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Seeking concentration or survival strategies for the next decade

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Received 01 December 2023, Revised 25 February 2024, Accepted 1 May 2024

Abstract

Purpose – Concentration could very probably become the prime strategy mode of the following decade. Technology is assuming a key role here. Many markets could become the ultimate domain of four or less players especially those where technology plays a key role. The trend is visible. Take key industries as semi-conductors and watch the concentration level according to the USA Census. Recent data reveal indeed a continuity of the trend and an even greater measures of concentration in industries as semi-conductors, electronic components and computing. The question arises, then, what is the conceptual framework of this concentration and what strategies lie behind it.

Design/Methodology/Approach – The article starts with an identification of the managerial and economic boundaries of the concept of concentration. It then proceeds to identify concentration strands and varieties. This is followed by an analysis of the strategies of concentration. The article provides a link between economic theory and strategic thinking. It further suggests a segmentation of concentrative behavior and a number of strategic tools for this. It further provides a number of examples of industries where this concentrative behavior have demonstrated results.

Findings – The article is qualitative research. Many of the resulting observations and deductions are hypotheses that could be supported by further research.

Research Implications – The article relies on classic work on oligopolistic competition and relates that to contemporary corporate strategic behavior as evidenced by case histories of identified key corporations.

Keywords: strategies,semi-conductors,concept of concentration,qualitative research

JEL Classifications: L2,G3,L1,O3

I. Introduction

Concentration connotes the existence of a few major competitors within a given industry. Two measures of concentration are commonly cited: the concentration ratio and the Herfindal Index. Concentration ratios relate the combined market shares of the four largest firms in the industry to aggregate industry sales (or an identical measure of size variable relationship). The Herfindal-Hirschman Index squares the market shares of the respective firms and aggregates the squares. Whatever the measure, markets are ultimately segmented into competitive, moderately concentrated, concentrated and highly concentrated. (Scherer, 1970)

II. Concentration: a proposed conceptual framework.

1. Concentration as a derivative of kinked demand.

It is the authors contention that concentration can be expressed in terms of kinked demand curves.

Concentration is an expression of a state of oligopoly within an oligopolistic market structure. Oligopolistic competition, is that where players are few, profits are maximized, prices are set, entry and exit barriers are enhanced, non-price competition is potent and trust among the operators is lost. Nash's equilibrium construct illustrates the later (Nash, 1950). It is a distinctive state of interdependence where few large firms possess the ability to influence market conditions and keep other players in check. Oligopolistic markets are commonly represented by a kinked demand curve or a curve embodying two stages of price elasticity. The elastic segment implies a substantial revenue change in response to a measure of price adjustment. The inelastic or less elastic segment embodies the limited consequence of a price adjustment. The less elasticity segment of the kinked demand curve reflects the paralyzing power of reciprocity and fear from a dire retaliatory response by a key oligopolist. The "kink" represents the point where a shift occurs. It is a point where a competitive or a mildly concentrated industry becomes concentrated or highly concentrated.

A strategy of seeking concentration is that where the player or players embark upon moves that would limit the number of competitors to a specific high concentration norm and create, in the process, forbidding entry barrier. It is a strategy that moves the entire industry towards the inelastic slop of the kinked demand curve.

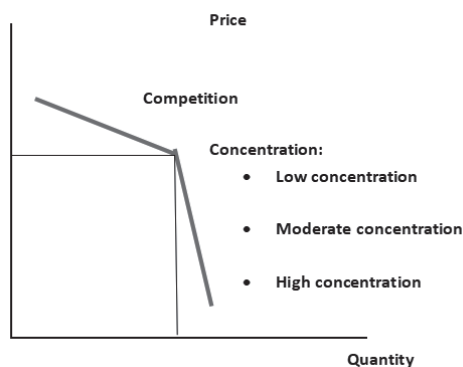


Figure1. A concentration-based kinked demand curve

Several industries demonstrate this propensity to concentrate in, specially, the United States. United States census of 2007 illustrates this high measure of concentration in the American industry. More recent data reflects the same state and, at times, an increase in the propensity. It goes without saying that search for concentration is usually motivated by a mix of goals from a desire for high returns to market dominance and technology superiority.

2.Observed patterns of concentration behavior

Concentrative behavior could take a variety of shapes. There is absolute concentration and partial concentration, reversible concentration and permanent concentration, dynamic concentration and static concentration.

2.1 Absolute vs. partial concentration.

Absolute concentration is a state of ultimate dominance within the respective industry. Absolute concentration has been, and still is, the favorite strategy for many a multinational corporation. The practice cuts across a wide variety of industries from Mittal Arcelors steel (scale concentration) to Gillette (market share concentration) and from Nokia (brand concentration) to Singapore airlines (capital resource concentration).

Absolute concentration could take any of the following states:

- Capital resource concentration
- Scale concentration
- Brand concentration
- Market share concentration.

Partial concentration is a concentration based on a specific strategic competitive advantage be it the product, the technology, the market segment or the market area. Partial concentration has many followers. There is Lehmans Mini Bond, a structured finance product (product concentration), Gillette Mach 3 (technology concentration), Lenovos Chinese market desk top computer (market area concentration) and the emerging Shanghai Stock Market IPO dominance (market segment concentration). Partial concentration could take any of the following states:

- Product concentration
- Technology concentration
- Market segment concentration
- Market area concentration

2.2 Reversible vs. Irreversible Processes-permanent concentration

Reversible concentration is a state of temporary dominance followed by a return to the fragmentation that preceded the concentration event. Reversible concentration is, more frequently than not, an induced strategy emerging, most likely, as a consequence of events. As those events take a different turn the foundations of the concentration strategy unravel as the Sony Ericsson history proves. Sony and Ericsson alliance was based on a brand and technology synergy that worked for some time and ceased to work afterwards. Reversible concentration could take any of the following states:

Time bound concentration

Brand concentration

Fragile alliance concentration

Permanent concentration is a state of dominance that is likely to continue for an unforeseeable period of time. Dying industries provide a sound base for a permanent, or as permanent as the life span of the dying industry allows concentration. Capital based concentration could best be traced in the case of Apple or Singapore Airlines, for that matter. Both maintained dominances, and a high concentration, in their respective industry made very plausibly possible by abundant capital resource. Proprietary technology concentration existed for a long time in the case of Kodak and, prior to that, Polaroid. Permanent concentration could take any of the following states:

End game industry concentration

Proprietary technology concentration

Capital based concentration

2.3 Dynamic vs. static concentration

A state of dynamic concentration is that where concentration changes shape with the passage of time or the evolvement of events. A dynamic competency-based concentration could connote a shift from one type of competency concentration to the other or, alternatively, the combination of both. Dynamic concentration could take any of the following states:

Progressive concentration

Competency based concentration

Acquisition and divestment-based concentration

Static concentration is a permanent state of concentration that is unlikely to change in the medium term. Static concentration could take any of the following states:

Absolute competency advantage concentration

High entry barrier concentration

High exit barrier concentration

Summarizing, concentration strategy is a strategy with different dimensions depending on a variety of market, technology, function and capital conditions.

III. From concentration to strategic behavior

Seeking concentration connotes the search for strategic modes of dominance of an industry. Those modes could be "regular" or related to practices conducted in the course of day-to-day business or "innovative". Or modes based on an exploitation of unique events or opportunistic market conditions. Regular practices include merger and acquisition, be it markedly aggressive and distinctly expansive. Innovative modes would include opportunistic venues whose practice is directly tied to a narrow span of time or discontinuous market conditions.

Concentration strategies could follow any or all of the following strategies.

Aggressive acquisition

Invoking disruptive technology

Innovation.

Collusion

Several highly concentrated companies and industries demonstrate one or the other of those strategies.

US Search engines industry is one of those. Top four operators market share amounts to a near 98%, according to some estimates.

This industry's concentration has increased steadily driven by Google's growth and the parallel decline of smaller search engines like Ask.com and AOL. It is difficult for new operators to enter the industry because of several factors including limited access to software and related hardware. Search engines require, moreover, substantial computing resources for ongoing operation and sophisticated software algorithms to handle indexing and relevancy tasks. The industry is continually investing in innovation by developing new features, new matching and relevancy algorithms, new tracking capabilities and new advertising performance measurement abilities.

Another example is soda drinks where top US three operators market share is put at a near 90% divided between Coca-Cola, Pepsi and Dr Pepper. Major players particularly Coca-Cola and Pepsi, engage in significant marketing and brand promotion to generate brand loyalty, which translates into significant market share and higher concentration. Additionally, Coca-Cola and Pepsi have gone through structural changes allowing for the incorporation of bottlers operations into their company structure. This bottler merger did and is increasing concentration.

A third example is the US lighting industry where top four operators market share adds up to more than 90% according to some estimates. General Electric, Philips and Siemens share this market share.

Global brand recognition, along with established relationships with major customers, has allowed this industry to be dominated by a few key players. Industry concentration has been on the rise due to mergers and acquisitions. In addition to the dominance of existing players, government regulation, resource constraints and, technological shifts made it difficult for new companies to enter the industry (Top 10 Highly Concentrated Industries IBISWorld Fri, Feb 10, 20).

IV. Concluding remark

Concentration is a complex process with several varieties and many strategic modes. It is the authors contention that concentration, as a strategy, will dominate as a result of the penetration of technologies that will alter the foundations of business. Artificial intelligence will render many driving forces of business dynamic and elusive. This will narrow business arenas and induce concentration.

V. Summary and conclusions

Concentration connotes the existence of a few major competitors within a given industry.

Concentration could very probably become the prime strategy mode of the following decade. There are several types and degrees of concentration from the partial to the complete and from the permanent to the reversible. Technology is assuming a key role in the emergence and continuity of concentration. Many markets

could become the ultimate domain of four or less players especially those where technology plays a key role. The trend is visible. Take key US industries such as search engines and watch the concentration level. Take other industries as soda drinks and light bulbs and observe the pattern of concentration too. Recent data reveal indeed a continuity of the trend and an even greater measures of concentration in industries as semi-conductors, electronic components and computing.

The article suggests a conceptual and operational framework for this concentration and proposes a number of strategic behaviors leading to a level of concentration. Those include merger and acquisition and the advent of disruptive technology.

It is the authors contention that concentration, as a strategy, will dominate as a result of the penetration of technologies that will alter the foundations of business. Artificial intelligence will render many driving forces of business dynamic and elusive. This will narrow business arenas and induce concentration

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Advantages of marketing communication in the development of a tourism brand

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Abstract

Purpose –Comprehensive tourism is essential to the growth of a culturally successful nation. The development of holistic tourism takes into account not only the potential for economic growth, cultural preservation, and inheritance but also the country's cultural improvement and innovation. In addition, tourism development will benefit the transportation, lodging, food, commerce, cultural, and sports businesses, as well as other connected industries. According to statistics, travellers are more prone to choose destinations with positive messages when planning travel plans. Many developing countries consider tourism as a viable method of reaching long-term development and are keen to build themselves in the overseas market.

Design/Methodology/Approach – Consequently, the goal of this research is to examine how tourists perceive China especially Zhanjiang. China is a diverse nation with amazing scenery, a culturally rich legacy, and cultural heritages. China's important contributions to international tourism have long been recognised. This study attempts to make use of the possibility of national comprehensive tourism building by examining how to better understand the image of a tourist city (Zhanjiang). This study will identify the current problems and related causes in Zhanjiang's tourism by an evaluation of the present scenario and research of the audience's impression of Zhanjiang's tourism. In order to fully grasp the concept of secondary data is collected through such as consulting various media, searching Zhanjiang website, Zhanjiang news, and blogs. In addition, it is observed that marketing communication is crucial for developing a tourism brand.

Findings – Different communication platforms, such as word of mouth from relatives and friends, user-generated social media posts, Internet celebrity affectionate referral, corporate media on-site reports, famous film and television viewfinder, Zhanjiang's official media attention platform, tourist industry projects of travel agencies, blogs, and more, have varying impacts on tourists' perceptions of comprehensive tourism.

Research Implications – This article looks at how to build a comprehensive tourism brand in Zhanjiang, and how to develop a viable integrated marketing communication plan.

Keywords: Zhanjiang, China, Comprehensive tourism, City tourism identity system, Integrated marketing communication, Marketing channel

JEL Classifications: M31, L83

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I. Introduction

The image of a destination has become one of the most widely researched subjects in tourism (Tölkes, 2018). Analysing visuals can help tourism brands to create effective promotional tactics and differentiate their products from those of competitors. The tourism brand can be considered as the city's external business card. It symbolizes the most distinguishing qualities of urban growth, and it is a one-of-a-kind showcase of a metropolis that is clearly different from others. The city tourist brand can represent city features, represent city culture, and add to the city's allure.

According to WTO reports, Travel receipts in Asia were boosted by Chinese tourists, particularly in the south-east. After two years of contraction, China's travel exports grew at a slow pace. Hong Kong travel and tourism in the Greater Bay Area of China (Yuan, & Liu, 2020).

It has been found that in August 2015, Jinzao Li, former director of the National Tourism Administration, outlined a comprehensive strategy for the growth of holistic tourism. The concise concept of comprehensive tourism was first outlined in the relevant paperwork of the 2016 national tourism working conference, which necessitates urban areas to treat tourism as a favourable industry in a particular region by optimising and boosting regional economic development systematically and comprehensively.

The article will review the literature on tourism image and holistic tourism, considering the impact of tourism image on the market. The city tourism identity system (CTIS) and integrated marketing communication (IMC) will be investigated in the present study, demonstrating how the consumer views the urban tourism image and how to strategic and tactical control or influence relevant enterprise information, improving brand value, and managing relationships with customers. This study attempts to make use of the opportunity of national comprehensive tourism building by studying how to truly understand the picture of a tourist city.

The purpose of this research is to investigate Zhanjiang City's tourism image using the City Tourism Identity System and the other characteristics of comprehensive tourism. The urban tourism image of Zhanjiang will be concluded by exploring tourists' perceptions of mind identity, behaviour identity, and visual identity in the City Tourism Identity System, as well as all components in comprehensive tourism. Integrated tourism development and other businesses are crucial in the era of comprehensive tourism. Simultaneously time, this article will propose to evaluate the relationship between audience perception and tourist publicity channels in order to see if the audience's impression of Zhanjiang comprehensive tourism brand is influenced by publicity channels. The research's evaluation and conclusion will be described some practical considerations for Zhanjiang city tourism managers in adapting integrated marketing communication strategies to develop a distinctive tourism brand in comprehensive tourism.

(1) Research questions

- 1.What is Zhanjiang's most unique and impressive attribute?
- 2.How to develop a complete tourism brand in Zhanjiang?
- 3.How to build a viable integrated communication strategy to effectively advertise it?
- 4.What effect do communication channels have on audience awareness of the comprehensive tourist industry?

(2) Research objectives:

- 1.To identify Zhanjiang's features and uniqueness in order to establish a unique city tourist brand for the city.
- 2.To acquire more about the communication channels via which the wider populace acquires tourism recommendations.

3. To analyse the influence of communication channels on audience awareness of integrated tourism.
4. To give a viable integrated strategy in shaping the tourism brand image of Zhanjiang.

(3) Significance of the study

Tourism helps cities prosper commercially and socially. Tourism development will benefit the transportation, lodging, retail, entertainment, and sports businesses, as well as other allied sectors. As a result, the role of tourism in increasing economic growth. The tertiary industry's key driving force is urban tourism, which will promote industrial consolidation, streamlining, and modernization. According to the philosophy of comprehensive tourism, the sector development is not to combat alone, but to flourish together within industrial integration.

In summary, it is advantageous to promote the mutual growth of indigenous industries and tourism through economic integration, which will promote regional economic growth. Promoting the growth of comprehensive tourism is helpful to the poor and improves the community. Hence, Rural communities can actively grow the tourism business through communication channels. A thriving tourism brand may draw the attention of major corporations and sectors, resulting in a slew of new business and investment possibilities. It will facilitate effective industrial cooperation, streamlining, and modernization, as well as contribute directly or indirectly to workforce recruitment.

Consequently, this study will assist tourists in determining the characteristics of Zhanjiang also tourism brands in order to promote their business. Besides, the building of the Zhanjiang tourism brand and communication insights will provide some theoretical basis for cities in boosting the tourism industry's expansion. Analysing data can help tourism agencies create effective promotional tactics and differentiate their products from those of competitors.

II. Literature review

1. Zhanjiang's features and uniqueness

Zhanjiang, a city in Guangdong province, is also known as "Port City" and is located at the southern tip of the Chinese territory and on the western coast of Guangdong Province in China (Lianrong & Rul, 2019). The maritime climate balances the temperature throughout the year, it implies there is no excessive cold in the winter and excessive heat and humidity.

The natural tourism resources of Zhanjiang, such as the sea view, Huguangyan scenic location, military port, and environmental quality with blue sky and white clouds, leisure and pleasant landscape, are a unique feature of the tourism business in Zhanjiang and have been widely recognised. On Chikan Old Street, there are winding alleyways, Lingnan-style arcaded buildings, and western-style buildings that have survived from colonial times, recording the historical development of the city.

Further, there are numerous picturesque sites in Zhanjiang such as olden Beach coastal leisure tourism area, World Geopark Huguangyan scenic spot, Wuchuan Dinglong Bay National Marine

The resort, Xiashan Guangzhou Bay French-style street and other cultural sites. Moreover, Zhanjiang also has a strong history in sport and a culturally diverse legacy. Traditional dances such as the Zhanjiang Dragon Dance, Leizhou song folk literature; Leizhou traditional theatre, Suixi Lion Dance, and more (Liu, Lai & Yuan, 2020).

Moreover, the food in Zhanjiang is very excellent. Seafood is also a key cultural tourism resource in Zhanjiang. Fresh raw materials are used in cuisine, which is generally cooked with gritty ingredients to preserve the aesthetic flavour. Zhanjiang cuisine has its own system of practise and flavour, with a distinct local spiciness.

Despite its gorgeous landscape, abundant resources, and governmental and provincial assistance, Zhanjiang's tourism image has yet to gain national popularity (Li, He & Qiao, 2021). The image position isn't quite appropriate. In Zhanjiang, there are several tourism features, but no especially significant image perception factors that might form a dominance. The media's coverage of Zhanjiang is limited to the location which does not adequately depict the city's tourism qualities (Xia & Zhiyong, 2013). Specifically, Internet publicity about Zhanjiang does not fully explore Zhanjiang's natural tourist resources, cultural tourism resources, and social tourist activities, resulting in a lack of tourism attractions and a weak appeal to the masses. Besides, it is observed the traditional scenic location tourist concept, which is connected by the ticket economy, is used in Zhanjiang. The competent tourist department is mainly important for the creation and management of a particularly scenic spot's construction and operation. The tourist industry's growth is heavily reliant on scenic spot ticket revenues, it lacks the concept of integrated development with other businesses, and it fails to integrate the construction of tourism services and infrastructure.

However, Marketers recommend that Zhanjiang tourism can encourage cultural tourism and smart tourism by improving communication channels (Lai & Deng,). It will improve guide interpretation services, tour assistance, introduce advanced tech, and provide interactive in-depth experiences, allowing tourists to gain a comprehensive understanding of Zhanjiang City's. In a nutshell, Zhanjiang needs to be integrated of tourism facilities, the expansion of communication channels, and the wide presence of tourism image through the use of attractive spots.

2. Overview of the communication channels and their influence on audience awareness

Xiao-long, (2006) determined that the overall reflection of a city's established visual image that is recognized by most tourists is the urban tourism image. It has been there for a longer period and is one of the most key considerations of a city's tourism development. Tourists' tastes, their education level, economic status, lifestyle, tourism experience, motivation, expectation, similarity with the desired location, traffic ease of access, location resource conditions, infrastructure status, customer satisfaction, and so on are all factors that influence tourists' image perception of tourism destinations (Kushwaha, et al., (2020). Therefore, in the process of shaping the urban tourism image, it is necessary to strengthen the marketing communication channels.

The perception of tourism image extends through the entire tourist process and plays a significant effect on tourists' tourism preferences from a timing viewpoint. Tourists' impulsive visits to tourism destinations develop distinct emotional reasoning, which is split into 3 stages: before, during, and after tourism. This can be referring as Direct perception means individual impression formed by people who visit the tourism destination and personally visit scenic spots and tourism infrastructure, whereas indirect perception refers to the individual impression formed by tourism destination publicity films especially on marketing channels, relevant travel companies, relatives and friends, and so on.

Consumers are always changing in today's environment of rapid technology growth and the digital economy (Elliott, 2020). Tourists are the first to arrive. People behaviours, media usage, degree of involvement, and expectation must all have an impact on the transformation of communication technologies.

digital media has the ability to mix diverse audiences' preferences, photos, images, and other combined information to achieve the goal of individualised communication.

Koc & Ayyildiz, (2021) states external information is a crucial component in the building of a tourism image. Social communication, such as word of mouth, various promotional materials and marketing news, and field trips are external information sources. It has been found that Facebook has greatly aided in the restoration and rebuilding of tourism image perception as a formally and informally means of communication and an additional distribution route circumventing the news media. Besides, as per the most prevalent mode of tourism image, the short clips presented by TikTok were consistent habits of the viewers. As a result, the image of tourism generated and broadcast on these platforms is more likely to be viewed positively by the audience.

Hence, it is required to pay emphasis to the significance of online media in tourism brand shaping, improve tourist image shaping interactions, and reduce traditional media expenditures.

Park, et al., (2019) point out the channels are used by people to get to know a city and develop an interest in it: user-generated material, word of mouth from family and friends, on-site mainstream media, social media, internet celebrity influence, reports, popular film and television, the official public platform and more. Besides, in terms of word-of-mouth marketing, in the modern media environment, public discussions on social media may generate a more effective publicity effect also draws more customers' attention. Hence, it can say that with the fast evolution of Internet-based new media, each tourism destination can greatly improve the speed with which marketing communication takes place.

3. City Tourism Identity System (CTIS)

City Tourism Identity System denotes the imprint shaped by people's accumulation and precipitation of a city through time, which is a unique identification system recognised by most people in society (Liu & Liu, 2006). This recognition system takes into account a city's historical impression. CTIS is classified into three categories namely behaviour identity mind identity and visual identity.

The visual identity concept aims to promote a specific picture of urban tourism. City Tourism Identity System is a critical tool for defining and integrating a brand's image. The formation of a brand image can be regarded as an integral part of the marketing system since it serves to reflect the power and spirit of the brand. As a result, it may also be thought of as consumers' pictured cognition of tangible products in a highly competitive marketplace. Besides, the mind identity concept states the uniqueness and coherence of a city's tourism management notion, which is at the heart of the urban tourism identification system.

Moreover, the behaviour identity concept refers to the successful integration of all governmental and citizen behaviours associated with the city in order to form a coherent tourism image. The identification of urban management systems and standards, as well as an in-depth assessment of urban management behaviour from different approaches, such as government departments, social businesses, and urban residents, are all part of the CTIS. To be more precise, City Tourism Identity System combines unity and integrity to create a visually complete and reliable individual enterprise brand image, improve brand popularity and recognition, form the memory of consumer audiences externally, internally enhance cohesion.

In general, the design of a City Tourism Identity System pertains to the city's intentional, planned, and active action in communicating the city's development model, spiritual culture, and diverse tourism information to every group and individual associated with the city. As a result, the features of tourists will serve as a foundation for using the City Tourism Identity System in the formulation of urban tourism image design.

4. Comprehensive tourism

In the realm of comprehensive tourism, the promotion and diffusion of tourism brands are recognised as a critical link in the construction of tourism destinations. Varying tourists have varied from society-to-society behaviours for different marketing methods and different content choices. The development of China's domestic tourism has primarily been centred on sight to explore the natural or cultural riches of different regions, with tourists preferring to visit only those places with stunning natural scenery or historical significance. With the continuing rapid growth of China's economy and residents' income, as well as the rapid development of urbanisation, each city's infrastructure has inclined to improve, and the urban environmental quality has gradually improved.

At this time, the urban tourism concept has recently emerged in China's large, moderate, and small tourism cities, and attractions have gradually diverse including entertaining, business exhibitions, shopping and dining, vacation and health care, landscape sightseeing, and so on. The growth of urban tourism has progressed to the stage of integrated development. Panasiuk, (2017) reports the integrated development of tourism and other businesses is key in the age of comprehensive tourism. In particular, the travel destination's basic business, commerce, real estate, handicrafts, and other sectors can open up connections with tourism and use tourism to modify and boost the added value of these sectors, promoting the integrated growth of local industries.

