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Research Article

The Internet-Based Business Model and Corporate Risk-Taking: An Empirical Study from the Information Empowerment Perspective

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Reasonable risk-taking acts as a solid foreground for sustaining corporate growth. Having companies trading on Chinese stock exchanges between 2010 and 2019 sampled, this paper explored how an Internet-based business model would affect corporate risk-taking from the perspective of information empowerment. Through the mediation effect model and quantitative text analysis, the following findings were obtained here. First, a network-powered business model could significantly enhance the risk tolerance of companies. Second, mechanism testing showed that such a novel model would help reduce the asymmetry of corporate information and thus enhance corporate risk-taking capacity. Third, an analysis on heterogeneity revealed that businesses that enjoy a freer market and fewer financing constraints could better feel the positive impact of an Internet-based business model on corporate risk-taking. Fourth, an examination of economic consequences showed that risk-taking under Internet-based business models allowed enterprises to create sustainable value. Overall, the present work confirmed the positive impact of an Internet-based business model on corporate risk-taking from the information empowerment angle, and it is expected to provide a theoretical basis for enterprises to optimize their investment decision-making strategies and increase their risk-taking willingness and capacity.

1. Introduction

Higher potential returns on investment usually go hand in hand with increased risks. The risk capacity of businesses showcases their investment and risk preferences [1] and has a pivotal impact on corporate sustainability and macroeconomic growth. On a micro level, a willingness to take risks will push enterprises to seek higher returns on investment, improve business performance, and strengthen their competitiveness [2, 3]. On a macro level, enhanced risk willingness and capacity are fundamental to technological upgrade, capital accumulation, and steady economic growth [4]. However, it was reported that emerging-world firms tend to refrain from risk-taking, and this has led to low levels of risk tolerance in the emerging-world business community [5].

There is an interplay of various factors influencing corporate risk-taking. From a macro perspective, these factors involve the macroeconomic cycle [6–8], systems, and policies [4]. For enterprises, risk-taking willingness and capacity are closely linked to corporate features [9], the shareholding structure [10], board characteristics [11], and incentives [12]. Also, it is perceived, from the angle of executive individuals, that management's demographic features [13], personal experiences [14], and psychological characteristics [2] have a considerable impact on the risk-taking behavior of a business. However, the level of corporate risk-taking not only depends on the influence of the above factors but also is subject to the constraints of information acquisition and application [15]. Businesses taking risk is essentially a decision made by them based on how much information they have in their hands, thus

making it heavily rely on information [16]. With insufficient information, a company will run into the information asymmetry conundrum when making decisions.

Over these years, the world has been shaped by a great technological revolution, in which the next-generation information technologies, represented by the Internet, have thrived and come to drive socioeconomic transformation. Theoretically, the Internet can reduce information asymmetry and enhance businesses' ability to gain and apply information as it is capable of pooling and allocating resources [17]. In practice, a growing number of enterprises expect to improve competitiveness through the Internet-based business model amid China's stepped-up effort to implement the "Internet Plus" initiative and enhance national strength by the Internet means. Then, can the network-based business model help enterprises effectively minimize information asymmetry in a way that lifts up the level of corporate risk-taking? Taking into account an array of the above-mentioned factors, we sampled companies listed on Chinese stock exchanges between 2010 and 2019 and examined the impact of an Internet-based business model on corporate risk-taking from the perspective of information empowerment. The study showed that when carrying out an Internet-based business model, companies could considerably level up their risk tolerance, and the same held true for the scenarios free of endogenous issues. The mechanism test showed that such a model encourages businesses to take risks by reducing information asymmetry. A further study revealed that companies with a freer market and fewer financing constraints could better feel the positive impact of the model. Research also found that risk-taking under a network-based business model would contribute to consistent value creation for enterprises.

