

## Retraction

# Retracted: Analysis on Innovation Path of Business Administration Based on Artificial Intelligence

### Mathematical Problems in Engineering

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

### References

- [1] B. Lu, "Analysis on Innovation Path of Business Administration Based on Artificial Intelligence," *Mathematical Problems in Engineering*, vol. 2022, Article ID 6790836, 7 pages, 2022.

## Research Article

# Analysis on Innovation Path of Business Administration Based on Artificial Intelligence

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In order to effectively promote the efficiency of retail enterprises, the innovation path of business administration based on artificial intelligence is studied. Through a questionnaire survey, collect the relevant data of retail enterprise value network, business model innovation, and enterprise benefits, and through regression analysis. The experimental results show that before the business model innovation, the coefficients of internal value network innovation and external value network innovation are 0.413 and 0.258, respectively. After the business model innovation is added, the coefficients of the two are reduced to 0.208 ( $p = 0.012 < 0.05$ ) and 0.113 ( $p = 0.005 < 0.01$ ). In addition, the coefficients of the two dimensions of business model innovation are significant at the 1% level. *Conclusion.* Both internal value network innovation and external value network innovation have a significant positive impact on the functional business model innovation and artificial intelligence business model innovation of retail enterprises. Functional business model innovation and artificial intelligence business model innovation have a significant positive impact on the financial and market benefits of retail enterprises. Internal value network innovation and external value network innovation have a significant positive impact on the financial and market benefits of retail enterprises. Business model innovation plays an intermediary role in the relationship between internal value network innovation, external value network innovation, and the financial and market benefits of retail enterprises.

## 1. Introduction

The new economic normal mainly emphasizes that China's economic development will grow at a medium speed rather than a high speed in the future. As the name suggests, business administration adopts some economic and management methods and is a method of managing enterprises under the current economic situation. When the new economic situation has just emerged, many enterprises are unable to adapt to this change, and their management is facing various problems. The reason for these problems is not only the impact of changes in the external market environment but also the lack of long-term vision for business administration and leadership, as well as the timely and optimal optimization of enterprises. In the process of project development, business administration is a very important content [1]. If enterprises can manage their business well

enough, they can better adapt to this rapidly changing society. In the new economic situation, enterprises need to strengthen business administration, improve business efficiency, enhance market competitiveness, and enable enterprises to obtain the power of sustainable development.

From the current management of most companies, there is a common problem, that is, there is no mature industrial and commercial management mechanism, and there is a lack of strong guidance. As a result, the development direction of the enterprise or the economic measures taken are very backward and even violate the laws of the entire market economy, which will affect the market competitiveness of the company. Imagine that if the enterprise can continue to innovate the path of business administration, keep pace with the pace of market development, and constantly improve the management mechanism and investment diversification strategy, it will run through the history of the company's

development and various departments (such as personnel department, scientific research and Technology Department, and sales department). So as to maximize the advantages of talents in each department, improve industrial and commercial management, and make the enterprise adapt to the trend of the times, continue to develop and expand, so as to give full play to its social value [2].

In the business innovation of enterprises, traditionally, they still tend to follow stereotypes, and the concept of innovation does not include new elements, but this method is not conducive to achieving long-term results in the long-term development of enterprises [3]. For the current situation, many companies are facing common problems, mainly because people do not have a good understanding of business innovation in business management. And, in practice, the guiding role of theory is very important as shown in Figure 1.

## 2. Literature Review

Raj and others proposed that for the comprehensive innovative design of the enterprise's business model, two different focuses should be taken into account. One is what value the enterprise can provide to customers; second, how to realize these values [4]. Innovation itself is a continuous process, constantly testing problems, and correcting errors, which specifically includes four stages: the analysis of the environment, and believes that strategic management theory, such as the analytical method, is an effective tool for analyzing environmental changes and trends; the status quo of dialysis organization is helpful to screen and determine the core competence and resources; promote the promotion of enterprise value, that is, redesign and improve the existing business model; implementation of innovation. Lindgren, P. and others believe that recognizing the basic elements of the business model framework is the starting point of the research on business model innovation and thus discussed the transformation of enterprise cost structure, the transformation of customer value, the transformation of vested profit protection mode and the application of relevant strategies [5]. Wang and Cao. and others proposed that the business model is a comprehensive description of three key factors for the production and operation of enterprises: value flow, revenue flow, and logistics [6]. Li et al. define a business model, which means that creating a profitable business activity will involve the overall structure of customers, processes, channels and suppliers, resources, and capabilities [7]. Bashir et al. put forward that the business model aims to effectively allocate all links of the enterprise to form a system in which all factors adapt to each other, and the purpose is to help customers create greater value. She believes that a complete business model should be composed of three subelements: accurate role description, correct motivation, and internal value creation plan [8].

