact may help the entrepreneur in getting useful information that will help the entrepreneur to create a new venture and get success. The entrepreneurs also need resources that will require in the process of the new venture and for this, they need a diverse set of relations.

Network studies improve our vision of things happening in the social context of business. It will extend knowledge about the social context of mobile retailing through the friendship, advice sharing, and competitive networks of entrepreneurs and would guide how they affect their business success.

Social networks

Social networks can be defined as a set of actors. It may also be defined as a relationship between different actors (Aldrich & Zimmer, 1986). Persons, groups, and collectives of organizations are the actors in social networks (Dubini & Aldrich, 1991). Social networks increase entrepreneurial efficiency and business opportunities, these networks provide valuable resources to the entrepreneur, which may be not necessary for the entrepreneurs but play an important role in achieving their business goals and objectives. Social networks provide both financial and human capital which are important for entrepreneurial success (Hansen, 1995).

Nodes

The nodes in the networks are the people, groups, organizations, countries, and communities, etc. they are the fundamental units that form relationships (also called edges) with others, and networks come into being as a result (Amador & Cabral, 2016). The individual is considered as the node in a network in which the entrepreneurs are embedded in social relations. According to Bois-sevain (1974), every society is considered as the network in which an individual can get in touch with every other individual. In the entrepreneurial networks, the nodes are the owners of organizations who form a relationship with other entrepreneurs in the same business or field. The relationship may vary in myriads of ways, this study, however, we are only interested in three of them: friendships, advice sharing, and competition.

Degree, out-degree, and in-degree

The degree of a network is the number of nodes directly connected to another node. On the other hand, the out-degree refers to the number of edges that leave the node. In degree, refers to the number of edges coming in nodes (Kadushin, 2004). The out-degree would differ in its definition across all networks. For example, in the friendship network of entrepreneurs, the degree would refer to the number of friends an entrepreneur has. Similarly, in a competitive network, the degree would mean the number of nodes an entrepreneur is competing with his industry or line of business. Thus, the greater the degree in the adversarial network, the greater the competition an entrepreneur is facing.

Centrality

Centrality can be defined as how nodes are connected to another node in a network (Brass, 1984). Centrality is an essential concept in the study of social networks. It tells the relative importance of a node in its network (Hanneman & Riddle, 2005). There are several different concepts of centrality, this study, however, is only concerned with degree centrality which refers to the number of nodes one is connected with. The higher these numbers, the greater the centrality and the greater an entrepreneur is exposed in the network. If the entrepreneur is central to their network, he or she has many advantages and he will be successful among other entrepreneurs (Brass, et al, 2004). If the entrepreneur is central to the network that he will get the information and resources and he is first to learn about the market condition, competitors' strategies, etc. (Powell et al, 1996). If the entrepreneurs have high network centrality it means he or she has access to valuable resources (Tsai, 2001). The entrepreneurs may increase their capacity to quickly identify, access to resources if he or she has highly centrality network (Burton et al, 2002).

Conceptualization of centrality the degree centrality is the most instinctive network, and it was a relationship with accurateness. The number of people that a person is directly tied to is called the degree of a person. An entrepreneur who has many friends will receive related information from their friendship network. According to Krackhardt (1992) when an entrepreneur is more central in his friendship network, he will get the most accurate information than the more central person in the advice network, he has the advantage to understand the structure of the advice network.

The total number of people who can contact the entrepreneurs and the total distance from entrepreneurs to all other people will show the central point in an entrepreneur's network. The centrality points are higher for the entrepreneur when more persons can be reached and the shorter the distance (Freeman, 1978). In the entrepreneurial process, the person who has extensive ties to different parts of the network can play an important role, the entrepreneurs who communicate with more people and successful is the role model for other people in the network (Bygrave & Zacharakis, 2010).

Core and periphery of the network

The core and periphery structure of a network refer to a particular arrangement of nodes in their respective networks (Borgatti & Everett, 1999). The core refers to a sub-group or cluster in the network where the activity taking place in the network is at the highest. In the case of an advice network, for example, the core would refer to the part of a network where the act of advice sharing is the highest (Hanneman & Riddle, 2005). The periphery, on the contrary, composes of the distant individuals in the network that do not take part in the affairs of their network very actively.

