

# The Impact of Digital Empowerment on Entrepreneurship ——A Multi-Case Study from the Perspective of "Mass Entrepreneurship and Innovation"

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## Abstract

Based on the two dimensions of entrepreneurial spirit and innovative spirit, in-depth interviews and investigations were conducted with multiple enterprises in the same industry. A multi-case analysis study was used to explore the impact of digital empowerment on the entrepreneurial spirit. Through in-depth study of three companies, the research found that digital empowerment has propelled the "dual-wheel" drive of entrepreneurs' innovative and entrepreneurial spirits. It also enriches the connotation of the entrepreneurial spirit and helps managers awaken the potential entrepreneurial and innovative spirits within entrepreneurs, which is conducive to promoting the economic development of enterprises. This provides important insights for the country's implementation of the strategy "to drive overall transformation of production, lifestyle, and governance methods through digital transformation" and the creation of an "upgraded version of mass entrepreneurship and innovation."

**Keywords:** Digital Age; Entrepreneurial Spirit; Innovator's Spirit; Case Study;

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## I. Introduction

### 1.1 Definition of Entrepreneurial Spirit

The entrepreneurial spirit has always been a key factor in the continuous innovation and development of enterprises (Bai Changhong, 2019), and it is also the source of stimulating market vitality. Miller (2011) conceptualized entrepreneurship at the enterprise level, defining it as the overall innovation and entrepreneurial behavior of the enterprise, rather than just the traits of the leadership or individual members. Within this framework, entrepreneurs need to respond to changes in the external environment by adjusting resource allocation strategies and innovative capabilities, in order to achieve sustained positioning and competitiveness in the market.

With the construction of new infrastructure such as 5G networks and data centers, they have become the new engine driving economic growth. The development of the new generation of digital technology has broken the temporal and spatial constraints of traditional business operations and has restructured the organizational structure of enterprises in an industrial economic era dominated by efficiency (Luo Wenhao, 2020). At the same time, it has provided fertile ground for the generation and expansion of entrepreneurial opportunities (Autio et al., 2018; Nambisan, 2017).

"In the digitalized environment, enterprises face diverse market demands and challenges. To effectively address these challenges, enterprises need to encourage employees to participate in cross-departmental, cross-domain innovative activities. This not only helps reduce uncertainty risks in enterprise operations but also enables enterprises to more keenly capture market opportunities (Kacperczyk, 2012). In this context, managers need to reassess and adjust traditional employment relationships, and more importantly, inspire employees' intrinsic entrepreneurial spirit to promote overall innovation capability and market adaptability of the enterprise (Gan Luo'na et al., 2019; 2020). With the deepening of research, many scholars have a new understanding of the core essence of entrepreneurship, namely, the spirit of entrepreneurship and innovation."

### 1.2 Entrepreneurial Spirit of Entrepreneurs

The entrepreneurial spirit involves the pursuit of opportunities and the ability to identify trends and changes in the environment that have not yet attracted attention. Entrepreneurs are eager for growth and are not satisfied with remaining at a small scale or maintaining the status quo. They constantly seek new trends and opportunities, introduce new products and new business models, or inspire internal entrepreneurial drive in employees through

changes in leadership, or engage in organizational re-entrepreneurship. This not only enhances the competitive advantage of the enterprise but also contributes to economic development.

### **1.3 Entrepreneurial Innovative Spirit**

The entrepreneurial spirit's core element of innovation is crucial for maximizing a company's profits. Innovative entrepreneurs, who demonstrate a proactive attitude, are willing to take risks, which is a prerequisite for exploring unknown areas and making breakthrough progress. Through actively identifying market opportunities, enhancing innovative capabilities, and leading organizational change, they improve the overall competitive position of the company in the market. Entrepreneurs, by actively responding to external challenges, expanding into new market areas and customer segments, establishing and maintaining new social networks, optimizing transaction processes and business models, aim to realize greater profit potential. Furthermore, through continuous innovation practices, they enhance the company's competitive advantage within the industry, ensuring the company's sustained leading position in intense market competition.

