The Effects of Computer Networks on the Innovation and Entrepreneurship Ability of Marketing Major

Min Zhang, Xiaozhen Zhao*, Xinyang Wu

School of Marketing and Logistics Management, Nanjing University of Finance & Economics, Nanjing 210023, China
*Corresponding Author

Abstract: Since the beginning of the 21st century, international competition has become increasingly fierce: the standard for measuring a country's national strength is not only reflected in the initial level of political, economic, and military development, but also in technological innovation. Countries around the world regard innovation and entrepreneurship as the main driving force of economic growth, and innovation and education policies have received more attention. Actively carry out innovation and entrepreneurship education, formulate scientific and sound personnel training methods, and cultivate more and more innovative and entrepreneurial talents, not only to improve the overall innovation and entrepreneurship potential of marketing majors students and the quality of higher education, but also learning entrepreneurship can promote employment and promote economic growth. Marketing major students have professional knowledge in finance and management, but due to the lack of entrepreneurial innovation and services, they have to learn innovative and entrepreneurial skills. The main purpose of this article is to analyze the influence of computer network mechanism on marketing major students in innovation and entrepreneurship. The research result is that the computer network has a great influence on the innovation and entrepreneurship ability of marketing major students, and can improve the entrepreneurial success rate of business administration college students. At the same time, the innovation and entrepreneurship research of marketing major students from the perspective of computer networks enhances their innovation and entrepreneurship capabilities, and allows the education system to present new research ideas.

Keywords: computer network, marketing major, innovation and entrepreneurship

1. Introduction

In the context of mass innovation and entrepreneurship, public enterprise management actively encourages students to start their own businesses. Marketing major college students have a high level of personal knowledge, professional and technical advantages, are supported by funding schools, and have more and more recruitment opportunities. Computer network has the greatest commercial influence. It is of great significance to promote employment and social stability to deal with the work of college students in marketing major, and it plays an important role in promoting China's economic growth and accelerating industrial growth [1]. In recent years, the local has selected successful executives, used a variety of tools to promote successful business projects, and introduced financial priorities to stimulate the business enthusiasm of marketing major students [2]. The computer network strengthens the business orientation of marketing major students. In this context, the marketing major professional academia pays attention to business research, and it is important to be able to significantly identify business success and corporate performance, as well as research on entrepreneurial opportunities.

In order to allow students to start their own businesses, the government needs to promote the business environment, continuous implementation and management of authorization, related systems, a series of tax and credit priorities, and further business management. Entrepreneurs start their own businesses and purchase business management, financial aid helps students understand the value of business. Entrepreneurship management has attracted the attention of students from all walks of life in China, focusing on promoting the entrepreneurship of marketing major students and establishing an inclusive corporate employee recruitment system. In the field of student marketing major, many experts and students have done a lot of research, and have achieved good results in the research interests of marketing major students. For example, Mcphee C proposed that learning experience emphasizes the
creation of new knowledge on the basis of existing experience [3]. Oyelakin O believes that entrepreneurs must not only learn from good business experience, but also think about failure, learning failure [4].

At present, the research of computer network is very important. Computer networks are characterized by transparency, diversity and durability. Marketing major students and managers have a strong learning motivation. Now the Internet has become a business group for business administration students majoring in business studies. Students and marketing major students can choose appropriate business management methods to obtain the experience and knowledge of network members. When they integrate this knowledge and experience, they can greatly improve the skills, knowledge and motivation required for entrepreneurship. This article introduces marketing major students as independent variables and business control variables, and explores how computer skills can further affect students' entrepreneurial ability in marketing major through the influence of employee learning [5-6].

2. The ability of innovation and entrepreneurship

2.1 Overview of the ability of innovation and entrepreneurship

(1) Regarding the explanation of entrepreneurship, many domestic scholars have also explained it from different perspectives. The main points are as follows: Some scholars pointed out that entrepreneurship not only requires individuals to have strong comprehensive abilities, but also needs to be engaged in certain tasks. The performance is: have a certain degree of creativity, have the creativity to realize personal value, and it is a combination of three skills: professionalism related to professionalism, corporate management ability, and personal comprehensive ability. Some scholars have also pointed out that entrepreneurship is a concrete manifestation of the subject's psychological effectiveness. It not only has an impact on the effectiveness of business practice, but also helps promote the effective development of business practice activities. In other words, entrepreneurial ability, the core of which is the development of individual intelligence, is a concrete manifestation of individual psychological functions, including individual ability and creative ability. Some scholars believe that entrepreneurship in a narrow sense refers to self-employment, which is a manifestation of the characteristics of individual business thinking, professional skills, decision-making and development capabilities, and the ability to adapt to the environment [7-8].