The State Council of China's General Office published guidelines for fostering the growth of comprehensive tourism, urging cities to undertake systematic marketing and create a tourism brand reputation. Liu, et al., (2020) suggest that the city should devise a strategy that is demand-driven, clear in terms of global promotion and advertising strategy; enrich promotional material, further trying to improve the level of promoting tourism, in-depth extraction and display of geographical features, and implementing a series of tourism promotion measures

5. Integrated marketing communication (IMC)

According to Camilleri, (2018) the integrated marketing communication theory refers to the practice of managing all information sources connected to products or services provided to customers or potential customers is designed to motivate them to acquire enterprise items or services and to keep them loyal to it. Professor Schultz's integrated marketing communication theory is the basis for tourism integrated marketing communication theory, which describes a process that uses the tourism destination as the marketing object and significantly increases the tourism destination's brand influence by combining and optimising various marketing strategies.

In today's rapidly growing social mass communication, with the development of society and the increasing diversification of people's beliefs, online channels effectively reach new audiences. Traditional brand promotion concentrates on users, goods, markets, media, and planning, whereas in the era of comprehensive tourism, it is essential to combine all types of channel resources offered to people and establish an accurate and efficient interaction system that includes all media, all data, and all planning. As a result, thorough marketing content is essential. The promotion of a tourism destination's brand is no longer solely based on sales or revenue.

In general, the Integrated Marketing Communication theory is simply a guiding and general theory, and how to carry out marketing communication to specific groups Daghman, (2018). When it comes to regional tourist promotion, it is also essential to do a detailed analysis based on the current state of the tourism industry.

Tourism marketing is an intangible service thus it must focus on improving consumers' trip experiences and their impressions of brand image. With the rapid development of Internet-based new media, each tourist attraction can greatly improve the speed with which advertising communication takes place, effectively improve the location's new media integrated marketing quality, and better serve tourism development by developing great advertising channels. Tourism cities can use Tiktok, WeChat, Instagram, Facebook, and other social media to publicise their image using graphics and audio-visual content. Simultaneously, continuing to employ newspapers, television, radio, and other conventional media to strengthen the role of media communication is recommended.

6. A viable integrated communication strategy

As previously said, Zhanjiang has a modest presence in the tourism sector, but it does have the potential to improve its brand image. Particularly, Internet publicity about Zhanjiang does not completely explore Zhanjiang's natural tourist sources, cultural tourism resources, and social tourism resources, leading to a lack of visitor attractions and a weak appealing to the folk (ZHANG, ZHOU & ZHANG, 2007). Zhanjiang must combine tourist resources, increase communication channels, and actively promote tourism through well-known locations.

In this context, it is critical to analyse all components of tourism perception when developing an effective integrated communication plan. According to Rong-hua, (2013), service quality is a critical aspect in determining how people perceive tourism. The subjective evaluation of services received by travellers during a trip, such as shopping, catering, leisure and recreation, hospitality, and other attributes, includes the service quality. Similarly, pricing perception is an integral part of tourists' perceptions, which is affected primarily by personal subjective considerations.

Individuals expect to be able to purchase their preferred and reasonably priced things in a tourist destination, thus if the tourist city raises the relevant costs, the pricing perception will change dramatically. Scholars have discovered and examined that there are significant pricing perception discrepancies between domestic and international tourists. Ruhanen*, (2004) states tourists expect to receive relevant services at the lowest possible cost. As an outcome, for relevant strategy is essential to consider the vectors; service quality and pricing.

Further, in light of the changing growth environment, media marketing is required to conduct marketing publicity in a more precise manner. Simultaneously, Zahra(2018) pointed out it is necessary to focus on creativity and compress the distinctive features of tourist attractions in order to better utilise the role of media in the development of the tourism brand. Municipal managers can modify and refine the city image, turning it into a business card for the city's external publicity.

The creation of a brand image can be regarded as an integral part of the marketing system since it tends to represent the power and core of the brand. As a result, it may also be regarded as consumers' pictured cognition of tangible objects in a market setting. China can better utilize its advantages as a transit hub and publicise itself through traffic media. For example, it is advised to improve the live broadcasts of tourism publicity films, broadcasting, printing materials to strengthen outdoor advertising along the expressway.

It is vital to boost the improvement of tourists' perception ability in the process of shaping the urban tourism image. It can be done through marketing on online channels. Undoubtedly, Tourists actually observe the tourism products, cultural context, traffic patterns, lodging conditions, and other components of the tourism destination while on vacation, as well as form their own real perception of the tourism destination based on the

preceding contents, i.e., the tourists' personal perspectives of the tourism destination. As a result, providing a positive tourist perception experience increases the distribution of tourists' urban tourism image, and fosters the formation of tourist perceptions.

Besides, city visuals that are distinct and particular are more inclined to leave a lasting impression on the audience. As a result, in light of the current development context, media marketing is required to carry out marketing publicity in a more precise manner. It is supposed to focus on creativity and compress the unique attributes of tourist sites in order to effectively leverage the media's role in the development of the tourism brand. Aside from the aforementioned processes, the tourism project's brand should also define the most distinctive and well-known scenic spot in the tourist attraction, such as natural landscapes, historical sites, or cultural sites, which may become a well-known label or landmark, attracting a large number of people to travel and consume.

III. Research Methodology

1. Method

The method used in the paper for research the objective of the study is the descriptive method. The methods used in descriptive research are those that describe the features of the variables being studied. Case studies, naturalistic observation, surveys, archival research, and cross-sectional research are all examples of this type of research.

2. Data collection

Secondary data is used to investigate the current paper. We are able to fully understand the concept of "comprehensive tourism", examine the nature and condition of the research object to make our own conclusions. The data is collected through social media posts, Internet celebrity affectionate recommendations, corporate media on-site reporting, Zhanjiang's official media attention platform, blogs, and more.

IV. Results/Findings

The overall reflection of a city's developed sensory image that is recognized by most tourists is the urban tourism image. It is the most important indicator used to assess a country's tourism development city-specific. It is determined that, according to the integrated marketing communication theory. It is vital to analyse the channels via which the audience receives brand information, as well as their thoughts on the importance and expressiveness of the current marketing channels. Further, it is suggested that the gathering of information is a significant role in the construction of a tourism brand. Social communication, such as word of mouth, various publicity materials and commercial information, and trips are three types of external information sources.

It is concluded that Tourist perceptions are classified into two categories. Direct perception when tourists visit a tourism destination in person and going to contact relevant scenic spots and tourism facilities personally, whereas indirect perception where an individual's impression of a tourist attraction dependent on factors such as

relevant introduction materials from travel agencies, relevant tourism destination publicity films, relatives and friends, and so on. As a result, strengthening the progress of tourists' perception to create a positive perception experience for tourists, improving the propagation of tourists' urban tourism image, and boosting the shaping of tourism image are all requisite processes of shaping the urban tourism image.

According to an analysis of the perception model of tourism image, the short clips portrayed in Tiktok and Kuaishou were consistent with the existing methods and habits of the audiences. As a result, the image of tourism generated and disseminated on these platforms is more likely to be seen positively by the audience. It is expected to pay attention to the function of new media in tourism image shaping, improve tourism image shaping interaction, and reduce conventional media expenditure in tourism image shaping. Along with this, municipal administrators should refine and polish the city image, turning it into a business card for the city's external publicity.

V. Conclusion

This study attempts to make a systematic study on the shaping of Zhanjiang urban tourism image, based on analysis and summary of previous works, in order to complement and strengthen the research case of urban tourism image. In addition, the Integrated Marketing Communication (IMC) theory is primarily a guiding and broad theory. When it comes to regional tourist promotion, it is also necessary to do a detailed analysis based on the current state of the local tourism industry. Furthermore, the Integrated Marketing Communication (IMC) approach focuses solely on marketing communication channels at the organisational level, ignoring the role and influence of mass communication.

It is determined that the public generates material on social media, which has the properties of widespread communication, robust interaction, and noticeable difference. It's good for brand awareness, and it's worth thinking about when designing brand marketing communications. Tourism integrated marketing communication has a range of marketing communication channels in the modern media context. Businesses and organisations have the ability to use an integrated approach to make advertising have a bigger public relations impact and greatly boost a company's or organization's overall image.

It is also found that with the fast evolution of Internet-based new media, each tourism destination can greatly improve the speed with which marketing information is transmitted, effectively improve the location's new media integrated marketing level, and ultimately benefit tourism development by creating perfect marketing channels and a good marketing creative framework. As a result, when conducting tourism marketing, it is necessary to select the communication channel and polish the substance of tourism information in accordance with the media's positioning and the target audience. Besides, the most prominent element of urban growth is the urban brand, which may be considered as a one-of-a-kind art show of a city that is clearly different from others, as well as the consensus created by the public's thorough judgement of the city's entire image.

Moreover, although the study focuses on the concept of comprehensive tourism, and there is still a need for further in-depth conceptual inquiry and analysis on the planning and implementation of thriving tourist cities, as well as the promotion of comprehensive tourism brands. It is open up new door and aspects for future research.

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Research on the relationship between high-quality patent development and enterprise value from the perspective of TML

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Abstract

Purpose –This study examines the link between premium patent creation and corporate value through a TML lens, seeking to illuminate the integration of tech innovation, market needs, and legal safeguards in fostering top-tier patents. This synergy is pivotal for boosting firms' market worth and competitive edge.

Design/Methodology/Approach – From the perspective of TML, based on the data of CSMAR and INNOJOY, the relationship between the high-quality development of patents and enterprise value was analyzed by using the subjective and objective weighting method. The OLS two-stage regression model and the seemingly uncorrelated model SUR test were both adopted. The degree of state-owned holding is introduced between the two to test its moderating effect.

Findings – (1) High-quality patent development closely ties to enterprise value, reflecting tech innovation. Technical aspects show a stronger boost than market or legal qualities.(2) Greater state ownership enhances market and legal quality impacts on value, meaning higher state hold amplifies these qualities' value enhancement.(3) Patent quality dimensions vary in their impact across industries, all supporting "innovation-driven development" principles.

Keywords: TML vision, high-quality development of patents, enterprise value, state-owned holding degree, SUR test

JEL Classifications: O31,O34,038,G30,G32

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I. Introduction

Under the current pattern of poor competition, the patent technology innovation led by enterprise value is shifting from quantitative scale to qualitative efficiency (Zhu, Chen, & Wang, 2020; Chen, Lin, & Zhang, 2020; He, Cai, & Tao, 2021), how to promote the patent high-quality development and enhance enterprise value has become a key issue of concern for the government, industry, academia and research community. WIPO report shows that in 2020, China's PCT patent applications amounted to 68,720, surpassing the United States of America's 59,230 in the same period, ranking the world's first. The WIPO report shows that China's PCT patent applications will reach 68,720 by 2020, surpassing those of the United States (59,230 during the same period) and ranking first in the world. However, the Global Innovation Index 2020 (GII report) released by WIPO shows that China's innovation index is only ranked 14th in the world, and there is still a big gap with the developed countries represented by the United States, indicating that although China's patents occupy the advantage in quantity, its overall quality is low (Huang, Lao, & Mcphee, 2020), due to three reasons: firstly, technological risk. Patented technology has not formed a more comprehensive technology layout, and there are practical limitations of transformation and application in certain core technology areas. For example, the EUV incident of high-end lithography in 2019 and the list of "necklace technology" in 2020 show that China is still waiting for a breakthrough in the field of core technology; Second, market risk. Enterprises in the face of international market competition, the patent layout system is not perfect, coupled with the low level of patent quality, it is difficult to enter the international market for patented technologies, which is difficult to face the multinational organization of patent litigation and technical barriers and other issues; Third, the legal risk. Policy incentives and the uncertainty of patent rights, prompting many enterprises to focus on patent "quantity" rather than "quality", resulting in "patent bubble" and "innovation illusion" abound. This has led to the emergence of "patent bubble" and "innovation illusion", which has seriously hindered the value of enterprises.

As a knowledge carrier integrating technology, market and law and other related information, patent, by virtue of its creativity, value and exclusivity, not only helps enterprises to build technical barriers, legally and effectively exclude competitors from technical barriers, but also develops domestic and international markets, explores profit growth points and enhances enterprise value (Andrews, 2021). Existing research on the development of patent quality and enterprise value of the literature, the research perspective is relatively single, in the technical perspective on the forward citation and backward citation and other indicators (Cheng, 2021; Zhao, & Li, 2020), in the market perspective on the number of homologous families and the layout of the number of countries (Yang, Sun, & Chen, 2021; Li, Chu, & Wang, 2019), in the legal perspective on the number of claims and the duration of the patent (Qiang, Xiao, & Hang, 2020; Song, Chang, & Lin, 2021), and did not give full consideration to the coupling relationship between the three. Based on this, this paper decouples patent high-quality development into technical quality, market quality and legal quality under the TML perspective, and utilizes CSMAR and INNOJOY databases, adopts the subjective and objective assignment method, OLS estimation method and SUR test to explore the relationship between the three dimensions of patent high-quality development (technological quality, market quality and legal quality) and enterprise value, and verifies that It also verifies the moderating effect of the degree of state-owned holding, thus providing suggestions for cultivating high-value patents and realizing the goal of "Patent Power".

II. Research Basis and Assumptions

2.1 Techno-market-legal theory development

"Innovation" comes from the interpretation of economic growth, "scientific and technological progress, capital accumulation and the division of labor are the three elements of economic growth" (Smith, 1999). Later, Schumpeter (2006), in *Economic Development Theory*, combines innovation and economic development, pointing out that economic growth has dynamic changes with technological innovation (Schumpeter, 2006). As a result, this paper further refines the Technology-Market-Law Theory (i.e., TML Theory) by analyzing the integration process of technology, market, and law in technological innovation. In the first stage, Schumpeter (1962), in *Capitalism, socialism and democracy*, pointed out that R&D-based technological innovation disturbs the existing economic equilibrium, thus enabling technological innovators to obtain excess market profits (Schumpeter, 1962). Rosenbloom and Abernathy (1982) introduced the market elements into technological innovation, arguing that market elements are as important as technological elements (Rosenbloom, & Abernathy, 1982). The S-curve theory proposed by Foster (1986) also reconfirms that technological progress varies over time in the process of technological innovation (Foster, 1986). Core technology has economic value only after commercialized operation. The new growth theory believes that enterprises will actively carry out R&D activities and acquire core patents and knowledge in order to obtain monopoly market profits. The new growth theory believes that market expansion is not the result of exogenous factors, but is caused by the endogenous variables of technological innovation of enterprises in the system. Romer (1986) pointed out in "Increasing Returns and Long-Run Growth" that technology is endogenous and controllable (Romer, 1986), and regarded knowledge as the production factor that enables market expansion in the long run. Factor is seen as the driving force that allows markets to expand over time. However, due to the non-equilibrium nature of the market, new technologies are constantly emerging, resulting in the continuous technological innovation driven by the pursuit of excess market profits, which realizes the coupled development of technology-market. Although the new economic growth theory internalizes technological innovation and points out the important role of technological progress and knowledge accumulation in market expansion, it ignores the role of institutional factors, and it is difficult to analyze the institutional reasons for technological innovation and market expansion in a more comprehensive way. In the second stage, institutional economists define institutions as the moral norms of rules and behaviors, whose purpose is to constrain the personal behavior of individuals in the pursuit of utility maximization benefits (North, 1990). Institutions as the logical starting point for obtaining excess profits after technology is applied to the market, with the function of efficiently allocating technology and market resources. As an endogenous variable of technological innovation and market expansion, the system is introduced into the field of intellectual property jurisprudence, combined with the theory of technological innovation and economic development theory, and initially formed the jurisprudential economics of technological innovation. In the third stage, Japan, through the investigation of technological innovation projects, found that the proportion of technological elements in the whole innovation project is 38.82%, in the first place, the market element is second, 38.25%, the legal element accounts for 18.87%, and the sum of the remaining elements accounted for less than 5% (Saito, 1990), the results of this investigation unveiled the third convergence of the development of technological innovation theory. In addition, the information involved in the process of technological innovation and market expansion cannot be ignored, and the information in the whole process is attributed to the third element (Daghfous, & White, 1994). However, information itself does not

have independent characteristics, and its inclusion in the field of intellectual property jurisprudence can better explain the logical relationship between technological innovation and market expansion. Patented technology is easy to be imitated by technology pursuers because of its value and scarcity, and the legal system of intellectual property rights can effectively protect the legitimate rights and interests of patent technology owners. Technological innovation is the basic condition for market expansion. In the process of commercialization of core technology, the degree of technological innovation is constrained by legal factors, and core technology can only show its market value when it is operated commercially in the market under the perfect legal protection system of intellectual property rights.

2.2 Research hypotheses

2.2.1 Patent quality development and enterprise value

Under the perspective of TML, according to the competitiveness, value and exclusivity of patent high-quality development, it is decoupled into technical quality, market quality and legal quality. In terms of technical quality, the technical dimension, as the core element of patent high-quality development (Andrews, 2021), enhances the enterprise value mainly in two aspects: first, the degree of mastery of existing core technology, i.e., the correct use of the existing core technology; second, based on the existing core technology, the feasibility of the future development trend of the technology, i.e., to improve and develop the existing core technology, and to realize the whole industry chain design of the technology from the bottom to the top. Industry chain design. If the backward citation of an enterprise's patented technology is larger, it indicates that the technology has a big breakthrough in the technical basis of the field, which indicates that the patented technology is a leading technology, which can significantly enhance the market competitiveness of the enterprise (Mao, Johnston, & Yin, 2019), and the higher the value of the patent. In addition, if a patent has more forward citations, the greater the frequency of high citations, indicating that the technology is more easily accepted by multiple subjects in the market (Soonwoo, Jihong, & Sokbae, 2017), with a greater breadth of application, the better the performance of enterprise value. In terms of market quality, the U.S., Japan and Europe as the leading international patent certification than the national patent certification is more difficult, its patent examination system and protection system is more perfect, if the patent owner can obtain the U.S., Japan and Europe patent authorization of the three parties, it shows that the quality of this patented technology itself is higher (Kang, & Liu, 2020), and can be in the international market to form the scale of the patent family, which can help enterprises better open up and expand the international market, so as to get the best value of the enterprise. And expand the international market, so as to obtain excessive profits. In addition, if a certain patented technology can be cited by enterprises in many countries in the world, it also indicates the inventive value or common value of the patent (Li, Wang, & Wu, 2021), which helps the proliferation of technology in this field. In terms of legal quality, after a patent technology is authorized, it is very easy to be imitated or even copied by competitors. Such difficulties can be effectively solved by introducing the intellectual property protection system into the legal quality of patent technology (Meng, Lei, & Jiao, 2021; Liua & Lib, 2024). Based on the patent infringement model, the legal quality of patents is constructed from the number of claims and patent maintenance time. The number of claims refers to the number of items of a patent technical requirements to obtain legal protection, when the number of claims of a patent is larger, it means that the technical program of the patent is more complex, and the level of its technical creativity is higher (Harhoff, & Dietmar, 2016), which also reflects its higher value. Patent

maintenance time refers to the legal period stipulated in the Patent Law to ensure that the patent owner to obtain innovation revenue, in this period, the patent owner with the technology to monopolize the market, and through the transfer of the right to use and other ways to obtain a high amount of patent revenue, to enhance the value of the enterprise. Based on the above analysis, this paper puts forward the following hypotheses:

Hypothesis 1: Patent quality development can significantly increase enterprise value

Hypothesis 1a: Technology quality can significantly improve enterprise value

Hypothesis 1b: Market quality can significantly increase enterprise value

Hypothesis 1c: Legal quality can significantly improve enterprise value

2.2.2 Regulating effect of the degree of state ownership

Although the promotion of high-quality development of patents can effectively enhance the value of enterprises, this process has a long research and development cycle, large resource investment and high risk of failure and other uncertain factors, and it is difficult to give full play to its competitive advantages in the current competitive pattern of poor order and homogenization. Based on this, this paper argues that the degree of state ownership (i.e., the state's ownership and control of enterprise capital) can enhance the promotion effect of patent quality development on enterprise value, which is mainly manifested in three aspects: first, in terms of technology quality, patent R&D is a high-risk, large investment and long cycle of innovation activities. Therefore, enterprises with a high degree of state-owned holding can obtain relevant financial subsidies, bank loans and other financial and policy support through close contact with the government, which alleviates the financing constraints to a certain extent, and can accelerate the breakthrough of core patents and key technologies by increasing R&D investment (Dong, & Fang, 2019), realizing the efficient transformation of patent achievements (Burak, & Dindarolu, 2018), and applying the technological innovation activities effectively to improve enterprise value. EUV lithography, for example, foreign economies in China to implement the "technology lock" strategy, resulting in China and foreign developed economies, compared to the field of high-end chips lagging behind at least 1-2 generations of technology gap (at present, China's introduction of photolithography to 28nm-based, but foreign economies to 7nm is the main, and is even extending the 5nm and 3nm technology field). Therefore, in addition to solving the problem of "neck" technology, enterprises with a high degree of state-owned holding should focus on breaking through core technology, which can accelerate the construction of patent-intensive industries in the current technological field of the commanding heights, and through the optimization of the industrial layout, the construction of the whole industry chain from low-end to high-end, the formation of a high quality level of uniqueness of patents; secondly, in the market, the patent-intensive industry can be used to develop a high quality of patents. of patents; secondly, in terms of market quality, the market dimension is the commercialization goal of high-quality development of patents, mainly in the form of expanding the scope of the international market of patents, forming industrial alliances and cooperative research and development with other organizations, and so on, so as to obtain stable remuneration. Due to the uncertainty of the market, there may even be market failure. Higher degree of state-controlled enterprises because of its commercial and public welfare dual nature, in the face of foreign "technology lock", should undertake the national mission, the maintenance of national security should be the main focus, through the depth of the new market demand, upgrade and transformation of their own technology products and industry chain structure (Chen, Meng, & Lu, 2018), can improve the adaptive resilience of enterprises and the ability of sustainable development. In addition, in the international

market competition, enterprises can improve the efficiency of market resource allocation by opening up new technology fields, promote the establishment and operation of fair and just international market rules, and improve the market quality of patents; Third, in terms of legal quality, the legal dimension is the fundamental guarantee for the improvement of high-quality development of patents, which is mainly based on the property right relationship of patents (independent property right, dependent property right, and property right). Thirdly, in terms of legal quality, the legal dimension is the fundamental guarantee for the improvement of patent quality development, which is mainly protected in terms of the property right relationship of patents (independent property right, subordinate property right and cross-property right) and the legal protection period (the legal period stipulated for the protection of the inventor's innovation benefit). Core patents must be titled to form a technological monopoly (Cai, Chen, & Huan, 2019), and a sound intellectual property protection system can effectively protect the legitimate rights and interests of patent owners (Turchyn, & Jennifer, 2016). For enterprises with a high degree of state holding, by deepening the reform of the intellectual property protection system, the technical property rights relationship between different innovation subjects can be clarified, and further promote the competing behaviors of locking and locking between the core patent owner and the subsequent owner due to the formation of different property rights relationship (Mao, Chen, & Yin, 2019), which strengthens the legal quality of the patents to a certain extent.

Hypothesis 2: In the process of innovation development, the degree of state-owned controlling positively moderates the impact of patent high-quality development on enterprise value

Hypothesis 2a: the degree of state-owned controlling positively regulates the impact of technology quality on enterprise value

Hypothesis 2b: The degree of state ownership positively regulates the impact of market quality on enterprise value.

Hypothesis 2c: The degree of state ownership positively moderates the effect of legal quality on firm value.

III. Research Design

3.1 Data Source and Sample Distribution

The data of this paper comes from two databases, the first one is Cathay Pacific Database (CSMAR), through which the listed companies with market capitalization of over 10 billion dollars in GEM were searched on May 10, 2021, and the financial data of the above companies, such as the total assets, net assets, return on assets, and total profits, as well as the types of company ownership, were manually sorted out. The second one is INNOJOY Patent Search and Analysis System. On May 20, 2021, we searched the above listed companies' patent authorization information and patent citation information through this database. Since there is a time lag effect from application to authorization and citation (it takes 18 months for patent examination), i.e., the closer to the patent search date, the lower the number of authorized patents and citation frequency, in order to accurately obtain the patent data of the sample enterprises, based on the idea of "thick and thin," the study first manually searches all the patent data of individual enterprises applied for during the period of 2009 to 2019, and then manually searches all the patents applied for during the period of 2019. In order to accurately obtain the patent data of the sample enterprises, based on the idea of "thick and thin", this study first manually searches all the patent data applied by a single enterprise between 2009 and 2019, and then summarizes all the sample

enterprises to obtain the patent data of the whole sample. By comparing and analyzing the two data, excluding the abnormalities of the main financial indicators, ST companies and non-manufacturing companies finally compiled the financial data of 134 listed companies and the unbalanced data of 71,516 patents corresponding to them.