Surkova and Mazhaiskii put forward the enterprise value network based on modularization and its competitive advantage; many scholars have studied the details of the value network [9]. Pan et al. made a literature summary and case analysis on the evolution path of the enterprise value

network and put forward how to maintain long-term advantages [10]. The purpose of a value network is to make all nodes in the network realize value creation. It mainly takes consumer value creation as the core. However, it is different from traditional organizations. The value network can not only realize self-organization, but also embed specific tasks or technologies into the value network to realize sharing, and assign value to nodes. Therefore, the value network is a multiple economic relationship network of different subjects, that is, different subjects present two-way or multi-directional economic relations. Lin believes that business models affect the value of online retail enterprises, and there is a significant two-way positive effect between model innovation and user resources; There is a significant two-way positive effect between configuration efficiency and functional complementarity. There are many breakthroughs and explorations in the practice and theory of business model innovation, but so far there are still many deficiencies [11]. This paper holds that: the enterprise resource allocation mode is determined by the business model, so its impact is determined by the enterprise benefit performance, and the resulting comprehensive present value determines the enterprise value; artificial intelligence value network is an innovation of this paper because artificial intelligence is the most economical and can best reflect the value network.

## 3. Research Methods

Based on the above-given concept explanation, this part will put forward the research hypothesis of the relationship among retail enterprise value network innovation, business model innovation, and enterprise benefit and reasonably select the research samples.

*3.1. Research Assumptions.* Value network innovation can be divided into internal value network innovation and external value network innovation. The innovation of an internal value network can make enterprises better understand the internal situation and reallocate internal resources in various ways to improve the value innovation ability [12]. Therefore, the internal value network innovation can provide a good internal foundation for the two types of business model innovation. The innovation of an external value network is to integrate external cooperation or competition relations, which can effectively achieve the acquisition and utilization of external resources, so as to provide external resources for business model innovation [13]. Therefore, this paper puts forward the following relevant assumptions:

H1a: the innovation of the internal value network has a significant positive impact on the functional business model innovation of retail enterprises

H1b: the innovation of internal value network has a significant positive impact on the artificial intelligence business model innovation of retail enterprises

H1c: the innovation of external value network has a significant positive impact on the functional business model innovation of retail enterprise

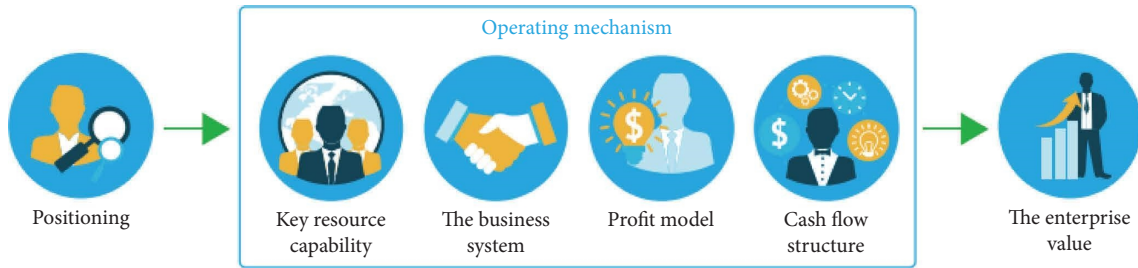


FIGURE 1: Operation diagram of business model elements of the theory.

H1d: the innovation of external value network has a significant positive impact on the innovation of the artificial intelligence business model of retail enterprises.