The entrepreneurial spirit is not only reflected in product, service, or technological innovation but also in the innovation of enterprise strategies, organizational structure, and management methods. This all-around innovative drive is crucial for companies to adapt to rapidly changing market environments and achieve sustainable development. Therefore, the entrepreneurial spirit is a key driving force for companies to adapt to global competition and achieve long-term growth.

The entrepreneurial spirit is not a talent possessed by certain individuals, but a spiritual trait fixed in every actor and every action (Zhu Haijiu, 2009). Especially in a digital context, the characteristics of digital technology profoundly reveal the boundaries of entrepreneurial spirit and the assumption of the constantly changing influence range of entrepreneurial spirit (Autio et al., 2018; Nambisan, 2017). Digital artifacts and platforms create more entrepreneurial opportunities for organizations. Digital infrastructure democratizes entrepreneurship (Chen, 2018; Stevenson et al., 2019), allowing different groups to participate in entrepreneurial activities at various stages.

Given this, this study is committed to thoroughly analyze the dual dimensions of the entrepreneurial spirit in the context of digital empowerment—entrepreneurial spirit and innovation spirit. The research will adopt a methodology involving multiple case comparative analysis, aiming to identify and explain the key motivators that inspire entrepreneurial and innovative spirit. By systematically summarizing and deconstructing the connotations and influencing factors of the entrepreneurial spirit under the context of digital empowerment, this study seeks to inject new theoretical vigor and empirical depth into the existing theoretical framework of the entrepreneurial spirit.

Through the comprehensive analysis of multiple cases, this research will reveal how digital technology acts as a catalyst to promote the cultivation and development of entrepreneurial spirit. The study will particularly focus on the dual impact of the digital environment on entrepreneurial and innovative behaviors, and how this influence shapes new characteristics of the entrepreneurial spirit. By conducting a thorough analysis of the entrepreneurial spirit in the context of digital empowerment, this research aims to provide a new perspective for understanding the evolution of the entrepreneurial spirit in the digital age and to offer theoretical support and practical guidance for enterprise strategic planning and policy design.

## **II. theoretical basis**

### **2.1 the evolution of entrepreneurial spirit**

The concept of entrepreneurship can be traced back to the early 19th century when the French economist Jean-Baptiste Say discussed the role of labor, capital, and natural forces as the three factors of production in his "Treatise on Political Economy". He also elaborated on the three steps involved in creating a product, which include studying the laws of products in order to achieve a useful purpose and ultimately completing the production process. Say believed that scientists primarily explore the laws of products, while entrepreneurs apply the acquired knowledge to create products for human consumption, by assembling production tools and directing workers to complete the production tasks. Entrepreneurs often possess qualities and skills that are not commonly found in others, such as judgment, decision-making, foresight, the ability to assess and manage people, determination, willingness to take risks, communication and coordination skills, as well as extensive knowledge of the industry and profession. They also need to bear unknown risks and uncertainties about future developments, so they also need to be open-minded and have a strong ability to cope with setbacks.

In the innovation theory, Schumpeter placed entrepreneurs at the core of guiding market economy development, believing that entrepreneurs are responsible for creating different means of production in a new combination. Entrepreneurs are required to seize market opportunities, guide the means of production into new channels, and eliminate obsolete combinations through competition. In a relatively certain market economy environment, the entrepreneurial spirit is primarily embodied in the entrepreneur, and the spiritual traits and

behavioral characteristics are the connotation of the entrepreneurial spirit, the essence of which is guided by the spirit of innovation. The success of a business to some extent depends on whether the entrepreneur can create novel combinations to achieve market dominance.

With the economic development entering the era of informatization, the market economy environment increasingly emphasizes the uncertainty of the environment. Enterprise management shifts from an internal organizational perspective to an environmental adaptation perspective. Drucker further emphasizes the innovative attributes inherent in entrepreneurial spirit. The essence of entrepreneurial spirit is purposeful, organized systematic innovation, driving enterprises to continuously create new value. Successful entrepreneurs actively face uncertainty, seizing opportunities for excess profits by creatively breaking market equilibrium.