Advice Network and Entrepreneurial Success

Advice networks mean that nodes in them will share the information, knowledge, guidance, and assistance related to task completion and it will help the entrepreneur to achieve their goals, so the advice networks and entrepreneurial success has positive relationships (Sparrowe et al, 2001). When the entrepreneur achieves his or her goals, he will improve his or her performance by obtaining guidance from the existing networks that will help them. In the process of problem-solving, the centrality in the advice networks reflects the entrepreneur's involvement in the exchange of resources. If the entrepreneur is central in the advice networks, he will get the related information and knowledge very easily and he will succeed in the market.

An advice network is a network in which entrepreneurs seek out and give specific information that is important for the entrepreneurial success (Davenport & Prusak, 1998; Dixon, 2000). The entrepreneurs use the interpersonal connection to seek advice and fill the gaps in their awareness and capability to resolve complications or take benefit of opportunities faster. Advice network allows the entrepreneurs to obtain information directly from another person to generate innovative solutions to a problem more quickly and opportunities that emerge (Cathleen A et al, 2003).

When the entrepreneurs have high in-degree advice centrality then they will receive relevant information for their work-related input through the exchange. When an entrepreneur has higher in-degree centrality, then he or she has more information about the market, entrepreneur information or knowledge access can be measured through in-degree centrality (Freeman, 1978). The in-degree centrality is the measure of the number of an entrepreneur who received advice from their friend and family members. The advice-giver is the essential source of information for other entrepreneurs in the network when he or she is higher in-degree centrality (Thomas J et al, 2009).

The advice in degree is a measure of an actor's popularity in a network as an efficient advice giver. It reflects the knowledge, ideas, information, personality, and other characteristics in an entrepreneur and as such reflects positive qualities in them. It also reflects one's ability to influence others in the networks. It can thus be expected that advice in degree would have a positive effect on entrepreneurial success. Thus,

The out-degree centrality in an advice network can be the number of advisors contacts the entrepreneur having in the network (Thomas, et al, 2009). According to Gibbons (2004), an advice network is a transmission of task-oriented information or job-related information. The task-related information can be transferred from one individual to another individual with the use of an advice-seeking tie (advice out-degree). If the entrepreneur is in a central situation in the advice out-degree

network, it will increase the access to information and gives the central entrepreneurs more status-based effects.

Advice out-degree refers to an entrepreneur's urge or desire for knowledge seeking, learning, and being informed. It can thus be argued that improved knowledge and information improve entrepreneurs creatively and should have a positive impact on their success. Therefore,

H₁: Advice networks degree positively determines entrepreneurial success.

Adversarial network and entrepreneurial success

Adversarial networks and entrepreneurial success are a negative relationship. Adversarial networks mean exchange negative relations which will affect the success of entrepreneurs. Those types of relations are empirically demonstrated to be detrimental to the entrepreneur's performance and success (Baldwin, et al, 1997). Adversarial networks are negatively related to entrepreneurial success because if the entrepreneur has many competitors in the market it will affect the success of entrepreneurs (Sparrowe et al, 2001). Adversarial relations cannot exchange the related information and knowledge to the entrepreneur so we can say that adversarial networks are negatively related to the success of entrepreneurs. If the entrepreneur has a lot of competitor in the market than he or she has less chance of a good relationship in the market and also, he or she cannot get information and knowledge about the market from other because adversarial relations may have thwart for the entrepreneurs.

Adversarial coreness refers to an entrepreneur's exposure to immense competition as in the core the competition of the entrepreneurs should be high and thus would be a setback for them towards their entrepreneurial success. Thus,

H₂: Adversarial network degree negatively affects entrepreneurial success.

Friendship degree and Entrepreneurial success

According to Greeley (1971), friendship is a relation of exchange trust in which a person induces his/herself to another person to do the same. In the words of Wright (1985) friendship is a reciprocal, voluntary, and equal correlation that is distinctive and special in all respect. The high performance of an individual comes through good friendship. A friendship is a relationship in which all persons are concerned for the well-being of others. They always ready to justify the needs of each other (Clark & Mills, 1979). When an entrepreneur enters into a new and changing environment, the friendship network will help the entrepreneur and provide comfortable opportunities and discuss the uncertainties. An individual becomes a friend when they meet and communicate outside the workplace, the individual becomes able to discuss the work-related problem when friendship deepens and get support from friends (Ganley & Lampe, 2009), and it will increase the source of information for an entrepreneur (Moran, 2005).