Both types of business model innovation aim at improving enterprise benefits, and functional innovation pays more attention to innovation from specific operations, such as technology and distribution relationship. [14]. The innovation of artificial intelligence is to replace the old model with a new model. At the same time, both internal and external value network innovation can enhance the value creation ability, so it can create more value for consumers and bring more benefits to enterprises. Therefore, this paper puts forward the following relevant assumptions:

H2a: functional business model innovation has a significant positive impact on the financial benefits of retail enterprises

H2b: functional business model innovation has a significant positive impact on the market efficiency of retail enterprises

H2c: artificial intelligence business model innovation has a significant positive impact on the financial benefits of retail enterprises

H2d: artificial intelligence business model innovation has a significant positive impact on the market efficiency of retail enterprises

H3a: the innovation of internal value network has a significant positive impact on the financial benefits of retail enterprises

H3b: the innovation of internal value network has a significant positive impact on the market efficiency of retail enterprises

H3c: the innovation of external value network has a significant positive impact on the financial benefits of retail enterprises

H3d: the innovation of external value network has a significant positive impact on the market efficiency of retail enterprises

Internal or external value network innovation is to realize value creation in a new way, so it indicates the value creation potential of enterprises, while business model innovation can stimulate the potential through specific reform measures [15]. Therefore, this paper puts forward the following relevant assumptions:

H4a: business model innovation plays an intermediary role in the relationship between the innovation of internal value network and the financial benefits of retail enterprises

H4b: business model innovation plays an intermediary role in the relationship between the innovation of internal value network and the market efficiency of retail enterprises

H4c: business model innovation plays an intermediary role in the relationship between external value network innovation and financial benefits of retail enterprises

H4d: business model innovation plays an intermediary role in the relationship between external value network innovation and retail enterprise market efficiency

3.2. *Selection of Research Samples.* In this paper, the corresponding questionnaire is prepared to obtain the data required for the research. In the process of preparing the questionnaire, it is necessary to formulate the items related to each variable and select the corresponding control variables [16]. The final questionnaire contains 22 items for value network, 16 items for business model innovation, 6 items for enterprise benefit, and control variables such as enterprise nature, scale, and establishment time. After completing the first draft, the questionnaire was reviewed and fed back by relevant scholars, and the final questionnaire was formed after careful modification. At the time of questionnaire distribution, 275 retail enterprises from many provinces and cities were selected. After that, I contacted the management personnel of each enterprise through e-mail or instant messaging, and they assisted in issuing the questionnaire. 328 questionnaires were received and 262 were valid, with an effective rate of 79.88%.

#### 4. Result Analysis

Based on the research hypotheses proposed above and the selected research samples, this part will use the statistical software SPSS18.0 to conduct data correlation analysis and multiple linear regression analysis on the samples to test the research hypotheses and discuss and analyze the hypothesis test results [17].

The mathematical definition formula for factor correlation analysis by chi square test is as follows (1):

$$\chi^2 = \sum_{i=1}^r \sum_{j=1}^c \frac{(f_{ij}^0 - f_{ij}^e)^2}{f_{ij}^e}, \quad (1)$$

where  $r$  is the number of rows in the contingency table;  $c$  is the number of columns in the contingency table;  $f_{ij}^0$  is the observation frequency;  $f_{ij}^e$  is the desired frequency.

The formula for calculating the expected frequency of  $f^e$  is as follows:

$$f^e = \frac{RT}{n} * \frac{CT}{n} * n = \frac{RT * CT}{n}, \quad (2)$$

where  $RT$  is the total of line observation frequencies;  $CT$  is the sum of the column observation frequencies.

From the chi square statistics obtained from the above formula, it can be seen that if the expected frequency and the observed frequency are the same, the least chi square statistics is 0, and it can be inferred that the two variables are completely independent without any correlation. The larger the difference between the expected frequency and the observed frequency, the larger the chi square statistics can be obtained, and the higher the degree of correlation [18].

**4.1. Hypothesis Test.** Based on the above-given research assumptions and data collected, this paper will explore the relationship between value network innovation, business model innovation, and enterprise benefits. In the data analysis, the dependency relationship between variables is first determined with the help of correlation analysis. The data results are shown in Table 1. It can be seen from Table 1 that in the correlation analysis results, the correlation coefficients of all variables are significant at the level of 5% or 10%, and the correlation coefficients are positive, indicating that there is a significant positive correlation between all variables. However, correlation analysis can only describe the degree of tightness but cannot determine the specific interaction between variables. Therefore, multiple linear regression analysis is required [19].

