A Study on People's Preferences for Pharmaceutical Company Creation after the Covid Epidemic in China: A Discrete Choice Experiment

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Abstract: The global healthcare industry has surged in significance in response to the COVID-19 pandemic, and China has actively incentivized entrepreneurial endeavors, including tax benefits. This study seeks to explore the preferences of individuals venturing into the healthcare sector in the post-pandemic landscape. Through convenience sampling we obtained valid data from 500 participants. Subsequently, we constructed logit and latent class models and conducted a subgroup analysis based on gender. The results indicated that: (1) the participants valued "Prospects of enterprise" and "Entrepreneurial team capabilities" the most, which was followed by "Available funds"; (2) participants were divided into five classes, with the largest number of participants in class 2, whose preference distribution approximates the distribution of the total participant population; (3) Male and female preferences differed in a way that was statistically significant; and (4) Class 2 had the highest leadership scores, while Class 5 scored higher on the "Agreeableness" of the Big Five-Factor Inventory than the other four factors. we underscores the importance of entrepreneurs adapting to changing societal needs and policymakers facilitating healthcare startups with increased funding and comprehensive training support.

Keywords: Discrete Choice Experiment; Big Five-Factor Inventory; Entrepreneurial Leadership; Big Health Industry; Post-epidemic Era

1. Introduction

It is imperative to acknowledge that the Big Health Industry, a collective concept that encompasses the herbal medicine industry, the health food industry, the pharmaceutical manufacturing industry, the healthcare equipment manufacturing industry, the medical and health services industry, as well as organic agriculture, has become an influential global industry that covers nearly all three major industries of the national economy. In recent years, the comprehensive healthcare services industry, also known as the Big Health Industry in China, has been a subject of much attention, but this has grown even more intense after the COVID epidemic[1,2].The development of the Big Health Industry will change the development model of the traditional pharmaceutical industry from a mode of single medical treatment into one integrating "prevention, treatment and maintenance" of life, as well as "body, mind and spirit".

As a result of diversified health care, we can fundamentally resolve the "disease before wealth" problem and the health care dilemma of "difficult to see and expensive to treat", which will enhance China's health care system and improve people's health quality and happiness, as well as enhancing the economy as a whole. In addition to the growing number of middle-class citizens in China, there are also a growing number of organizations that cannot satisfy the needs of these citizens. Many doctors would also like to make more money that reflects their worth and treats them with decency and respect [3,4], but sadly, the current system struggles to offer enough chances[5].

In 2014, “Widespread entrepreneurship and innovation” was first proposed. Both the central and municipal governments have established policies based on "entrepreneurship by the people and at the grassroots level" to assist the development of the country's medical industry. There have been a number of entrepreneurs targeting medical industry, which has created a need for a whole-country economic transformation and to optimize the industrial structure of the country [6].

It goes without saying that startups are a valuable source of employment, but they are also one of the principal forces behind technological advancements[5]. There is no doubt that most countries are striving to support startups in order to boost their national economies and alleviate the problem of unemployment in their countries[7].In recent years, there has been a lot of focus on the global health industry, especially since the outbreak of COVID-19 brought about the creation of a huge number of new Chinese health-care enterprises. As part of this growth, there have been a number of new companies that specialize in healthcare devices, medicines, medical testing facilities, cosmetics, and even healthy food [8].

Medical entrepreneurship is booming. The epidemic has given the world a new understanding of health and created opportunities and challenges for entrepreneurs within the medical industry. How citizens to take ownership of core technology of medical care has become key to constructing the national medical industry, but also a key link to enhancing the national comprehensive strength.

Nevertheless, there is still less research on the preferences of medical entrepreneurs in China, making it impossible to understand the conditions that would attract people to participate in entrepreneurship or to know the tolerance limits of entrepreneurs and provide them with the optimal conditions.