The major contributions of the present work are as follows. Firstly, this study provides new evidence for companies to effectively improve the level of risk-taking in investment decisions. The existing literature mainly discusses the influencing factors of corporate risk-taking from manager characteristics, corporate governance mechanism, and policy system. Different from the previous literature, this paper demonstrates that the implementation of an Internet-based business model help enterprises to improve their investment decision-making from the perspective of the empowerment of next-generation information technology. This conclusion guides enterprises to effectively promote risk-taking relying on Internet technology. Secondly, the research on the implementation effect of the Internet-based business model was expanded from the angle of risk-taking. The previous studies on that effect mostly focus on the innovation performance and operating performance of enterprises. Our research proves that the implementation of an Internet-based business model enhances the risk-taking level of enterprises in investment decision-making and exists as an antecedent of the improvement of innovation performance and operating performance. This conclusion facilitates the understanding of the empowering effect of the Internet-based business model on corporate operation and innovation activities. Thirdly, it served as a testimony to the capability of the Internet Plus initiative to generate value. Prior research efforts explored corporate value brought by an Internet-based business model from the asset specificity perspective [18]. Given that, our study found, in an empirical way, that the network-based business model could multiply the value of businesses by enhancing their risk tolerance. On top of that, it acted as a refreshing addition to research on how such a model makes an impact on corporate value from the risk-taking angle while justifying the benefits of the adoption by enterprises of the model.

2. Theoretical Analysis and Research Hypotheses

At present, there has been no consensus with regard to the definition of the Internet-based business model in the academic circle. Many, according to the available literature, believe that such a model is a business operation system transcending time and space upon the integration, upgrade, restructuring, and overhaul of current industries, organizations, and business channels. Designed to match the needs of resources via the Internet, it creates, delivers, and obtains value by using data, information, and platforms [19–21]. Many present online business models involve various new elements built on the Internet, such as artificial intelligence, big data, and the models of B2B and B2C. Compared with conventional business models, the Internet-based one features connection across industries, resource aggregation, and interaction across platforms [22]. Therefore, we based our research on the characteristics and attributes of the Internet-driven business model and focused on reducing information asymmetry for companies when making risk management decisions. The aim was to explore how a network-powered business model can enhance companies' willingness to take a risk by furnishing them with more information and getting them better informed and oriented.

(1) On information collection, an Internet-based business model brings together more sources of information and keeps businesses better informed. First, prior to a business venture, a company needs to gather all sorts of information related to the investment in a timely manner. This, on the one hand, calls for the enhanced capability of information acquisition; on the other hand, it drives up the cost of harvesting information that is likely to be uncomprehensive, inaccurate, and belated, thus taking a toll on the decision-making behavior of the company [23]. An internet-based commercial mode, however, allows enterprises to leverage its built-in searching technology to expand the sources of information retrieval and reach deeper and further resources in a way that timely delivers more and better information to companies [24]. Second, the Internet enables businesses to remove unnecessary links from the information collection process and streamline information retrieval procedures [25]. This ensures the efficient match between demands and supplies and helps companies quickly access needed information.

Third, the ultralow marginal cost of the Internet can offset the cost of time and materials in gathering information [26]. Thus, when it comes to information acquisition, a network-driven business mode empowers businesses to enlarge the information search range, facilitate the demand-supply match, and lower the data search cost. In doing so, companies would be better informed and more willing to take risks.

(2) On information integration, an Internet-based business model helps pool information and allows companies to increase their capability to merge data. The ability to absorb and integrate information resources is crucial to the decisions made by companies since external information is not necessarily involved in the process of risk management decision-making [27]. Organizational learning theory points out that corporate learning is a process in which decision-makers continuously learn and absorb external information resources. Under an Internet-driven business model, big data analysis enables enterprises to gather and select a variety of data resources and identify the interconnectedness among them, and the data-absorbing capability can strengthen through mapping knowledge domains and digital portraits. From the perspective of dynamic capability, growing in a complicated external environment requires businesses to develop the ability to absorb, merge, disintegrate, and reconstruct information resources [28]. On the Internet platform, companies can manage fragmented information in an intensive fashion. This facilitates the coordination of internal and external information, tackles the conflict between the demand for diversified information and supply of fragmented data, and leads the management of corporate information resources to new heights. On the front of data merging overall, enterprises can be more effective in absorbing information and see it managed intensively through the adoption of an Internet-based business model. That is how the ability to integrate information resources can be strengthened in a way that keeps businesses better informed and motivated to take risks.