Regression analysis can infer another variable from one variable, so as to describe the interactive relationship between the changes of multiple variables. In the regression analysis, we first test the relationship between AI value network innovation and business model innovation. The results are shown in Table 2. According to Table 2, the coefficient of internal value network innovation and functional business model innovation is 0.584 ( $p = 0.005 < 0.01$ ), the coefficient of internal value network innovation and artificial intelligence business model innovation is 0.415 ( $p = 0.011 < 0.05$ ), the coefficient of external value network innovation and functional business model innovation is 0.305 ( $p = 0.000 < 0.01$ ), and the coefficient of external value network innovation and artificial intelligence business model innovation is 0.337 ( $p = 0.003 < 0.05$ ). It shows that each dimension of value network innovation can significantly and positively affect each dimension of business model innovation. Therefore, H1a, H1B, H1C, and h1d are established.

Next, we will test the impact of business model innovation and value network innovation on enterprise benefits. The results are shown in Table 3. It can be seen from Table 3 that the coefficient of functional business model innovation and financial benefit is 0.337 ( $p = 0.003 < 0.01$ ), the coefficient of functional business model innovation and market benefit is 0.395 ( $p = 0.003 < 0.01$ ), and the coefficient of artificial intelligence business model innovation and financial benefit is 0.413 ( $p = 0.000 < 0.01$ ). The coefficient of AI business model innovation and market benefit is 0.299 ( $p = 0.002 < 0.01$ ), the coefficient of internal value network innovation and financial benefit is 0.394 ( $p = 0.005 < 0.01$ ), the coefficient of internal value network innovation and market benefit is 0.413 ( $p = 0.005 < 0.01$ ), the coefficient of external value network innovation and financial benefit is 0.314 ( $p = 0.022 < 0.05$ ), and the coefficient of external value network innovation and market benefit is 0.258 ( $p = 0.003 < 0.01$ ). All dimensions of business model innovation and value network innovation can significantly and positively affect financial and market benefits. Therefore, H2A, H2B, H2C, H2D, h3a, H3B, H3C, and h3d are established.

Next, we will examine the intermediary role of business model innovation. The results are shown in Table 4. It can be seen from Table 4 that in the relationship between value network innovation and financial benefits,  $R^2$  was 0.138 before the intermediary role of business model innovation was added and increased to 0.229 after it was added (see Figure 2), indicating that business model innovation has increased the explanatory power of financial benefits. At the same time, before the business model innovation, the coefficients of internal value network innovation and external value network innovation were 0.394 and 0.314, respectively. After the addition, the coefficients of the two decreased to 0.205 ( $p = 0.007 < 0.01$ ) and 0.127 ( $p = 0.004 < 0.01$ ). In addition, the coefficients of the two dimensions of business model innovation are significant at the 1% level. Therefore, it can be considered that business model innovation plays an intermediary role in the relationship between value network innovation and financial benefits. In the relationship between value network innovation and market benefits,  $R^2$  was 0.124 before the intermediary role of business model innovation was added, and increased to 0.258 after the entry, indicating that business model innovation has increased the explanatory power of market benefits [20]. At the same time, before the business model innovation, the coefficients of internal value network innovation and external value network innovation were 0.413 and 0.258, respectively. After the addition, the coefficients of the two decreased to 0.208 ( $p = 0.012 < 0.05$ ) and 0.113 ( $p = 0.005 < 0.01$ ). In addition, the coefficients of the two dimensions of business model innovation are significant at the 1% level. Therefore, it can be considered that business model innovation plays an intermediary role in the relationship between value network innovation and market efficiency. Therefore, H4a, H4B, H4c, and H4d are established.

**4.2. Result Discussion.** This paper puts forward the hypotheses about value network, business model innovation, and enterprise benefit through theoretical analysis then

TABLE 1: Correlation analysis.

	1	2	3	4	5	6	7	8	9
1. Establishment time	1								
2. Enterprise scale	0.037**	1							
3. Nature of enterprise	0.595*	-0.171	1						
4. Innovation of internal value network	0.025*	0.400	0.612	1					
5. Innovation of external value network	0.402	-0.124	0.216	0.106**	1				
6. Functional business model innovation	0.664*	-0.071**	0.248	0.551**	0.389**	1			
7. Artificial intelligence business model innovation	0.272	0.488	0.488	0.290**	0.172**	0.045*	1		
8. Financial benefits	-0.036	0.356**	0.694	0.540**	0.468**	0.397**	0.026*	1	
9. Market benefit	0.121**	0.178	-0.098	0.310**	0.271*	0.335**	0.394*	0.555**	1

Note. \*\*, \*respectively represent significant levels above 5% and 10%.