Discrete choice experiments, a widely used quantitative research method for measuring preferences in recent years, allow researchers to determine an individual's preference for an attribute of a product service or need by simulating different choice options for participants to choose from. Discrete choice experiments, which combine theories of attendant utility, consumer theory, experimental design theory and econometric analysis, are often used to analyze the choice behavior of decision makers. It has been employed in a wide range of health research issues in recent years, including, but not limited to, disease treatment, disease screening programs, health technology assessment, employment, and many more. The results and recommendations are generally adopted and improved by clinicians or government administrations as a method of judging the relative importance of health outcomes and government decisions related to health care services.

This study explores people’s preference for medical entrepreneurship in the current post-epidemic normalization phase and whether there are differences in entrepreneurial leadership and Big Five-Factor Inventory (BFI) scores among people with different preferences.

2. Method

2.1 Study Population

In this study, the inclusion criteria included Chinese citizens who were within the age limit of 18 years old, cognitively intact, and who were working within pharmaceutical-related companies at the time of the study. During the month of October 2021, data for the questionnaire was collected through the use of Internet-based questionnaires completed by participants on the Internet. There has been some evidence that online questionnaires have some bias when used in research, but because online surveys are cost-effective, more and more studies are relying on them for their data collection[9]. The sample size for this study was calculated based on the following formula:

$$N>500c/(t\times a) \quad (1)$$

where t (t=12) is the number of tasks, a (a=2) is the number of options in each task, and c (c=5) is the number of units for quantitative analysis. This approach estimated that this study would require a sample size of at least 104.

2.2 Questionnaire Design

In our questionnaire, the participants were initially provided with information regarding the subject matter of this research and the protection of their privacy issues, after which they indicated their consent to participate in

our study by selecting “yes” to the participation opinion inquiry option.

The questionnaire consisted of four sections designed to cover the basic demographics of the participants (e.g., age, gender, marital status, educational background), the entrepreneurial leadership, BFI, and the discrete choice experiment (DCE) situational selection questions.

There are both employee and leader versions of the Entrepreneurial Leadership questionnaire, and it measures four dimensions: strategic management, communication ability, personal characteristics, and motivational ability. There is good evidence that the Entrepreneurial Leadership Instrument is reliable and valid when used to assess the leadership skills of entrepreneurs, and scholars can use its dimensions and scales in order to more accurately assess an individual's entrepreneurial leadership abilities[10].

The widely used 60-item BFI assesses five dimensions: Openness to Experience (O), Commitment (C), Extraversion (E), Agreeableness (A), and Neuroticism (N) [11]. Both scales were scored using the Likert scale.

During the 12 questions of the DCE scenario selection, all participants were required to make the best choice in each of the first and 12th questions in order to avoid negative completion of the questionnaire, which could improve its internal validity. The two questions prepared the best option and the worst option participants will generally choose the best option. This questionnaire was considered valid for analysis only if participants both chose the best option in these two questions.

As a result of screening and organizing the PubMed and Web of Science literature on company creation in the medical industry, six attributes and their corresponding levels were selected and analyzed. Consequently, the characteristics and tiers of the DCE have been appropriately and flexibly adjusted to accommodate the diversity in combinations of attribute levels[12], so that participants were able to weigh up the trade-offs of their choices and have a clear understanding of all attributes and their level combinations (Table 1).

Here is the final version of the sample questionnaire designed and conducted by Sawtooth Lighthouse Studio (9.8.1) as shown in Table 2.