(3) On information application, an Internet-based business model gives data a pivotal role in the decision-making of enterprises and allows them the enhanced capability to use information. Poor-quality data gets businesses disoriented in making investment decisions and prevents them from taking risks [23]. In a web-powered commercial mode, a company can simulate and improve different plans by making use of the Internet-assisted decision-making system, with a view to understanding the distribution of returns and risks across varied investment proposals. This deters enterprises from ineffective input in decision-making and navigates their way to an accurate and science-based decision through massive data, thus ensuring a better quality of information application. Moreover, the big data-based prediction technique gives corporate decision-makers more forward-looking information to motivate them to polish up the present investment plan or develop a new one and to increase their capability of dynamic adjustment. For instance, the technique allows businesses to spot and learn the data about peers in a given area and enhance their ability of risk prediction and dynamic adjustment by identifying the rules within, drawing on novel experiences, and following new trends. In applying information, therefore, an Internet-driven business model helps enhance the quality of data application and the ability of risk prediction and dynamic adjustment. This is how enterprises can always stay oriented in the decision-making process.

Overall, an Internet-based business model offers support in data acquisition, integration, and application for enterprises carrying out investment projects. This can free businesses making risk management decisions from any constraints brought by information asymmetry and encourage them to be more open to risk-taking. Founded on the above-mentioned analysis, we put forth the following hypotheses.

Hypothesis 1. The adoption of an Internet-based business model leads to a higher level of corporate risk-taking. And the more engaged a company is to such a model, the more willing it is to take risks.

Hypothesis 2. The adoption of an Internet-based business model reduces the constraints imposed by information asymmetry and thus enhances corporate risk capacity.

3. Research Design

3.1. Data Sources. The samples used for research were selected from the companies trading on Chinese stock markets between 2010 and 2019 that met the following conditions. First, given that the intrinsic relationship between listed Internet firms and the net-based commercial mode could affect the results of the empirical study, the paper excluded companies in or related to such sectors closed linked to the Internet as computer manufacturing and software maintenance. Second, financial companies and those with anomalies in financial statements were removed. Third, businesses missing data were excluded. With that, the final sampling pool contained a total of 10,036 corporate values for analysis. We then trimmed the pool by removing 1% of the lowest and highest values of a continuous variable. The data about the adoption of an Internet-based business model were provided through the combination of buzz words in listed firms' annual reports and manual selection, whereas information about listed companies was sourced from the CSMAR database.

3.2. Definition of Variables

(1) Explained variable: corporate risk-taking. Following the way John et al. [4] and Boubakri et al. [1] used, we

employed fluctuating return-on-assets (ROA) to measure the level of a company's risk tolerance. ROA, in this paper, indicated a ratio of a company's earnings before interest and taxes (EBIT) against its total assets, and *A_ROA* was calculated by relating *ROA* to an annual average on an industrial basis, which is shown in equation (1). With every three years (from *t-2* to *t*) as an observation session, the study measured the standard deviation (see equation (2)) and range (see equation (3)) of the adjusted value of *A_ROA* and computed the explained variables *RISK*1 and *RISK*2 by multiplying the value by 100. The greater the fluctuation of *ROA* (the larger the standard deviation), the higher the risk tolerance of a company.

$$A\_ROA_{\mathrm{it}} = \frac{EBIT_{\mathrm{it}}}{ASSET_{\mathrm{it}}} - \frac{1}{M}\sum_{k=1}^{M}\frac{EBIT_{\mathrm{it}}}{ASSET_{\mathrm{it}}}, \tag{1}$$

$$RISK1_{it} = \sqrt{\frac{1}{T-1}\sum_{t=1}^{T}\left(A\_ROA_{\mathrm{it}} - \frac{1}{T}\sum_{t=1}^{T}A\_ROA_{it}\right)^{2}} \cdot |T = 3, \tag{2}$$

$$RISK2_{\mathrm{it}} = Max\left(A\_ROA_{\mathrm{it}}\right) - \mathrm{Min}\left(A\_ROA_{\mathrm{it}}\right). \tag{3}$$

(2) Core explanatory variable: the Internet-based business model. Inspired by Yang and Bi [18], as well as Li et al. [21], we measured the relative level of the introduction of a network-powered commercial mode by companies. The executive suite would reveal how their company has implemented and promoted the Internet Plus initiative in the annual report. Given that, we, on the basis of the textual information contained in the samples' annual reports, defined the texts and made an etymological analysis. Built on such guiding documents as the *Industrial Internet Development Action Plan (2018-2020)*, the paper gathered basic etymology on the Internet-based business model, including 20 keywords such as the Internet, Internet-based business model, "Internet Plus," big data, blockchain, the Internet of Things, artificial intelligence, e-commerce, and O2O. Then, we used the programming language of R to count the number of sentences containing the aforementioned keywords in the board report section of the annual report of listed companies. A manual review was conducted to remove expressions that put negative characters, such as "not" (meaning "nothing" or "negative"), before a keyword, and sentences containing keywords in the sections irrelevant to business development, including those introducing the companies' shareholders, executives, suppliers, and customers, and all tables and obscure descriptions were also deleted. Upon the removal, we counted the number of keywords mentioned and measured how penetrating the Internet-based business model is in the business community by employing the logarithm to the sum of the number of keywords counted and 1, expressed by *INT*1, and meantime, the dummy variable, indicated by *INT*2, was also created to show whether an enterprise has adopted a network-driven business model. If the enterprise implements the model (the information disclosed in the annual report of the listed enterprise contains keywords about the model), $INT2 = 1$; otherwise, $INT2 = 0$.