(2) Regarding the relationship between innovation and entrepreneurship, most scholars believe that through the optimization of innovation and entrepreneurship, entrepreneurship can be said to be the realization of innovation goals. On the contrary, entrepreneurship can also promote the development of innovation. In fact, innovation and entrepreneurship are closely linked, with different determinations. "To achieve transformation; entrepreneur pays more attention to action, pay attention to society, etc., the process of creating and generating new value and new wealth for others and society" [9-10].

(3) This article starts with cultivating the thinking and ability of marketing major students, and realizes the true integration of innovation and entrepreneurship by changing the teaching methods of innovation and entrepreneurship education. Nowadays, more and more academic researches are researching "innovation and entrepreneurship" as a main field. However, scholars rarely mention its true meaning. Most of them are based on the perspectives of innovation and business education, and there are mainly the following views: one view believes that innovation and entrepreneurship opportunities are essentially the same as opportunities cultivated by innovation education, and there is little difference; the other view is innovation and entrepreneurship opportunities it is the same kind of training. Entrepreneurship in education is essentially the same; there is another view that innovation and entrepreneurship is the total return of innovation and entrepreneurship [11-12].

(4) This article believes that the above viewpoints are worth learning, but their understanding of "innovation and entrepreneurship skills" may not fully explain its true meaning. This article's understanding of the "innovative and entrepreneurial ability" of the comprehensive quality, innovative and entrepreneurial thinking and spirit of marketing major students, pays more attention to the combination of theoretical knowledge and theoretical knowledge. In short, innovation and entrepreneurship ability means that individuals not only need to have a certain sense of innovation and entrepreneurship, innovative thinking ability and innovative knowledge ability, but also need to have a certain comprehensive innovation ability and practical entrepreneurial ability.
2.2 The effect of entrepreneurial learning on computer networks and entrepreneurial capabilities

(1) The business network encourages marketing major students to better observe and imitate the behavior of others to improve their entrepreneurial ability, instead of accumulating business knowledge through trial and error to improve entrepreneurial ability. This study believes that the more marketing major students use the business network, the more unfavorable the learning experience, and the marketing major students will reduce the frequency of learning from experience. With more network support, entrepreneurs are less likely to choose experiential learning methods to improve their business skills.

(2) Cognitive learning itself highlights the shortcomings of its own cognitive model. During the construction of the business network, marketing major students communicate with network members to help change the cognitive model and cultivate business skills. On the one hand, entrepreneurs improve their skills by exchanging resources with network members, thereby obtaining the latest knowledge about markets, technology, and politics. On the other hand, the business network provides a lot of opportunities for marketing major students to imitate network members (such as successful entrepreneurs), learn, absorb, integrate and use the successful experience of network members to obtain network resources; indirect experience, knowledge, the acquisition of resources, etc., helps to improve the ability of innovation and entrepreneurship.

(3) In the rapidly changing business environment, entrepreneurs not only need to rely on their own experience and knowledge to carry out their business, but also need to absorb new external knowledge to build and update their own capabilities. Marketing major students can acquire business knowledge in a targeted manner through deliberate practical activities according to their own needs. The practical learning of business administration students mainly takes place in their own business network. Marketing major students need to cooperate with network members to obtain market information and institutional support. This has a positive impact on the business practice of marketing major students.