Table 1. Attributes and Levels

Attributes	Levels of attributes
Related industry work experience	L1 Yes
	L2 No
Partners needed	L1 Yes
	L2 No
Educational background	L1 High school or below
	L2 Undergraduate
	L3 Master
	L4 Doctor
Future prospects of enterprise	L1 Important
	L2 Unimportant
Entrepreneurial team capabilities	L1 Important
	L2 Unimportant
Available funds (¥)	L1 1 million
	L2 3 millions
	L3 5 millions
	L4 7 millions
	L5 9 millions

Table 2. The Example of DCE Questions from Our Questionnaire

Attributes	Scenario A	Scenario B	Neither
Related industry work experience	Yes	No	
Partners needed	No	Yes	
Educational background	Doctor	High school or below	
Future prospects of enterprise	Important	Unimportant	
Entrepreneurial team capabilities	Important	Unimportant	
Available funds (¥)	1 million	9 million	
Which scenario would you choose?	Select	Select	Select

A total of 320 (2 × 2 × 4 × 2 × 2 × 5) scenarios were generated for this study, So a questionnaire address so many scenarios simultaneously was unrealistic, and a factorial design can be considered to design the most representative questionnaire [13].

2.3 Statistical Analysis

2.3.1 Multinomial logit model (MNL)

Using the MNL paradigm, participants' responses were related to the differences in attributes and levels of the two choices they had in each scenario[14], allowing for a statistical analysis of their preference weights for each attribute and level in the questionnaire. A positive coefficient is a positive coefficient that indicates a direction in which the respondent's preferences are positive and negative.

While the estimation of all parameters in the model was regarded as a random process, they did not need to have the same distribution, and as such they did not impose any restrictions on preference distributions or choice models, they were able to approximate any choice model accurately for a wide range of preference distributions[14,15].In each of these scenarios, the probability that a participant will select one of them is shown below.

$$P=\exp(\beta X)/(\sum \exp(\beta X)) \quad .(2)$$

where x is the attribute.

2.3.2 Latent class model (LCM)

In order to explore heterogeneity in random preferences, LCM was used. The findings of this study showed that individuals did not exhibit any observable heterogeneity due to a separation of one or more latent classes [16]. As a result of the Bayesian information criterion, the model selected the group with the smallest value in the Bayesian information criterion, and preferences differences and similarities between the classes were observed in the model. Based on the population-based perspective of this model, both the value of attributes as well as the importance of attributes were explored, and the attributes they valued most were determined based on the importance of attributes.

2.4 Willingness to Pay (WTP)

In other words, the measurement assesses the extent to which individuals are willing to pay for a modification in the degree of a specific characteristic.[17]. According to this study, The determination of participants' willingness to pay in response to a change in a specific attribute was obtained by calculating the ratio between the coefficient of that attribute and the price attribute. This ratio can be utilized to assess the degree to which an individual favors or disfavors that particular attribute. [18].

2.5 Analysis of Entrepreneurial Leadership and BFI

In this study, the entrepreneurial leadership scores and BFI scores for each class under the latent class model were calculated using the Likert scale to analyze and observe whether there were differences in the scores between the different preference classes.

3. Results

Five-hundred people with complete data participated in our study, 47.5% of whom were men and 52.5% women. Over 50% of the participants possessed a considerable level of education(56.8% were bachelor's or higher degrees); 39.6% of the participants had experience managing or founding a business; and 62.2% were current employees.

3.1 Utility Results for Attributes and Their Logit Analysis Results

For each of the six attributes, the highest utility levels were for having relevant industry work experience, having partners, having a doctoral degree, having future prospects for the enterprise, having entrepreneurial team capabilities, and having a minimum of nine million dollars available. One of the most important attributes among them was "Future prospects of the enterprise" (Table 3).

In the results of the logit analysis, the coefficient of level "undergraduate", "master", "doctor", and "education background" were positive, while "high school and below" was negative, so it was obvious that people believe that higher education is more helpful for the success of startups. The positive level coefficients for "having relevant industry work experience", "having prospects of enterprise", and "having entrepreneurial team capabilities" indicated that they were positively correlated with people's preferences and utility.

P-values less than the 0.05 level were considered statistically significant. The result of the analysis showed that all three attributes of "relevant industry work experience", "Future prospects of enterprise", and "Entrepreneurial team capabilities" were statistically significant at all levels.

