



# A Study on the Evaluation System of Entrepreneurship Ability of College Students' Delivery Broadcasters from the Perspective of Digital Marketing

Qinting Pan<sup>1</sup>, Yuehua Bai<sup>1</sup>, Dongyu Han<sup>2</sup>, Jinyi Li<sup>2</sup>, and Sheng Cao<sup>1</sup>(✉)

<sup>1</sup> Wuhan Donghu University, Wuhan 430212, China  
caosheng@wdu.edu.cn

<sup>2</sup> Wuhan Era Space Technology Co., Ltd., Wuhan 430070, China  
lijinyi@eraspace.cn

**Abstract.** The comprehensive ability evaluation of streamer entrepreneurs is receiving increasing attention, and traditional evaluation methods are difficult to meet the needs of the big data era. Therefore, it is necessary to establish a comprehensive ability evaluation system for streamer entrepreneurs based on the big data perspective. This study uses literature research method to analyze the ability elements of influencer entrepreneurs, establishes a capability ladder model, and calculates the weight of each element through Analytic Hierarchy Process. Based on the ability indicators, a capability quantification method is developed, and a big data based evaluation system for influencer entrepreneurs is established. A sampling questionnaire survey is conducted, the analysis of the matching degree of the entrepreneurial ability evaluation system for students majoring in live streaming anchors has verified the feasibility and effectiveness of the system, providing a new approach and method for talent evaluation in the live streaming anchor industry, and assisting college students in their entrepreneurship in the field of live streaming anchors.

**Keywords:** College students · Entrepreneurial ability · Influencer · Evaluation system

## 1 Introduction

As an emerging professional form, live streaming anchors are gradually emerging and are a crucial part of live streaming e-commerce. Talents with sales capabilities are needed in multiple fields. Has a certain influence as a influencer and can also earn additional income through fan economy, endorsements, and other means. Therefore, for college students growing up on internet platforms, their huge market demand and development space have attracted more and more college students.

## 2 Relevant Research at Home and Abroad

Many domestic and foreign scholars have achieved certain research results on the entrepreneurial ability of college students, and some scholars have developed a series of models for cultivating entrepreneurial abilities. Wang Hongcai found that innovative and entrepreneurial talents generally possess creative personality traits and possess seven key abilities, including goal setting, communication and cooperation, and risk prevention [1]. Ren Zezhong and Yao Guanxin believe that college students' entrepreneurial ability can be divided into three levels: general ability, professional ability, and opportunity ability, including 11 ability elements such as innovation ability and financial management ability [2]. Ahmad et al. proposed seven abilities: timing, strategy, relationships, concepts, organizational and leadership abilities, and individual and technical abilities to develop a new theoretical model of entrepreneurial abilities [3]. Based on the statistical method, Yang Shizhao comprehensively evaluated the differences of the anchor's cargo carrying capacity under different scales through data modeling, and applied the objective indicators that caused these differences to obtain a set of comprehensive evaluation methods and statistical models to measure the anchor's cargo carrying capacity [4].

## 3 Conceptual Model of Entrepreneurship Talent Ability for Product Broadcasters

### 3.1 Progressive Model of Entrepreneurship Talents' Ability Level for Delivery Broadcasters

In the research on the entrepreneurial talent ability of streamers, Tian Xin focused on analyzing the impact of brand image on the cognitive ability of streamers' products [5]. Xu Ning and Qin Fenfen discussed the differences in product recommendation among different influencers, as well as how to adjust and optimize product recommendation strategies based on the characteristics of different influencers [6]. Cao Mengyuan's research found that the operating mechanism of live streamers includes three aspects: content production, live sales, and social interaction [7]. Xu Liangfeng and Ran Feidai analyzed three operational strategies: content strategy, interaction strategy, and conversion strategy [8]. Tang Yong and Liu Renzhi found that the collaborative learning ability of the anchor with goods mainly includes three aspects: cognitive ability, social ability and learning ability [9]. Li Na and Zhang Pengcheng found that the development of their collaborative learning ability experienced three stages: cognitive enlightenment stage, imitation practice stage and internalization transformation stage [10].

Based on the theories of the above scholars, analyze and extract the 18 dimensional abilities of the entrepreneurial talents of the streamers. Sort the 18 dimensional talents by level, and establish the content structure of the entrepreneurial talents' abilities and qualities of the streamers from the perspective of digital marketing, as shown in Table 1.