(3) Mediator variable: the extent of information asymmetry (*ASY*). The *ASY* was measured in reference to Amihud [29]. Liquidity ratio (*LR*), illiquidity ratio (*ILL*), and return reversal (*GAM*) were selected for PCA. The top-ranking components were extracted as the variable of the degree of information asymmetry of enterprises:

$$\begin{aligned} LR_{\mathrm{it}} &= \frac{1}{D_{\mathrm{it}}}\sum_{k=1}^{D_{\mathrm{it}}}\sqrt{\frac{V_{\mathrm{it}}(k)}{\left|r_{\mathrm{it}}(k)\right|}}, \\ ILL_{\mathrm{it}} &= \frac{1}{D_{\mathrm{it}}}\sum_{k=1}^{D_{\mathrm{it}}}\sqrt{\frac{\left|r_{\mathrm{it}}(k)\right|}{V_{\mathrm{it}}(k)}}, \end{aligned} \tag{4}$$

where $r_{it}(k)$ is the stock yield of enterprise i on the kth trading day in year t; $V_{it}(k)$ is the daily turnover; D_{it} is the number of trading days in the current year. $GAM_{it} = \mid \gamma_{it} \mid$, where coefficient γ_{it} is estimated by $r^{e}_{\mathrm{it}}(k) = \theta_{\mathrm{it}} + \varphi_{\mathrm{it}} r_{\mathrm{it}}\ (k-1) + \gamma_{\mathrm{it}} V_{\mathrm{it}}(k-1)\mathrm{sign}[r^{e}_{\mathrm{it}}(k-1)] + \varepsilon_{\mathrm{it}}(k)$. Among them, $r^{e}_{\mathrm{it}}(k) = r_{\mathrm{it}}(k) - r_{mt}(k)$ is the excess return, and $r_{mt}(k)$ is the stock market return weighted by the current market value. When other conditions remain unchanged, the higher the company's information asymmetry, the lower its stock liquidity, and the greater the *LR*, *ILL*, and *GAM*. In this study, the top-ranking components of the three original indices are extracted to represent the *ASY* of the company. Our descriptive statistics show that the minimum and maximum of *ASY* were −2.030 and 1.004, respectively. A greater *ASY* value indicated larger degrees of information asymmetry.

(4) Control variables. We took a common approach to further keep variables related to a company and its locality constant. Those concerning a company included *Age* (the logarithm to years a company spends on a Chinese stock market plus 1), *State* (1 for state-owned enterprises, and 0 for those otherwise), *Growth (the increase of business revenue), Cash (net cash flow divided by total assets), ROA (net profit divided by total assets), Lev* (asset-liability ratio), *Size* (the natural logarithm of business revenue), *RD* (expenditure on research and development divided by business income), *Dual (to indicate whether a single individual assumes two posts), First* (the first majority shareholder of a company), *Bdsize* (the size of a board), and *Indep* (the number of independent directors). Control variables regarding a company's locality involved *Market*

(the Marketization Index for Chinese provinces, put forth by Chinese economist Fan Gang) and GDP (the per capita GDP of Chinese provinces).

3.3. Modeling. To test Hypothesis 1, we built the following baseline model to examine the impact that an Internet-based model has on corporate risk-taking.

$$RISK_{\mathrm{it+1}} = \beta_0 + \beta_1 INT_{\mathrm{it}} + \beta_2 X_{\mathrm{it}} + \alpha_Y + \alpha_R + \alpha_I + \varepsilon_{\mathrm{it}}. \quad (5)$$

Given that there is a time lag between the adoption of a net-driven commercial mode and the effect of corporate risk-taking, the paper made time-lag-based adjustments to dependent variables. In (5), $RISK_{it+1}$ indicates the level of risk-taking for the i company in the year of $t+1$, including *RISK*1 and *RISK*2; INT_{it} is the extent to which an Internet-based business model is carried out, including *INT*1; X_{it} refers to a range of control variables implying a company's performance and locality in this paper. Moreover, the study further kept such variables as time-fixed effect (α_Y), industry-fixed effect (α_I), and provincial-level fixed effect (α_R) constant. ε_{it} denotes a random error.