TABLE 2: Value network innovation and business model innovation.

Variable	Functional business model innovation			Artificial intelligence business model innovation		
	Coefficient	T Value	P value	Coefficient	T Value	P value
Internal value network innovation	0.584	1.4835	0.005	0.415	0.2957	0.011
External value network innovation	0.305	2.483	0.000	0.337	1.394	0.003
Date of establishment	0.183	1.3042	0.094	0.039	0.324	0.134
Enterprise size	-0.024	-2.4421	0.022	-0.115	-1.393	0.131
Nature of enterprise	0.136	1.8641	0.112	0.038	0.9122	0.045
R <sup>2</sup>		0.511			0.498	
F Value		38.284			39.153	
		(0.003)			(0.002)	

TABLE 3: Influencing factors of enterprise benefit.

	Financial benefits			Market benefit		
	Coefficient	T Value	P value	Coefficient	T Value	P Value
Functional business model innovation	0.337	2.333	0.003	0.395	0.217	0.003
Artificial intelligence business model innovation	0.413	1.581	0.000	0.299	1.423	0.002
Internal value network innovation	0.394	3.44	0.005	0.413	2.526	0.005
External value network innovation	0.314	0.2755	0.022	0.258	3.443	0.003
Date of establishment	0.175	2.5365	0.081	0.038	1.7430	0.158
Enterprise size	-0.011	-0.6702	0.225	0.052	-0.9466	0.116
Nature of enterprise	0.127	-0.9671	0.153	-0.106	-0.9889	0.004
R <sup>2</sup>		0.115			0.153	
F Value		15.395			20.494	
		(0.003)			(0.000)	

TABLE 4: Intermediary role of business model innovation.

	Financial benefits		Market benefit	
	Coefficient	P value	Coefficient	P Value
Internal value network innovation	0.394 (0.005)	0.205 (0.007)	0.413 (0.005)	0.208 (0.012)
External value network innovation	0.314 (0.022)	0.127 (0.004)	0.258 (0.003)	0.113 (0.005)
Functional business model innovation		0.313 (0.001)		0.294 (0.007)
Artificial intelligence business model innovation		0.325 (0.006)		0.297 (0.000)
Date of establishment	0.175 (0.081)	0.118 (0.006)	0.038 (0.158)	0.049 (0.006)
Enterprise size	-0.011 (0.225)	-0.039 (0.003)	-0.052 (0.116)	-0.031 (0.006)
Nature of enterprise	0.127 (0.153)	0.154 (0.007)	-0.106 (0.004)	0.038 (0.010)
R <sup>2</sup>		0.138 (0.229)		0.124 (0.258)
F Value		11.384 (0.003)		10.271 (0.005)
		22.439 (0.000)		25.893 (0.003)

Note. P value in brackets.

collects various variable data through questionnaire survey, and finally draws the following conclusions through correlation analysis and regression analysis: the internal

value network innovation and external value network innovation have a significant positive impact on the functional business model innovation of retail enterprises;



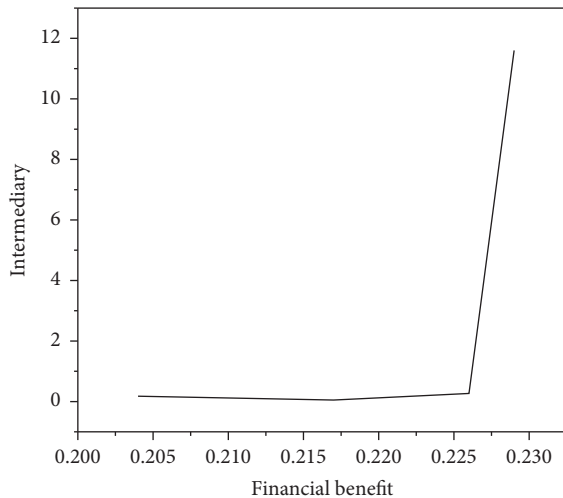


FIGURE 2: Comparison of financial benefits before and after joining the intermediary.