## **2.2 The entrepreneurial spirit of digital empowerment**

The digitization empowerment is changing the representation of entrepreneurial spirit. Existing literature has elucidated the uniqueness of digital entrepreneurial spirit, with Nambisan (2017) arguing that the intrinsic nature of entrepreneurial spirit has changed, encompassing not only the unpredictability of entrepreneurial activities, but also emphasizing the generative nature of digital technology. Previous studies have mainly interpreted the transformation trend of digital era entrepreneurial spirit from the perspective of the impact of digital technology on entrepreneurial spirit. Starting from the attributes of digital technology, it has the potential to empower, creating a benign competitive environment by accessing resources more widely and fairly (Leong et al., 2016). Therefore, entrepreneurs can rely on the existing digital infrastructure to pursue their business ideas in a low-cost and flexible manner (Xiao et al., in press). From a broad perspective of the societal impact of digital technology, scholars understand digital transformation as a social phenomenon. "Digitalization" allows disadvantaged groups in the pursuit of market opportunities to access greater potential, thereby enhancing the democratizing nature of entrepreneurial spirit (McAdam et al., 2020). In the digital entrepreneurial community, entrepreneurs actively utilize digital technology and services to create their own businesses, pushing the boundaries of entrepreneurial activities beyond the existing ecosystem. Their successful drive comes from their understanding and application of digital technology (GiOneS & Brem, 2017).

The digital technology has overcome the limitations of traditional enterprise innovation and entrepreneurship, making the entrepreneurial process more flexible and leading to a change in the way companies create value. Today's successful entrepreneurs no longer rely on fixed opportunities or value propositions, but instead focus on a continuous development of values, continuously discovering new opportunities. In addition, the integration of digital technology with platform organizations helps companies to flexibly allocate resources, reduce internal communication costs, minimize innovation and entrepreneurship risks, and promote employees' independent innovation and entrepreneurial intentions. The carriers of entrepreneurial spirit are shifting, emphasizing the importance of innovative and entrepreneurial spirit of organization members for sustained innovation in companies. Given the profound impact of digital technology on management situations and corporate value creation activities, the carriers of entrepreneurial spirit are widely shifting, placing greater emphasis on the active role of innovative and entrepreneurial spirit of organization members for sustained innovation in companies. The success of a company increasingly depends on whether its members can transform external, discrete entrepreneurial opportunities into actual value for the company with the support of digital technology.

In summary, entrepreneurial spirit possesses the characteristic of dynamic evolution (Li Lan et al., 2019). Starting from objective laws, entrepreneurial spirit has transitioned from the emphasis on individual innovation spirit in the industrial economic era to the emphasis on environmental adaptation in the information era as corporate entrepreneurial spirit. One key evolutionary feature of entrepreneurial spirit in the digital context is the ubiquity of carriers, where the key to a company's success lies in the guidance of the innovative and entrepreneurial spirit within the organization. It can be preliminarily observed that entrepreneurial spirit changes with the times, and this change reflects adaptability and continuity as fundamental characteristics. The dynamic view of the environment indicates that entrepreneurial spirit should match the changes in the external environment of the company. At the same time, the inherent nature of entrepreneurial spirit, with innovation and entrepreneurial spirit as its core, continues to enrich with the development of the times.

## **2.3 The impact of entrepreneurial spirit on the economy**

Many emerging research findings indicate that regional economies are influenced by various factors that collectively drive economic growth, and entrepreneurial spirit plays a crucial role. Relevant studies suggest that entrepreneurial spirit not only drives the economic development of the region but also adds economic vitality to the surrounding areas, exhibiting clear spatial spillover effects.