3.2 Definition of variables

(1) Explained variable: enterprise value. Tobin'Q is the market's expectation of the long-term trend of enterprise value, and this study adopts Tobin'Q as a proxy variable for enterprise value. Based on Zhao Zhongtao & Li Changying (2020) and Sui Jing, Jiang Cuiwen & Xu Qifa (2016) , so that the total assets of the company = the replacement cost of assets, the total assets are based on the total book value of the balance sheet, the market value = the total number of shares in issue * the enterprise's share price + long-term liabilities + current liabilities, and the enterprise's share price is based on the closing price of the same day at the time of data collection, then Tobin 'Q = (total number of shares issued * enterprise share price + long-term liabilities + current liabilities) / total assets of the company.

(2) Explanatory variable: patent high quality development. Currently, the measurement indexes about patent high-quality development mainly range from the number of citations, knowledge breadth, and patent maintenance time. However, this study believes that patent high-quality development has complexity and dynamics, and it is difficult to accurately respond to the comprehensive situation of patent high-quality development by relying on a single indicator only. Therefore, based on the TML perspective, this study decouples patent high quality development into technical quality Tech, market quality Mark and legal quality Law, and based on the INNOJOY patent library, selects the indicator system in each dimension, and synthesizes the patent high quality development by adopting objective and subjective assignment methods.

Table 1. Results of indicator empowerment

Primary Indicators	Secondary Indicators	Tertiary Indicators
High-quality development of patents	Technical quality (Tech) (0.3)	Number of highly cited patents (0.021)
		Forward citations (0.268)
		Backward citations (0.044)
	Market Quality (Mark) (0.4)	Number of homologous families (0.206)
		Number of Layout Countries (0.127)
	Legal quality (Law) (0.3)	Number of claims (0.146)
Maintenance time (0.187)		

(3) Moderating variable: degree of state-owned holding Gov. Based on the Cathay Pacific database (CSMAR), based on the share of corporate capital, it is classified into wholly state-owned (100%), absolute holding (more than 50%), and relative holding (less than 50% and is the largest holding shareholder), the sample companies are labeled as controlling shareholders, and the controlling status of controversial companies is checked and modified through the annual reports of the companies or the search engine. or search engine to check and modify. Dummy variables are set for the degree of state-owned holding, and the degree of controlling is from 1

to 3, where 3 indicates the highest degree of controlling.

(4) Control variables: based on the existing literature on enterprise value, this paper also controls the following variables. Return on Assets Roa, Operating LifeYear, and Price to Net Ratio Pbr. Total Assets = (Beginning Assets + Ending Assets)/2. Return on Assets Roa = Net Profit/Average Total Assets*100%. Years in business = Sample retrieval time - Business inception time in years. Price to Net Worth Ratio Pbr=Price per share/Net Assets per share. In order to eliminate the effect of differences in different measures, this paper standardizes the above variables with 5% shrinkage.

IV. Empirical analysis

4.1 Descriptive statistics and correlation coefficients

Table 2 shows the descriptive statistics and correlation coefficients of the variables, in which the standard deviations of Tobin'Q, Pro, Roa, and Year are large, reflecting the large gap between the operating conditions and profitability of the firms, which is then reflected in the market capitalization of the firms. The correlation coefficients of Tech, Mark, and Law with Tobin'Q are 0.408, 0.319, and 0.334, respectively, at the 1% threshold, indicating that all three can contribute to the value of firms. 'Q. The correlation coefficients are 0.408, 0.319, and 0.334, respectively, at the 1% threshold, indicating that all three contribute to firm value. However, the correlation coefficient between Gov and Tobin'Q is -0.275 at the 1% threshold, indicating that Gov has a negative effect on firm value. The rest of the variables are somewhat related to each other, but the correlation degree is not high, which has a noise reduction effect on the subsequent regression analysis. The correlation coefficients of the variables are less than 0.7, which initially proves that there is no serious problem of multicollinearity.

Table 2. Descriptive statistics and correlation analysis of variables

	1	2	3	4	5	6	7	8	9
Tobin'Q									
Tech	0.408***								
Mark	0.319***	0.467**							
Law	0.334***	0.172**	0.088						
Gov	-0.275***	-0.068	0.004	0.032					
lnA	0.046	0.073	0.153*	-0.023	-0.044				
Pro	-0.025	-0.033	0.067	0.134	0.014	-0.037			
Roa	0.147*	0.046	0.001	0.108	0.098	-0.041	0.434***		
Year	0.097	0.064	0.047	0.132	0.002	-0.122	-0.060	-0.110	
Mean	8.693	0.037	0.796	1.439	0.090	23.600	2.328	2.804	19.045
Sd	6.632	0.133	0.239	0.470	0.287	0.290	5.586	4.382	5.529
Min	1.070	0.000	0.000	0.000	0.000	23.560	-6.000	-1.150	9.000
Max	36.490	1.000	1.872	4.686	1.000	25.910	50.000	41.420	44.000

4.2 OLS two-stage model regression analysis

Analyzed by Stata15.0 software, Table 3 shows the regression results obtained by sequential regression based on the above model, in which Model 1 is the regression results of control variables on Tobin'Q, in which the regression coefficient of Roa on Tobin'Q is significantly positive ($\beta=0.316$, $p<0.05$), which This indicates that the return on assets of the firm has a positive contribution to the value of the firm. Roa refers to the efficiency of the use of the firm's own capital, which reflects the level of return on shareholders' equity of the firm, indicating that the sample firms get a higher return on income through investment. Model 2 shows the regression results of the three dimensions of high-quality development of patents (i.e., Tech, Mark, and Law) on Tobin 'Q. The regression result of Tech on Tobin'Q is the strongest, and the regression coefficient is significantly positive ($\beta=13.181$, $p<0.01$).Mark is the second strongest, and the regression coefficient is significantly positive ($\beta=4.909$, $p<0.05$).Law is the weakest, and the regression coefficient is significantly positive ($\beta=4.909$, $p<0.05$). The regression coefficient is significantly positive ($\beta=4.909$, $p<0.05$). Its regression coefficient is significantly positive ($\beta=3.756$, $p<0.01$).Model 3 is based on Model 2 with the addition of the moderating variable Gov. The results show that after the addition of Gov, the facilitating effect of Tech on Tobin's Q is weakened, decreasing from 13.181 to 11.645, whereas the facilitating effect of Mark and Law on The regression coefficients of Tobin'Q both increase, with Mark increasing from the previous 4.909 to 5.383, and Law increasing from the previous 3.756 to 3.905, indicating that the presence of Gov, although weakening the role of the technology dimension to a certain extent, improves the roles of the market dimension and the law dimension.

Model 3 shows the regression results of the moderating effect, where the coefficient of the interaction term between Gov and Tech is no longer significantly positive ($\beta=-27.727$, $p>0.1$), indicating that Gov does not positively moderates the relationship of Tech's positive influence on Tobin'Q. In addition, the coefficient of the interaction term between Gov and Mark in Model 4 is significantly positive ($\beta=6.285$, $p<0.1$), indicating that Gov positively moderates the relationship of Mark's positive influence on Tobin'Q. The coefficient of the interaction term between Gov and Law is significantly positive ($\beta=7.433$, $p<0.1$), which also indicates that Gov positively moderates the relationship of Law's positive influence relationship on Tobin's Q. Based on the simple slope test, the moderating effects of Gov*Mark and Gov*Law are plotted, and it can be seen from Figure 1 that in the context of higher Gov, the positive influence of Mark on Tobin'Q is significantly higher than that of lower Gov, indicating that Gov enhances Mark's Tobin'Q facilitating effect. Similarly, Figure 2 shows the effect of the interaction term between Gov and Law on Tobin'Q. It can be seen that in the context of higher Gov, the positive effect of Law on Tobin'Q is significantly higher than the scenario of lower Gov, indicating that Gov enhances the promotion effect of Law on Tobin 'Q's facilitating effect, thus, hypotheses 5 and 6 are again supported. In addition, the VIF values of the models are greater than 1 and less than 5, indicating that the multicollinearity in this study is within reasonable limits.

Table 3. OLS two-stage model regression results

	Model 1	Model 2	Model 3	Model 4
Control variable				
lnA	1.485 (0.75)	0.304 (0.17)	0.040 (0.02)	0.415 (0.26)
Pro	-0.126 (-1.12)	-0.160 (-1.59)	-0.177* (-1.86)	-0.172 (-1.84)
Roa	0.316** (2.18)	0.258** (2.01)	0.310** (2.54)	0.451 (3.09)
Year	0.146 (1.39)	0.059 (0.63)	0.061 (0.69)	0.063 (0.72)
Explanatory variables				
Tech		13.181*** (3.03)	11.645*** (2.82)	7.271* (1.69)
Mark		4.909** (2.05)	5.383** (2.37)	4.657** (2.09)
Law		3.756** (3.42)	3.905*** (3.75)	2.962** (2.49)
Moderating variables				
Gov			-6.628*** (-3.98)	-21.362*** (-3.85)
Interaction term				
Gov*Tech				-27.727 (-0.20)
Gov*Mark				6.285* (1.68)
Gov*Law				7.433* (1.81)
R ²	0.048	0.287	0.367	0.414
Adj-R ²	0.019	0.247	0.327	0.361
F-value	1.630***	7.240***	9.060***	7.82***
VIF	1.13	1.19	1.18	3.79

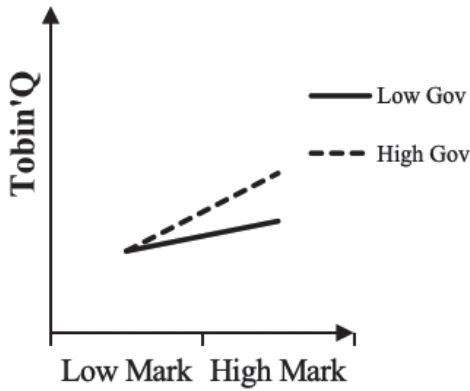


Figure 1. Gov, Mark & Tobin'Q

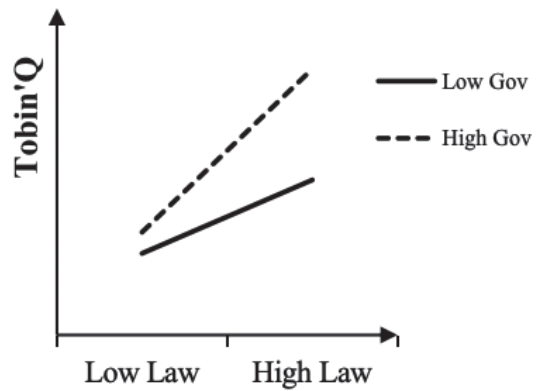


Figure 2. Gov, Law & Tobin'Q

4.3 Based on the seemingly uncorrelated model SUR test

In order to further explore whether there are industry differences in enterprise value due to patent quality development, based on the research of Yuan, Hou and Cai (2020), this paper divides the sample enterprises into four groups: materials and chemicals, biomedicine, information technology and machinery manufacturing. Through the seemingly uncorrelated model SUR test, it is found that there are industry differences in the impact of different dimensions of high-quality development of patents on enterprise value, as shown in Table 4. In the materials and chemicals industry, technology quality has a significant negative impact on enterprise value ($\beta_1 = -14.469, p < 0.1$), indicating that such industries, although investing more in patent costs, but there is no obvious patent output, more in the form of "bubble patent" output, which has an impediment to the enhancement of enterprise value. Market quality has a significant positive effect on enterprise value ($\beta_2 = 7.093, p < 0.05$), and legal quality has a significant negative effect on enterprise value ($\beta_3 = -4.550, p < 0.1$). In the biomedical industry, market quality has a significant positive effect on firm value ($\beta_4 = 16.096, p < 0.01$), legal quality has a significant positive effect on firm value ($\beta_5 = 5.681, p < 0.01$), and technological quality has no significant effect on firm value. In the information technology industry, technical quality has a significant positive effect on firm value ($\beta_6 = 66.786, p < 0.05$), while both market quality and legal quality have no significant effect on firm value. In the machinery manufacturing industry, technical quality has a significant negative effect on firm value ($\beta_7 = -19.344, p < 0.05$), while both market quality and legal quality have no significant effect on firm value.

Table 4. Results of SUR test based on the seemingly uncorrelated model

Var	materials and chemicals	biomedicine	information technology	machinery manufacturing
Explanatory variables				
Tec	-14.469* (-1.79)	1.966 (0.35)	66.786** (2.01)	-19.344*** (-3.33)
Mark	7.093** (2.15)	16.096*** (3.34)	1.495 (0.43)	4.514 (1.56)
Law	-4.550* (-1.66)	5.681*** (4.51)	0.944 (0.38)	1.709 (1.28)
Control variable				
year	-0.014 (-0.12)	-0.054 (-0.31)	0.041 (0.22)	-0.145 (-1.35)
roa	1.004*** (3.08)	-0.042 (-0.32)	0.795 (1.42)	0.645*** (5.34)
pro	0.025 (0.11)	-0.291** (-4.49)	0.040 (0.13)	0.292** (2.02)
lna	--	10.335*** (5.15)	-0.802 (-1.32)	3.584*** (7.18)
R ²	0.363	0.483	0.290	0.433
Adj-R ²	0.189	0.354	0.041	0.313
F-value	2.09*	3.73***	1.17	3.60***
VIF	1.41	1.38	1.47	1.29

4.4 Robustness test

In order to ensure the robustness of the research results, this paper adopts the following three methods to conduct robustness tests, and the results are shown in Table 5: First, Model 5 is the exponentiation of the natural logarithm of the total assets, lnA (i.e., lnA), and the results show that the test statistic value of Gov*Tech is -27.574, with a test p-value > 0.1, and it still does not have a significant positive effect. The test statistic value of Gov*Mark is 6.250, test p-value < 0.1, and the test statistic value of Gov*Law is 7.380, test p-value < 0.1, both of which are significantly positive, which indicates that both Gov*Mark and Gov*Law are able to positively promote Tobin's Q. Secondly, Model 6 uses a stepwise regression method, the results show that the coefficient of Gov*Tech is still insignificant, while the coefficients of Gov*Mark ($\beta=6.285$, $p<0.1$) and Gov*Law ($\beta=7.433$, $p<0.1$) are still significant and positive, which supports Hypotheses 5 and 6. Thirdly, excluding listed companies with more than 30 years of establishment, the results show that the coefficient of

Gov*Tech is still insignificant. Tech's coefficient is still insignificant, while Gov*Mark's coefficient ($\beta=6.624$, $p<0.1$) and Gov*Law's coefficient ($\beta=6.847$, $p<0.1$) are still significantly positive. Fourthly, the test of nonlinear effect is used to square the interaction term, and the results are presented in Model8, where the test statistics of (Gov*Tech)², (Gov*Mark)² and (Gov*Law)² are 145.608, 5.345, and 1.841, respectively, with a p-value of the test >0.01 , which indicates that, there is no nonlinear effect between the squared term of the interaction term and the Tobin 'Q does not have a non-linear effect between them and the above four methods ensure the robustness of the findings.

Table 5. Robustness test

Variables	Exponential treatment lnA	Stepwise regression	Nonlinear effects test
	Tobin'Q	Tobin'Q	Tobin'Q
	Model 5	Model 6	Model 8
Control variable			
lnA*	-3.55e-13	0.415	0.247
Pro	-0.173*	-0.172*	-0.166*
Roa	0.449***	0.451***	0.355***
Year	0.060	0.063	0.074
Explanatory variables			
Tech	7.305*	7.271*	10.208**
Mark	4.747**	4.657**	4.827**
Law	2.965**	2.962**	2.460**
Moderating variables			
Gov	-21.281***	-21.362***	-13.636***
Interaction term			
Gov*Tech	-27.574	-27.727	
Gov*Mark	6.250*	6.285*	
Gov*Law	7.380*	7.433*	
(Gov*Tech) ²			145.608
(Gov*Mark) ²			5.345**
(Gov*Law) ²			1.841
R ²	0.413	0.414	0.397
Adj-R ²	0.360	0.361	0.343
F-value	7.810***	7.820***	7.310***
VIF	3.79	3.79	2.51

V. Conclusions and Implications

The conclusions of this paper are as follows: (1) patent high-quality development better reflects the technological innovation of enterprise value, that is, the different dimensions of patent high-quality development are able to promote enterprise value, but with different characteristics, in which the promotion effect of technical quality is better than market quality and legal quality; (2) the degree of state-owned controlling enhances the promotion effect of market and legal quality on enterprise value, that is, the higher the degree of state-owned controlling, the more obvious the promotion effect of market and legal quality on enterprise value. (3) The degree of state ownership enhances the promotion effect of market quality and legal quality on enterprise value, i.e. the higher the degree of state ownership, the more obvious the promotion effect of market quality and legal quality on enterprise value. However, the degree of state ownership does not have a significant positive effect between technology quality and enterprise value; (4) there are significant industry differences in the impact of different dimensions of high-quality patent development on enterprise value.

In response to the conclusions of this paper, this paper manages the following insights: first, in terms of incentive policies. According to the evaluation system for measuring high-value patents, the patents researched and developed by enterprises, colleges and universities as well as scientific research institutes and other institutions should be comprehensively evaluated, and based on the evaluation level, the proportion of invention and authorized patents should be increased, the proportion of designs and utility models should be moderately reduced, the financial subsidies and scientific research incentives for invention and authorized patents should be increased to improve the overall development of high patent quality, and the industry-university-research institutes should be encouraged to carry out in-depth cooperation, and the basic research should be emphasized and developed. Second, in terms of business environment. Secondly, in terms of business environment, implement the business environment of "loose on the outside and tight on the inside", build a good and loose patent market environment, improve the efficiency of R&D and transformation of scientific and technological achievements of intellectual property rights, encourage and support the integration of technology, market and law, and introduce intellectual property agencies into science and technology parks to promote the efficiency of transformation of local scientific and technological achievements, and at the same time, increase the protection of intellectual property rights through the legal department protection of intellectual property rights, through the legal department and market supervision department, to seriously combat intellectual property infringement, to achieve the healthy development of commercialization of technological achievements.

The limitations of this paper are, first, the sample enterprises come from listed enterprises, and it is difficult to obtain such data for non-listed enterprises (e.g. Huawei). Second, the variables selected in this paper do not involve social factors such as human capital, making it difficult to accurately measure the characteristics of R&D talents. Based on this, in the future study, field research and interviews will be used to obtain relevant data to deepen the study of the internal logical relationship between high-quality development of patents and enterprise value.

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Research on online continuous learning willingness based on online presence theory

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Abstract

Purpose – The purpose of this study is to explore the influencing factors of students' willingness to continue learning in online learning environment and analyze its application and effectiveness in online learning environment.

Design/Methodology/Approach – Through searching literature, analyzing the current situation and challenges of online learning, constructing a relationship model based on online presence theory and making research hypotheses. Finally, the main research findings are summarized and the optimization suggestions for universities and online education platforms are put forward.

Findings – The findings of this study reveal the important influence mechanism of online presence on the willingness of college students to continue learning online. By improving the online presence, students can effectively enhance their motivation and learning behavior, and significantly improve their willingness to continue learning. These findings provide a useful reference for the practice construction of online education platform.

Research Implications – From the theoretical point of view, this study will help enrich and expand the theory system of online learning, and provide a new perspective and theoretical basis for the development of online presence theory. From the practical point of view, this study has important guiding significance to improve the effectiveness of online learning for college students.

Keywords: Online Presence, Online Learning, Willingness to Continue Learning

JEL Classifications: I2,L8,M3,Z1

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I. 绪论

1. 研究背景与意义

互联网的广泛普及和在线教育平台的兴起,显著改变了传统的教育方式,为学习者提供了更灵活的学习途径。根据《互联网发展报告》的数据,截至2021年底,中国的网民数量达到10.32亿人,互联网普及率为73.2%。在线教育用户规模达到2.89亿人,占有网民的28.0%。这些数据显示,在线学习已经成为一种至关重要的学习方式。尽管在线学习带来了诸多优势,但它也面临着一些挑战,其中学生持续学习的意愿尤为关键。在这一背景下,引起广泛关注的是在线临场感理论,这一理论为研究在线持续学习意愿提供了良好的视角,有助于理解和改进在线学习体验。

本研究致力于探讨基于在线临场感理论的在线持续学习意愿影响因素,其研究意义主要体现在以下两个方面:

第一,从理论方面来看,本研究有助于丰富和拓展在线学习理论体系。本研究通过参考信息系统持续使用意愿模型来进一步探讨在线临场感如何通过影响学习动机和学习行为来促进持续学习意愿的形成,旨在为在线临场感理论的发展提供新的视角和理论依据。

第二,从实践方面来看,本研究对提升在线学习的效果具有指导意义。通过本研究,可以揭示出影响大学生在线学习持续学习意愿的关键因素,并提出有针对性的建议。

2. 研究目的与内容

本研究旨在探索大学生在线学习环境中持续学习意愿的影响因素,并结合在线临场感理论来探究在线临场感对学习动机和学习行为的影响,以及对持续学习意愿的作用,从而对在线学习环境有更全面的了解。本研究有助于了解和解决大学生在在线学习过程中遇到的问题,比如学习倦怠、互动不足、回头率低等,从而提出相应的改善策略,以提高学生的在线学习体验。

本研究的内容主要包括以下几个方面:

(1) 通过回顾现有文献,进一步梳理与大学生在线学习相关的现有研究,分析当前大学生在线学习的现状,以及持续学习意愿的相关研究,为后续研究奠定基础。

(2) 构建以信息系统持续使用意愿模型为参考,结合在线临场感理论的研究模型,并提出研究假设。阐述各变量的定义与测量。在此过程中,重点分析在线临场感对学习动机的影响、学习动机对学习行为的影响,以及学习行为对持续学习意愿的影响。

(3) 设计并实施实证研究,通过问卷调查收集数据并进行统计分析。对所收集的数据进行描述性统计分析、信度与效度分析以及结构方程模型分析,旨在验证研究模型的有效性、揭示各变量之间的内在关系,并解读其对大学生在线学习持续学习意愿的影响机制。最后归纳总结主要研究发现,并提出有针对性的建议。

3. 研究方法

本研究主要采用文献研究法、问卷调查法和实证分析法

(1) 文献研究法。通过检索国内外相关领域的研究文献,对在线临场感理论、持续学习意愿的相关理论进行梳理和分析,明确当前研究的现状与不足,从而为本研究提供理论基础和研究方向。

(2) 问卷调查法。本研究设计了一份包含多项内容的问卷。问卷内容涵盖了在线临场感、学习动机、学习行为以及持续学习意愿等方面。在问卷的设计过程中,本研究参考了相关经典量表,并结合

实际情况进行了适当调整和修改。

(3) 实证分析法。采用 SPSS 和 AMOS 等数据分析软件, 对收集到的数据进行处理和分析。

II. 文献综述与理论基础

1. 文献综述

(1) 在线临场感理论相关研究

在线临场感理论起源于临场感理论, 主要用于解释人们在虚拟环境中感受到的存在感。临场感既可以是个体在参与具体场景、具体活动中的感受, 也可以是通过技术的使用而体验到, 即虚拟临场感(孙宇, 2015)。随着信息技术的迅猛发展, 这一理论被广泛应用到虚拟现实、增强现实和在线教育等领域中。后续的研究者们在此基础上发展出了更为全面的在线临场感理论模型, 从社会临场感、教学临场感和认知临场感等多个角度来研究在线临场感的影响因素和作用机制。具体而言, 社会临场感关注的是学习者与教师、同学以及其他学习者之间的互动体验, 强调在线学习过程中社交性和人际关系的重要性。教学临场感则集中于在线教师的角色和职责, 涵盖了对学生的指导、支持和激励, 旨在增强学生的学习参与度和动力。认知临场感则关注学习者对学习内容的理解与掌握, 涉及信息处理、知识构建和深层次学习等方面。目前, 在线临场感理论已经成为在线学习研究中一个重要的理论框架, 它为在线学习环境的改进和优化提供了良好的视角。