When the entrepreneur is more central in a friendship network it will provide him a high level of trust, commitment, respect, and when the entrepreneur central he will also get a higher level of support, important information, open communication, resources, effective cooperation, and he is also able to discuss all the problems to his friend and because of this, the entrepreneur will more successful than other entrepreneurs. When the entrepreneur is central in a friendship network it will consider that he is less threatening and more trustworthy by other entrepreneurs in a network (Schulte, et al, 2012). Those relations are beneficial because they will provide new ideas and exchange complex information, from that they will take advantage when the entrepreneurs face greater uncertainty, and they want to bring innovation (Podolny, 1994). The friendship relations, which are high trust-based, exchange information, resources, and which is deep and provide new ideas or create support to the entrepreneur, that entrepreneur more successful than other entrepreneurs.

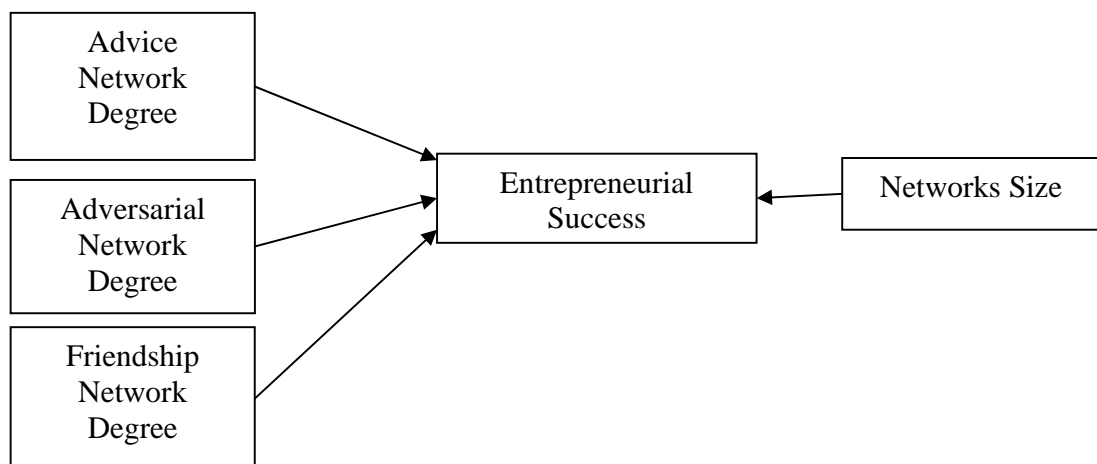
Friendship degree and entrepreneurial success have a positive relationship when an entrepreneur has a lot of friends that he or she has a successful venture. For obtaining information the entrepreneur depending on their friendship degree, the friendship ties are very important for entrepreneurial success. A friendship degree helps the entrepreneur to access resources other than information (Dubini & Aldrich, 1991; Greve & Gattiker, 1994). Entrepreneurial success can be promoted when the network consisting of a friendship degree that gives an entrepreneur social and mental support (Johannisson, 1988).

According to Marwell, et al (1998) when the entrepreneurs have been close friends around them it is very important for entrepreneurial success because when he has many close friends, they will help him to get information and needed resources which are necessary for success. The friendship network will be helping the entrepreneur to increase self-confidence and justification and help them to mobilize cognitive and emotive resources (Johannisson, 1988). So, the friendship degree is a measure of the involvement of a friend in the same profession and thus would reflect greater access to resources, help, financial assistant, and other benefits, thus.

H₃: Friendship networks degree positively determines entrepreneurial success.

The network sizes can have impacts on the overall networks themselves and thus, in turn, the entrepreneurial success. Thus, the study would include them as control variables in the analysis.

Based on the above-mentioned hypotheses, the following theoretical framework has been proposed which explores the positive relationship between independent variable advice network degree, and friendship degree and negative relationship with adversarial network degree with dependent variable entrepreneurial success.



Methodology

This is an explanatory study that seeks to find the causal relationship between friendship degree, advice network degree, and adversarial networks degree as the independent variables and entrepreneurial success as the dependent variable. We have also used network size as the control variable.

Participants

Data were collected from the owners of mobile retail outlets in Quetta. Each entrepreneur was serving as an ego who also told about his alters (connected ties) in the network. As there is no prescribed sample size in network analysis but there is in the conventional statistics, this study resorted to a sample of at least 199 (after cleaning and transformation) shopkeepers as at this sample

size the data starts becoming normal (Seigel, 2011). The reason was to allow for a statically appropriate analysis. However, purposive sampling was used as the number of retailers was very large in the city and thus the population was relatively unknown. Also, purposive sampling is a preferable method in network analysis.