### 3.2 Ability Weighting Index for Entrepreneurial Entrepreneurs of Delivery Broadcasters Based on AHP Analytic Hierarchy Process

A systematic and visual evaluation method is needed to test the 18 dimensional abilities of the entrepreneurial talents of streamers. This study quantifies the 18 dimensional

**Table 1.** Content structure of ability and quality of entrepreneurial talents for delivery broadcasters.

	<b>Level 1 Capability</b>	<b>Level 2 Capability</b>
<b>The Entrepreneurship Talent Ability of Delivery Broadcasters from the Perspective of Digital Marketing</b>	Product cognitive ability	Product attribute cognitive ability
		Product promotion ability
	Marketing management ability	Market analysis ability
		Marketing planning ability
		Sales capability
	Live streaming performance ability	Language expression and infectious ability
		Emotional control ability
		Interactive communication skills
		Temperament and Image
		Rhythmic control
	Business insight	Degree of understanding of business trends
		Consumer demand sensitivity
	Social media operational capabilities	Social media account management capabilities
		Fan interaction management ability
		Brand management capability
	Collaborative learning ability	Team collaboration ability
		Continuous learning ability
Long term planning capability		

abilities and introduces Analytic Hierarchy Process (AHP) to determine the weights of various abilities, in order to determine the standard indicators of abilities.

The basic steps of applying AHP are based on sample oriented sampling surveys and consulting expert opinions. The research method is based on data information research, which divides the decision-making objectives, factors considered, and objects into the highest, middle, and lowest levels according to their interrelationships, and constructs a multi-level hierarchical structure; Construct a judgment matrix using the consistency matrix method of pairwise comparison of relevant factors, followed by hierarchical single ranking, and perform consistency testing through calculation. Finally, it is necessary to rank the levels from high to low and test their consistency to obtain Table 2.

**Table 2.** Weighted indicators of entrepreneurial talents' ability for live streamers.

<b>Item</b>	<b>Project weight</b>	<b>Evaluation factors</b>	<b>Weight of evaluation factors</b>
<b>Product cognitive ability</b>	<b>0.1671</b>	<b>Product attribute cognitive ability</b>	<b>0.0885</b>
		<b>Product promotion ability</b>	<b>0.0787</b>
<b>Marketing capabilities</b>	<b>0.1880</b>	<b>Market analysis capability</b>	<b>0.0548</b>
		<b>Marketing planning ability</b>	<b>0.0705</b>
		<b>Sales capacity</b>	<b>0.0627</b>
<b>Live streaming performance ability</b>	<b>0.1994</b>	<b>Language expression infection ability</b>	<b>0.0419</b>
		<b>Emotional control ability</b>	<b>0.0410</b>
		<b>Interactive communication skills</b>	<b>0.0431</b>
		<b>Temperament and Image</b>	<b>0.0419</b>
		<b>Rhythm control</b>	<b>0.0315</b>
<b>Business Insight</b>	<b>0.1396</b>	<b>Business Trend Understanding</b>	<b>0.0657</b>
		<b>Consumer demand sensitivity</b>	<b>0.0739</b>
<b>Social media operational capabilities</b>	<b>0.1671</b>	<b>Social media account management ability</b>	<b>0.0557</b>
		<b>Fan interaction management ability</b>	<b>0.0627</b>
		<b>Brand management capability</b>	<b>0.0488</b>
<b>Collaborative learning ability</b>	<b>0.1387</b>	<b>Team collaboration ability</b>	<b>0.0481</b>
		<b>Continuous learning ability</b>	<b>0.0501</b>
		<b>Long term planning capacity</b>	<b>0.0405</b>

### 3.3 Quantitative Method for Evaluating the Ability of Entrepreneurial Talents of Delivery Broadcasters

This study developed a scoring system evaluation index to evaluate students' entrepreneurial ability of online streamers through the "Questionnaire on the Evaluation of Entrepreneurship Ability of Online streamers for College Students (Self evaluation by Students)", which is divided into five degree scales. Set up an evaluation set, determine the textual description of the grading, and then define and assign values to the rating ranges of each level. The evaluation set for this study can be obtained as:  $V = \{V1, V2, V3, V4, V5\} = \{\text{Very bad, not very good, average, good, very good}\} = \{55, 65, 75, 85, 95\}$ . For the data processing of 18 abilities in the effective survey questionnaire, the algorithm of assigning 18 abilities and finding the average value is adopted, which is the comprehensive ability score. And through the fuzzy evaluation method, the evaluation matrix of shallow secondary indicators is calculated for the primary indicators, and the evaluation results are obtained. Based on this result, the comprehensive evaluation matrix is calculated, and the final rating value of the comprehensive ability is calculated based on the weight of each evaluation index of entrepreneurial ability obtained from the analysis of the model constructed earlier. This study divides the evaluation levels of entrepreneurial ability of streamers into poor, average, good. There are five intervals between good and excellent.