To verify Hypothesis 2, we adopted the method Baron and Kenny [30] used and on the basis of (5), improved the mediation effect model, which is shown in (6) and (7).

$$ASY_{\mathrm{it}} = \lambda_0 + \lambda_1 INT_{\mathrm{it}} + \lambda_2 X_{\mathrm{it}} + \alpha_Y + \alpha_R + \alpha_I + \varepsilon_{\mathrm{it}}, \quad (6)$$

$$RISK_{\mathrm{it+1}} = \mu_0 + \mu_1 INT_{\mathrm{it}} + \mu_2 ASY_{\mathrm{it}} + \mu_3 X_{\mathrm{it}} + \alpha_Y + \alpha_R + \alpha_I + \varepsilon_{\mathrm{it}}. \quad (7)$$

In equations (5)–(7), β_1 refers to the overall effect of corporate risk-taking presented by the Internet-based business model; μ_1 suggests the direct effect of risk-taking brought by the network-driven commercial mode; $\lambda_{1\times}\mu_2$ is the effect imposed by the Internet-based business model through mediator variable *ASY*.

4. Results Analysis

4.1. Descriptive Statistics Analysis. Table 1 lists the descriptive statistics of the main variables. Among others, the mean and standard deviation of *INT*1 stood at 1.021 and 1.252, respectively, suggesting the difference in the extent to which an Internet-based business model is carried out by listed companies in China. The median of *RISK*1 registered 0.163, lower than its mean (0.234), which means the risk-taking level of most listed enterprises remains low. The mean and standard deviation of *ASY* were -0.140 and 0.600, respectively, signaling that a majority of companies trading on China's stock exchanges are subject to the constraints of information failure to varying degrees. Table 2 shows the correlation analysis of major variables. It can be found that the correlation coefficient between *INT*1 and *RISK*1 and between *INT*1 and *RISK*2 stand at 0.047 and 0.044, respectively, both lower than 0.6, a threshold; and the variance inflation factor (VIF) average for the proposed model is 1.60, indicating that the model was free from major multicollinearity concerns.

4.2. Baseline Regression. The regression results that relate an Internet-based business model to corporate risk-taking are shown in Table 3. Among others, Column (1) shows the regression results relating *INT*1 to *RISK*1 through the method of Ordinary Least Squares (OLS); Column (2) involves the control variables of a company's performance, as well as dummy variables based on the year, industry and region; Column (3) introduces control variables based on regions; Column (4) interprets the regression results with the dummy variable of *INT*2 involved; Column (5) displays the estimates with *RISK*2 involved. According to the findings from Columns (1) to (3), the regression coefficients of *INT*1 are all positive at the significance level of 1%; the coefficient of *INT*2 in Column (4) stands at 0.003 at the significance level of 1%; the coefficient of *INT*1 in Column (5) registers 0.012 at the significance level of 5%. All these five columns reveal that when adopting an Internet-based business model, companies will see a surge in risk capacity, and the more committed to such a model they are, the higher level of risk tolerance they will enjoy and the conclusion justified Hypothesis 1.

4.3. The Mechanism of Action Testing. To prove the mechanism of action for a network-based commercial mode to affect corporate risk-taking, we ramped up efforts to test how the model makes an impact on companies' risk tolerance. The aforesaid theoretical analysis found that the Internet-driven business model could allow enterprises to be free from constraints imposed by information asymmetry when making investment decisions, thus encouraging them to be more willing to take a risk. That means the reduction of information failure is crucial to enhancing a company's risk tolerance under a web-powered business model.