### III. Research design

#### 3.1 Research methodology

Case study is an empirical descriptive approach to a specific phenomenon using multiple sources of data. The main focus of this article is to study the impact of digital empowerment on entrepreneurial spirit from the perspective of “mass entrepreneurship and innovation” through case analysis. This study employs a multiple-case study in the same industry for the following reasons: firstly, it primarily explores the main influence of entrepreneurial spirit, specifically the entrepreneurial and innovative spirit, under digital empowerment. Secondly, “mass entrepreneurship and innovation” drives the economic development of enterprises, and this field is highly practical, where theoretical research often lags behind actual practices. Exploratory case studies are suitable for new or insufficiently researched areas. Lastly, the impact of digital empowerment on the innovative and entrepreneurial spirit of the three electronic technology companies, S-Tech, H-Intelligence, and A-IT, aligns well with the main focus of this study. Additionally, through multiple on-site interviews and other methods, this study has obtained substantial evidence to demonstrate the rationality of the research conclusions, such as the driving forces and key influencing factors for enterprise innovation and entrepreneurship under digital empowerment.

#### 3.2 Selection of research samples

The selection of case objects not only demonstrates importance but also adheres to the principle of representativeness.

The selection of research samples is not based on simple statistical sampling, but rather on theoretical necessity. There are still areas where theories are not yet conclusive or researched, and the selection of cases is intended to fill the gaps in existing theories.

The case objects adhere to the principle of adaptability. The several rounds of internal innovation and entrepreneurship undertaken by S-Technology, H- Intelligence Technology, and A- Information Technology companies under digital empowerment are based on different motivations and have produced different effects, making the case objects compatible with the research objectives.

#### 3.3 Data collection and processing

In terms of data collection: Firstly, the method of field investigation was used. Three in-depth interviews were conducted with the general managers, deputy general managers, and others from the case companies, and the responses were coded. The results of the interviews were analyzed and summarized by their characteristics, with the goal of providing a more objective analysis of the data. Secondly, a comparison was made with previous literature, collecting and studying relevant documents on entrepreneurial spirit, digital transformation, digital empowerment, entrepreneurship and innovation spirit, and their relationships for validation, in order to enhance credibility and effectiveness. Finally, the obtained data was systematically organized and exploratively analyzed to investigate the relevant impact of digital empowerment on entrepreneurial spirit from the perspective of "mass entrepreneurship and innovation".

### IV. Case description

During the process of coding and analyzing interview data, the research team first conducted a systematic review of existing literature, focusing on the impact of digital empowerment on entrepreneurial spirit. Subsequently, using content analysis, the data from the interviews were systematically structured, summarized to reveal the core characteristics of the interview results. Additionally, to ensure the objectivity and reliability of the coding process, the research team provided specific training to the coders before formal coding. Sample questionnaires were pre-coded to demonstrate consistency among the coders’ interpretation of the data, thereby enhancing the comparability of the research results and overall validity of the study.

Company name	industry	company profile	interviewees
S Technology	AI High-Tech	listed company, 45-acre campus, 20,628 square meters of R&D office and production building, 349 technical engineers, 26 AI algorithm engineers, 640 employees.”	General Manager and Marketing Director
H Intelligent Technology	Intelligent Technology	with a total production base area of 150,000 square meters, has over 200 dealers and more than 300 business outlets nationwide, covering sales and after-sales service networks in all prefecture-level cities, provincial capitals, and regions. Overseas business expansion extends to Northeast Asia: South Korea, Japan; Southeast Asia: Vietnam, Indonesia, Thailand, Malaysia, etc.; Middle East: Saudi Arabia, Iran; Europe: UK, Germany; North America: USA, Canada; Australia: Australia, New Zealand, etc. The brand value of H reaches 3 billion yuan (third-party evaluation)	General Manager and Marketing Director
A Information	Information	currently has about 100 employees. In 2021, the revenue was nearly	General Manager

Technology,	Technology	300 million. It is one of the top ten official operators of Kuaishou nationwide, and also one of the fastest-growing internet companies in Jinan in the past two years. The revenue has been growing steadily in 2022-2023.	and Marketing Director
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### V. Case Analysis Comparison

Regarding the S Technology Company interview, and many relevant questions were raised, such as:

Question 1: What are the main sources of revenue for the company under digital empowerment?

Marketing Director: 1. Online sales of traditional products; 2. Customers brought in by AI product multimedia (tweets and videos on public accounts).

Question 2: What are the core businesses closely related to digitalization?

Marketing Director: 1. Upgrading traditional products (applying products in new industry fields).