2.3 According to the computer's clustering algorithm

In order to deeply study the influence of computer network on the innovation and entrepreneurial ability of marketing major students, this paper uses computer algorithms of computer technology to conduct a data analysis based on the influence of computer network on the innovation and entrepreneurship ability of marketing major students. This paper uses commonly used accuracy and information unification to evaluate the performance of the clustering results of the computer algorithm in this paper. Assuming that a data set has G images, let $W^x$ be the class label learned by different algorithms, and $V^x$ be the class label provided by the data set. The definition of accuracy is:

$$W = \frac{\sum_{x=1}^{G} \delta(W^x, \text{map}(V^x))}{G}$$

(1)

$$V(W, W') = \sum V(W^x, W'_y) \ast \log \frac{V(W^x, W'_y)}{V(W^x)V(W'_y)}$$

(2)

In the computer clustering algorithm based on the influence of computer network on the innovation and entrepreneurship ability of marketing major students, $\delta(W, V)$ is the Dirac $\delta$ function. In the clustering problem based on the influence of computer network on the innovation and entrepreneurship ability of marketing major students, mutual information can measure the similarity between the two problems. $V(W^x)$ and $V(W'_y)$ represent the data nodes $W^x$ and $W'_y$ arbitrarily selected from the data set. Probability, $V(W^x, W'_y)$ represents the joint probability of this randomly selected data node belonging to two probabilities $W^x$ and $W'_y$ at the same time. In this way, the precise value of the
data based on the influence of the computer network on the innovation and entrepreneurship ability of marketing major students is obtained, and the data is fully applicable to the requirements for the influence of the computer network on the innovation and entrepreneurship ability of marketing major students.

3. Computer network effects the innovation and entrepreneurial ability experiment of marketing major students

3.1 Experimental background

With the rapid development of computer technology, it is more and more common to use computer networks to solve problems in our work. Computer network is an important factor in cultivating students' entrepreneurial ability and helps marketing major students to obtain information, knowledge and other business resources. By communicating with network members, marketing major students can better understand what they have and what they lack. Computer network itself is a kind of social situation. In entrepreneurship courses, marketing major students start their own businesses and solve specific problems together with network members. This paper designs the control variable graph of computer network's influence on the innovation and entrepreneurship ability of marketing major students and the independent variable graph of computer network's influence on the innovation and entrepreneurship ability of marketing major students.

3.2 Experimental method

![Figure 1. Control variables of innovation and entrepreneurship ability of marketing major students](image)

![Figure 2. Independent variables of innovation and entrepreneurship ability of marketing major students](image)

Figure 1 is a graph of the control variables that the computer network designed in this paper affects the innovation and entrepreneurship ability of marketing major students. Figure 2 is the independent variable diagram of the influence of the computer network designed in this paper on the innovation and entrepreneurship ability of marketing major students. Computer network influences the innovation and entrepreneurship ability control variables of marketing major students. The control variables in the graph include the professional background, educational level and school category of the marketing major students; the computer network influences the innovation and entrepreneurship ability control variables of the marketing major students. The independent variables in the graph include marketing major. The computer network, network size, and relationship strength of the students. The communication and cooperation between marketing major students and computer network members in the course of business operations will help marketing major students obtain market information and management experience, and marketing major students can obtain information on preferential policies.
for entrepreneurship. Acquiring this knowledge encourages marketing major students to adopt fast and effective behaviors to start a business, thereby encouraging marketing major students to actively pursue entrepreneurship and learn in practice.

4. Experimental data analysis of innovation and entrepreneurship ability of marketing major students

4.1 Analysis of innovation and entrepreneurship ability of marketing major students

The following is a parameter table of the influence of computer network on the innovation and entrepreneurship ability of marketing major students. The experimental data is shown in Table 1.

Table 1. Innovation and entrepreneurship ability of marketing major students

<table>
<thead>
<tr>
<th>User number</th>
<th>Creative thinking ability</th>
<th>Innovative knowledge ability</th>
<th>Innovation and entrepreneurship practical ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>The first batch</td>
<td>41.3%</td>
<td>39.6%</td>
<td>57.1%</td>
</tr>
<tr>
<td>Second batch</td>
<td>65.4%</td>
<td>53.3%</td>
<td>61.78%</td>
</tr>
</tbody>
</table>

Table 1 is a parameter table of the computer network's influence on the innovation and entrepreneurship ability of marketing major students. It can be seen from the table that the computer network affects the innovation and entrepreneurship ability of marketing major students. Among them, the first batch of computer networks affected the innovative thinking ability of marketing major students by 41.3%, the computer network affected marketing major students' innovative knowledge ability by 39.6%, and the computer network affected marketing major students' innovative and entrepreneurial practice ability by 57.1%; The second batch of computer networks affects 65.4% of the marketing major students' innovative thinking ability, the computer network affects the marketing major students' innovative knowledge ability 53.3%, and the computer network affects the marketing major students' innovation and entrepreneurial practice ability 61.78%. The data changes of each parameter in the figure show that the influence of computer network on the innovation and entrepreneurship ability of marketing major students is increasing.