Table 3. Utility of Each Attribute Level and the Result of Logit Analysis. (N=401)

Attributes and levels	Utility	Coefficient	Standard Error	P value	Odds ratio	95% CI
Related industry work experience						
Yes	25.78	0.193	0.023	<0.001	Reference	
No	-25.78	-0.193	0.023	<0.001	0.680	(0.651-0.711)
Partners needed						
Yes	10.69	0.080	0.023	<0.001	Reference	
No	-10.69	-0.080	0.023	<0.001	0.852	(0.815-0.891)
Educational background						
High school or below	-26.71	-0.199	0.043	<0.001	Reference	
Undergraduate	3.17	0.024	0.040	0.58	1.250	(1.155-1.353)
Master	12.34	0.092	0.041	0.02	1.339	(1.236-1.450)
Doctor	11.20	0.084	0.041	0.04	1.327	(1.224-1.440)
Future prospects of enterprise						
Important	109.72	0.819	0.025	<0.001	Reference	
Unimportant	-109.72	-0.819	0.025	<0.001	0.194	(0.185-0.204)
Entrepreneurial team capabilities						
Important	81.62	0.610	0.024	<0.001	Reference	
Unimportant	-81.62	-0.610	0.024	<0.001	0.295	(0.282-0.309)
Available funds(¥)[a]						
1 million	-57.48	-0.429	0.051	<0.001	Reference	
3 million	-22.94	-0.171	0.048	<0.001	1.294	(1.178-1.422)
5 million	-6.97	-0.052	0.048	0.28	1.458	(1.328-1.601)
7 million	39.55	0.295	0.048	<0.001	2.064	(1.879-2.268)
9 million	47.85	0.357	0.047	<0.001	2.196	(2.002-2.409

[a] The currency exchange rate of ¥1=US $0.16 is applicable.

The odds ratio (OR) is a calculated indicator in epidemiology. In our findings, an OR value greater than 1 means that people were more likely to choose that level than the reference, while an OR value less than 1 indicated a preference for the reference. For example, for the attribute "Relevant industry work experience", the ratio for "no relevant industry work experience" was 0.680 (95% CI 0.651–0.711) and the reference level was "having relevant industry work experience". The attributes "Educational background" and "Available funds" were all greater than 1 at all levels compared with the reference level, which means that the weight of people's preferences increases with education and funds, respectively.

We found that the main attribute of success for startups was "Future prospects of enterprise", which was of great interest, with a percentage of 36.57% (Figure 1). Meanwhile, "Entrepreneurial team capabilities" and "Available funds" ranked second (27.21%) and third (17.56%), respectively.

Figure 1. Percentage of Each Attribute in the General and Potential Category Conditions

3.2 Latent Class Analysis

According to Bayes' rule, we selected the number of classes that yielded the lowest value and subsequently divided the participants into

five distinct classes. For the first class (Figure 1), the attribute "Available funds" was the most important factor, which accounted for 83.82%, while the second and third most important attributes were "Educational background" and "Entrepreneurial team capabilities" at 5.82% and 3.12%, respectively. The levels of the attribute "Entrepreneurial team capabilities" were both statistically significant, with percentage weights ranging from -0.349 to 0.349 (Figure 2).

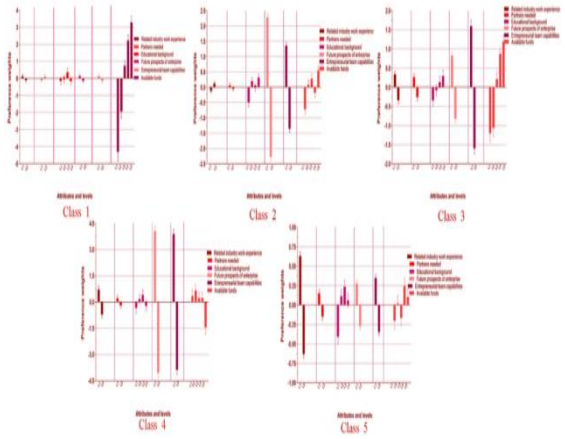

Figure 2. Latent Class Percentage Weights for Three Classes

For the third class, the attributes "Entrepreneurial team capabilities", which are statistically significant at every level, ranked first (35.16%) in terms of preference, with weights ranging from -1.598 to 1.598. For the fifth class, the attributes "Related industry work experience", which were statistically significant at every level, ranked first (32.36%) in terms of preference, with weights ranging from -0.632 to 0.632.