Based on the innovation of the AI series of traditional products (AI products analyze data based on traditional products).

Question 3: What impact does enterprise innovation and entrepreneurship have on enterprise development?

General Manager: Only through continuous entrepreneurship and innovation can an enterprise continue to operate for a long time, which is a test for entrepreneurs. The so-called entrepreneurial spirit can be understood in many ways and is quite broad (entrepreneurs' giving back to society after building and expanding their businesses is also a form of entrepreneurial spirit). Here, the entrepreneurial spirit is mainly understood as the impact on enterprise development. Whether a company can innovate and start a business again depends on whether the entrepreneur has a comprehensive understanding of their own products, as well as a forecast of the future market for existing products. A good forecast can lead to a second take-off for the company after innovation. Entrepreneurs also need to have keen insight into the future market so that they can start a business again and bring a second spring to the company.

However, many entrepreneurs lack such foresight and the sense of crisis in the market, so the lifespan of these companies will not be too long. This means that entrepreneurs' spirit of innovation and starting a business again, that is, the so-called impact.

Regarding the H Smart Technology Company interview, and some related questions were raised, such as:

Question 1: What are the main sources of revenue for the company under digital empowerment?

General Manager: Utilizing Internet+ and cloud computing to create smart ecosystem solutions, such as smart campuses, smart communities, smart government-enterprise solutions, and the AI intelligent era. Also, by collecting potential owner information through smart hardware, storing it in the cloud, and analyzing big data, we provide precise marketing support for real estate demand while continuing to expand the demand for traditional products.

Question 2: What are the core businesses closely related to digitalization? Divisional General Manager: Urban smart parking cloud platform and smart ecosystem solutions.

Question 3: What impact does enterprise innovation and entrepreneurship have on enterprise development?

General Manager: Enterprise innovation and entrepreneurship are very important for companies. It can make companies dynamic, mobilize the enthusiasm of employees, create a sense of crisis for both employees and the company, and continuously achieve sustainable development through learning, growth, and competition, thereby prolonging the life of the company. At the same time, it enables the leaders of the company to maintain a fighting state and have a keen insight into external competition. Controlling the overall situation from a macro perspective and timely adjusting strategies.

Regarding the A Information Technology Company interview, and some related questions were raised, such as: Question 1: What are the main sources of revenue for the company under digital empowerment?

General Manager: As an information technology company, it can be said that most of the company's revenue sources are closely tied to digital empowerment; especially in the post-pandemic era, this digital empowerment has exponentially increased the company's revenue. For example, the operations of Kuaishou's live e-commerce have propelled penetration across various ends of the industrial chain, promoting platform content and product innovation. The broadcast platform's dissemination abilities and its timely, transparent, and interactive features have brought new growth points for other industries while also generating revenue for the company.

Question 2: What are the core businesses closely related to digitalization?

Marketing Director: Media deployment, brand and event promotion strategies, new media e-commerce incubation platforms, short video content creation, live e-commerce training, live-streaming influencer incubation, and live e-commerce supply chain output, among others.

Question 3: What impact does enterprise innovation and entrepreneurship have on enterprise development?

General Manager: In recent years, the company's innovative business and the establishment of subsidiaries have enabled the company to seize the dividends brought by internet short videos and digital operations, leading to revolutionary changes in the company and a linear growth trend in revenue. In fact, the experience of over a decade of internet entrepreneurship has endowed our team with a very keen sense and insight into the internet

market. When the right opportunity arises, we are able to seize them.