## 4 Design of the Comprehensive Ability Evaluation System for Entrepreneurial Talents of Delivery Broadcasters

The module design of the comprehensive ability evaluation system for entrepreneurial talents of streamers is as follows:

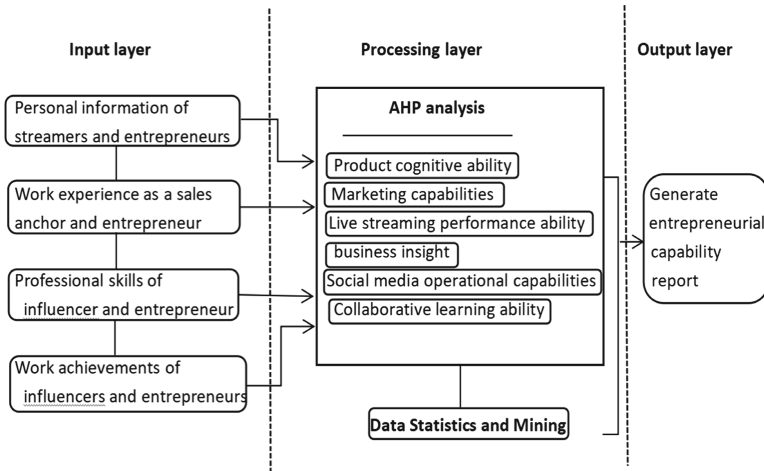
The anchor basic information input module. The system needs to have a basic information entry function, including the personal information, educational background, professional experience, etc. of the anchor. This information will serve as a basis for evaluating the comprehensive entrepreneurial ability of streamers.

Anchor performance evaluation indicator module. This module of the system is used to evaluate the students' product cognitive ability, marketing ability, business insight, social media operation ability, collaborative learning ability and other indicators. The AHP algorithm is used to calculate the weight of the indicators and make a comprehensive evaluation, and the evaluation results of the students' comprehensive ability are obtained. Its operation module is shown in Fig. 1.

Data statistics and analysis module. The system needs to conduct statistical analysis on evaluation data, including information such as different indicator scores, overall student scores, and weights of each indicator, in order for administrators to analyze and compare students' abilities.

Data display and report generation module. The system needs to provide functions for data display and report generation, so that the anchor and evaluators can intuitively understand the comprehensive ability evaluation results of the anchor.

Data security and privacy protection module. The system needs to have good data security and privacy protection measures to ensure that the personal information and evaluation data of the anchor are not leaked or abused.



**Fig. 1.** Operating mode diagram of the indicator evaluation module for the ability evaluation system of streamers and entrepreneurs.

System feedback and improvement module. The system needs to provide feedback and improvement mechanisms so that users can provide feedback on system issues and improvement suggestions, thereby continuously improving the functionality and performance of the evaluation system.

## 5 Research on the Matching Degree of Entrepreneurship Comprehensive Ability Evaluation System Based on Digital Media Related Majors

### 5.1 Research Subjects and Information Collection

The purpose of this study is to explore the comprehensive abilities of entrepreneurial talents in the context of digital marketing. A sampling questionnaire survey was adopted to collect information through a self-evaluation survey conducted at Wuhan Donghu University. This survey used a questionnaire star network link to distribute the questionnaire, setting a rule that the same IP cannot be repeated. Students were invited to answer the questions on-site in the entrepreneurship guidance class of Wuhan Donghu University, and a total of 105 questionnaires were collected.

### 5.2 Questionnaire Data Analysis and Processing

Process the data and calculate the comprehensive ability score. Most people are in a good overall ability level, and in the self-evaluation, some students who believe they have not developed in the field of streaming anchors and entrepreneurship are also in a good level. The ratio of the number of girls in the good, good, and excellent range to the total number of girls is higher than that of boys. It is found that girls are more interested

in being a streamer and have more advantages compared to boys. Most students in the related industries of streamers have certain entrepreneurial abilities, but there is still a certain gap between them and their excellent level. Based on the above situation, this study proposes optimization suggestions for universities to cultivate and enhance the entrepreneurial ability of college students through innovation and entrepreneurship education. (1) It is necessary to reform the mode of entrepreneurship education, with a focus on cultivating and enhancing core competencies. (2) When carrying out entrepreneurship education, it is necessary to promote disciplinary integration, optimize the structure of entrepreneurial talents, and deepen cooperation between government, school, and enterprise. (3) Establish a sound guarantee system for entrepreneurship education for college students.

## 6 Conclusion

Compared to traditional manual evaluation methods, establishing a system in this study can more objectively reflect the true ability level of influencer entrepreneurs, and provide more accurate reference and support for talent evaluation in the influencer industry. It has strong operability and practicality, providing a new visualization method for talent identification in the live streaming anchor industry, in order to more effectively identify and evaluate outstanding live streaming anchor entrepreneurs and talents.

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