Columns (1) to (3) in Table 4 display the estimates from the mediation effect model involving the dependent variable *RISK*1. The coefficient of *INT*1 in Column (1) is 0.007 and positive at the significance level of 1%, and that in Column (2) is -0.026 at the significance level of 1%, suggesting that the Internet-based business model can effectively reduce the information imbalance between companies and the outside world. The coefficient of *INT*1 in Column (3) stands at 0.006 and is positive at the significance level of 5%, and that of *ASY* is -0.044 at the significance level of 1%, meaning the mediation effect was created to a certain extent when information asymmetry weighed in on the relationship between an Internet-based commercial mode and corporate risk-taking. And the effect, according to a further calculation, accounted for 15.1% of the overall effect. That suggested Hypothesis 2 was valid. Beyond that, the regression analysis about the mediation effect with the dependent variable *RISK2* involved was also conducted in this paper, and the statement that the mediation effect was, to a certain extent, created still held water, according to the results, shown in columns (4) to (6) in Table 4. In addition, we adopted the Bootstrap method for the robustness test. Bootstrap sampling was carried out 1,000 times. When the dependent variable was *RISK*1, the product between coefficients fell in the interval [0.001, 0.002] at the significance level of 95%; when the dependent variable was *RISK*2, the product

Table 1: Descriptive statistics of variables.

Variables	Sample size	Mean	Standard deviation	Median	Maximum	Minimum
RISK1	10036	0.234	0.232	0.163	1.455	0.016
RISK2	10036	0.444	0.434	0.310	2.747	0.029
INT1	10036	1.021	1.252	0.693	4.644	0.000
ASY	10036	−0.140	0.600	−0.067	1.004	−2.030
RD	10036	0.033	0.037	0.0290	0.193	0.000
Age	10036	2.227	0.623	2.303	3.219	0.693
State	10036	0.422	0.494	0.000	1.000	0.000
Growth	10036	0.341	0.915	0.141	10.23	−0.725
Dual	10036	0.757	0.429	1.000	1.000	0.000
Indep	10036	0.373	0.056	0.333	0.800	0.125
Bdsize	10036	2.267	0.178	2.303	2.944	1.386
Cash	10036	0.173	0.113	0.144	0.593	0.015
Roa	10036	0.042	0.048	0.036	0.193	−0.225
Lev	10036	0.435	0.197	0.433	0.902	0.059
Size	10036	22.38	1.297	22.16	26.09	19.70
First	10036	3.498	1.487	3.329	7.496	0.872
Market	10036	8.373	1.890	8.580	11.03	2.940
GDP	10036	6.777	2.755	6.417	14.02	1.312

Table 2: Statistical analysis on correlation among major variables.

	RISK1	RISK2	INT1	RD	Age	State	Roa	Lev	Size
RISK1	1								
RISK2	0.998***	1							
INT1	0.047***	0.044***	1						
RD	−0.022**	−0.024***	0.215***	1					
Age	0.061***	0.060***	−0.048***	−0.321***	1				
State	−0.058***	−0.058***	−0.185***	−0.224***	0.482***	1			
Roa	−0.258***	−0.255***	0.012	0.038***	−0.102***	−0.088***	1		
Lev	−0.054***	−0.056***	−0.114***	−0.319***	0.346***	0.322***	−0.344***	1	
Size	−0.137***	−0.137***	0.006	−0.295***	0.391***	0.370***	0.001	0.534***	1

Note. *, **, and *** suggest significance at the levels of 10%, 5%, and 1%, respectively.

between coefficients fell in the interval [0.002, 0.004] at the significance level of 95%. Neither interval contains zero, which further demonstrates the robustness of the mediation effect.

4.4. Endogeneity. To reduce endogeneity brought by reverse causality, omitted variables, and sample selection bias, we employed four methods as follows.

(1) Fixed-effect model. The statistical model could be undermined by the omission of variables, particularly the individual features that do not change over time, thus leading to unreliable conclusions. By using a fixed-effect model, we reined in the individual effect of businesses, and this was based on the fixed effects of region, industry, and time. The estimated coefficients of *INT*1 are 0.005 and 0.010, respectively, in Columns (1) and (2) in Table 5, both being positive at the significance level of 10%.

(2) Heckman two-stage model. To address sample selection bias that could take a toll on the model, we employed the Heckman two-step model, on top of drawing on the research by He et al. [31]. A Probit regression model, adopted at Stage 1, involved *INT_Dummy*, a dummy variable to indicate whether an Internet-based business model is implemented. Meanwhile, *INT_Other*, as an exogenous instrumental variable to show the proportion of other peers carrying out a network-based commercial model in the same year, was also included at Stage 1 to calculate the inverse Mills ratio (*Lambda*), which would be fitted at Stage 2. Results from Column (3) in Table 5 find that *Lambda* is positive at the significance level of 1%, and the estimated coefficient of *INT*1 is 0.009 and positive at the significance level of 5%.