Network data were collected using stoichiometric matrices employing the name generation technique. This technique required the egos to tell their relationships with different alters. Entrepreneurial success data was collected using the 33-item inventory to measure entrepreneurial traits for success, developed by Montage, Kuratko, and Scarcella (1986). However, we picked only 19 items from this inventory that closely reflected entrepreneurial success.

Material

The survey method i.e., self-administered questionnaire was used for data collection, which was adopted from various research articles. 5-point Likert scales were used for the questions developed for business success and entrepreneurial achievement. Demographic information was also collected about education level, experience, and formal business education. Out of the 19 items, six measured business success, and the remaining 13 measured business achievement of the mobile phone retailers.

Research Procedure

The significance level for the study was maintained at a 95% confidence level which is considered appropriate for the social sciences. Statistical Package for Social Sciences (SPSS) version 26 was used to analyze the data. The first section of the questionnaire involved measuring entrepreneurial success which constituted business success and achievement. The second section involved identifying social network data like advice networks, adversarial networks, and friendship networks.

Cleaning, coding, and tabulating of the data was needed to perform quantitative data analysis (Babbie et al, 2010; Cooper & Schindler, 2008; Sarantakos, 2005; Mosby's Medical dictionary, 2009; Zikmund, 2003). We had to clean data for missing Responses, unengaged answers, and outliers. The missing data were replaced using the mean value. To test if there were no changes in the data after the missing values treatment and other transformations for normality, the paired sample t-tests were used, which showed no significant changes in the data after transformation. Finally, to test the stated hypotheses, we used hierarchical regression analysis.

Validity and Reliability

Validity

According to Cooper & Schindler (2008) the degree of measures to which differences are found, reflect a true difference among the respondents, and the degree to which a study succeeds in measuring intended values is called the validity. We used factor analysis to underline the structure in the data and establish the validity of the structure that was proposed in the questionnaire (Cooper & Schindler, 2008). The structure also indicated the validity of the data collected.

Reliability

Babbie (2010) defined reliability as a condition whenever the same technique is repeated to do the same study in which the same results will be achieved. Cronbach coefficient alpha is the most common technique used for measuring the reliability of a measurement scale with multi-point items (Hayes, 1998). Therefore, to test the reliability of the questionnaire in this study Cronbach's alpha was used.

Results

Descriptive Statistics

Table 1 shows the descriptive statistics of the sample used in this study.

Table 1. Descriptive Information of the Sample

| | Min | Max | Mean | Std. Deviation | Skewness | Kurtosis |
|------------------------|---------------|----------------|---------|----------------|----------|----------|
| Age | 18 | 55 | 31 | 0.869 | 1.379 | 2.768 |
| Gender | Male (165) | Female (34) | 1.88 | 0.998 | 1.046 | 0.574 |
| Education | Matric | Masters | 1.74 | 0.753 | 0.545 | -0.805 |
| Experience | 1 | 14 | 1.86 | 0.595 | 0.488 | 1.65 |
| Friends Network Degree | 2 | 13 | 7.23 | 2.637 | 0.35 | -0.667 |
| Rivalry Network Degree | 2 | 14 | 7.12 | 2.651 | 0.431 | -0.529 |
| Advice Network Degree | 2 | 12 | 6.3769 | 2.42955 | 0.315 | -0.668 |
| Network size | 11 | 36 | 20.5025 | 5.0661 | 0.431 | -0.02 |
| Business Success | 5 | 25 | 9.0804 | 2.64452 | 2.675 | 1.907 |
| Entrep. Achievement | 9 | 45 | 16.5226 | 4.11308 | 1.494 | 2.738 |
| Entrep. Success | 15 | 59 | 25.603 | 3.00991 | 2.757 | 1.843 |

The descriptive analysis shows that the data was presentative of the corresponding population of the mobile phone retailing market. There were a few female entrepreneurs in the market, that too mostly worked online or in partnership with other make relatives and friends. No issues in the skewness and kurtosis values were found as all the values stayed within the threshold of 3.