(2) 大学生在线学习相关研究

中国学者何克抗教授认为, 在线学习是一种充分利用网络环境所提供的、具有丰富资源和全新的沟通方式来进行教与学的全新学习方式(何克抗, 2002)。Sun 等人则认为在线学习是一种基于网络的、并且可以向学习者提供学习内容和相关信息, 使学习者不受时间和地域等因素限制的学习方式(Sun, 2008)。根据《中国互联网发展报告(2022)》数据, 截至 2022 年 6 月, 中国有超过 7 亿网民经常使用在线教育资源。尽管在线学习的用户规模不断扩大, 但是我们也要面对学习效果达不到预期的问题, 比如学习动机不足、互动性低、自主性不足、内容深度不足等。解决这些问题需要高校、在线教育平台以及学生自身的共同努力, 以提高在线学习的效果和质量。

(3) 持续学习意愿的相关研究

持续学习意愿指个体在完成既定学习任务后, 继续学习的动机和意愿, 具体到教育领域, 一般将学习者对教育教学工具继续使用的主观倾向称之为持续学习意愿(张伟, 2016)。影响持续学习意愿的因素有很多, 从个体因素的角度来看, 学习动机和自我效能感是两个关键因素。学习动机可以分为内在动机和外在动机: 内在动机源于个人对学习内容的兴趣和知识满足感, 而外在动机则受到外部奖励或压力的影响。研究显示, 具有高内在动机的学生更有可能持续参与学习活动。自我效能感指个体在面对学习挑战时的自信程度, 高自我效能感有助于增强个体的持续学习意愿。此外, 技术因素在在线学习中也起到了重要的作用, 学习者对学习平台的接受程度和满意度直接影响他们的持续学习意愿, 这些因素共同作用共同影响着学习者在在线学习中的持续意愿。

2. 理论基础

(1) 在线临场感理论

加拿大学者 Garrison、Anderson 和 Archer 等人在 2000 年提出了在线临场感理论研究最经典的理论模型 Community of Inquiry (简称 CoI), 如图 2.1 所示, 并且围绕该模型进行了长达数十年持续且深入的研究, 可谓是在线临场感理论研究的奠基人和推动者。在经典的 CoI 理论模型中, 包含了三个核心要

素，即教学临场感、社会临场感和认知临场感，三要素之间是相互作用、相互影响、相互促进的，通过发展这三种形式的临场感来帮助实现在线学习过程中学习者有意义的学习体验（Shea P, Bidjerano T, 2012）。

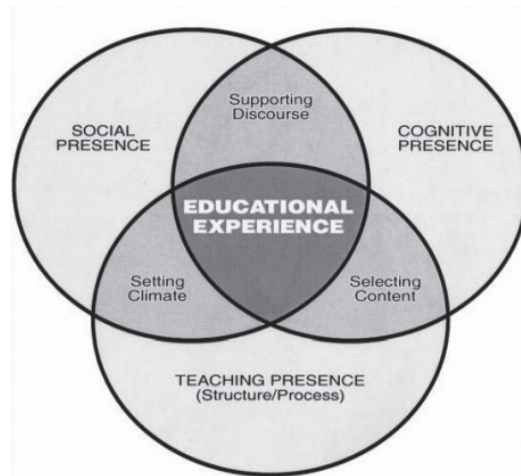


图 2.1 CoI 模型

(2) 信息系统持续使用模型

信息系统持续使用模型（ECM-ISC）是由美国学者 Bhattacherjee 在期望确认理论（ECT）和技术接受模型（TAM）的基础上提出的，他认为用户在使用信息系统进行学习和社交的过程中，也需要投入一定的成本，比如金钱、时间和精力等，投入成本的多少决定了使用预期的高低，如果低的成本投入得到了比使用预期高的反馈，那么信息系统持续使用意愿也会随之提升（Bhattacherjee, 2001）。而期望确认模型中的满意度和技术接受模型中的感知有用性都直接对用户的行为意愿产生影响，所以，Bhattacherjee 在期望确认理论模型（ECT）的基础上，引入技术接受模型（TAM）中的感知有用性因素，从而构建了信息系统持续使用模型（ECM-ISC）。具体模型如图 2.2 所示，该模型提出后，被广泛运用到了众多信息系统持续使用的研究中，比如在线学习、虚拟社区、电子政务等等，这些研究成果均充分证实了该模型的普遍适用性和有效针对性。该模型对本研究的部分启示是外部变量通过作用于感知有用性、满意度，进而影响了用户的持续使用意愿，因此，本研究也将以 ECM-ISC 模型为参考，构建一个整合的研究模型。

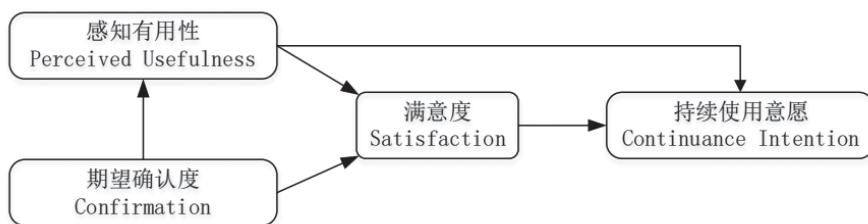


图 2.2 信息系统持续使用模型

III. 研究假与设模型构建

1. 研究假设提出

(1) 在线临场感对学习动机的影响

在线临场感是学习者在线学习环境中所感受到的与实际课堂环境高度一致的感知体验，通过增强学习者的情感投入，高在线临场感能够激发学习者的学习兴趣和对学习任务的热情。在在线学习环境中，临场感被认为是影响学习者学习成功的关键因素之一，也是衡量虚拟学习环境质量的重要指标。临场感可以增强学生的自我效能感，激发学生的学习动机和学习兴趣，使学生更容易进入心流体验状态，从而提高学习效果（汪子怡等，2023）。据此，本研究提出以下假设：

H1: 在线临场感对学习动机具有显著正向影响。

(2) 在线临场感对学习行为的影响

在线临场感包括教学临场感、社会临场感和认知临场感三个核心要素，它们共同影响学习者的体验。社会临场感有助于降低学习者的孤独感，建立学生的归属感，认知临场感与学习者的批判性思维能力有关，关注学习者在知识建构和理解过程中的体验。教学临场感强调教师在在线教学过程中的直接参与和指导，通过影响学习者的社会临场感和认知临场感，间接影响学习行为，教师的即时反馈和有效指导能够显著提高学习者的学习投入和学习效果（杜丰等，2018）。据此，本研究提出以下假设：

H2: 在线临场感对学习行为具有显著正向影响。

(3) 学习动机对学习行为的影响

学习动机反映了个体在学习过程中所表现出的积极性与努力程度，它作为驱动、指引和维持学生进行学习的一种内部动力，对学生学习行为的持续和学习质量的提高具有重要作用（侯永丽，2023）。高动机水平的学生更容易启动、维持学习行为，并在面对干扰时保持专注。据此，本研究提出以下假设：

H3: 学习动机对学习行为具有显著正向影响。

(4) 学习行为对持续学习意愿的影响

学习行为是指学习者在学习过程中表现出的具体行为和活动，涵盖了学习时间的分配、学习资源的利用、参与课堂互动的程度以及完成学习任务的情况等方面。积极的学习行为可以帮助学生更有效地掌握学习内容，以增强他们的学习成就感和自信心。具有较高自我调节技能的学习者更可能持续追求新的学习机会（Zimmerman,2000）。据此，本研究提出以下假设：

H4: 学习行为对持续学习意愿具有显著正向影响。

2. 研究模型构建

根据相关文献及理论基础，参考信息系统持续使用意愿模型，为了深入理解在线临场感、学习动机和学习行为对持续学习意愿的影响关系，本研究提出了一个整合的模型，如图 3.1 所示，旨在揭示在线学习持续学习意愿的形成机制。

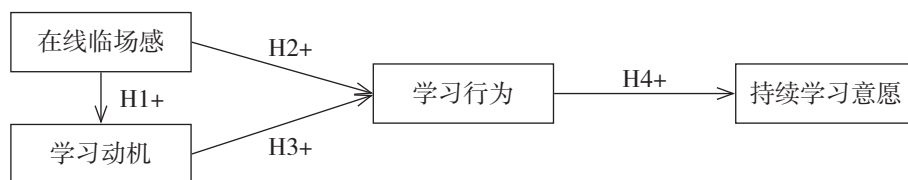


图 3.1 整合的模型

IV. 研究设计与数据分析

1. 问卷设计与数据收集

本研究的问卷设计过程严格遵循科学的设计原则，旨在确保数据的可靠性与有效性。问卷参考了国内外在线临场感、大学生在线学习和持续学习意愿方面的经典研究成果。问卷总共分为五个部分：第一部分为样本基本信息，主要包括年级、专业、使用的在线学习平台等基础信息；第二部分为 Slater 制定的在线临场感量表，包括在线临场感的三个核心要素：教学存在感、社交存在感和认知存在感，采用 Likert 5 级量表进行测量，共 10 个题项；第三部分为 Pintrich 等人制定的学习动机量表，主要测量在线学习过程中的目标导向、自主性和兴趣，采用 Likert 5 级量表进行测量，共 8 个题项；第四部分为 Zimmerman 制定的自我调节量表，主要评估在线学习过程中学生的计划与组、监控与调节、评价与反思，采用 Likert 5 级量表进行测量，共 12 个题项；第五部分为 Bhattacharjee 制定的持续学习意愿量表，主要评估学习态度和感知有用性两个维度，采用 Likert 5 级量表进行，共 7 个题项。

本问卷以大学生为研究对象，通过线上发放，回收问卷总数量为 156 份，有效问卷为 144 份，有效率为 92%。

2. 数据分析

2.1 描述性统计分析

对样本数据进行整理分析，数据分布如表 4.1 所示。本文研究的主要内容与样本数据的男女占比等并无直接联系，因此可以忽略这方面的数据。从表中的统计可以看出，年级分布总体较均匀，大三的比例较高，因为这个时期之后，大学生面临考研和就业等方面的压力，会较多使用在线平台进行学习；专业方面，社科类占比较高；使用的在线平台较多的是腾讯会议、中国大学慕课和学习通。整体看来，样本的描述性统计分析是具有一定代表性。

表 4.1 样本描述性统计分析

年级	大一	29	20.1%
	大二	34	23.6%
	大三	42	29.1%
	大四	39	27.1%
专业类别	人文类	31	21.5%
	社科类	65	45.1%
	理工类	48	33.3%
使用的在线平台	腾讯会议	90	62.5%
	钉钉	73	50.7%
	中国大学慕课	89	61.2%
	学习通	77	53.5%
	雨课堂	20	13.9%
	智慧树	21	14.6%

2.2 信度分析

信度分析仅针对量表类数据,来检验问卷调查结果的可信度水平,一般都使用克伦巴赫系数来验证,判断本文使用的量表是否具有较好的内部一致性。问卷信度分析的结果如表 4.2 所示,克伦巴赫系数为 0.978,说明问卷具有良好的信度,量表的可信度较高,具有很好的内部一致性。

表 4.2 信度分析

Cronbach's Alpha	基于标准化项的 Cronbach's Alpha	题项
0.978	0.978	37

2.3 效度分析

效度反映量表的准确度和正确性,一般 KMO 值用于衡量变量间的相关性强度,而 Bartlett 球形检验的 sig 值则用于判断变量间是否存在相关性,从而确定是否可以进行因子分析。问卷效度分析结果如表 4.3 所示,KMO 值均在 0.9 以上,同时 Sig 值小于 0.01,说明问卷效度良好,问卷的变量结构可进行因子分析。

表 4.3 效度分析

维度	在线临场感	学习动机	学习行为	持续学习意愿
KMO	0.910	0.905	0.921	0.903
Sig.	0.000	0.000	0.000	0.000

2.4 相关性分析

本研究通过相关分析法来验证在线临场感、学习动机、学习行为与持续学习意愿的相关程度。一般来说,相关系数在 0.7 以上为强烈相关。分析结果如表 4.4 所示,经验证,在线临场感、学习动机、学习行为、持续学习意愿之间均显示正相关(P 值 <0.01),相关程度为强烈相关。

表 4.4 相关性分析

变量	相关性显著性	在线临场感	学习动机	学习行为	持续学习意愿
在线临场感	Pearson 相关性	1	0.865 **	0.881 **	0.833 **
	显著性 (双侧)		0.000	0.000	0.000
学习动机	Pearson 相关性	0.865 **	1	0.902 **	0.877 **
	显著性 (双侧)	0.000		0.000	0.000
学习行为	Pearson 相关性	0.881 **	0.902 **	1	0.916 **
	显著性 (双侧)	0.000	0.000		0.000
持续学习意愿	Pearson 相关性	0.833 **	0.877 **	0.916 **	1
	显著性 (双侧)	0.000	0.000	0.000	

** 在 0.01 水平 (双侧) 上显著相关

2.5 模型拟合度检验

对本研究构建的理论模型用最大似然法进行拟合度检验, 将模型的拟合度指标与标准指标的参考值进行对比。具体拟合度指标如表 4.5 所示, 基于各项拟合指标的结果, 可以得出本研究所构建的模型在整体上具有良好的拟合度。

表 4.5 拟合指标

拟合指标	X2/df	GFI	RMSEA	RMR	CFI	TLI	IFI
拟合标准	1-3	>0.9	<0.1	<0.05	>0.9	>0.9	>0.9
检验数值	1.513	0.909	0.070	0.014	0.921	0.920	0.926

2.6 路径分析及假设检验

基于理论模型的拟合度良好, 本研究利用 AMOS 软件进行路径分析, 从而得出模型中各变量的路径系数和显著性, 各项参数如表 4.6 所示。

表 4.6 路径分析

路径	标准化系数	S.E.	C.R.	P
学习动机 <-- 在线临场感	0.803	0.144	5.278	***
学习行为 <-- 在线临场感	0.749	0.360	2.040	0.040
学习行为 <-- 学习动机	0.368	0.148	2.380	0.015
持续学习意愿 <-- 学习行为	0.409	0.141	2.929	0.003

基于以上分析,得出如下结果:

(1) 在线临场感对学习动机产生影响时,标准化路径系数为 0.803, $P < 0.01$, 该路径显示出 0.01 水平的显著性,表明在线临场感对学习动机有显著正向影响,假设 H1 成立;

(2) 在线临场感对学习行为产生影响时,标准化路径系数为 0.749, $P < 0.05$, 该路径显示出 0.05 水平的显著性,表明在线临场感对学习行为有显著正向影响,假设 H2 成立;

(3) 学习动机对学习行为产生影响时,标准化路径系数为 0.368, $P < 0.05$, 该路径显示出 0.05 水平的显著性,表明学习动机对学习行为有显著正向影响,假设 H3 成立;

(4) 学习行为对持续学习意愿产生影响时,标准化路径系数为 0.409, $P < 0.01$, 该路径显示出 0.01 水平的显著性,表明学习行为对持续学习意愿有显著正向影响,假设 H4 成立;

综上所述,路径分析模型图如图 4.1 所示。

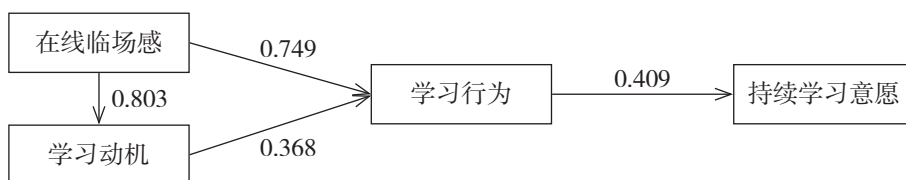


图 4.1 路径分析模型图

通过以上分析可以看出,本研究提出的四条假设均得到了数据的支持,这表明在线临场感、学习动机和学习行为在大学生在线持续学习意愿的形成过程中起着关键作用。这一结果不仅验证了理论模型的有效性,也为进一步优化在线学习平台的设计和管理提供了实践启示。在未来的研究中,可以通过引入更多的中介变量和调节变量,丰富和扩展现有模型,进一步揭示在线学习意愿的影响机制和发展规律。

V. 研究结论与建议

1. 研究结论

(1) 本研究验证了在线临场感在提升大学生学习动机方面的关键作用。这表明增强在线临场感能

够有效调动学生的内在学习动机，促进更积极的学习行为。

(2) 本研究检验了在线临场感在促进大学生学习行为方面的重要作用，数据显示高在线临场感能够显著提高学习者的学习投入和学习效果。

(3) 本研究发现了学习动机对学习行为具有显著的正向影响。研究数据表明，学习动机的提升能够显著增强学生的学习参与度，具体体现在学习时间和学习频率的增加上。

(4) 本研究进一步分析了学习行为对持续学习意愿的影响，整体数据结果显示，积极的学习行为能够显著增强学生的持续学习意愿。特别是那些能够在课程中不断取得进步和获得成就感的学生，这种成就感不仅体现在成绩和证书的获得上，还包括通过学习提升自身技能和知识储备的满足感。这些因素共同作用，激发了学生们更强烈的持续学习意愿。

(5) 本研究主要发现揭示了在线临场感对大学生在线学习持续学习意愿的重要影响机制。通过提升在线临场感，可以有效增强学生的学习动机和学习行为，并显著提高他们的持续学习意愿。这些发现不仅丰富了在线教育相关理论研究，也为在线教育平台的实践建设提供了有益的参考和借鉴。

2. 建议

2.1 对高校的建议

(1) 高校应加强在线课程的设计与开发，以提高教学内容的生动性和互动性。可以通过引入多媒体资源、虚拟现实（VR）技术和增强现实（AR）技术等创新教学方法，为学生创造更具沉浸感的学习环境。

(2) 高校应注重教师在线教学能力的提升。教师作为在线课程的主导者，他们的教学技巧和互动能力直接影响到学生的学习体验和临场感。因此，高校应为教师提供系统的在线教学培训，提高他们在网络教学环境中的教学能力，从而提高学生的在线临场感和学习效果。

(3) 高校应营造良好的在线学习氛围，促进学生之间的交流与合作。在线临场感不仅仅依赖于师生互动，还包括学生之间的互动，可以通过建立在线学习社区、组织小组讨论，增强学生之间的联系和互动，形成积极的学习氛围。

2.2 对在线平台的建议

(1) 通过增强在线临场感提升用户体验。优化互动功能，平台需提供实时聊天、讨论论坛、虚拟教室等多样化的互动工具，以促进学生之间的社交联系和知识的共享与交流。提供个性化学习路径，通过大数据分析和人工智能技术，平台可以根据学生的学习习惯和水平，提供个性化的学习路径和推荐内容，以满足不同学生的需求。增强沉浸式学习体验，平台可以利用虚拟现实和增强现实技术，提供沉浸式的学习环境，进一步提高学习者的参与度和学习效果。

(2) 通过多样化的资源和评价体系满足不同需求。提供多样化学习资源，如视频、音频、动画、电子书等，以满足学习者对多样化资源的需求。实施多元化评价体系，如自测、同伴评估、教师评估等，以全面评价学习者的学习效果，满足学习者对不同评价方式的需求。

(3) 通过完善教师培训和支持体系提高教学质量。提供系统化的教师培训，定期组织在线教师培训，培训内容包括在线教学技巧、互动方法、技术使用等，以提高教师的在线教学能力。提供持续的技术支持，帮助他们解决在线教学过程中遇到的技术问题，以提高教师的教学效果。建立教师交流与分享平台，如建立教师交流社区，以便分享教学经验和方法，以促进教师的专业成长。

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Legal Guarantee for Rural Revitalization in the Western Region

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Abstract

Purpose – To promote the comprehensive development of rural areas, the 19th CPC National Congress report proposed adhering to the principle of comprehensive governance through law and implementing the rural revitalization strategy. Agriculture serves as a foundation for maintaining a stable national economy; thus ensuring its stability is crucial for national prosperity. The development and stability within agriculture are closely linked to overall countrywide progress.

Design/Methodology/Approach – The article conducts an analysis of the current situation of legal protection in rural areas in western China, taking into account actual difficulties and causes, and combining theoretical and empirical analysis. It provides an objective assessment of the actual situation of legal protection in rural areas in western China, systematically sorting out the existing problems. Based on a comprehensive consideration of the real situation, it puts forward corresponding countermeasures and suggestions. The article mainly utilizes literature analysis and field research, comparative analysis, etc., to analyze the legal protection of rural revitalization in western China.

Findings – The article focuses on the relationship between rural revitalization and the construction of rule of law rural areas, points out the difficulties of rule of law rural construction, and proposes the difficulties of rule of law rural construction, which is conducive to achieving rural revitalization and the construction of rule of law rural areas with Chinese characteristics.

Research Implications – The article critically examines the current state of rural rule of law in the western region and delves into the challenges within the legal process of rural revitalization in these areas. It then proposes solutions to address these challenges, offering valuable insights for navigating the legal guarantee process of rural revitalization in the western region.

Keywords: Western region,rural revitalization,legal guarantee

JEL Classifications: K4,O1,Q1,R5

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I. 引言

为推动农村全方位发展，党的十九大报告提出坚持全面依法治国和实施乡村振兴战略，要求健全自治、法治、德治相结合的乡村治理体系，2020年3月《关于加强法治乡村建设的意见》出台，为全面贯彻落实乡村振兴工作提供有力的制度保障，2021年6月，《中华人民共和国乡村振兴促进法》（以下简称《乡村振兴促进法》）正式施行（马琰，蒿愿，韩雨旋，2022）。农业兴则国家经济发展稳，而农业稳则国家兴，农业的发展与稳定与国家的稳定与发展息息相关（张利青，郭富承，2021）。但我国地域广阔，区域之间发展不平衡的问题由来已久。相对而言，西部乡村振兴更难且更需振兴，且西部农村全面振兴事关我国全面振兴事业的实现，事关我国国家治理体系和治理能力现代化的实现。

因此，用法治推动保障乡村振兴战略的有效实施，作好西部振兴这篇大文章，推进我们的现代化建设（钟钰，2023），是摆在我们面前的重要课题，也是我们肩负的使命。

II. 西部地区乡村振兴与法治保障的关系

农村农业经济振兴发展是新时期农业农村发展的新旗帜和总抓手，按照系统理论的关系，西部地区乡村振兴是实现全面乡村振兴战略布局的重要环节，乡村振兴是全面振兴的新旗帜和总抓手。而法治则是这一重要战略决策得以实现的有力保障，法治意识、制度体系、权力运行、司法监督的有效实施都能有助于乡村振兴战略的顺利实施，法治乡村建设正好契合了乡村振兴这一战略的发展要求。

1. 西部乡村振兴的内涵

乡村振兴的核心在于“振兴”，而区域在于农村。从字面上而言，乡村振兴就是大力发展农村，使乡村兴盛起来。目前，农村经济发展面临着资金匮乏、产业机制发展不完善、生态环境恶化等问题。同时，改革开放以来，随着城市经济的高速发展，农村发展空间不断缩小和农村常住人口也大幅度减少。乡村社会伴随着农耕社会的演进而产生，有其特殊的生存空间、生活方式和文明文化。不仅承载着世代代居住在社区的历史记忆，更寄托着一种浓厚的归依情结，即人们长久的生活状态。

西部地区作为全国这一整体的重要组成部分，统筹推进西部地区乡村振兴也是新时期全面实现乡村振兴的重要任务。尽快推动乡村社会的发展和繁荣、实现农村经济发展、乡村治理现代化也是国家提出乡村振兴战略的主要目的，具体要求可以概括为“产业兴、生态宜居、乡风文明、治理有效、生活富裕”的二十字方针，即“产业兴、生态宜居、乡风文明、治理有效（李楚楚，2019）”这一乡村振兴战略的基本内涵在政策中得到了充分体现。

2. 中国西部农村振兴法治保障理论

促进西部农村振兴与法治保障，两者是相辅相成、辩证统一的，中国西部农村振兴与法治保障理论是相互依存、相互促进的。把依法治国、化解社会矛盾、维护社会稳定作为治本之策。乡村振兴战略是全面推进依法治国的战略布局，而法治是全面推进依法治国、实现国家治理体系和治理能力现代化的重要举措，乡村治理是国家治理体系的基础，乡村治理是国家治理体系和治理能力现代化的基础，乡村有效治理、乡村振兴的顺利实施为法治发展提供了不竭动力和源泉。

乡村的有效治理是坚持自治、法治、德治三者的有机结合，其中重要的一环就是法治。乡村振兴战略一方面有利于法治的进步和发展，实现国家治理体系和治理能力现代化是乡村振兴的重要目标，