<b>Table 2 Interview Company Entrepreneurship Analysis</b>			
Company Name	Stage	First Entrepreneurship	Second Entrepreneurship
S Technology	The company leadership, based on their own strengths and the dilemma of telephone fee management within various enterprises at that time, developed a telephone management device. Initially, it was implemented in two companies and quickly expanded to the whole country due to high demand. However, the lifespan of the telephone management device market was short, as many small companies emerged to compete for market share. Leveraging their expertise in telephone management technology, the company collaborated with the then telecommunications companies to develop the Intelligent Public Telephone series of products. This move once again yielded lucrative returns for the company, enabling them to establish their own office park.	Upon learning that the Ministry of Public Security intended to include the company in the bidding for the second-generation ID card project, the company submitted a bid and was successfully shortlisted. This nomination laid the foundation for the company's market development over the next decade, paving the way for its eventual listing.	After going public, the profits from the original products began to decline. The company transitioned towards artificial intelligence based on the original identity recognition technology. Despite the challenges during the transition, the company has achieved some outstanding performances in the industry, thus securing its position in the industry.
H Intelligent Technology	The flagship products of H Intelligence include the appearance, functionality, and technological platform of the system.	Successfully developed a series of products triggering a second revolution in the electric retractable door industry.	Successfully developed the first-generation management system for intelligent parking lots, becoming one of the earliest enterprises to enter the field of parking lot systems.
A Information Technology	From being an agent for Baidu to the general agent for short video operations.	In 2019, we became the core agent for a certain brand's short videos in Shandong. The company has trained and recruited a professional video planning team, marketing team, professional operation team, and planning and creative team, opening the e-commerce 2.0 era for many enterprises.	In 2020-2024, we established three cultural companies to help achieve the overall strategic development goals of the company. The overall development of the company is showing a rapidly rising trend.

<b>Table 3 Analysis of Interviewed Companies' Innovations</b>			
Company Name	Stage	First Entrepreneurship	Second Entrepreneurship
S Technology	For early-stage telephone management products, the cost is relatively high, and the selling price will also be relatively high. Without innovation, it will be surpassed by later competitors. It's crucial to upgrade the product and reduce costs. In times of fierce market competition, bold innovation on the basis of the basics, upgrading the telephone management machine to an intelligent public phone, shifting from enterprise-managed telephone expenses to carrier-managed telephone expenses, overall cost reduction, directly triggering nationwide competition among various carriers. At the lowest point, the public telephone fee dropped to eight cents per minute (in 2003), bringing substantial profits to the company in a short period.	With the launch of the second-generation ID card reader, various industries have begun implementing real-name systems. Products also need to innovate according to market conditions to be applicable to various industries, such as public security departments, banks, and hospitals. The company's card reader terminals have developed various composite devices based on the different applications of various industries, such as hospital equipment, which can read ID cards, social security cards, magnetic stripe cards, and scanning functions. Due to timely innovation, the company has captured the market and gained a leading position in some areas.	After the direction of artificial intelligence was determined, and following a period of exploration, innovation began in various industries, such as smart business halls (taxation, traffic police), and smart catering (in 2022).
H Intelligent	The company started with the electric	Business model innovation	Build China's cloud parking,

Technology	telescopic door as a pioneering product. Later, it entered the parking system, opening the era of intelligent H. At the same time, the company focused on H smart advertising small door products, which became a benchmark in the industry, with a stellar reputation for quality. The perfect combination of pedestrian side doors and advertising media has led to another mainstay product for H. Subsequently, the company focused on the layout of access control and pedestrian access gate products, and has developed cutting-edge access control management systems and optimized solutions for pedestrian access gates. This area has also become a key focus for the company.	seeks a way out for the development of the enterprise. Firstly, complete the national strategic layout with four major production bases in Shenzhen, Zhuhai, Changsha, and Tianjin. At the same time, comprehensively cover business layout and finally expand into overseas markets.	empowering the construction of smart cities. In addition to H equipment, the focus is on creating a city's intelligent cloud platform. Furthermore, continuous technological breakthroughs and innovations have been made in the product race track, continuously launching products that meet market demands.
A Information Technology	From a single business to later commercialization, it has formed its own industrial cluster. Turnover has also increased from tens of millions to several billion, achieving a leapfrog.	To build an all-in-one Internet e-commerce service and better commercialize short video platforms, as well as to better integrate Baidu's business and supply chain operations, several corresponding cultural companies have been established for multifaceted deployment.	In 2022, we obtained the Baidu agency license, further deepening and expanding our market presence, and assisting e-commerce brands in achieving "integration of product and sales." We aim to provide deep-level, multi-domain, and diversified all-in-one service experience for enterprises.