The situation was similar for the second and fourth classes. These two classes had the same trend of preference for the first three attributes of "Future prospects of enterprise", "Entrepreneurial team capabilities", and "Available funds", but the second class next valued "Educational background" instead of "Related industry work experience" of the fourth class that they preferred.

3.3 Willingness to Pay

We summarized the willingness to pay of the overall participants and five classes. We found that people were willing to pay more for "having relevant industry work experience", "need partners", "having future prospects of enterprise", "having entrepreneurial team capabilities", and higher "Educational background", but the fees paid to vary with their preference to money (Table 4).

Table 4. Respondents' WTP[a,b].

Attribute	Overall WTP (N=500), ¥ (US $) million	WTP in class 1 (n=43), ¥ (US $) million	WTP in class 2 (n=153), ¥ (US $) million	WTP in class 3 (n=93), ¥ (US $) million	WTP in class 4 (n=105), ¥ (US $) million	WTP in class 5 (n=106), ¥ (US $) million
Related industry work experience	-0.39(-62.65)	-0.23(-3.90)	0.25(24.85)	-0.68(-36.39)	-1.44(103.71)	-1.26(-527.92)
Partners needed	-0.16(-25.97)	-0.14(2.40)	-0.11(-11.19)	-0.53(-28.29)	-0.4230.52)	-0.30 (-126.39)
Educational background	0.09(15.35)	-0.004(-0.06)	0.27(27.59)	0.21(11.44)	0.04(-2.54)	0.16(65.03)
Future prospects of enterprise	-1.64(-266.66)	-0.28(-4.75)	-4.56(-458.53)	-1.65(-88.38)	-8.12(586.76)	-0.55(-230.22)
Entrepreneurial team capabilities	-1.22(-198.37)	-0.28(-4.76)	-2.73(-274.68)	-3.20(-171.01)	-7.76(560.80)	-0.70(-291.34)
Available funds	Reference	Reference	Reference	Reference	Reference	Reference

[a] WTP: willingness to pay.

[b] Positive values indicate the monetary compensation respondents would like to receive for changing their level of choice.

3.4 Subgroup Analysis

Our study further explored the differences in entrepreneurial preferences between males and females, grouping them by gender (Figure 3), and this difference was statistically significant(^{2}=30.10,p<0.001).The distribution of female preferences across attributes was relatively more balanced than the male distribution.

We calculated scores on entrepreneurial leadership and big five personality factors for each class classified by the latent class model (Figure 4).

We found that Class 2 and Class 4 had higher entrepreneurial leadership scores than other classes, and both classes valued the future prospects of the enterprise and the capabilities of the entrepreneurial team in their entrepreneurial preferences. In the BFI, we found that Class 5 was higher than the other groups in the score of the personality of neuroticism, and this group favored related work experience the most, which may be related to their work ethos.

Our study conducted a variance (ANOVA) analysis of the scores of the five groups of participants on each dimension of the entrepreneurial leadership scales and the total scores on this scale (Table 5).