the innovation of internal value network and external value network has a significant positive impact on the artificial intelligence business model innovation of retail enterprises. This is mainly because the internal value network innovation can reallocate internal resources, optimize enterprise efficiency, and provide a better internal foundation for business model innovation. External value network innovation can help enterprises build a good relationship with suppliers and consumers and provide a complete value creation chain for business model innovation. Functional business model innovation and artificial intelligence business model innovation have a significant positive impact on the financial benefits of retail enterprises; Functional business model innovation and artificial intelligence business model innovation have a significant positive impact on the market efficiency of retail enterprises. Since the function is the pursuit of practicality, and artificial intelligence is the pursuit of uniqueness and progressiveness, it is obvious that the pursuit of practicality can improve efficiency. The pursuit of uniqueness is to obtain a competitive advantage through differentiated management with other enterprises. Therefore, both types of business model innovation can bring more benefits to enterprises. The innovation of internal value network and external value network has a significant positive impact on the financial benefits of retail enterprises; the innovation of internal value network and external value network have a significant positive impact on the market efficiency of retail enterprises. To some extent, enterprises are entities that allocate resources to achieve commodity production and value creation. Restructuring the value network from the outside can enable retail enterprises to better understand the needs of consumers, deepen the relationship with suppliers, and improve efficiency. Reforming the value network from the inside is to reasonably allocate the existing resources so that enterprises can better put into production or provide services and obtain higher profits, which can promote the

growth of benefits. Business model innovation plays an intermediary role in the relationship between internal value network innovation, external value network innovation, and the financial benefits of retail enterprises; business model innovation plays an intermediary role in the relationship between internal value network innovation, external value network innovation, and retail enterprise market efficiency. External or internal value network innovation is to better realize value creation by sorting out the resources owned by enterprises, while business model innovation is to directly change the business model and profit model of enterprises, so it can have a direct impact on enterprises. Therefore, external or internal value network innovation can not only directly affect enterprise benefits but also affect enterprise benefits through business model innovation.

## 5. Conclusion

To sum up, this paper summarizes the following management implications: first, retail enterprises urgently need to change the value network. In the era of the digital economy, the retail market is shifting to online, which brings new challenges to retail enterprises. In the past, retail enterprises needed to sell goods to consumers through physical stores, but now they can establish a purchase and sales relationship with consumers only by uploading commodity information on the shopping platform. Therefore, retail enterprises need to reprocess the relationship with consumers, suppliers, and logistics enterprises and reconstruct the value network to win more consumers. Second, retail enterprises should improve their business model innovation ability. Business model innovation means that retail enterprises obtain profits from a new perspective or allocate resources in a new way. Since the new business model refers to operating enterprises in an unprecedented way, it can generally bring strong competitive advantages to enterprises. However, when the new business model is imitated by most enterprises, the profitability of the new business model is averaged and no longer competitive. Therefore, retail enterprises must constantly carry out business model innovation to achieve sustainable development. Third, retail enterprises should focus on functional business model innovation, supplemented by artificial intelligence business model innovation. The direct goal of functional innovation is the enterprise benefit, which helps to improve the benefit as soon as possible. Although the artificial intelligence innovation takes the enterprise benefit as the goal, it pursues an unprecedented model, so it needs a long time to accumulate. Once the artificial intelligence innovation is realized, it may open an innovative retail era. Therefore, retail enterprises need to constantly look for parts that can be improved in their daily operations to promote functional innovation, and constantly accumulate experience to accumulate energy for artificial intelligence innovation. Fourth, retail enterprises should rely on digital technology for innovation. Digital technology is the main driving force of current economic development, and it has also changed the retail market. However, retail enterprises should not regard the transfer of an offline

business to an online business as innovation, which is only the general trend of market development. In the digital era, the realization of innovation must firmly rely on digital technology. It can be realized digitally from the aspects of distribution, inventory, packaging, platform services, etc., so that digital technology can be embedded in all aspects of retail enterprises, so as to ultimately improve operation efficiency.

## Data Availability

The data used to support the findings of this study are available from the author upon request.

## Conflicts of Interest

The author declares that there are no conflicts of interest.