Factor Analysis

Table 2. Factor Analysis

| Items | Components | | Communalities |
|--|-------------|-------------|---------------|
| | 1 | 2 | |
| Business success 1 | .618 | | 0.386 |
| Business success 2 | .688 | | 0.492 |
| Business success 3 | .683 | | 0.468 |
| Business success 4 | .651 | | 0.433 |
| Business success 5 | .633 | | 0.401 |
| Factor 1. Business success ($\alpha = .674$) | | | |
| Achievement 1 | | .580 | 0.350 |
| Achievement 2 | | .646 | 0.418 |
| Achievement 4 | | .554 | 0.310 |
| Achievement 6 | | .608 | 0.369 |
| Achievement 7 | | .615 | 0.388 |
| Achievement 8 | | .616 | 0.380 |
| Achievement 11 | | .622 | 0.387 |
| Achievement 12 | | .423 | 0.205 |
| Achievement 13 | | .445 | 0.213 |
| Factor 2. Achievement ($\alpha = .736$) | | | |

The validity of the data was tested using exploratory factor analysis. The Varimax rotation was used to extract only 2 components. An item had to be dropped from the business success scale as it did not converge into its component due to excessive cross-loadings. The fixed factor method was chosen over eigenvector criteria to avoid overdetermination. The loadings were suppressed be-
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low 4 to clean the table up for loadings and the rotated matrix. Any items not falling in their respective factors were removed from the EFA. No cross-loadings were observed in the two factors after rotations and no loadings in a factor fell below .4. These indicated that there were not convergent and discriminant validities were present in the data.

Reliability of data

All the items in factor after the factor analysis was done were analyzed for their reliability using Cronbach's Alpha for entrepreneurial success. The alphas for both the sections were greater than .6. Entrepreneurial success was measured by business success and achievement. The Cronbach's alpha for the first section of achievement was .736 and that for the section of business success was .674. This indicates that in the case of achievement the reliability is very reliable and in the case of business success the data were acceptable.

Table 3. Cronbach's alpha result of entrepreneurial success

| | Variables | Cronbach's alpha | Items |
|---|------------------|------------------|-------|
| 1 | Business success | .674 | 9 |
| 2 | Achievement | .736 | 5 |

Table 4. Regression Results

| | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig | R ² | Adjusted R ² |
|---------|-------------------|-----------------------------|------------|---------------------------|--------|------|----------------|-------------------------|
| | | B | Std. Error | Beta | | | | |
| Model 1 | Business Friends | 1.027 | .079 | .508 | 13.022 | .000 | .974 | .974 |
| | Rivalry Degree | -.706 | .134 | -.355 | -5.248 | .000 | | |
| | Business Advisor | .301 | .137 | -.137 | 2.189 | .030 | | |
| Model 2 | Business Friends | 1.081 | .164 | .534 | 6.597 | .000 | .974 | .974 |
| | Rivalry Degree | -.652 | .197 | -.328 | -3.300 | .001 | | |
| | Business Advisors | .247 | .199 | .113 | 1.240 | .021 | | |
| | Net Size | -.054 | .146 | -.028 | -.374 | .701 | | |

A. Dependent variable: Entrepreneurial Success

Table 4. ANOVA

| Model | | Sum of Squares | Df | Mean Square | F | Sig |
|-------|------------|----------------|-----|-------------|----------|-------------------|
| 1 | Regression | 5593.183 | 3 | 1864.394 | 2468.724 | .000 ^b |
| | Residual | 148.020 | 196 | .755 | | |
| | Total | 5741.203 | 199 | | | |
| 2 | Regression | 5593.289 | 4 | 1398.322 | 1843.450 | .000 ^c |
| | Residual | 147.914 | 195 | .759 | | |

| Model | | Sum of Squares | Df | Mean Square | F | Sig |
|-------|-------|----------------|-----|-------------|---|-----|
| | Total | 5741.203 | 199 | | | |

a. Dependent Variable: Entrepreneurial Success

b. Predictors: (Constant), Business Advisor, Business Friends, Competitors

c. predictors: (Constant), Business Advisor, Business Friend, Competitors, Net size

Regression Analysis

The influence of friendship degree network on entrepreneurial success was tested through hierarchical regression in SPSS, the result shows a significant positive relationship. Friendship network degree significantly positively affects entrepreneurial success ($\beta = 0.508$, $t = 13.022$, $p < 0.05$). Similarly, advice degree also positively affected the entrepreneurial success ($\beta = 0.137$, $t = -2.189$, $p < 0.05$). On the other hand, the rivalry network degree negatively affected the entrepreneurial success ($\beta = -0.355$, $t = -5.248$, $p < 0.05$). However, network size did not have any significant effect on the entrepreneurial success of the mobile phone retailer and was fairly controlled in the model. ANOVA test also shows significant percentage of variance in entrepreneurial success with ($F_{(4,195)} = 1843.450$, $p < 0.05$).