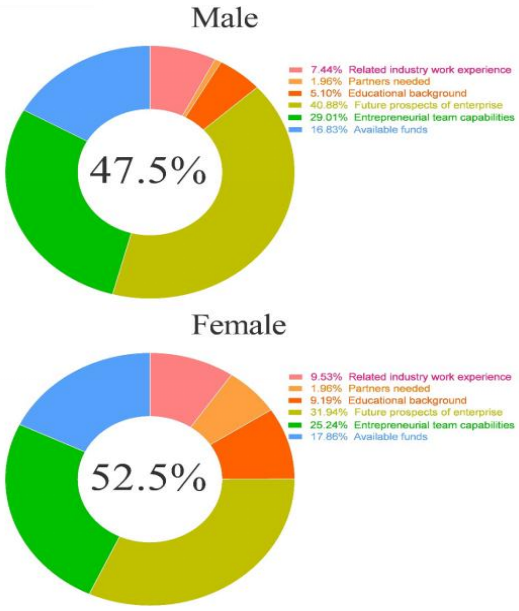

Figure 3. Subgroup Analysis of Male and Female Preferences

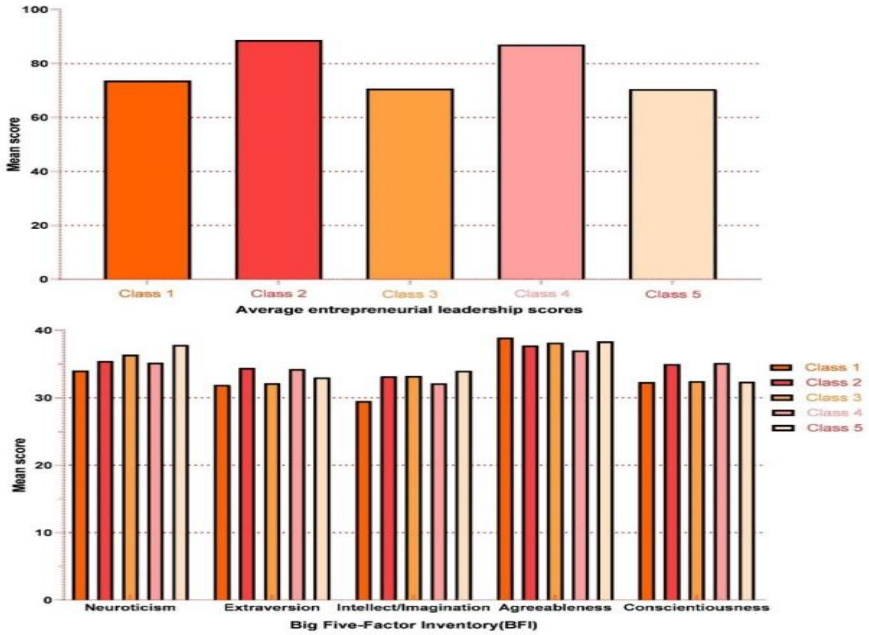

Figure 4. Mean Scores about Entrepreneurial Leadership and Big Five Personality Factors in Latent Class

Table 5. ANOVA Analysis for Average Entrepreneurial Leadership Factors and Big Five Personality Factors in Terms of Latent Class [a]

	F-value	P value
Average entrepreneurial leadership factors		
Strategic factors	14.94	<0.001
Communication factors	22.01	<0.001

	F-value	P value
Personal factors	19.25	<0.001
Motivational factors	17.96	<0.001
Total score	22.48	<0.001
Big Five-Factor Inventory(BFI)		
Neuroticism	9.38	<0.001
Extraversion	8.70	<0.001
Intellect/Imagination	6.93	<0.001
Agreeableness	4.05	0.003
Conscientiousness	17.19	<0.001
Total score	8.71	<0.001

[a] The significance of KMO and Bartlett's test was less than 0.05.

The BFI scale was subjected to the same statistical analysis. The findings indicated that there were statistically significant variations in the scores across all dimensions and even in the overall scores among the five groups.