## References

- [1] Y. Wang, Y. Shi, M. Cai, and W. Xu, "Predictive control of air-fuel ratio in aircraft engine on fuel-powered unmanned aerial vehicle using fuzzy-rbf neural network," *Journal of the Franklin Institute*, vol. 357, no. 13, pp. 8342–8363, 2020.
- [2] K. Mishina, S. Sato, Y. Yoshida, D. Hisano, and A. Maruta, "Eigenvalue-domain neural network demodulator for eigenvalue-modulated signal," *Journal of Lightwave Technology*, vol. 39, no. 13, pp. 4307–4317, 2021.
- [3] A. Sharma, R. Kumar, M. W. A. Talib, S. Srivastava, and R. Iqbal, "Network modelling and computation of quickest path for service-level agreements using bi-objective optimization," *International Journal of Distributed Sensor Networks*, vol. 15, no. 10, Article ID 155014771988111, 2019.
- [4] M. S. Pradeep Raj, P. Manimegalai, P. Ajay, and J. Amose, "Lipid data acquisition for devices treatment of coronary diseases health stuff on the internet of medical things," *Journal of Physics: Conference Series*, no. 1, Article ID 012038, 2021.
- [5] P. Lindgren, "Multi business model innovation in a world of smart cities with future wireless technologies," *Wireless Personal Communications*, vol. 113, no. 3, pp. 1423–1435, 2020.
- [6] W. Jianbo and X. Cao, "Factors affecting the evolution of advanced manufacturing innovation networks based on cloud computing and multiagent simulation," *Mathematical Problems in Engineering*, vol. 2021, no. 1, pp. 1–12, Article ID 5557606, 2021.
- [7] L. Li, Y. Diao, and X. Liu, "Ce-Mn mixed oxides supported on glass-fiber for low-temperature selective catalytic reduction of NO with NH<sub>3</sub>," *Journal of Rare Earths*, vol. 32, no. 5, pp. 409–415, 2014.
- [8] M. Bashir, M. M. Naqshbandi, and R. Farooq, "Business model innovation: a systematic review and future research directions," *International Journal of Innovation Science*, vol. 12, no. 4, pp. 457–476, 2020.
- [9] E. V. Surkova and Y. A. Mazhaiskii, "Assessing the financial performance of aviation enterprises," *Russian Engineering Research*, vol. 41, no. 10, pp. 983–986, 2021.
- [10] X. Pan, C. Han, M. Song, and M. Wang, "The impact of information technology investment on the performance of apparel manufacturing enterprises: based on the moderating effect of equity concentration," *IEEE Transactions on Engineering Management*, vol. 2020, no. 99, pp. 1–9, 2022.
- [11] S. Lin, "Financial performance management system and wireless sharing network optimization of listed enterprises under bpnn," *Mobile Information Systems*, vol. 2021, no. 4, pp. 1–11, Article ID 3443189, 2021.
- [12] T. Li and C. Zhang, "Research on the application of multimedia entropy method in data mining of retail business," *Scientific Programming*, vol. 2022, no. 2, pp. 1–13, Article ID 2520087, 2022.
- [13] N. Vlahovic, A. Brljak, and M. Pejic-Bach, "Ontology-based analysis of website structure for benchmarking in retail business," *International Journal of Web Portals*, vol. 13, no. 1, pp. 1–19, 2021.
- [14] P. P. Arcot, "Retail landscaping in India -challenges and strategies dr arcot purna prasad," *Gazi University Journal of Science*, vol. 33, no. 10, pp. 389–403, 2020.
- [15] R. Huang, *Framework for a smart adult education environment*, vol. 13, no. 4, pp. 637–641, 2015.
- [16] C. Liu, M. Lin, H. L. Rauf, and S. S. Shareef, "Parameter simulation of multidimensional urban landscape design based on nonlinear theory," *Nonlinear Engineering*, vol. 10, no. 1, pp. 583–591, 2021.
- [17] S. Shaikh, K. Thomas, S. Zuhair, and F. Magalini, "A cost-benefit analysis of the downstream impacts of e-waste recycling in Pakistan," *Waste Management*, vol. 118, no. C, pp. 302–312, 2020.
- [18] X. F. Qi and L. H. Zhou, "Market segmentation and energy efficiency—an empirical study based on China's provincial panel data," *Energy Efficiency*, vol. 13, no. 8, pp. 1781–1797, 2020.
- [19] P. Morganti and G. Garofalo, "Interactions between market forces and regulatory interventions in the Italian market of white certificates," *Energy Efficiency*, vol. 15, no. 4, pp. 18–20, 2022.
- [20] A. Le Cam, J. Southernwood, D. Ring, D. Clarke, and R. Creedon, "Impact of demand response on occupants' thermal comfort in a leisure center," *Energy Efficiency*, vol. 14, no. 8, pp. 91–15, 2021.