4.2 Analysis of the influence of computer network on the innovation and entrepreneurship ability of marketing major students

As shown in Figure 3, the following are the data analysis diagrams of the three groups (group A, group B, and group C) of the innovation and entrepreneurship abilities (innovative thinking ability, innovative knowledge ability, innovation and entrepreneurship practice ability) of marketing major students affected by the computer network.

![Figure 3. Analysis of the influence of computer network on the innovation and entrepreneurship ability of marketing major students](image-url)
Figure 3 is a data analysis diagram of the three groups (group A, group B, and group C) of the three groups (group A, group B, and group C) of marketing major students' innovation and entrepreneurship abilities (innovative thinking ability, innovative knowledge ability, innovation and entrepreneurship practice ability) affected by computer networks. It can be seen from the figure that the proportion of computer networks affecting the innovative thinking ability of marketing major students in group A is 53%, the proportion of computer networks affecting the innovative knowledge ability of marketing major students in group A is 46%, and the proportion of computer networks affecting marketing major students in group A 39% of group A’s innovation and entrepreneurship practice ability; computer network influences the proportion of marketing major students’ innovative thinking ability of group B 36%, and computer network influences the proportion of marketing major students’ innovative knowledge ability of group B 51% the proportion of computer networks affecting the innovation and entrepreneurship practice ability of marketing major students in group B is 49%; the proportion of computer networks affecting the creative thinking ability of marketing major students in group C is 47%, and the proportion of computer networks affecting marketing major students in group C The proportion of innovative knowledge ability is 35%, and the proportion of computer network affecting the innovation and entrepreneurship practice ability of marketing major students in group C is 42%; it shows that the computer network has an innovative thinking ability, innovative knowledge ability, and innovation and entrepreneurship for marketing major students. The practical ability has a greater impact.

5. Conclusions

This research is based on the relevant research results of domestic and foreign researchers, starting from the characteristics of the computer network of marketing major students, and studying its relationship with the ability of innovation and entrepreneurship. After regression analysis and structural equation test, there is a significant correlation between the computer network of marketing major students and the innovation and entrepreneurship ability, but the various dimensions of the computer network have different effects on the innovation and entrepreneurship ability. The various dimensions of the computer network of marketing major students have a significant positive impact on the innovative thinking ability, which shows that the more complete the computer network structure of the marketing major students, the stronger the innovative thinking ability. The power and connection dynamics of computer networks have a significant impact. The closer the connection between students and other members of the computer network, the higher the degree of resource mobilization, relationship maintenance, relationship repair and network construction. Furthermore, it is very important to promote the observation and judgment ability and divergent thinking ability of marketing major college students. It is very important to cultivate the ability. In addition, the centrality of the network only has a significant impact on creative thinking ability, indicating that the more network connections, resources and information that students have, the more conducive to the cultivation and improvement of creative ability.

Acknowledgements

This work was supported by the Scientific Research Project of Jiangsu Society Higher Education "14th five year plan": "Research and Practice on the reform of ‘dual core drive’ training mode of high-quality marketing professional talent training under the background of new liberal arts"(YB105); Teaching Reform Project of Chinese Society for Higher Education "Research on digital teaching resource design and quality evaluation of marketing courses in colleges and universities" (2020SZYB07); Teaching Reform Project of Jiangsu Province Education Science "13th five year plan" "Research on the Innovation and Integration of Marketing Curriculum System under the background of new media" (D/2020/01/32); The special subject of "Research on College Curriculum Group and college Student Work" of Jiangsu Province “Research on the Construction of Curriculum System of Innovation and Entrepreneurship Education for College Students”(2020NDKT012); Teaching Reform Project of Nanjing University of Finance & Economics (JGY2001043), Ideological and Political Demonstration Course Construction Project of Nanjing University of Finance and Economics(2021)and "Marketing" School-level Brand Major Construction Project of Nanjing University of Finance & Economics (2020).
References