4.Discussion

4.1 Summary and Implications

A higher rate of value-added and the creation of jobs within the medical industry will lead to an increased number of employment opportunities and a positive impact on the medical economy, facilitated by the emergence of new startups. The findings of this research significantly enhance our comprehension of the determinants that contribute to the success of medical startups. As opposed to previous research that has mostly relied on expert interviews or document research[19], the present study used a DCE method to investigate differences in people's preferences for factors that can contribute to the success of medical startups. To determine the reasons and conditions for the differences in people's preferences for success factors in medical startups, we examined entrepreneurial preference from a new perspective, placing subjects in various scenarios to discuss the different degrees of importance when the six attributes coexisted, thereby revealing why people make different decisions regarding success factors in medical startups.

Our study provides empirical evidence showing how people's preference for the success of startups changes as every attribute of startups changes. Moreover, this study contributes to the growth of the literature on the factors that contribute to startup success, since the past literature has largely focused on high-tech startups for the most part. There is insufficient attention to research on startups in the healthcare sector, whose development greatly influences human health and the medical economy.

This study was conducted in order to derive the people's preference for the success factors of medical startups in order to develop a DCE. As a result of the study, the majority of the research subjects believed that medical startups were more likely to succeed if they had optimistic prospects for success. This is similar to the opinions put forward by Bruno [20].The majority of respondents in this survey ranked this characteristic as the most significant in the social context of the post-epidemic era. As a result of the rapid spread of COVID-19, many newly started businesses failed as a result of its rapid spread. It is interesting to note that entrepreneurial teamwork skills are ranked second in general, coinciding with Jiasu Lei and Chorev[21,22]. In terms of funds, the majority of respondents placed funds at the top of the priority list, especially Class 2, which corresponds with the findings of Peterson study [23]. Moreover, we have detailed the specific amount of funds that were allocated at the beginning of the project. As a result, education background and partners were identified as low priorities, which is contrary to an earlier statement by Lussier[24], who proposed that individuals without a college education were likely to experience failure at a greater rate than individuals with a college education [5].

The objective of this study was to expand upon the existing hypothesis regarding the factors contributing to the success of startups, with the aim of formulating a novel hypothesis. Prior empirical research on the success factors of startups has observed the importance of particular organizational attributes as well as

entrepreneurial attributes. Furthermore, we added specific organizational characteristics (funds and partners), entrepreneurial traits (related work experience, educational background, entrepreneurial team capabilities), and social characteristics (the future prospects of enterprises) to the success factors discovered for entrepreneurs in the healthcare industry as a whole[25]. According to this study, in order to succeed, people prefer that a newcomer have relative experience, specific personal traits, and adequate funds, and that the organization have a promising future prospect with marketability of products or services, a proper business model, and the government providing benefits to newcomers in the medical sector. Following the implementation of DCE, we saw relevance for each of the metrics of success that had been measured. As a whole, we found that there are a variety of organizational characteristics, a variety of entrepreneurial traits, and a variety of social backgrounds that are important success factors. Overall, our findings suggest that the success factors of startups can be categorized into three categories: organizational characteristics, entrepreneurial traits, and social backgrounds. This study improved the external validity of previous research on startup success factors. It can be useful in studying the success factors of start-ups at an early stage of their development.

This study also extended the entrepreneurship preference research by discussing people's gender, entrepreneurial leadership, and BFI. In the case of entrepreneurship in general, the individual personality factors indeed matter[26]. The BFI traits were widely used with reliability that can measure personality characteristics and predict people's decisions[27]. The results showed that people working in the healthcare sector score high in neuroticism or emotional stability, describing themselves as self-confident, calm, and able to cope with stress.This coincides with Nicholson's result that low emotional stability was negatively correlated with entrepreneurial success[28].