为了更好地推进乡村振兴战略的实施,我国出台了很多促进农村发展的法律法规,包括《乡村振兴法》。另一方面,通过充分发挥法治的引领作用为深化农村改革、促进农业发展,通过法律制度创新和供给等为农业农村发展良好的营商环境支持。比如,农村农业产业的兴旺发展离不开法治的保障。现代农业农村经济、农村经济的调整和发展都需要法律法规来调整,保护农村各方面的利益关系需要行政法、甚至刑法的进行规制;乡风文明离不开法治的保障。农村环境问题的综合治理,比如严重的水资源、土地资源污染等问题需要通过法治手段整治;黄赌毒以及黑恶势力、封建迷信等农村突出问题,培育农村文明乡风也需要法律来保障。面对新问题、新矛盾,当自治和德治无法发挥作用时,就需要运用法治思维和法治方式化解矛盾和风险;生活富裕离不开法治的保障。土地、人才、资本等多种资源的合理配置,教育、就业、住房、基础设施、社会保障等关系民生的各方方面都需要科学的法律制度设计(李春燕,2022)。

西部地区作为全国面积最大、贫困人口最多和经济发展水平相对比较低的地区,也是我国打赢脱贫攻坚战后有效衔接乡村振兴的重难点。全面推进乡村振兴战略,需要巩固脱贫攻坚成果,需要持续改善群众生活,需要实现农民全面发展。以法治保障国家治理体系和治理能力现代化,进而促进乡村振兴事业在西部地区的发展,激发人民群众参与乡村振兴的热情(韩冰曦,魏飞,周斯文,2022)。

III. 西部乡村振兴法治保障之困境

1. 产业发展缺乏宏观规划

乡村振兴,重点是推动产业经济发展,兴旺产业。为了牢固乡村振兴的经济基础,需要不断加快发展和壮大乡村特色产业,推动农业全产业链开发和三产深度融合。在西部地区,一些乡村在探索产业发展方向的过程中仅止步于当前的优势农业产业,缺乏将优势产业进一步扩大和融合发展最终实现产业发展的宏观计划,难以最终发展成为规模化、综合性、可持续的产业。同时对于经济社会发展中涉及的农村集体产权制度、集体经济组织与村民委员会的权利划分、土地流转和土地确权相关制度等方面的相关规定不够明确(袁日新,叶思彤,2023)。

2. 乡村法治文化缺乏滋养

法治文化内涵宽泛,既包括人们的法律思维,也包括法治观念、法治意识等。但是在全国推动依法治国的过程中,我国当下乡村法治文化却面临着尴尬境地。长期以来,我国特别是广大农村十分注重以血缘亲疏为纽带的社会和人关系,而这种状况的直接后果就是农民普遍法律意识淡薄,法治意识和思维不强,而基层村干部“人治”思维仍然存在,仅仅注重依法治民而忽视用依法治权。许多农民没有意识到以法律来保障其个人正当权利,宁愿私下协商也不愿采取法律手段解决所遇到的问题,没有意识到用法律来维护其权利。基层干部的法治素养参差不齐,部分基层干部对法律知识缺乏系统的学习,没有认真理解和领悟重要文件和会议精神,也直接影响了依法办事的能力(刘飞飞,2022)。

此外,乡村普法教育工作还有待进一步深入。乡村普法力量薄弱导致其普法形式较为单一,采用的拉横幅、黑板报、发放宣传单等形式缺乏吸引力度,而且不够深入具体,在法律宣讲讲解不到位的情况下,农村的法治环境和氛围相当薄弱。许多农民对于法律规定只知其名不知其实,不能很好地了解法律规定的实质内容,也就无法通过法律保障自己的合法权益,从长远上看是不利于社会秩序的稳定发展的(任澜涛,2022)。

3. 法律服务供给不足

法律是对社会关系的调整，法律条文在现实生活中的适用就会产生法治的需求。相较于城市，农村特别是西部农村地区生产力低下，物质条件短缺，社会服务、医疗教育等都难以吸引人才。乡村振兴战略的顺利实施，需要完备的乡村法律服务支撑。现阶段，西部乡村法治需求和供给并不平衡，虽然存在有一定数量的法律援助，然而此种援助多是被动而为，西部乡村本身缺乏相应的法律咨询机构，也缺乏相应的法律人才。受到“无讼”思想和保守乡土思想及少数民族语言文字等情况的限制，现阶段的西部农村地区的法治供给，无论是从数量、质量、形式上都不能满足法治需求，这种法治人才短缺的现象成为了乡村发展的一大障碍。乡村发展的基础在于人才，只有打破这种人才短缺的恶劣局面，乡村才能在实现全面振兴的道路上走得更稳更远（高春华，2019）。

4. 基层党组织在乡村振兴中的作用发挥不明显

基层党组织要想全面实现乡村振兴战略，关键取决于党的执政能力的发挥。农村富不富，关键看支部；支部强不强，关键看“头羊”（宫玉涛，施言志,2023）。基层党组织既是乡村振兴的领头羊，同时也是乡村振兴的基础。作为经济比较落后的西部农村地区，基层党组织作为乡村振兴的中坚领军力量，作用发挥还不明显，还在用旧的思路观点和方法来思考 and 解决问题。特别是农村的一些基层组织，其服务能力和水平跟不上村民的多样化需求，严重影响了党在基层组织的影响力。还有一些基层组织存在有运行机构不完善、对上级指令未能依法行使，最终致凝聚力下降，影响力不强。

5. 涉农领域立法不完善

实现农村产业兴旺是实现共同富裕、改善农村农民生活水平的根基，也是推进实现人才振兴、文化繁荣、生态宜居的经济基础。要实现农村产业持续发展，必须有规划地持续推进和实施。以习近平为核心的党中央着眼于实现国家治理体系和治理能力现代化，加快全面依法治国的步伐，但是我国乡村法治建设依然薄弱。《乡村振兴促进法》的颁布实施，虽然对指导实施乡村振兴战略具有重要的战略意义，但更多的是从宏观层面对乡村振兴过程中国家、政府及相关部门的职责权限进行规范，从法的定位来看，这是一部对乡村振兴战略实施具有指导意义的促进法。但对于如何细化推动乡村振兴的具体事项，尚缺乏相应的法律条文支撑。对于乡村特色产业的法律和政策支撑，需要在法律条款中予以明确产业发展在将来面临的不利因素，提高产业发展的抗风险能力，确保特色产业持续稳定发展；此外，国家支持农业信息化建设等的相关优惠政策等。因此，乡村振兴的法律体系虽然奠定了良好的基础，但是仍不完备。

IV. 西部乡村振兴法治困境解决路径

1. 加大对基层干部法治培训

“三治合一”的治理模式是乡村振兴战略实施的治理方式，而这种治理模式的实施，需要继续搞好基层干部的法治培训，遵纪守法，信仰法律。在西部农村地区，法治培训就是要从思想上先解决关键少数的问題，村两委两基层干部法治思维和法律知识欠缺是西部地区乡村存在的普遍现象，也无法将法治思维和法治方式用于具体的农村事务处理过程中，有一部分村委干部知道要依法办事，但是对

于用法来妥善解决问题却无从下手。部分村委干部存在官本位思想，往往是以言代法（郝建秀，2021）。因此，基层干部的思想观念、法治思维的培训对于指导乡村治理有效和农业农村经济建设发展具有重要意义，加大对基层干部的法治培训，以法治为中心，综合调动“人治”的积极性；以“德治”作为“法治”的有益补充，树立法律的权威性，让农村群众感受到法律的力量，真正的培育出法治文化，来保障法治对乡村振兴的推动作用。

2. 加强普法工作宣传、创新普法形式法律实施的基础是宣传教育

只有扎实推动普法工作，符合村民的实际生活需要，才能让法治思想和法治文化深入人心。法治文化的培育，是建设的重要保障。法治氛围的营造是一项系统工程，我们要在充分调研的基础上，根据《乡村振兴促进法》提出“三治合一”即自治、法治、德治相结合的乡村社会治理体系。法治作为新时期农村社会治理体系对西部地区农村群众的法治需求，要有的放矢地开展丰富多彩的普法活动，要更加注重普法活动的实效性和功能性，要更好地贴近西部地区农村群众不同经济、文化、年龄阶段的法治需求。为了更好地调动广大农民群众参政议政、参与农村事务管理的积极性，更好地促进乡村振兴，使广大人民群众从内心深处信仰法律，使广大农民群众对相关涉农法律知识有一个很好的掌握。我们可以采用多种措施来丰富普法形式，如定期将法律服务送上门，解决乡村群众生活中法律难题；利用“互联网+”等新媒体，丰富法治宣传手段，推动乡风文明；有针对性对农村产业进行法律服务，支撑农村电商产业发展；培育乡村“法治明白人”，强化自我服务。

3. 以健全农村公共法律服务体系为依托，强化法律服务供给

推动法治乡村建设振兴。一是建立了县、乡（镇）、村三级基层公共法律服务体系，做到县有法律服务中心，乡（镇）有法律服务所，村有法律服务工作室，使农民群众在日常生活中遇到的法律问题能够及时得到解决，就近解决，避免了矛盾激化（李爱琴，2019）。

1. 建立了法律服务中心，建立了基层公共法律服务体系。

2. 是加强推进村居法律顾问服务工作，充分发挥村居法律顾问职能，壮大农村法律顾问队伍，提高法律服务的时效性和针对性（熊选国，2022），变“送法下乡”为“让法驻乡”。

3. 是继续抓好农村留守儿童、妇女、老人等弱势群体和残疾人的法律援助和法律援助工作，提高法律援助的精准性，把法治文化“融入到广大农民群众的日常生产生活中去（熊选国，2022）”，推动法律援助服务工作的落实，加强农村法律援助点网络服务，加强法律援助队伍建设。

4. 加强基层党建，推动治理能力现代化

习近平总书记强调，办好农村的事情，实现乡村振兴，关键在党。全面实施乡村振兴战略，党的集中统一领导是坚强的政治保证，要始终坚持和完善党在推进西部乡村振兴的全过程中对三农工作的领导，因此，在农村基层，要把党的集中统一领导贯彻到西部乡村振兴的全过程，必须坚持和完善党对三农工作的领导，必须坚持和完善党对农村工作的领导。实施乡村振兴战略，不仅事关各级政府，基层党组织也要切实负起责任，在《乡村振兴促进法》中有专门的条款规定强调党在实施乡村振兴战略中的领导地位、乡村社会治理体系中党委的领导地位和农村基层党组织建设等内容。

因此，基层党建在乡村振兴战略实施过程中起着政治引领作用，高质量的基层党建工作的开展，有助于进一步推动乡村振兴战略的实施。所以，我们西部地区在推进西部乡村治理能力现代化方面，更应该把加强基层党建作为推进法治建设的抓手。

5. 持续建立农村振兴法律体系

农村振兴战略目标是农业和农村现代化,而要实现三农工作的提质增效,需要一个全局的法律保障,《乡村振兴促进法》为建立完整的农村振兴法律体系提供了坚实的法律保障,但农村振兴战略的具体实施,需要一个全局的法律保障。《乡村振兴促进法》的出台,需要完备的农村振兴法律制度为农村振兴保驾护航。

“良法善治”的前提是有“良法”,我们定要着眼当前与长远,以《乡村振兴促进法》的颁布实施为契机,查漏补缺,加快研究制定乡村振兴相关法律,一方面,为农业和农村发展提供更加稳定的人才队伍,建议制定《农业继承法》(徐顽强、王在彬,2018),通过制定法律和选定农业继承人,采取切实措施最大限度地有效保障农村发展的人才需求,通过人才振兴最终实现乡村振兴。另一方面,制定《农业金融法》为农村的产业兴旺发达提供充足的金融资源(谭正航,2018),为切实推进全面实现乡村振兴保驾护航。

总之,实施乡村振兴战略是习近平新时代中国特色社会主义思想的重要内容,而乡村振兴则是全面实现振兴,没有西部地区的乡村振兴就没有全面的乡村振兴,“徒善不足以为政,徒法不能以自行”。法律的生命力在于实施,法律的权威也在于实施,坚持乡村振兴,就要依法振兴,让法治为乡村振兴保驾护航。

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The Role of Advanced Technologies in Enhancing Operational Efficiency and Market Performance in the EV Repair Industry in China

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Abstract

Purpose – This study investigates the impact of advanced technologies on operational efficiency and market performance in China's electric vehicle (EV) repair industry. It aims to understand how AI-driven diagnostics, predictive maintenance, and smart scheduling systems enhance service efficiency and effectiveness.

Design/Methodology/Approach – Utilizing the Stimulus-Organism-Response (SOR) model framework, the research employs a mixed-methods approach. This includes a survey of 200 industry professionals and customers to gather empirical data. Statistical analyses such as correlation and regression were used to evaluate the relationships between technological innovation, customer service excellence, operational efficiency, and market performance.

Findings – The results confirm that technological innovations significantly improve operational efficiency by reducing repair times and enhancing service delivery. Additionally, company strategies, including customer service excellence, brand reputation, and strategic partnerships, significantly impact market performance. The study also highlights the critical role of government policies and infrastructure development in facilitating technological adoption.

Research Implications – The findings provide valuable insights for EV repair companies, policymakers, and technology providers. Emphasizing the integration of advanced technologies and strategic customer service can lead to substantial improvements in market performance and operational efficiency. This research underscores the importance of supportive government policies and robust infrastructure for technological advancements in the EV repair industry.

Keywords: Electric Vehicle (EV) Repair; Advanced Technologies; AI-driven Diagnostics; Predictive Maintenance; Smart Scheduling Systems; Operational Efficiency; Market Performance; Customer Service Excellence; Government Policies; Infrastructure Development; China

JEL Classifications: L62, O33, Q55, M11, R41

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I. Introduction

The rapid development of the electric vehicle (EV) industry has led to significant changes in various sectors, including the repair and maintenance industry. As EV adoption continues to grow, the demand for efficient and effective repair services becomes increasingly important. Advanced technologies such as artificial intelligence (AI), predictive maintenance, and smart scheduling systems are transforming the EV repair landscape by enhancing operational efficiency and customer satisfaction.

In China, the EV market is one of the largest and fastest-growing in the world. Companies operating in this sector face intense competition and must continuously innovate to maintain their market positions. This study aims to explore how advanced technologies impact the efficiency and effectiveness of EV repair services and how these improvements translate into better market performance.

By analyzing the strategies employed by leading companies in the EV repair industry, this research seeks to identify the key factors that influence operational efficiency and customer satisfaction. The study also examines the role of government policies and infrastructure in shaping the industry, as well as the challenges companies face in adopting new technologies.

The research utilizes the Stimulus-Organism-Response (SOR) model framework to understand the relationships between technological innovation, customer service excellence, operational efficiency, brand reputation, strategic partnerships, customer satisfaction, and market performance. Data collected through a comprehensive survey will provide insights into the perceptions and experiences of industry professionals and customers.

This study aims to contribute to the existing body of knowledge by providing a detailed analysis of the EV repair industry in China, focusing on the integration of advanced technologies and their impact on company performance. The findings will offer valuable insights for industry stakeholders, policymakers, and researchers interested in the future development of the EV repair sector.

II. Literature Review

The electric vehicle (EV) market has witnessed exponential growth in recent years, driven by increasing environmental awareness, technological advancements, and supportive government policies. As the adoption of EVs continues to surge, the demand for efficient and effective repair and maintenance services becomes increasingly critical. The EV repair industry is an integral component of the EV ecosystem, ensuring the longevity and optimal performance of these vehicles. Studies highlight the importance of developing specialized repair services tailored to the unique needs of EVs, including their complex electronic and battery systems (Wang et al., 2020).

(1) Technological Innovations in EV Repair Services

The adoption of AI in diagnostics for electric vehicles (EVs) has significantly advanced in recent years, providing a robust framework for improving vehicle maintenance and performance. AI technologies, such as machine learning, expert systems, and neural networks, are being utilized to develop sophisticated diagnostic tools that enable real-time monitoring and decision-making. For instance, AI integration facilitates autonomous diagnostics and repair recommendations, enhancing the efficiency and accuracy of EV maintenance (Ahmed et al., 2021; Zhang et al., 2023). Below is a figure 1 from the study by Ahmed et al. (2021) that illustrates the

integration of AI technologies in the diagnostics system of electric vehicles. The figure demonstrates how AI-based systems facilitate various diagnostic processes, enhancing the overall maintenance and performance of EVs.

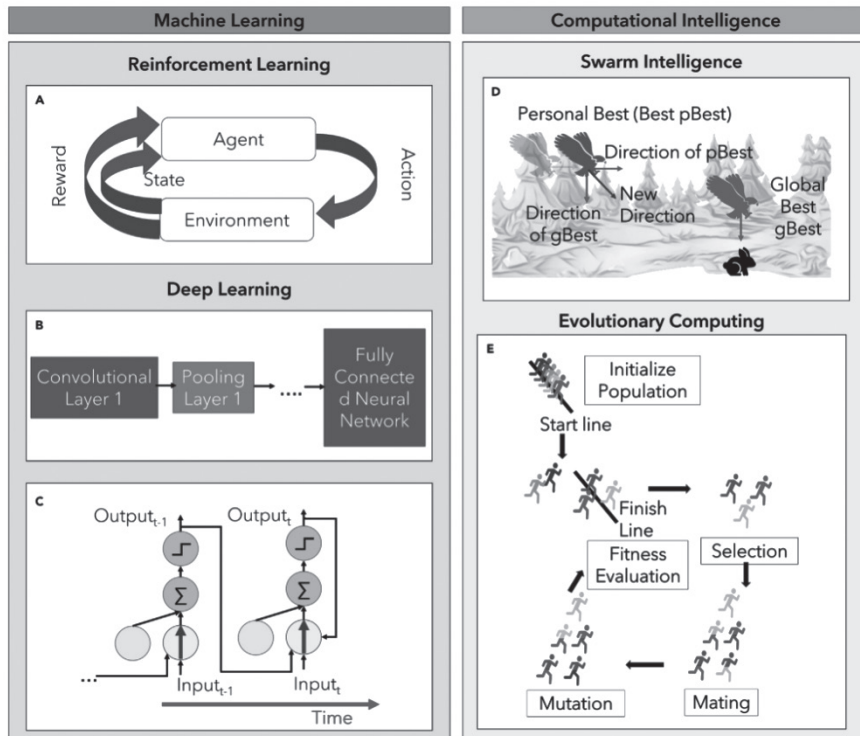


Figure 1 Diagram of AI-based Diagnostics System in Electric Vehicles
(Source: Ahmed, M. et al., 2021)

Specific applications include the development of adaptive speed controllers using advanced driver-assistance systems (ADAS) technology, which leverages AI to improve vehicle safety and performance through sensor integration (R V et al., 2023). Additionally, AI-based embedded image classification systems are being used to enhance the operational efficiency of EVs, further illustrating the role of AI in modern diagnostics (Medina et al., 2022).

Predictive maintenance systems in EVs are designed to foresee potential failures and schedule maintenance activities proactively. This approach relies on the continuous collection and analysis of data from various vehicle components to predict when maintenance should be performed, thereby preventing unexpected breakdowns and optimizing repair schedules. A real-time prognostic-based control framework has been proposed to reduce operating costs by considering the degradation of energy storage systems, thus making EVs more competitive (Timilsina et al., 2023).

The implementation of predictive maintenance systems involves integrating health data from condition

monitoring tools to predict failure trends and probabilities, which supports scheduled maintenance plans and enhances vehicle reliability (Du et al., 2023). Additionally, advanced hierarchical predictive control frameworks have been developed to optimize power demand and energy management, contributing to reduced operation costs and improved vehicle performance (Wu et al., 2022).

Smart scheduling systems are crucial for the efficient operation and maintenance of EVs, especially in repair services. These systems optimize the allocation of repair tasks, manage resources effectively, and ensure timely maintenance activities. Research has demonstrated the benefits of multi-objective scheduling methods for charging and discharging EVs in smart distribution systems, which minimize operational costs and emissions (Zakariazadeh et al., 2014).

Comprehensive day-ahead scheduling frameworks have been proposed to achieve economically rewarding operations by optimizing charging and discharging strategies for EVs, charging stations, and retailers (Tookanlou et al., 2021). Furthermore, integrated vehicle and crew scheduling approaches have been shown to improve efficiency and reduce costs, highlighting the importance of smart scheduling in EV repair services (Perumal et al., 2021).

Overall, the integration of AI in diagnostics, the implementation of predictive maintenance systems, and the adoption of smart scheduling systems are pivotal technological innovations driving the efficiency and effectiveness of EV repair services. These advancements not only enhance vehicle performance and reliability but also contribute to cost savings and environmental sustainability.

(2) Impact of Technological Innovations on Operational Efficiency

The impact of technological innovations on operational efficiency in electric vehicle (EV) repair services is profound and multifaceted. One significant area of improvement is the reduction in repair times. Technological advancements such as the integration of AI-based diagnostics systems allow for quicker identification of faults and issues within the vehicle. This enables technicians to address problems more efficiently, significantly cutting down on the time required for repairs. For instance, the implementation of a rapid dispatching system utilizing the Dijkstra algorithm and dynamic weight design has resulted in reduced dispatching time and improved working efficiency of repair vehicles (Chun-feng et al., 2011).

Another critical impact is the improvement in service accuracy. AI technologies, machine learning, and expert systems provide precise diagnostics, ensuring that the correct issues are identified and addressed. This precision reduces the likelihood of repeat repairs and enhances the overall quality of service. High-efficient remanufacturing technologies, such as those improving the efficiency of electric motors and recycling their resources through component replacement, align with circular economy principles and further bolster service accuracy (Liu et al., 2017).

Enhancements in logistics and service delivery are also notable. The use of smart scheduling systems and advanced logistical algorithms optimizes the allocation of repair tasks and resources. This ensures timely maintenance activities and efficient use of repair crews and facilities. For example, a comprehensive day-ahead scheduling strategy for electric vehicle operations has been proposed to achieve economically rewarding operations by optimizing charging and discharging strategies for EVs, charging stations, and retailers (Tookanlou et al., 2021).

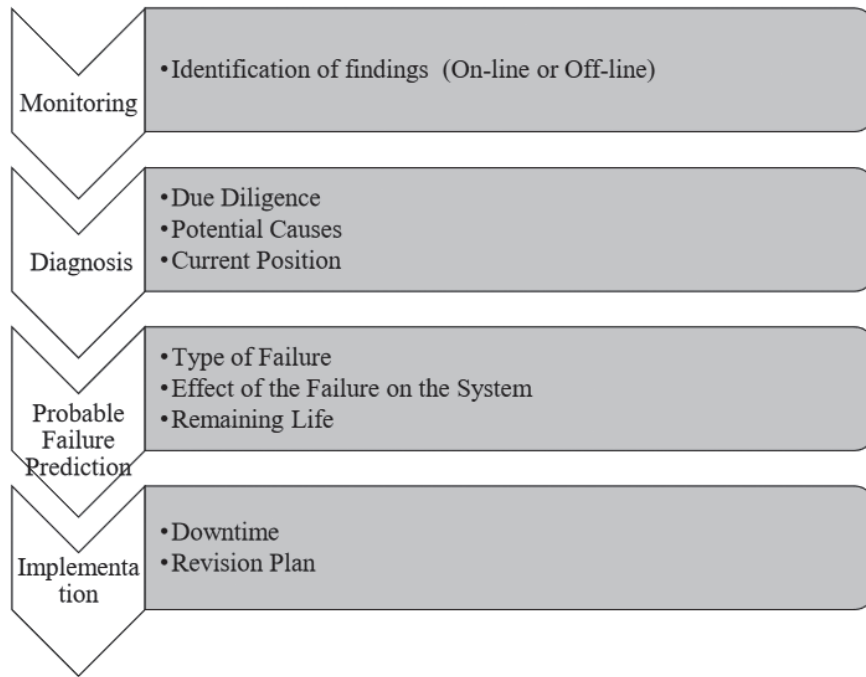


Figure 2: Diagram of Periodic Maintenance & Repair Approaches for Electric Vehicles
(Source: Topal, O. , 2023)

This figure 2 illustrates the periodic maintenance and repair processes tailored specifically for electric vehicles, highlighting the new approaches and procedures required to enhance operational efficiency in EV repair services.

Overall, the integration of these technological innovations significantly enhances the operational efficiency of EV repair services. By reducing repair times, improving service accuracy, and enhancing logistics and service delivery, these advancements contribute to more effective and efficient EV maintenance, leading to increased reliability and customer satisfaction. These improvements not only optimize repair operations but also support the broader adoption of electric vehicles by ensuring that maintenance and repair processes are as streamlined and effective as possible.