Discussion

The research objective was to measure the impact of social networks on the entrepreneurial success of the owners of mobile phone retail businesses in Quetta. The dependent variable, entrepreneurial success, as measured by entrepreneurial achievement and business success. To examine the relationships, we proposed that there was a positive impact of friendship and advice network degree centrality measures on entrepreneurial success, a negative impact of adversarial degree network and entrepreneurial success, and a negative impact of advice degree network on entrepreneurial success.

The regression analysis of the study concluded that there were significant and positive relationships between friendship and advice network degree centrality measures and entrepreneurial success (Tables 3 and 4). Similar findings have been made by other researchers i.e. (Ruston, 1980; Dubini & Aldrich, 1991). So, the result proved that the hypothesis which was developed was true and accepted. As the friendship and advice networks degree improved, entrepreneurs made a greater success. We conclude that friendship and advice network centrality will increase the chances of success of entrepreneurs. When the entrepreneurs have more friends and great advisors. it will be good for them because the higher the friendship networks higher the entrepreneurial success.

The regression analysis was employed to see the impact and strength of the independent variable on the dependent variable, the result showed that there is a significantly negative relationship between adversarial degree network and entrepreneurial success (Table 3 and 4). Our findings are also supported by other scholars (Inkpen & Tsang, 2005; Baldwin, et al, 1997; Sparrow, et al, 2001). As the entrepreneurial success link with adversarial degree network because when the entrepreneurs have many competitors in the market the chance of success will be very low. So, the third hypothesis was also proved by the result.

The network size is a control variable and is only included in the analysis to control the size of the network. The regression result showed that there is an insignificant negative relationship between network size and entrepreneurial success. It is concluded that social networks affect entrepreneurial success in all aspects.

Conclusion

Entrepreneurial success depends on their social networks through social networks the entrepreneurs have succeeded in the market when he or she started a new business because when he or she enters a market everything is new for his or her but if his or her social networks is high, he will easily get success and also got related information about the market. When he has started a business, he also needs resources that are important for the entrepreneurial success which he or she only gets from his or her social networks. The friendship networks of entrepreneurs help him for getting resources and related information about the existing market. From the advice network, the entrepreneur will get advice about the business which he going to start is good for him or not. The adversarial networks of an entrepreneur tell them that how many competitors he has in the market.

When taking advice network degree as the independent variable and entrepreneurial success as the dependent variable, the advice network degree negatively determines entrepreneurial success because the higher the advice network of an entrepreneur than the entrepreneurial success will automatically less, so our first hypothesis was rejected. The relationship between advice network degree and entrepreneurial success is highly correlated and significant. When we take friendship network degree as the independent variable and entrepreneurial success as the dependent variable it will also positively determines entrepreneurial success, and the entrepreneurial success and friendship network degree are highly correlated with each other and their relationship positively significant. When we take adversarial network degree as the independent variable and entrepreneurial success as the dependent variable it will negatively affect the entrepreneurial success because when the entrepreneur has higher competitors in the market it will lower the success factor of an entrepreneur. Network size is the control variable and it negatively affects the overall network of entrepreneurs.

So, we can conclude that social network is very important for entrepreneurs because the success of entrepreneurs is depending on their social networks. The higher the social networks of an entrepreneur the higher the success of an entrepreneur.

Limitation

This research is not without limitation it has some limitations. Firstly, in this research, we only discuss three types of social networks other networks can be included in this research. Second in data collection also face some difficulties because most mobile phone owners are not educated, and they did not fill the questionnaire properly.

Future Direction

This study has made contributions to theory and practice on the involvement of social networks relationship with entrepreneurs; it still contains limitations that offer opportunities for future study and investigation.

The studied firms are restricted to a single business sector that is owners of mobile phone retail business in Quetta city. In a future study, they will conduct this study overall country's mobile phone retail business to know the impact of social networks on entrepreneurial success. Therefore, one possible direction for future research is to extend this study to another research context. Future research could apply this study's methodology to multiple case studies in different entrepreneurs of the country.

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