This study had important practical implications for entrepreneurs, policymakers, and investors. First, for those who are prepared to be an entrepreneur in the healthcare sector: The ability to progress with the times is crucial. The ability here includes two aspects. On the one hand, it is the ability to identify people's needs. In a post-epidemic era, the need for healthy has changed from treatment to prevention[19]. The convenience of healthcare has become increasingly important. The deployment of the Internet can narrow the gap of medical service capacity between community hospitals and well-equipped large-scale general hospitals. Therefore, telemedicine, such as online medical care, has become widespread and accessible. This is related to the feasibility of entrepreneurial practice and the marketability of subsequent entrepreneurial programs. On the other hand, it can integrate policies and analyze feasible programs. Periodically policy interpretation is required for the future development of enterprise.

Our research results imply that the motivational factors of entrepreneurship are generally low, which gives entrepreneurs a reflection on how to improve leadership and teamwork ability. In the healthcare sector, most entrepreneurs are high-educated and poorly equipped with sociability. However, they put the entrepreneurial team capabilities in second place, and the actual measurement of their motivational factors is lower than their expectation. The gap provides a direction for self-improvement for entrepreneurs or an attribute that should be considered when seeking partners in the healthcare sector.

Given the significance of financial resources to individuals and the substantial capital required for research and development in the medical industry, it is improbable for a healthcare startup to sustain itself without the ability to secure funding and demonstrate potential for profit expansion. Therefore, Tax incentive policies and prepare efficient financing tactics to bear the risk of failures during the process of product and service development. Moreover, the results implied that the marketability of products and services is crucial for the sustainable development of medical startups.

Second, for policymakers and investors: It is imperative to provide training and consulting services for entrepreneurs operating within the healthcare industry. Entrepreneurs must have more professional skills in the healthcare sector than in other industries due to the Industry characteristics. As the research results showed, Over 50% of the participants

possessed a considerable level of education, with a majority of them prioritizing "entrepreneurial team capabilities". In China, a training course named “Start up your business” has been conducted for all types of those who want to be an entrepreneur. However, the course content is mostly out of date and has nearly no information about how to improve entrepreneurship skills. Therefore, there is a gap between the real need for entrepreneurs in the healthcare sector and the existed training courses arranged by the government in China. Besides, proper mental quality training should be arranged due to the high entrepreneurial failure rate in the healthcare sector.

It is important to provide support entrepreneurs in the health sector. Our research shows that available funds seemly count less than other attributes such as future prospects of enterprise and entrepreneurial team capabilities. However, the coefficients of levels “7 million” and “9 million” were positive for all classes we researched. The healthcare sector, especially the medical device enterprise and pharmaceutical enterprise, requires a large amount of research and development input, much investment, and a high-risk burden. The high investment can be a daunting prospect. The role of support becomes vital during the starting period. Lacking funds can be the last stumbling block; even if all other preparations have been made. Policy support for funding is important at the starting point and important all through.

Investors can make venture capital investments based on national industrial policy and preferential tax policy to avoid duty reasonably. Except for core technology, investors should attach importance to human capital attributes, such as relative work experience, team capabilities, and marketability of medical products or services.

4.2 Limitations

First, the construction of the questionnaire's attributes primarily draws upon the research findings of reputable scholars and authoritative reports. However, there may be subjective expert judgement. Second, preferences are not only connected to someone’s personality traits but also, to some degree, may be influenced by the environment in which they work. Third, regional difference in attitude toward medical entrepreneurship may exist but, unfortunately, the geographic location of the respondents was not collected in this study. In conclusion, it should be noted that a significant proportion of the participants in our study were below the age of 35. Therefore, caution should be exercised when attempting to apply our findings to the older demographic, as the generalizability of our results may be limited in this regard.

5. Conclusion

This study aimed to identify the factors that contribute to the success of medical startups by conducting preference research using the discrete choice experiment (DCE) method. We examined six main attributes (related industry work experience, partners needed, educational background, future prospects of enterprises, entrepreneurial team capabilities, and available funds) and identified 5 distinct subtypes of people. Our findings suggest entrepreneurs keep the focus on changing needs and make efforts to improve entrepreneurial team capabilities; policymakers should create a beneficial environment for startups in the healthcare sector and continuously provide financial and training support.

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