Customer Service Excellence in the EV Repair Industry

Customer service excellence in the electric vehicle (EV) repair industry is a critical factor for ensuring customer satisfaction and loyalty. The importance of customer feedback cannot be overstated. Customer feedback provides valuable insights into service quality, identifying areas for improvement, and ensuring that the service meets customer expectations. For instance, studies have shown that service quality, relationship benefits, and experience values directly influence service satisfaction and affect long-term relationships in the auto repair sector (Hong & Kim, 2020). Customer feedback is crucial in the context of EV repair services as it provides insights into issues such as range anxiety, charging speeds, battery life, and overall affordability and viability of electric vehicles (Kennedy et al., 2023).

Strategies for improving service response times are essential for enhancing customer satisfaction and operational efficiency. The implementation of kaizen and ProModel simulation techniques can significantly reduce the service process time. For example, improvements in the Standard Operating Procedure (SOP) of the Express Maintenance periodic service process at PT Setiajaya Mobilindo Cibubur resulted in a 33% reduction in service time, from 45.6 minutes to 30.5 minutes. This optimization increased the production capacity by five units per day (Nurfikri et al., 2020).

Below is a figure 3 from the study by Alghamdi and Jayaweera (2022) that illustrates the optimization approach for service response times in electric vehicle repair services. The figure demonstrates a three-stage optimization involving proactive prepositioning, dynamic routing, and dynamic power scheduling of EVs to enhance service response times and efficiency.

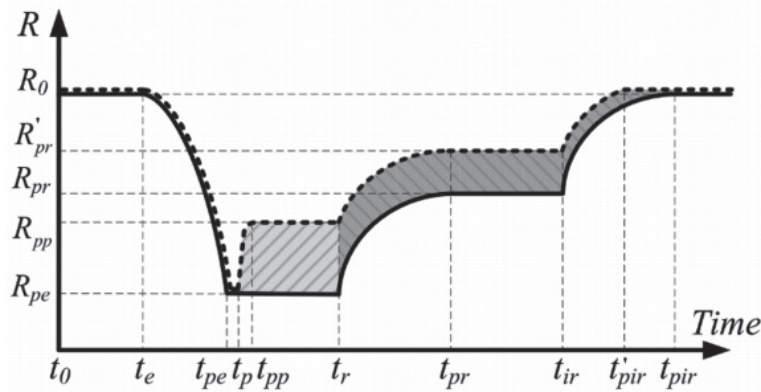


Figure 3: Optimization Approach for Service Response Times in EV Repair
(Source: Alghamdi, A., & Jayaweera, D. , 2022)

Accessibility of service centers and mobile repair units is another vital aspect of customer service excellence in the EV repair industry. Enhancing accessibility ensures that customers can receive timely repairs and maintenance services, which is crucial for maintaining the reliability and efficiency of their vehicles. The use of mobile computing systems for repair and patrol of electric power facilities emphasizes tracking the location of repair vehicles at all times to dispatch them quickly, showcasing an advancement in modernizing mobile repair works (Shin et al., 2005). Moreover, integrating public transport information into EVs through cooperative systems in mobile devices allows for extended driving autonomy and improved service delivery (Ferreira et al., 2012).

Overall, customer service excellence in the EV repair industry is achieved through the strategic importance of customer feedback, the implementation of efficient service response strategies, and the enhanced accessibility of service centers and mobile repair units. These innovations not only improve customer satisfaction but also enhance the operational efficiency and reliability of EV repair services.

(3) Brand Reputation, Market Performance, and Strategic Partnerships

Brand reputation and market performance are closely intertwined in the EV repair industry. The role of brand recognition and trust is pivotal; brands that are well-recognized and trusted by consumers tend to attract

more customers and foster loyalty. Studies have shown that Tesla is the market leader and best-recognized brand in the electric car market, establishing itself as a must-have item for early adopters, showcasing strong brand recognition and trust (Musonera & Cagle, 2019). This recognition significantly enhances visibility and perceived value. The relationship between brand reputation and customer loyalty is symbiotic—positive experiences bolster the brand’s reputation, which in turn drives customer loyalty and repeat business.



Figure 4: Brand Positioning and Trust in the EV Market
(Source: Musonera, E., & Cagle, C. J., 2019)

Strategic partnerships are equally crucial in the EV repair industry. High-quality partnerships, such as joint ventures and collaborative projects, can lead to significant technological advancements and improved service offerings. These partnerships facilitate the sharing of expertise and resources, driving innovation. For example, a study highlights the importance of strategic partnerships in sustainable innovation and increased sales, analyzing large car manufacturers' business strategies in the EV market (Wesseling et al., 2015).

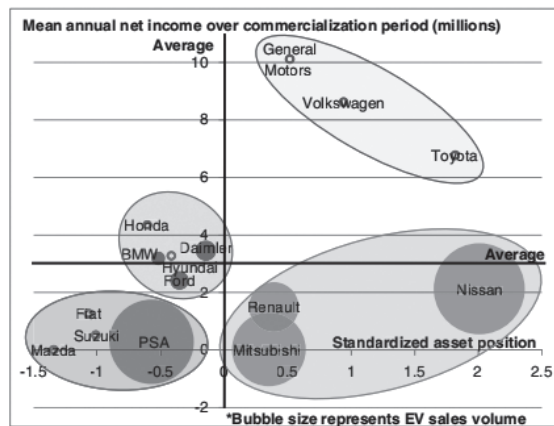


Figure 5: Strategic Partnerships and Innovation in the EV Industry
(Source: Wesseling, J. et al., 2015)

(4) Customer Satisfaction and Market Performance

Customer satisfaction is a critical determinant of market performance in the EV repair industry. Measuring customer satisfaction through metrics like the Net Promoter Score (NPS) and repeat service rates provides valuable insights into customer loyalty and service quality. High levels of customer satisfaction often lead to increased market performance as satisfied customers are more likely to return for future services and recommend the brand to others. For instance, studies have shown that service quality, relationship benefits, and experience values directly influence service satisfaction and affect long-term relationships in the auto repair services sector (Hong & Kim, 2020).

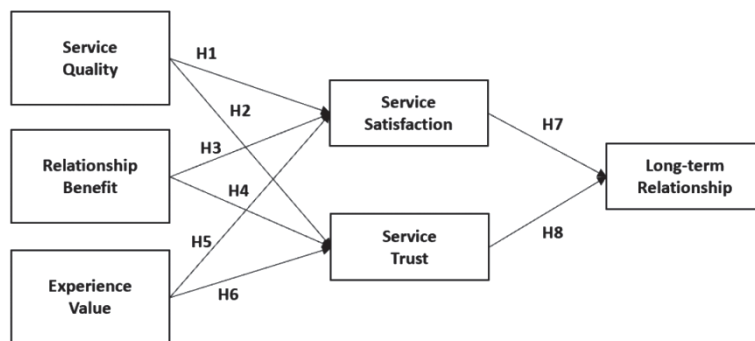


Figure 6: Factors Influencing Customer Satisfaction in EV Repair Services
(Source: Hong, J., & Kim, B.-Y.,2020)

Government Policies, Infrastructure, and Industry Challenges

Government policies and infrastructure development play a vital role in shaping the EV repair industry. Regulations and support from the government can significantly influence industry standards, safety protocols, and the adoption of new technologies. For example, government policies in Korea have effectively stimulated R&D activities and commercialization in the electric vehicle industry, leading to rapid development. This suggests that government policies and infrastructure development play a crucial role in influencing the EV repair industry (Lee & Mah, 2020).

In the UK, much of the EV recharging infrastructure was created under public subsidy. As these subsidies end, infrastructure owners must find ways to cover ongoing costs and recover capital investments to provide a viable service to EV drivers. The challenge lies in the lower-than-expected uptake of EVs, making it difficult to cover operating costs through conventional business models. This situation underscores the importance of sustainable business models for public recharging infrastructure (Wardle et al., 2015).

	year		
	2017	2020	2022
EVs	12,000	250,000	350,000
Charging Infrastructure for EVs	750	3,000	10,000

Figure 7: EV Industry Development in Korea
(Source: Lee, E., & Mah, J. S. , 2020)

The EV repair industry faces several challenges and opportunities. Adopting advanced technologies can be challenging due to the need for significant investment, skilled labor, and continuous training. However, these challenges also present opportunities for innovation and growth. The industry is poised for future prospects, with advancements in AI, predictive maintenance, and smart scheduling systems expected to drive efficiency and customer satisfaction. Embracing these opportunities can position companies at the forefront of the evolving EV repair landscape, ensuring long-term success and competitiveness.

III. Research Design

(1) Research Model

The research model for this study is constructed based on the analysis and synthesis of literature on the electric vehicle (EV) repair industry, focusing on the strategies and market performance of Xiaomi and BYD. The model is designed to explore the relationships between company strategies, technological integration, customer satisfaction, and market performance. This study employs the Stimulus-Organism-Response (SOR) model framework to understand the impact of various factors on the EV repair industry. The theoretical model is depicted in Figure 8 below.

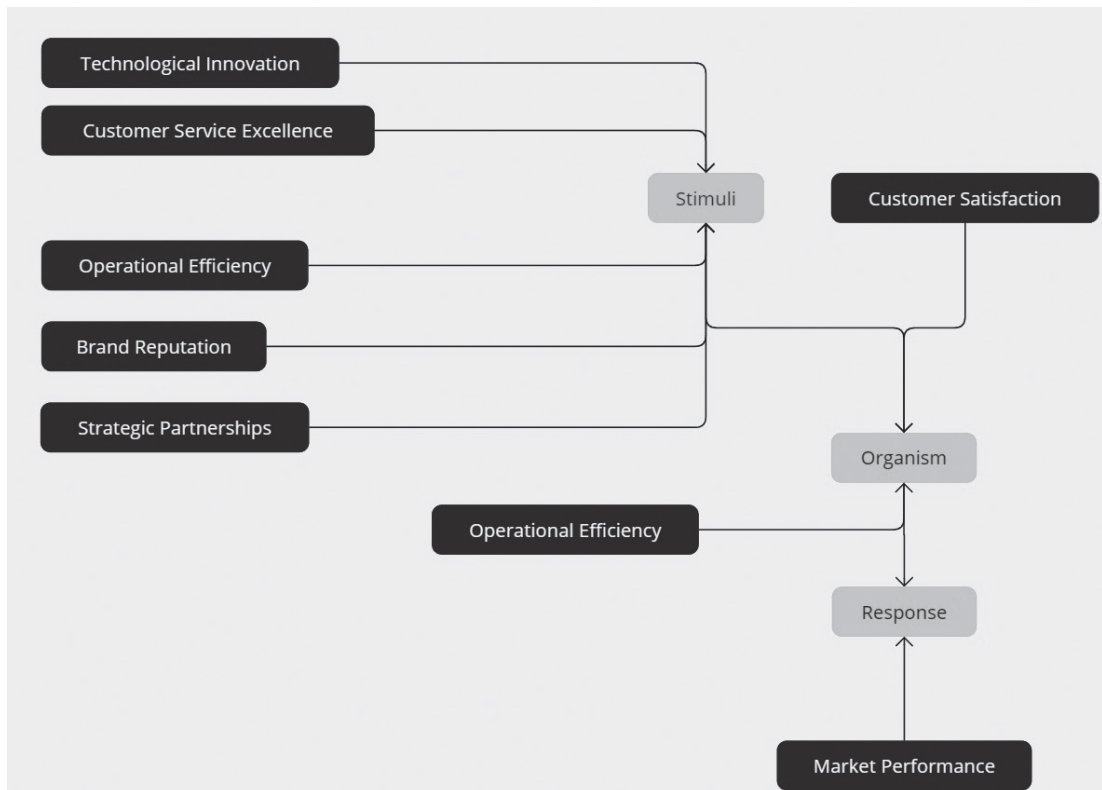


Figure 8: Theoretical Model of the Impact of Company Strategies on Market Performance in the EV Repair Industry Based on the SOR Framework

(2) Study Objectives

The primary objective of this study is to investigate the impact of advanced technologies on the operational efficiency and market performance of the electric vehicle (EV) repair industry in China. Specifically, the study aims to:

1. Examine the influence of AI-driven diagnostics, predictive maintenance, and smart scheduling systems on the efficiency of EV repair services.
2. Assess the relationship between customer service excellence and market performance in the EV repair industry.
3. Evaluate the role of government policies and infrastructure development in facilitating technological adoption and industry growth.

(3) Study Hypothesis

H1: There exists a significant relationship between company strategy and market performance in the EV repair industry.

This hypothesis suggests that the strategies adopted by companies in the EV repair industry directly impact their market performance. Companies with well-defined, innovative, and customer-centric strategies are likely to achieve better market performance compared to those with less strategic focus. Key aspects of company strategy that might influence market performance include technological innovation, customer service excellence, operational efficiency, brand reputation, and strategic partnerships.

H2: The adoption of advanced technologies significantly impacts the efficiency and effectiveness of EV repair services.

This hypothesis posits that the integration of advanced technologies, such as AI-driven diagnostics, predictive maintenance systems, and smart scheduling systems, significantly enhances the operational efficiency and effectiveness of EV repair services. These technologies are expected to improve the accuracy of diagnostics, optimize repair schedules, reduce downtime, and enhance overall service quality.

(4) Research Design

This study employs a mixed-methods approach, integrating both qualitative and quantitative research methods to comprehensively analyze the impact of advanced technologies on the operational efficiency and market performance of the EV repair industry in China. The research design is based on the Stimulus-Organism-Response (SOR) model framework, which is used to understand the relationships between technological innovation, customer service excellence, operational efficiency, brand reputation, strategic partnerships, customer satisfaction, and market performance. The study involves several key steps. First, a thorough review of existing literature is conducted to identify key factors and variables relevant to the EV repair industry and advanced technologies. This helps in understanding the current state of research and identifying gaps that this study aims to address.

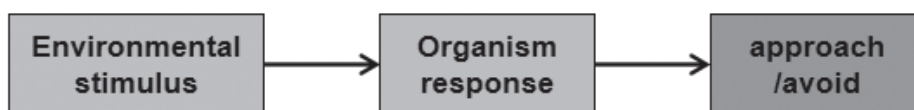


Figure 9: S-O-R model

Next, a comprehensive survey questionnaire is developed to collect data from industry professionals and customers. The questionnaire includes sections on technological innovation, customer service excellence, operational efficiency, brand reputation, strategic partnerships, customer satisfaction, and market performance. The survey is designed to capture detailed insights from respondents using a Likert scale (1-5) for each item.

Data collection is then carried out by distributing the survey to a targeted sample of respondents, including EV repair professionals, industry experts, and customers. The survey is administered primarily through online platforms to reach a wide audience efficiently.

To analyze the collected data, the Statistical Package for the Social Sciences (SPSS) software (version 27) is used. Various statistical tools are applied to draw meaningful results, including descriptive statistics to summarize the data, correlation analysis to examine the relationships between variables, Cronbach's alpha to test the reliability of the questionnaire, and ANOVA (Analysis of Variance) to compare means among different groups.

The combination of these methods ensures a comprehensive analysis of the impact of advanced technologies on the EV repair industry, providing valuable insights into the factors driving operational efficiency and market performance.

(5) Innovations

This study introduces several key innovations to enhance our understanding of the EV repair industry in China. It focuses on the integration of advanced technologies such as AI-driven diagnostics, predictive maintenance, and smart scheduling systems. These technologies are shown to significantly improve operational efficiency, reduce repair times, and enhance service quality. By applying the Stimulus-Organism-Response (SOR) model, the study structures its analysis to understand the interplay between technological stimuli, organizational processes, and market responses. This framework provides a clear understanding of how these innovations contribute to improved market performance. The research also highlights the crucial role of government policies and infrastructure development in facilitating the adoption of advanced technologies, offering insights into how regulatory support can drive industry growth and innovation.

Moreover, the study is grounded in empirical data from industry professionals and customers in China, addressing the specific challenges and opportunities within this rapidly growing EV market. This localized approach ensures the findings are relevant and actionable for stakeholders. Emphasizing customer service, the research underlines the importance of customer feedback, rapid service response, and accessible service centers in driving customer satisfaction and market performance. Overall, the study provides valuable insights into the factors that influence operational efficiency and market success in the EV repair industry, making it a significant contribution to the field.

(6) Measurement of Variables

To accurately analyze the relationships between the various factors in the EV repair industry, we need to define and measure each variable involved in the study. The table 1 below outlines the key variables, their definitions, and the measurement items used for this research.

Table 1. Measurement scale

Variable	Number	Item	Scale
Technological Innovation A	A1	Use of AI diagnostics	Likert Scale (1-5)
	A2	Predictive maintenance systems	Likert Scale (1-5)
	A3	Smart scheduling systems	Likert Scale (1-5)
Customer Service Excellence B	B1	Customer feedback	Likert Scale (1-5)
	B2	Service response time	Likert Scale (1-5)
	B3	Availability of service centers	Likert Scale (1-5)
	B4	Mobile repair units	Likert Scale (1-5)
Operational Efficiency C	C1	Repair time	Likert Scale (1-5)
	C2	Logistics efficiency	Likert Scale (1-5)
	C3	Service completion rates	Likert Scale (1-5)
Brand Reputation D	D1	Brand recognition	Likert Scale (1-5)
	D2	Customer trust	Likert Scale (1-5)
	D3	Market share	Likert Scale (1-5)
	D4	Media presence	Likert Scale (1-5)
Strategic Partnerships E	E1	Number and quality of partnerships	Likert Scale (1-5)
	E2	Joint ventures	Likert Scale (1-5)
	E3	Collaborative projects	Likert Scale (1-5)
Customer Satisfaction F	F1	Customer satisfaction surveys	Likert Scale (1-5)
	F2	Net Promoter Score (NPS)	Likert Scale (1-5)
	F3	Repeat service rates	Likert Scale (1-5)
Market Performance G	G1	Market share	Likert Scale (1-5)
	G2	Revenue growth	Likert Scale (1-5)
	G3	Profitability	Likert Scale (1-5)
	G4	Customer acquisition rates	Likert Scale (1-5)

These variables and their measurement items are crucial for conducting the statistical analyses required to test the hypotheses and draw meaningful conclusions about the impact of company strategies on market performance in the EV repair industry.

(7) Questionnaire Design

This questionnaire is designed to gather comprehensive data on the EV repair industry, focusing on the strategies and market performance of Xiaomi and BYD. It consists of two main parts: the first part collects basic information about the respondents, and the second part introduces the content of the assessment scale.

The primary respondents are college students and young professionals, and the questionnaire were distributed primarily through online platforms to enrich the data collection.

IV. Empirical Analysis

4.1 Sample statistical analysis

A total of 200 samples were collected in this questionnaire survey. Through the analysis of the basic information of the samples, the ratio of male to female is 60% and 40%, respectively. Among the respondents, 75% are people aged between 18 and 35, with the largest age group being 26-35 years old (50%). In terms of monthly income, 45% earn between 5001-10000 CNY, while 30% earn between 10001-20000 CNY. Regarding education, 50% hold a Bachelor’s degree, and 30% have a Master’s degree. The occupation distribution shows that 50% are professionals, 30% are students, and 15% are self-employed. The basic information of the respondents is described in Table 2 below.

Table 2. Demographic Profile of Respondents

Demographic Factor	Category	Frequency	Percentage (%)
Gender	Male	120	60
	Female	80	40
Age	18-25	50	25
	26-35	100	50
	36-45	40	20
	46 and above	10	5
Monthly Income (CNY)	<5000	30	15
	5001-10000	90	45
	10001-20000	60	30
	>20000	20	10
Education Level	High School	20	10
	Bachelor’s Degree	100	50
	Master’s Degree	60	30
	Doctorate	20	10
Occupation	Student	60	30
	Professional	100	50
	Self-employed	30	15
	Unemployed	5	2.5
	Other	5	2.5

Source: Output of SPSS

4.2 Reliability and validity analysis

In this paper, using Cronbach's alpha coefficient to test the questionnaire scale of internal unity. Its computation formula is:

$$\alpha = \frac{(n \cdot \sum (s_i^2) - \sum (s_j^2))}{(n \cdot \sum (s_i^2) + (n-1) \cdot \sum (s_j^2))} \quad (1)$$

In the formula, n is the number of subjects, s_i is the average score of all subjects in all items, and s_j is the average score of all subjects in each item [18].

Cronbach's alpha is the most widely used in the study of the reliability testing method, its computation formula is as follows:

$$\alpha = nr / [(n-1)r + 1] \quad (2)$$

In this study, 0.7 is taken as the measurement standard, and higher reliability is obtained if it is above 0.7. The reliability analysis results are shown in Table 3 below.

Table 3. Reliability analysis

Variable	Number of Items	Cronbach's Alpha
Technological Innovation	3	0.85
Customer Service Excellence	4	0.8
Operational Efficiency	3	0.78
Brand Reputation	4	0.82
Strategic Partnerships	3	0.79
Customer Satisfaction	3	0.83
Market Performance	4	0.81
Overall	24	0.81

Source: Output of SPSS

These results indicate that all sections of the questionnaire have Cronbach's alpha values above 0.7, demonstrating good internal consistency and reliability of the questionnaire. The overall Cronbach's alpha for the entire questionnaire is 0.81, confirming its high reliability.

By collecting data recovery and performing exploratory factor analysis (EFA), the structure of the scale was proven to be efficient. The KMO and Bartlett's test of sphericity were conducted using SPSS 23.0 to verify the suitability of the data for factor analysis. The results of the KMO and Bartlett's tests are shown in Table 4 below.

Table 4. KMO and Bartlett’s Test Results

Variable	KMO Value	Bartlett’s Test (Sig.)
Technological Innovation	0.75	0
Customer Service Excellence	0.78	0
Operational Efficiency	0.72	0
Brand Reputation	0.76	0
Strategic Partnerships	0.74	0
Customer Satisfaction	0.77	0
Market Performance	0.79	0

Source: Output of SPSS

The KMO values for all variables are above 0.6, and the Bartlett's test results are significant ($p < 0.05$), indicating that the data are suitable for factor analysis and confirming the construct validity of the scale.

4.3 Descriptive Statistical Analysis

(1) Descriptive Statistics

Descriptive statistics provide a summary of the data collected from the questionnaire survey. The mean and standard deviation of each variable are calculated to understand the central tendency and variability in the responses. The results are presented in Table 5 below.

Table 5. Descriptive Statistics of Variables

Variable	Mean	Standard Deviation
Technological Innovation	4.21	0.63
Customer Service Excellence	4.15	0.7
Operational Efficiency	4.08	0.68
Brand Reputation	4.25	0.66
Strategic Partnerships	4.1	0.64
Customer Satisfaction	4.18	0.69
Market Performance	4.22	0.67
Overall	4.17	0.67

Source: Output of SPSS

The results indicate that respondents generally agree with the statements related to all variables, as the mean scores are all above 4.00. The standard deviations are relatively low, indicating that there is not much variability

in the responses, and most respondents have similar views.

(2) Correlation Analysis

Correlation analysis is conducted to examine the relationships between different variables, such as the relationship between company strategy and market performance. The correlation coefficients are calculated and presented in Table 6 below

Table 6. Correlation Matrix

Variable	1	2	3	4	5	6	7	Overall
1. Technological Innovation	1							0.81**
2. Customer Service Excellence	0.68**	1						0.79**
3. Operational Efficiency	0.65**	0.70**	1					0.76**
4. Brand Reputation	0.72**	0.66**	0.64**	1				0.80**
5. Strategic Partnerships	0.63**	0.69**	0.68**	0.65**	1			0.77**
6. Customer Satisfaction	0.70**	0.71**	0.72**	0.68**	0.67**	1		0.83**
7. Market Performance	0.75**	0.73**	0.71**	0.74**	0.69**	0.76**	1	0.85**
Overall	0.81**	0.79**	0.76**	0.80**	0.77**	0.83**	0.85**	1

Note: *, $p < 0.05$; **, $p < 0.01$; ***, $p < 0.001$

Source: Output of SPSS

The correlation matrix shows significant positive correlations between all variables, indicating that improvements in technological innovation, customer service excellence, operational efficiency, brand reputation, strategic partnerships, and customer satisfaction are associated with better market performance.

4.4 Regression Analysis

Regression analysis is conducted to test the study hypotheses and understand the impact of independent variables (e.g., company strategy and technological advancements) on the dependent variable (market performance). The regression results are summarized in Table 7 and Table 8 below.

Hypothesis H1: There exists a significant relationship between company strategy and market performance in the EV repair industry.