**Table 4 The impact of digital empowerment on entrepreneurial spirit**

Company Name	Digital empowerment	factors influencing innovation	factors influencing entrepreneurship	entrepreneurial spirit
S Technology	This can allow existing or traditional products to gain profitability again.	Enable products to have lasting vitality.	Enable companies to have lasting vitality.	Enable companies to have a direction for progress, better serving society.
H Intelligent Technology	Building China's cloud parking, utilizing big data for calculations and services to increase the efficiency of parking space management.	The downturn in the real estate industry has led to a decline in traditional business volume.	Take control of the supply chain to strategically position the company for continued growth.	Sense of responsibility and mission for enterprises, to become China's own company and a world-leading brand in the intelligent access control industry.
A Information Technology	Assist electrical product brands in achieving integration of product and sales.	Secure the short video operation agency and the license as a Baidu agent.	Deepen and expand market areas, capture market share, adapt to the trend of digital transformation in the internet, and ensure the healthy and rapid development of the enterprise.	To become a leading multimedia e-commerce incubation platform, serving more brand merchants, and committed to the healthy growth and sustainable development of internet enterprises.

**Table 5 The motives and risks of enterprise innovation**

Company Name	Innovative initiatives	motives	risks
S Technology	The innovation from telephone management machine to smart public phones, although both are communication products, the change in usage scenarios has changed the profit direction.	The market competition for telephone management machines is fierce, profit margins are shrinking, and the level of technological complexity is low.	The innovation costs are high, with significant investment (the original product was single-device management, the new product is platform management, lacking experience in this area), and market forecasting is challenging.
H Intelligent Technology	Building a smart city parking cloud platform"	The real estate industry downturn directly affects the sales volume of traditional products.	Building the cloud platform is an extension and expansion of the existing system. For the company, the cost and risk of investment are not significant, but it opens up new markets for the company.
A Information Technology	E-commerce incubation platform	"Short video agency operation, Baidu agent,	In order to better serve customers, several cultural companies have been established,

		convenient conditions inherent promote the enterprise to broaden its development scope.	with a large initial investment.
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**Table 6 The motives and risks of enterprise entrepreneurship**

Company Name	The entrepreneurship issues	motives	risks
S Technology	Entrepreneurship in the second-generation ID card project.	Timing (planned bidding by the Ministry of Public Security)  Market (national market, all starting from scratch) Professional (possesses a certain monopoly nature, only 10 companies selected nationwide)	Most of the participating companies are large listed companies with strong capabilities (technology, capital, influence).
H Intelligent Technology	Developed overseas business.	The domestic market is relatively saturated.	The initial operating costs are too high, and the time to profit is long
A Information Technology	Set up several representative cultural companies.	Better serve customers, increase market share.	The initial customer acquisition cost is relatively high.

### 5.1 Research findings

The entrepreneurial spirit and innovation are crucial for enterprises. At the same time, digitization promotes innovation, thereby positively influencing entrepreneurship.

## VI. Conclusion and Enlightenment

The entrepreneurial and innovative spirit unique to entrepreneurs not only has a decisive impact on the survival and development of individual enterprises, but is also extremely important for overall economic development. This article, through case studies of multiple companies in the same industry, delineates the entrepreneurial spirit more specifically into entrepreneurial spirit and innovative spirit. It analyzes the impact of the entrepreneurial spirit on economic growth from the dimensions of entrepreneurship and innovation. According to the results of the case studies, digitalization, relying on the internet, big data analysis, and cloud computing, can more precisely serve customers and reduce transaction costs. At the same time, digitalization promotes innovation, thereby impacting entrepreneurship. The operational results of three companies show a significant impact of digitalization on innovation. Innovation and the entrepreneurial spirit provide critical production elements for continuous innovative development, while also stimulating market vitality, enhancing enterprise competitiveness, and driving economic development.

In addition, during the process of innovation and entrepreneurship, enterprises typically face certain challenges. Whether favorable systems and policies can be formulated to leverage entrepreneurial spirit is crucial for the sustainable development of the economy.

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