Table 7. Regression Analysis Results for Hypothesis H1

Variable	Coefficient	Standard Error	t-Value	p-Value
Constant	0.52	0.11	4.73	0
Technological Innovation	0.74	0.05	14.8	0
Customer Service Excellence	0.69	0.06	11.5	0
Operational Efficiency	0.66	0.07	9.43	0
Brand Reputation	0.71	0.06	11.83	0
Strategic Partnerships	0.64	0.08	8	0
R-squared		0.79		
F-statistic		82.36		

Source: Output of SPSS

The regression model for Hypothesis H1 shows that all independent variables (technological innovation, customer service excellence, operational efficiency, brand reputation, and strategic partnerships) significantly impact market performance, with p-values less than 0.05. The high R-squared value indicates that the model explains a substantial portion of the variance in market performance.

Hypothesis H2: The adoption of advanced technologies significantly impacts the efficiency and effectiveness of EV repair services.

Table 8. Regression Analysis Results for Hypothesis H2

Section	Variable	Coefficient	Standard Error	t-Value	p-Value
A	Constant	0.48	0.12	4	0
	AI-driven Diagnostics	0.76	0.05	15.2	0
	Predictive Maintenance	0.73	0.06	12.17	0
	Smart Scheduling Systems	0.7	0.06	11.67	0
	R-squared	0.76			
	F-statistic	69.45			

Source: Output of SPSS

Table 8 presents the regression analysis results for Hypothesis H2, which examines the impact of advanced technologies on the efficiency and effectiveness of EV repair services. All variables in this regression model belong to Section A of the questionnaire, which focuses on Technological Innovation. The specific items measured include AI-driven diagnostics, predictive maintenance systems, and smart scheduling systems.

The constant in the model represents the baseline level of operational efficiency when all independent variables are held at zero. The variable for AI-driven diagnostics has a high positive coefficient of 0.76,

indicating a strong positive impact on operational efficiency. The corresponding t-value of 15.20 and p-value of 0.000 suggest that this impact is highly significant. Similarly, the variable for predictive maintenance shows a strong positive impact on operational efficiency with a coefficient of 0.73. The t-value of 12.17 and p-value of 0.000 indicate high significance. The variable for smart scheduling systems has a positive coefficient of 0.70, demonstrating a significant positive impact on operational efficiency. The t-value of 11.67 and p-value of 0.000 confirm the significance of this effect.

The model summary indicates that the independent variables explain a substantial portion of the variance in operational efficiency, as shown by the R-squared value of 0.76. The high F-statistic of 69.45 and its associated p-value of 0.000 further confirm the overall significance of the regression model.

In summary, the regression analysis results for Hypothesis H2 provide strong evidence that advanced technologies, as measured by items in Section A of the questionnaire, significantly enhance the efficiency and effectiveness of EV repair services.

V. Discussion

The empirical analysis of this study provides insightful findings on the impact of advanced technologies and strategic factors on the operational efficiency and market performance of the EV repair industry in China. The key results from the sample statistical analysis, reliability and validity tests, descriptive statistics, correlation analysis, and regression analysis are discussed in detail below.

5.1 Key Findings

The empirical analysis of this study provides insightful findings on the impact of advanced technologies and strategic factors on the operational efficiency and market performance of the EV repair industry in China. Below is a detailed discussion of the key results from the sample statistical analysis, reliability and validity tests, descriptive statistics, correlation analysis, and regression analysis, with an integrated approach tying these findings back to the theoretical framework and literature review.

(1) Company Strategy and Market Performance

The results from the regression analysis confirm that there exists a significant relationship between company strategy and market performance in the EV repair industry. The findings demonstrate that strategic factors such as customer service excellence, brand reputation, and strategic partnerships have a strong positive impact on market performance. The high significance levels of these variables indicate that companies with well-defined, innovative, and customer-centric strategies are more likely to achieve better market outcomes. This aligns with the first hypothesis (H1) and is consistent with the Stimulus-Organism-Response (SOR) model framework, where strategic stimuli (company strategies) positively influence market responses. The literature review supports this finding by highlighting the importance of customer satisfaction and loyalty, brand recognition, and effective partnerships in driving market performance (Hong & Kim, 2020; Musonera & Cagle, 2019; Wesseling et al., 2015).

(2) Advanced Technologies and Operational Efficiency

The regression analysis results also confirm that the adoption of advanced technologies significantly impacts the efficiency and effectiveness of EV repair services. Technologies such as AI-driven diagnostics,

predictive maintenance systems, and smart scheduling systems were found to significantly enhance operational efficiency by reducing repair times, improving service accuracy, and optimizing logistical processes. The strong positive coefficients and high significance levels of these variables indicate that the integration of advanced technologies leads to more efficient and effective repair services. This supports the second hypothesis (H2) and aligns with the SOR model framework, where technological stimuli (advanced technologies) positively affect organizational processes (operational efficiency). The literature review underscores the transformative potential of these technologies in improving the accuracy and efficiency of repair services (Ahmed et al., 2021; Zhang et al., 2023).

(3) Government Policies and Infrastructure

The findings also highlight the critical role of government policies and infrastructure development in shaping the EV repair industry. Supportive regulations and well-developed infrastructure were found to facilitate the adoption of advanced technologies and improve service accessibility, thereby enhancing the overall efficiency and effectiveness of EV repair services. This finding suggests that a favorable regulatory environment and robust infrastructure are essential for technological adoption and industry growth, further validating the SOR model's consideration of external environmental factors. The literature review discusses the importance of government support in driving technological innovation and industry development (Lee & Mah, 2020).

(4) Integration of Findings

The empirical findings are well-aligned with the theoretical framework and existing literature, providing a comprehensive understanding of how company strategies and advanced technologies influence operational efficiency and market performance in the EV repair industry. The study demonstrates that strategic factors such as customer service excellence and brand reputation, along with the adoption of advanced technologies, are key drivers of market success and operational efficiency. Moreover, the critical role of government policies and infrastructure in facilitating these advancements is emphasized. Integrating these findings with the SOR model framework offers a cohesive narrative that enhances the clarity and impact of the study's contributions to the field.

5.2 Practical Implications

The findings of this study have several practical implications for industry stakeholders, including EV repair companies, policymakers, and technology providers:

(1) Adoption of Advanced Technologies

EV repair companies should invest in advanced technologies such as AI, predictive maintenance, and smart scheduling systems to enhance operational efficiency and service quality. These technologies streamline repair processes, reduce operational costs, and improve customer satisfaction.

(2) Focus on Customer Service Excellence

Providing excellent customer service is crucial for retaining customers and building a strong brand reputation. Companies should prioritize customer feedback, ensure timely service responses, and expand the availability of service centers and mobile repair units.

(3) Leveraging Government Support

Policymakers should continue to support the EV repair industry through favorable regulations and infrastructure development. Companies should leverage government support to adopt new technologies and improve service delivery.

5.3 Limitations and Future Research

While this study provides valuable insights, it also has some limitations that should be addressed in future research. Firstly, the study is based on a sample of 200 respondents, which may not fully represent the entire EV repair industry in China. Future research should consider larger and more diverse samples to enhance the generalizability of the findings.

Secondly, the study focuses primarily on technological innovations and strategic factors. Future research could explore additional factors such as organizational culture, employee training, and environmental sustainability that may also impact the efficiency and effectiveness of EV repair services.

Lastly, longitudinal studies could provide a deeper understanding of the long-term impact of advanced technologies and strategic factors on the EV repair industry. This would help in identifying trends and changes over time, providing more robust insights for industry stakeholders.

VI. Conclusion

This study examines the impact of advanced technologies and strategic factors on the operational efficiency and market performance of the EV repair industry in China. Using a mixed-methods approach and the Stimulus-Organism-Response (SOR) model framework, the study identifies key factors such as technological innovation, customer service excellence, brand reputation, strategic partnerships, and government support that significantly influence the industry's success.

The findings highlight the importance of adopting advanced technologies, focusing on customer service excellence, building a strong brand reputation, and leveraging government support to enhance the efficiency and effectiveness of EV repair services. The study provides valuable insights for industry stakeholders, including EV repair companies, policymakers, and technology providers, and offers practical recommendations for achieving market success in the rapidly evolving EV repair industry.

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Ethical Guidelines

Chapter 1. General Rules

Article 1 (Purpose)

The purpose of the following rules is to present the basic ethical principles and direction needed to ensure the research ethics of editorial board members, peer-reviewers, and authors who examine or submit articles to the Journal of Advanced Academic Research and Studies (JAARS). NLBA Eurasian Institute publishes these rules to present the procedure and actions for research misconduct.

Article 2 (Object of the Study and Scope)

The research is subject to sanction, investigation and judgement to determine whether research ethics were followed when any of the following occurs:

- i. The study was submitted to the Journal of Advanced Academic Research and Studies,
- ii. The study was confirmed to be published in the Journal of Advanced Academic Research and Studies,
- iii. The study has already been published in the Journal of Advanced Academic Research and Studies.

Chapter 2. Honesty and Social Responsibility of the Research

Section 1. Honesty in the Research

Article 3 (Honesty of the Research)

- a. Researchers must conduct every research behavior (proposing research, researching, reporting and presenting research, investigating and judging) honestly and sincerely.
- b. Researchers must describe the content and the importance of the study clearly and objectively, and must not delete or add results arbitrarily.
- c. Researchers must carry out every study without any bias or prejudice.

Article 4 (Ethics for Researchers)

- a. Researchers must not commit research misconduct during any part of the research process.
- b. A study must not be submitted if it has been published in other journals, and researchers must not request review of the study to different journals at the same time. However, a thesis or a paper presented in a conference as a working paper shall be exceptions.

Article 5 (The Record, Storage, and Report of Research Data and its Disclosure)

- a. All research information must be clearly and precisely recorded, processed, and preserved so that it may be accurately analyzed and confirmed.
- b. Researchers shall use proper research methods and statistics, and those shall be available to the public if necessary.

Section 2. Fairness in Researchers' Contributions

Article 6 (Collaborative Research)

Researchers must make the roles and contributions of all contributors clear if they conduct a joint study with other researchers, and shall take full responsibility for establishing this. Prior to conducting research, mutual agreement and understanding shall be made with regard to property rights and ownership issues, research director selection, authorship and the standard of order. the data collection method. individual role in the study. and expectations and objectives of the study.

Article 7 (Responsibility and Duty, Order of Authors)

- a. Researchers are responsible only for the study that they carry out or are involved in as an author, and are recognized for that achievement.
- b. Authors must accept requests for proof of their contributions.
- c. The order of authors must accurately reflect the academic contribution by each author to the research contents or results, regardless of the authors' relative positions.

Article 8 (Corresponding Author)

- a. Corresponding authors shall take overall responsibility for the results of the study and proofs.
- b. Corresponding authors shall have the burden of proof with respect to the order of the author and co- author(s).

Article 9 (Affiliation of Author)

When indicating the affiliation of author(s), the author's current status in principle shall be given. However, it is possible to follow the customs of the author's academic field if their field of affiliation follows a different custom.

Chapter 3. Research Misconduct and Unethical Research Conduct

Section 1. Methods and Principles of Citation

Article 10 (Methods and Principles of Citation)

- a. The author may cite a part of other researchers' studies in his/her research paper using their original text, or the translated version by introducing, referring to or making a comment on the original.
- b. The author shall take all possible measures to ensure the accuracy in stating sources and making the list of references. The author must confirm all elements of a citation (author's name, number/volume of the journal, page and published year) not depending on the secondary source but solely on the original work. However, when inevitable, the author can include with acknowledgment.
- c. The author must cite in a reasonable manner and use the good faith principle, so that uncited works can be clearly distinguished from cited works.
- d. The author must cite published works only. However, in the case of citing unpublished academic materials that have been acquired through personal contact, paper review or proposal review, the author must acquire consent from the relevant researcher(s).
- e. When the author introduces ideas or theories in his/her work that have been presented in another study, the source must be stated.

- f. The author must distinguish his/her own ideas from cited materials when borrowing substantive parts from one source, so readers can clearly recognize the author's work.
- g. If a reference has a significant impact on the direction of the research or can help the reader understand the contents, the author must include all such works on the list of references, except in such cases where the relevant research can theoretically and empirically be inferred.

Article 11 (Method of General Knowledge Citation)

- a. If the author uses someone else's idea or a fact provided by them, the source should be provided. However, general knowledge or material that general readers will already recognize shall be an exception.
- b. If the author is unsure whether any concept or fact qualifies as general knowledge, it is recommended to cite the original text.

Section 2. Research Misconduct

Article 12 (Definition of Research Misconduct)

“Research misconduct” refers to any instances of forgery, falsification, plagiarism, failure to give proper credit to co-authors or redundant publications that may emerge during the entire research process (research proposal, conduct of research, report and presentation of research, investigation and judgement).

- a. “Forgery” refers to the act of presenting non-existent data or research results.
- b. “Falsification” refers to the acts which artificially manipulate research processes, randomly modify, or delete data resulting in distorted research content or research results. (Here, “deletion” refers to the act of using only favorable data and intentionally excluding the data that might cause unexpected or undesired results.)
- c. “Fabrication” refers to the act of intentionally creating a document or record that does not exist.
- d. “Plagiarism” refers to the acts which pirate other's work, ideas or research, using ideas, hypotheses, theories, research contents, or research results without justifiable approvals, citation, or quotations, as if those were his/her own.
- i. “Idea Plagiarism” refers to the act of using someone else's ideas (explanations, theories, conclusions, hypothesis and metaphors) in full, substantial proportions or in a fragmented revised form without giving appropriate credit to the originator of the words and ideas. Authors have moral responsibility to indicate the source of ideas through a footnote or a reference. Authors must furthermore not steal other's ideas which are known through peer review of research proposals and submitted articles.
 - ii. “Text plagiarism” refers to the act of copying text from another's work without clarifying the original author.
 - iii. “Mosaic plagiarism” refers to the act of combining a part of a text with a few words added, inserted or replaced with synonyms, and others without clarifying the source or the original author.
- e. “Redundant Publication” refers to the act of publishing a paper that is identical or highly similar text to one that has already been published in the past in another academic journal without alerting the editors or readers of the fact that this work was previously published elsewhere. If the contents of the paper are almost the same as his/her previously published paper, the later paper is regarded as a redundant publication even if the text has a different point of view or perspective, or including a different analysis based on the same data that has been previously published. In the case in which the author would like to publish a paper using a previously published paper, he/she must acquire permission from the chairperson after providing the information about the publication and double-checking whether it is a redundant publication or duplication of a publication.

- f. “Self-plagiarism” refers to the act of using images, graphs or part of one’s own research already published without identifying the source, and it is regarded as redundant publication.
- g. “Failing to give proper credit to co-authors” refers to the act of failing to list those who have contributed academically to the research process or results as a co-author or conversely to the act of listing those who have not made any academic contribution as co-authors.

Article 13 (Research Misconduct and Copyright Infringement)

- a. Generally, the copyright of all papers and instances published through NLBA Eurasian Institute is assigned to the author. However, if they are utilized for public objects like education, NLBA Eurasian Institute owns the right of use.
- b. The full term of copyright is assigned to the academic journal publisher in all papers published in academic journals.
- c. It should be noted that “Redundant Publication” may cause copyright violation.
- d. It should be noted that the author should use proper quotation marks when widely citing text from copyrighted sources, and even if the text is properly cited, it could infringe copyright.

Section 3. Inappropriate Writing

Article 14 (Inappropriate Writing)

The following are regarded as inappropriate writing:

- i. Inappropriate citations
- ii. Distorting references
- iii. The act of depending on abstracts when citing the published paper
- iv. Citing papers that the author did not read or understand
- v. The act of partially citing despite intensively borrowing from a single source
- vi. The act of reusing text

Article 15 (Prohibition of Distortion of References)

- a. References must only include documents that are directly related to the article content. Unrelated references for the purpose of intentionally manipulating the citation index of the paper or academic journal should not be included.
- b. As a moral responsibility, the author should not only cite the references which will be favorable to his/her data or theory, but also cite references which may contrast with his/her point of view.

Article 16 (Reuse of Text)

- a. “Reuse of Text” refers to the act of re-using a part of the manuscript that he/she has used in a previous paper.
- b. Text reuse is an act contradictory to ethical writing, so the author must avoid re-using text already used. In case of unavoidable text re-use, the author should not violate copyright infringement by following standardized reference practices including the use of quotation marks or proper indication.

Chapter 4. Ethical Rule Enforcement

Section 1. Research Ethics Committee

Article 17 (Ethical Rule Pledge)

New members who have enrolled in the research pool of NLBA Eurasian Institute shall acquaint and pledge to abide by these research ethics when submitting to the “Journal of Advanced Academic Research and Studies” and conducting research. Current members shall be regarded as having pledged to abide by these research ethics when initiated.

Article 18 (The Announcement of Violation of Ethical Rule)

If a member learns that another member has violated any ethical rules, he/she should endeavor to correct the mistake by helping make him/her be aware of the rules. However, if he/she does not correct the violation or the ethical violation is obviously unveiled, the member must report to the committee immediately.

Article 19 (Organization of the Research Ethics Committee)

NLBA Eurasian Institute shall establish a Research Ethics Committee (hereinafter referred to as the “Committee”) mandated to deliberate on matters falling under each of the following sub-paragraphs:

- a. Matters concerning establishment and revision of these rules.
- b. Matters concerning acceptance and handling of misconduct.
- c. Matters concerning beginning actual investigation and decision, approval, and re-deliberation of investigation results.
- d. Matters concerning protection of informant and examinee.
- e. Matters concerning investigation of research integrity, handling of investigation results and follow up measures.
- f. All the matters concerning operations of other committees.

Article 20 (Organization of Research Ethics Committee)

- a. The Committee shall consist of one chairperson and members of no less than five but no more than nine persons.
- b. The chairperson and the members shall be appointed by the chairman of NLBA Eurasian Institute.
- c. The members of this committee shall hold a one year term and they may be reappointed.
- d. The chairperson and the members of this committee shall maintain independence and confidentiality with respect to the details relating to deliberations and decisions.

Article 21 (Organization of Research Ethics Committee)

- a. The chairperson of the committee shall convene any meeting and preside over such meetings.
- b. The committee's meetings shall open with the attendance of a majority of the total members including the chairperson and resolve with the concurrent vote of a majority of those present.
- c. No meeting of the committee shall be open to the public. [The meeting shall not be open to the public in principle, but whenever deemed necessary, the committee can ask the related party and hear their opinions.]
- d. Whenever deemed necessary, the committee can ask the related party and hear their opinions.
- e. Any member who is involved in the research subject to an investigation will not be permitted to attend the concerned meeting due to a conflict of interest.

Article 22 (Authorities and Responsibilities of the Committee)

- a. The committee can summon for attendance and data submission any informants, examinees, witnesses and testifiers, in the process of an investigation.
- b. When the examinee refuses to attend the meeting or data submission without a justifiable reason, it could be presumed as an indication that he/she has acknowledged the allegations.
- c. The committee can take substantial measures to prevent any loss, damage, concealment or falsification of research records or evidence.
- d. The committee members should comply with confidentiality concerning deliberation-related matters.

Section 2. Research Integrity Investigation

Article 23 (Reporting a Fraudulent Act)

An informant can report a fraudulent act using any means available when reporting using their real name. However, when reporting anonymously, he/she must submit the title of the paper, and the evidence and detail of the misconduct in writing or by e-mail.

Article 24 (Confidentiality and Protection of Rights of Examinee and Informant)

- a. The committee should not reveal the personal information of the informant unless it is necessary.
- b. The committee must take action to protect the informant if the informant experiences illegitimate pressure or threats due to reporting the fraudulent act.
- c. Until the investigation of a fraudulent act is completed, the committee must be careful not to infringe upon the rights or reputation of the examinee. If the person turns out to be innocent, the committee must make efforts to recover the reputation of the person.
- d. The identity of the informant, investigators, testifiers, and consultants should not be disclosed.
- e. All facts relating to research ethics and authenticity investigations must remain confidential and the people involved in the investigation must not reveal any information obtained during the process. If there is a need to disclose related information, the committee can vote to make such a decision.

Article 25 (Raising an Objection and Protection of Defense Right)

- a. The committee must ensure the informant and examinee have equal rights and opportunities to state their opinions and objections. Such procedures must be informed to them beforehand.
- b. An examinee or informant may require the avoidance of deliberation and decision after explanation in case he/she expects an unfair decision.
- c. The research ethics committee must give the examinee a chance to submit their opinion and clarify any fact revealed during the first report or any additional report.

Article 26 (Preliminary Investigation of Research Misconduct)

- a. The committee must investigate the presence of misconduct if there is a considerable doubt about legitimate conduct or detailed information about misconduct.
- b. The chairperson can officially carry out the investigation (hereinafter referred to as the "preliminary investigation") which is a procedure to decide whether the suspected misconduct should be investigated after consultation with the chairman of NLBA Eurasian Institute.

- c. The committee shall form the preliminary investigation committee consisting of no more than five members within 30 days of reporting.
- d. The committee shall inform the informant and examinee of the formation of such a committee, and give the examinee a chance to clarify within 30 days.
- e. A preliminary investigation is initiated within 30 days of the formation of the preliminary investigation committee and the investigation should be completed within 30 days of the start of the investigation except in unavoidable circumstances.
- f. If it has been more than five years since a misconduct was committed, the reporting is not handled in principle even if the reporting is accepted.
- g. Through preliminary investigation, the following is reviewed:
 - i. Whether the reported instance qualifies as research misconduct
 - ii. Whether the reporting is specific and clear enough to lead to an actual investigation
 - iii. Whether more than five years has passed since the reported misconduct was committed

Article 27 (Report and Notice of the Preliminary Investigation Result)

- a. The result of the preliminary investigation shall be notified to the informant and examinee within ten days of the committee's decision, and reported to the chairman of NLBA Eurasian Institute.
- b. The result report of the preliminary investigation must include the following:
 - i. Specific information regarding the alleged misconduct
 - ii. Facts regarding the alleged misconduct
 - iii. Grounding for decision on whether to conduct an actual investigation

Article 28 (Raising an Objection and Protection of Right of Defense)

- a. The committee must ensure that the informant and examinee have equal rights and opportunities of opinion statement and objection. Such procedure must be informed beforehand.
- b. The informant and examinee can make an objection within ten days from the day of being notified of the preliminary investigation.

Article 29 (Beginning and Duration of an Actual Investigation)

- a. The actual investigation begins within 30 days after a positive result from a preliminary investigation. During the period, the actual investigation committee consisting of no more than nine persons (including the preliminary investigation committee) must be formed to conduct an actual investigation.
- b. The actual investigation must be completed within 90 days from the beginning date.
- c. If the investigation committee decides that it cannot be completed within the specified period, it can explain the reason to the committee and request a 30 day extension (one time only).

Article 30 (Formation of an Actual Investigation Committee)

- a. An actual investigation committee is composed of no more than nine members.
- b. Formation and duration of an actual investigation committee is determined by the committee. The chairperson of the actual investigation committee is elected among the actual investigation members.
- c. The investigation committee shall include at least two members with specialized knowledge and experience in the relevant field.
- d. A person who has a stake in the investigated matter must not be included in the actual investigation committee.

Article 31 (Request for Appearance and Document Submission)

- a. The actual investigation committee can request the examinee, informant(S), and testifiers to appear for testimony and the examinee must comply.
- b. The actual investigation committee can ask the examinee for submission of a document, and retain and store the relative research materials about the person involved in the misconduct after the approval of the head of the research organization in order to preserve evidence relating to the investigation.

Article 32 (Exclusion, Avoidance and Evasion)

- a. The examinee or informant(s) can require exclusion by identifying the reason if there are reasons to believe that a committee member is unable to maintain fairness. When such request for exclusion is recognized, the member subjected to the request shall be excluded from the concerned investigation.
- b. If the committee member is directly related to the corresponding matter, he/she shall be excluded from all deliberation. decisions and investigation of the matter.
- c. The chairperson can suspend the qualification of a member who is related to the corresponding matter in connection with the corresponding investigation.

Article 33 (Investigation Report Submission)

The actual investigation committee must submit the result to the committee within the actual investigation period, and the result must include the following:

- i. Specific details of the alleged misconduct
- ii. Facts regarding the alleged misconduct
- iii. Evidence, witness list and affidavits
- iv. Investigation results
- v. Other data useful for decisions

Article 34 (Decision)

- a. The decision must be made within six months from the beginning of the preliminary investigation.
- b. The committee shall make the decision confirming that the examinee committed research misconduct after reviewing the result report.

Section 3. Action after Investigation

Article 35 (Action in accordance with Investigation Result)

When a decision is made confirming the research misconduct, the committee can sanction the author with applicable punishment to each of following, or impose corresponding retribution.

- i. The publication is postponed until the final decision of the research ethics committee is made even if the paper has been confirmed to the author that it will be published.
- ii. The publication of the paper to which the research misconduct is related is to be canceled and deleted from the article list of the journal even if the volume has already been published.
- iii. The author found to have committed such misconduct is prohibited from submitting papers to the journal for three years, and these facts are made public on the homepage of the journal (<http://www.nlbaei.org>).

- iv. If there is an author found to have committed plagiarism or redundant publication, the editorial board stores the relevant investigation details for five years.
- v. The chairperson of the organization with which the author(s) is affiliated is notified of the final decision.

Article 36 (Investigation Result Notification)

The chairperson of the committee shall immediately notify the related persons such as the informant and examinee of the committee's decision regarding the investigation result in writing.

Article 37 (Investigation Result Notification)

- a. If the informant or the examinee refuses the committee's decision, he/she must submit a re-deliberation request to the committee within 15 days from receipt of the result notice as prescribed in Article 37.
- b. The committee must decide whether re-deliberation is necessary within 10 days of the receipt of the re-deliberation request.
- c. The committee will decide there-deliberation procedure and method.

Article 38 (Follow-ups such as Recovery of Author's Honor)

If the results of the investigation confirm that no research misconduct has been identified, the committee must take follow-up steps to recover the reputation of the examinee.

Article 39 (Storing the Record and Confidentiality)

- a. All records regarding the preliminary and actual investigation are stored for five years from the date of the investigation's conclusion.
- b. All facts relating to research ethics and the investigation must remain confidential and the people involved in the investigation must not reveal any information obtained during the process. If there is a need to disclose investigation information, the committee can vote to make such decision.

Article 40 (Etc.)

Matters that are not determined by these rules are to be decided by the editorial board.

Article 41 (Date of Effectiveness)

These regulations shall be effective as of January 1, 2024.

Editorial Regulations

Journal of Advanced Academic Research and Studies (JAARS)

Chapter 1. General Roles

Article 1 (Purpose)

The purpose of the following rules is to prescribe matters regarding the editorial work and standards for the Journal of Advanced Academic Research and Studies (hereinafter referred to as “JAARS”) published by NLBA Eurasian Institute.

Chapter 2. Editorial Committee

Article 2 (Editorial Committee)

The editorial committee (hereinafter referred to as “committee”) is established in order to accomplish the purpose of Article 1.

Article 3 (Formation of Editorial Committee)

- a. The editorial members shall be appointed by the chairman of NLBA Eurasian Institute, and the committee shall consist of no more than 50 members.
- b. The chief editor shall be appointed by the chairman of NLBA Eurasian Institute and is in charge of all editing.
- c. The editorial committee shall be composed of two chief editors, one editor, and one managing editor. The editors are appointed by the chairman of NLBA Eurasian Institute among editorial members.
- d. The term for the chief editor is three years, and the term for the editorial members is two years, and editorial members may be reappointed.
- e. This committee makes decisions with a majority attendance of the members and a majority agreement of the members present.

Article 4 (Qualification of Editorial Members)

The editorial members shall meet the following qualifications:

- i. Being at least an associate professor in a domestic/international university or a person equally qualified
- ii. Someone who studies in an area within the JAARS's specialty and who has published at least 3 articles in a journal (or 1 article in an SCI, SSCI and/or SCOPUS indexed journal) within the last three years

Article 5 (Responsibilities and Obligations of Editorial Members)

- a. Editorial members are fully responsible for the decision to publish JAARS-submitted papers, confirm their integrity during the deliberation process, and observe candidates during the editing process.
- b. Editorial members should respect the author's person and independence as a scholar, and make the process of the evaluation of the research paper public if there is a request.
- c. Editorial members should handle submitted papers only based on the quality and submission guidelines, not based on the author's gender, age, or affiliation.

- d. Editorial members should request a reviewer with specialized knowledge and fair evaluation ability in the relevant field to evaluate submitted papers. However, if evaluations of the same paper are remarkably different, editorial members can acquire advice from an expert in the relevant field.
- e. Editorial members should not disclose the matters of the author and the details of the paper until a decision is made pertaining to the publication of the submitted paper.

Chapter 3. Paper Submission and Peer Review Committee

Article 6 (Qualification of Submission and Submission)

- a. All the paper submitters must be members registered with JAARS.
- b. All papers should be submitted through the JAARS's online submission system (<http://www.nlbaei.org/>) and Email: edubscon@outlook.com, and can be submitted at any time. English-language papers from authors outside of the United States of America may also be submitted using e-mail.

Article 7 (Formation of Peer Review Committee)

- a. Peer reviewers are appointed by the chief editor, and selected based on the field of the reviewer's expertise. (According to circumstances, a peer reviewer who is not a member of JAARS may be appointed.)
- b. Editorial members for each content subject such as international economy, international management, or practice of trade can also serve as peer reviewers.
- c. The chief editor represents editorial members, handles all the matters relating to review, and reports the results of peer review to the committee.
- d. The managing editor is in charge of the procedure relating to review.
- e. The classification and selection of submitted papers is decided by the chief editor and the managing editor, and they report it to the committee.

Article 8 (Qualification of Peer Reviewers)

Peer reviewers shall have the following qualifications:

- i. Being at least an associate professor in a domestic/international university, or a person who is as equally specialized as the person above.
- ii. Someone who studies an area within the JAARS's specialty and has published at least 3 articles in a journal (or 1 article in an SCI, SSCI and/or SCOPUS indexed journal) within the last three years.
- ii. Someone who presents a paper, chairs a session or serves as a discussant at an academic conference at the same level of the institution, or has served as a reviewer of a study which has been indexed in a domestic or international journal within the last three years.

Article 9 (Responsibility and Duty of Peer Reviewers)

- a. Peer reviewers should evaluate papers and report the results of the evaluation to the committee within the time period set by the committee. However, if he/she believes that they are not appropriately qualified to review the paper, they should notify the committee without delay.
- b. Peer reviewers should respect the author's person and independence as a scholar. Peer reviewers may request for revision of the paper with detailed explanations if needed in the evaluation of the research paper.

c. Papers are reviewed confidentially using a method in which the name and affiliation of the author is confidential to the public. Showing the paper and/or discussing the contents of the paper with a third party is not desirable unless a consultation is needed for purposes of review.

Article 10 (Unethical Behavior in the Review Process)

- a. Peer reviewers must not manipulate either directly or indirectly the related research-specific information contained in the research proposal or review process without the consent of the original author.
- b. Peer reviewers must be careful of the following since it could be regarded as unethical research practices in the review process:
 - i. The act of handing over a requested paper to students or a third party
 - ii. The act of discussing the details of a paper with colleagues
 - iii. The act of obtaining a copy of the requested material without shredding it after review
 - iv. The act of disgracing the honor of others or fabricating a personal attack in the review process
 - v. The act of reviewing and evaluating a research paper without reading it

Article 11 (Personal and Intellectual Conflict)

- a. Peer reviewers must fairly evaluate using an objective standard regardless of personal academic conviction.
- b. Peer reviewers must avoid personal prejudice when reviewing a paper. If there is a conflict of interest including personal conflict, it must be notified to the committee.
- c. Peer reviewers must not propose rejecting a paper due to a conflict in interpretation or with the point of view of the reviewer.

Chapter 4. Principle and Process of Paper Review

Article 12 (Papers for Peer-review)

Review shall proceed based on the writing and submission guidelines. If the submitted paper substantially diverges from the writing and submission guidelines, the paper may not be reviewed.

Article 13 (Request for Review and Review Fee)

- a. The chief editor discusses the selection of reviewers with editorial members and selects two reviewers for each paper after submitted papers pass the eligibility test.
- b. The chief editor immediately requests the two selected reviewers to review the relevant submitted paper.
- c. Papers are reviewed by confidential method in which the name and affiliation of the author is confidential to the reviewer, the name of the reviewer is confidential to the author.
- d. The chief editor requests a review after deleting the name and the affiliation of the author from the submitted paper, so that the reviewer cannot obtain the identity of the author.
- e. A review fee shall be paid to the reviewer.

Article 14 (Review of Paper and Decision)

- a. Reviewers shall submit a decision report via the JAARS's online submission system (<http://www.nlbaei.org/>) and Email: edubscon@outlook.com within two weeks after they are asked to review a paper.

- b. The reviewer shall decide whether the paper should be published based on the following standard. However, if the paper receives less than 30 points in the suitability and creativity of the topic, it will not be published.
- i. The suitability of the topic (20 points)
 - ii. The creativity of the topic (20 points)
 - iii. The validity of the research analysis (20 points)
 - iv. The organization and logic development of the paper (20 points)
 - v. The contribution of the result (10 points)
 - vi. The expression of the sentence and the requirement of editing (10 points)
- The reviewer must give one of the following four possible marks within the two week period: A (90~100 points, acceptance), B (80~89 points, acceptance after minor revisions), C (70~79 points, re-review after revision), F (Rejection), and write an overall review comment concerning the revision and supplementation of the paper.
- c. In an instance where the reviewer does not finish the review within the two week period, the chief editor can nominate a new reviewer.

Article 15 (Correction of Papers according to the Editing Guideline)

- a. Before holding an editorial committee meeting, the chief editor shall request editorial staff correct those papers that receive “acceptance” or “acceptance after minor revisions”, using the journal's paper editing guidelines. However, if there is a paper that receives “acceptance” after the editorial committee meeting, the chief editor will request the editorial staff to correct the paper after the meeting.
- b. The chief editor shall notify each author of the result of his or her paper review after receiving the corrected version of the paper from the editorial staff. However, papers which receive a “rejection” shall not be notified of their result.

Article 16 (Decision of Paper and Principle of Editing)

- a. The chief editor shall call an editorial board meeting and make publication decisions after receiving finished papers from reviewers.
- b. The editorial board will make decisions to publish based on the following chart. The editorial board should respect reviewers' decisions on relevant papers, but can make decisions based on the editorial policy of the JAARS.

Results of 2 peer-reviews	Overall evaluation(average)	Decision to publish
AA	A	Acceptance
AB, AC, BB	B	Acceptance after minor revisions
AD, BC, BD, CC	C	Re-evaluation after revision
CD, DD	F	Rejection

- c. The paper that is awarded “acceptance” should receive a “B” or higher from reviewers or the level of overall evaluation (average) should be “B” or higher, and the paper that is awarded “acceptance after minor revisions” should have its satisfactory revisions and/or developments confirmed by the initial reviewer after re-submission.
- d. The editorial board shall confirm that papers in consideration for publication are suitable to the writing and submission guideline of JAARS, look through detailed matters, and decide particular issue policies such as the number of papers and the order of them.

- e. In the case where a paper was presented or submitted for review previously, it cannot be published in JAARS.
- f. In the case where an author submits two or more papers for consideration, only one paper that receives “acceptance” shall be published in the same issue.

Article 17 (Notification of the Result)

- a. The chief editor shall notify an author of the review result after the initial evaluation or re-evaluation is finished, but can request the author to revise and develop the paper based on the evaluation report. If the editorial board makes a final decision on publication, the author should be notified.
- b. The author must be notified of the review result within one month from the day of receiving the paper or revised paper (or the deadline of submission). If it is impossible to notify the author within one month, the reason and the due date of notification must be notified to the author.
- c. Unless there is a specific reason, the author must submit a file including a response to the evaluation report, revision to and/or development of the paper to the chief editor after editing the paper within the period the editorial board suggests when he/she is asked to edit the paper. The changed details must be confirmed by the editorial board as well. In case the author does not submit the revision and development to the editorial board within the period, it shall be automatically postponed until this process is finished.
- d. A paper that receives a “C” in the overall evaluation (average) shall be re-evaluated after the chief editor sends the revised article and revision report to the initial reviewer(s).
- e. In cases where the evaluations of the same paper are remarkably different among reviewers, the chief editor can nominate a third reviewer and request a re-evaluation. In this case, the chief editor shall send the evaluation report to three different reviewers and have them submit the final evaluation report based on the details of the paper, and the paper can be published after revision only if the final mark awarded the revised paper is higher than a “B” in the overall evaluation.
- f. The chief editor will issue an acceptance letter for the papers confirmed to be published.

Article 18 (Proofreading and Editing)

- a. The chief editor shall request domestic/international members to proofread and edit papers confirmed to be published.
- b. Proofreading and editing members shall be recommended by the chief editor and appointed by the chairman of NLBA Eurasian Institute.
- c. The chief editor shall send the results of proofreading and editing to the original author and request the author to edit the paper appropriately.
- d. The author, unless there is a specific reason, must submit the revised paper and revision report to the chief editor after editing the paper within the period the editorial board suggests when he/she is asked to edit the paper. The changed details must be confirmed by the editorial board as well.
- e. Even if a paper is confirmed to be published, it will be rejected if it has not fulfilled the editing procedure following the result of proofreading and editing, or has been found to have committed research misconduct of any kind.
- f. If an editing member finds plagiarism, inadequate form, or low quality in the process of editing a paper that the journal has confirmed to be published, he/she must notify the chief editor and can suggest proper responses to the findings. g. The chief editor suggests whether to avoid publication of a paper or have the author re-submit the paper after revision and development according to the guidelines stipulated in Article 5. In the case of a paper requested to be revised and developed, publication can be postponed based on the degree of completion and the schedule of revision and development.

Chapter 5. Editing and Publication

Article 19 (Editing and the Date of Publication)

JAARS is published twelve times a year in principle. However, if there is a reason such as the number of submitted papers, the committee can increase or decrease the number of issues.

Article 20 (Notification of Editing)

- a. The chief editor shall acquire publication consent from the authors of the confirmed papers before printing.
- b. The chief editor shall report to the chairman of NLBA Eurasian Institute when the editorial process following editorial policy is completed, and shall further follow the outlined process for printing and editing.

Article 21 (Sanction on Plagiarism and Redundant Publication)

If the ethics committee finds that a submitted paper or a published paper contains plagiarism or was published in another journal, the following sanctions will be taken:

- a. Distributing after deleting the relevant paper in the journal if the journal has not been distributed yet,
- b. Notification of paper deletion on the website if the related issue has already been distributed,
- c. Notification of the plagiarism or redundant publication of the relevant paper on the website,
- d. Banning the relevant author from submitting papers to all journals published by JAARS for two years from the date when plagiarism and redundant publication is found and from presenting in conference,
- e. Notifying the author's affiliated organization or institution of the fact of the plagiarism or the redundant publication, if necessary.

Article 22 (Transfer of the Rights of Publication, Duplication, Public Transmission, and Distribution)

- a. The right of publication of the paper is owned by NLBA Eurasian Institute unless specified.
- b. The author(s) shall transfer the right of duplication, public transmission, and publication to NLBA Eurasian Institute. If they do not agree, the relevant paper cannot be published in JAARS.

Article 23 (Notification of Paper on Homepage)

Papers published in JAARS shall be publicly notified on the JAARS homepage (<http://www.nlbaei.org/>)

Article 24 (Etc.)

The matters that are not decided in these rules are either subject to the submission guidelines or decided by the editorial board.

Article 25 (Date of Effectiveness)

These regulations shall be effective as of January 1, 2024.

Author's Check List

Journal of Advanced Academic Research and Economics (JAARS)

Title of Manuscript: _____

Manuscript ID: _____

Please check to confirm fulfillment of instructions below before submitting your manuscript.

1.General guidelines

- The submission contains an original manuscript, a checklist, and a copyright transfer agreement.
- The manuscript follows the journal template, using MS Word.
- The manuscript consists of a title page, abstract, keywords, JEL Classifications, acknowledgement (if any), main text, references, appendix (if any), tables and figures.
- The pages are numbered consecutively beginning with the title page.

2.Title page

- The manuscript consists of title, author(s)name(s), and affiliation(s).
- The lower area of the title page includes the name(s)of the author(s)and e-mail of the corresponding author only.

3.Abstract, Keywords and JEL classifications

- The Abstract is less than 250 words for an original article.
- Includes no more than six keywords.
- Includes no more than five JEL classifications.

4.Main text

- Subtitles are ordered according to the journal template.
- All figures and tables are cited in numerical order as they are first mentioned in the text.
- All figures and tables are referenced within the text.

5.Tables and figures

- The titles of figures and tables are set flush left above them, capitalizing the first letter of each word in these titles except for prepositions and articles.
- Vertical lines are avoided in tables.
- Pictures or photos are supplied in high resolution (minimum 300 dpi) .
- Pictures or photos are supplied at a reasonably legible size for printing if they may be affected by resizing in the printing process.

6.References

- References follow KITRI style.
- Each entry in the reference list is cited in the main text.
- All references are listed in alphabetical order followed by the year published.
- The title of books and journals is expressed in italics.
- Complete references are included with the full title of the article and up to six author names. Where there are seven or more authors,they are identified as “et al.”
- Journal articles have been double-checked as to whether the author name, (published year), title, journal name, volume (issue number) and pages are correct.
- Books have been double-checked as to whether the author name, (published year), title of book (editions, if any), place of publication, publisher’s name, and pages are correct.

Copyright Transfer Agreement

NLBA Eurasian Institute

Title of Manuscript:

All Authors:

All authors of this manuscript must agree to the following:

- 1.All authors certify that the manuscript does not violate any copyright and confirm its originality.
- 2.All authors have made an actual and intellectual contribution to this manuscript and hold responsibility for its contents.
- 3.This manuscript has not been published or will not be submitted to another journal for publication.
- 4.The “Journal of Advanced Academic Research and Studies” has rights in legal action against the infringement of copyright of this manuscript without authors’permission.
- 5.All authors of this manuscript confirm the transfer of all copyrights in and relating to the above-named manuscript, in all forms and media, through the world, in all languages, to “Journal of Advanced Academic Research and Studies”.
- 6.If each author's signature does not appear below, the signing author(s)represent that they sign this Agreement as authorized agents for and on behalf of all the manuscript authors, and that this Agreement and authorization is made on behalf of all the authors.

In order for my manuscript to be accepted for publication in the Journal of Advanced Academic Research and Economics (JAARS), I hereby assign and transfer to the NLBA Eurasian Institute all rights, title, and interest in and the copyright in the manuscript, entitled.

Date:

Corresponding Author:

Signature:

*Submission:You must submit a scanned file (file type: jpg, gif, or pdf) of this signed confirmation and final manuscript file (file type:MS Word) online after the manuscript has been accepted for publication.

Call for Papers

Journal of Advanced Academic Research and Economics (JAARS)

The Journal of Advanced Academic Research and Economics (JAARS) is the official publication of the NLBA Eurasian Institute publishes manuscripts of significant interest that contribute to the theoretical and practical basis of business, economics, and international trade studies. JAARS's broad scope and editorial policies create accessible, thought-provoking content for the general academic community of business, economics, and international trade. The goal of JAARS is to publish insightful, innovative and impactful research on business, economics, and international trade. JAARS is multidisciplinary in scope and interdisciplinary in content and methodology.

Subject Coverage

JAARS is an interdisciplinary journal that welcomes submissions from scholars in business, economics, and trade disciplines and from other disciplines (e.g. political science) if the manuscripts fall within the JAARS domain statement. Papers are especially welcome which combine and integrate theories and concepts that are taken from or that can be traced to origins in different disciplines.

JAARS is a methodologically pluralistic journal. Quantitative and qualitative research methodologies are both encouraged, as long as the studies are methodologically rigorous. Conceptual and theory-development papers, empirical hypothesis-testing papers, and case-based studies are all welcome. Mathematical modeling papers are welcome if the modeling is appropriate and the intuition explained carefully.

Notes for Prospective Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. All papers are referred through a peer review process.

All manuscripts should follow the submission guidelines on the JAARS homepage (<http://www.nlbaeai.org/>).

JAARS operates an on-line submission system. Manuscripts should be submitted to the on-line submission system at <http://www.nlbaeai.org> following all prompts on the screen.

There is no firm submission deadline for papers and the submitted articles will be evaluated on a rolling basis. Any queries should be sent to the Editor of JAARS at the following address: edubscon@outlook.com

Guidelines for Authors (In Brief)

[Journal of Advanced Academic Research and Studies (JAARS)]

How to submit the paper

The authors submit their manuscripts (in MS Word Format) to the on-line submission system at <http://www.nlbaei.org>

Blind Review Policy

The journal follows double blind peer review policy. The paper is sent to two reviewers appropriately qualified experts in the field selected by the editor to review the paper in the light of journal's guidelines and features of a quality research paper. For papers which require changes, the same reviewers will be used to ensure that the quality of the revised paper is acceptable.

Manuscript Preparation Guidelines

The author(s) must follow the Manuscript Preparation Guidelines in preparing the manuscript before submission.

1. Language

The language of the manuscript must be English (American English, e.g. "color" instead of "colour").

2. Length of Paper

The length of the paper should not exceed 30 pages (Times New Roman, 12 Font) excluding tables, figures, references and appendices (if any). Articles should be typed in double-space (including footnotes and references) on one side of the paper only (preferably Letter size) with 1 inch margin. Authors are urged to write as concisely as possible, but not at the expense of clarity.

3. Title Page

The title page should include: (i) A concise and informative title, (ii) The name(s) of the author(s), (iii) The affiliation(s) and address(es) of the author(s), and (iv) The e-mail address, telephone and fax numbers of the corresponding author.

4. Abstract

Please provide an abstract of 200 to 250 words. The abstract should not contain any undefined

abbreviations or unspecified references. The content of abstract must include Purpose, Design/Methodology/Approach, Findings, and Research Implications.

5. Keywords and JEL Classification Code

Please provide 4 to 6 keywords which can be used for indexing purposes.

6. Acknowledgement

The author may use acknowledgement section in the title page of the paper (if any).

7. Subdivision of the article

Divide your article into clearly defined and numbered sections. Sections should be numbered in Roman numerals (e.g., I, II). Subsections should be numbered using the decimal system (e.g., 1., 1.1., 1.1.1., 1.1.2., 1.2., ..., 2., 2.1.). The abstract is not included in section numbering.

8. Table and Figure

Present tables and figures within the article, not at the end of the article. Please note that the article will be published in black and white (print), although online version will contain the colorful figures (if any). However, the color print will be available in extreme cases as per the request of the author.

9. References

Author(s) should follow the latest edition of KITRI style in referencing. Please visit www.nlbaei.org to learn more about KITRI style.

■ Citations in the text

Please ensure that every reference cited in the text is also present in the reference list (and vice versa).

■ Reference List

References should be arranged first alphabetically and then further sorted chronologically if necessary.

Guidelines for Authors (In Brief)

[Journal of Advanced Academic Research and Studies (JAARS)]

■ Examples:

Reference to a journal publication:

Wegener, D. T., J. F. Dollan and Soon-Hwan Jeon (2015), "Current Trends of Marketing Activities in Parallel Imports", *Journal of Asia Trade and Business*, 11(5), 55-57.

Hyun, Jun-Seog and Won-Joong Kim (2015), "A Study on the Effects of Export-Import Share and Exchange Rate", *Journal of International Trade & Commerce*, 11(1), 142-145. <http://dx.doi.org/10.16980/jitc.11.1.201502.139>

NB: For Oriental authors such as Korean, Chinese and Japanese authors, the first names are spelled out. Names shall be romanized according to their own preference. For Korean authors, the first and second syllables of first names shall be hyphenated.

Reference to a book:

Schmithoff, C. M. (2010), *Letter of Credit*, New York, NY: Pitman Press, 158.

Jeon, Soon-Hwan (2017), *International Trade Practices* (5th ed.), Seoul: Hanol, 156.

Reference to a chapter in an edited book:

Bomhoff, E. J. (1998), "Introduction". In E.

M. Rogers and S. Taylor (Eds.), *The Global Leadership Mindset* (2nd ed.), Oxford, UK: Oxford University Press, 12-25.

Reference to a web source:

Liu, Chengwei (2005), *Price Reduction for Non-conformity: Perspectives from the CISG*. Available from <http://www.cisg.law.pace.edu/cisg/biblio> (accessed January 11, 2016)

Manuscript Review Timeframe

Manuscripts will be initially reviewed by the Editor within two weeks from submission.

The Editor will contact the corresponding author with news of whether or not the submission will be advanced to the first round of blind reviews (or is being rejected as not suitable for publication in the journal).

Typically, the blind review process takes approximately six to eight weeks.

The JAARS does not process any submission that does not comply with complete requirements of submission guidelines.

Contributors of articles accepted for publication will receive a complimentary copy of the issue in which their article appears.

JAARS



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