(3) Difference-in-differences (DID) model. In 2017, the Chinese government proposed a blueprint to develop China into a network powerhouse. By adopting a strategy of integrating the Internet, big data, and artificial intelligence with the real economy, the initiative also made it clear for the country to accomplish three main tasks in network development. Guided by government policies, an increasing number of enterprises have since laid a greater emphasis on the application of the Internet. The phenomenon, as Li et al. [21] put it, was a quasiexperiment, which was tested on a DID model. To

Table 3: The Internet-based business model and corporate risk-taking.

Variables	(1) RISK1	(2) RISK1	(3) RISK1	(4) RISK1	(5) RISK2
INT1	0.014***	0.007***	0.007***		0.012**
	(6.59)	(2.77)	(2.70)		(2.53)
INT2				0.003***	
				(2.90)	
RD		0.093	0.094	0.091	0.156
		(1.01)	(1.01)	(0.98)	(0.90)
Age		0.043***	0.043***	0.043***	0.081***
		(9.02)	(9.13)	(9.14)	(9.06)
State		−0.034***	−0.035***	−0.035***	−0.065***
		(−5.69)	(−5.74)	(−5.73)	(−5.75)
Growth		0.004	0.004	0.004	0.007
		(1.10)	(1.10)	(1.10)	(1.09)
Dual		−0.002	−0.002	−0.002	−0.005
		(−0.40)	(−0.40)	(−0.38)	(−0.46)
Indep		−0.011	−0.008	−0.009	−0.019
		(−0.23)	(−0.17)	(−0.19)	(−0.22)
Bdsize		−0.038**	−0.037**	−0.037**	−0.066**
		(−2.42)	(−2.37)	(−2.37)	(−2.26)
Cash		−0.053**	−0.050**	−0.051**	−0.095**
		(−2.37)	(−2.25)	(−2.27)	(−2.25)
Roa		−0.846***	−0.848***	−0.848***	−1.567***
		(−9.06)	(−9.09)	(−9.09)	(−8.98)
Lev		−0.115***	−0.115***	−0.116***	−0.221***
		(−5.72)	(−5.74)	(−5.75)	(−5.85)
Size		−0.013***	−0.013***	−0.013***	−0.024***
		(−4.78)	(−4.83)	(−4.82)	(−4.74)
First		−0.002	−0.002	−0.002	−0.004
		(−1.19)	(−1.19)	(−1.16)	(−1.31)
Market			0.023***	0.023***	0.043***
			(3.12)	(3.07)	(3.11)
GDP			−0.002	−0.002	−0.003
			(−0.36)	(−0.36)	(−0.40)
Constant	0.220***	0.622***	0.439***	0.441***	0.823***
	(76.02)	(10.45)	(5.15)	(5.18)	(5.15)
Year/ Ind/ Region	NO	Yes	Yes	Yes	Yes
N	10036	10036	10036	10036	10036
R^2	0.006	0.094	0.095	0.095	0.095

Note. The figure within brackets is the t value upon the calculation of robust standard errors. *, **, and *** suggest significance at the levels of 10%, 5%, and 1%, respectively (the same below).

be specific, we viewed samples that failed to adopt an Internet-based business model during research time as a reference group and those that did not implement such a model between 2010 and 2016 but did so from 2017 through 2019 as the experimental group. As Column (4) in Table 5 shows, the estimated coefficient of *Treat*×*Post* is 0.041 at the significance level of 1%, and *Post* is absorbed by the time-fixed effect. Results from the DID model's parallel trend test show that the coefficients of $Treat \times Year2015$ and $Treat \times Year2016$ are insignificant before the implementation of the initiative in 2017, but those of $Treat \times Year2017$ and $Treat \times Year2018$ are positive at the significance level of 5% at least in 2017 and the following year. That signaled analysis results passed the parallel trend test.

(4) Placebo test. There could be other random factors we cannot observe or measure currently, despite the best possible efforts made to keep critical variables affecting corporate risk-taking under control. Given that, we employed a placebo test, which was inspired by Liu and Lu [32]. The approach was designed to convert the impact of an Internet-based business model on a company's risk capacity into a stochastic process and have it iterated 500 times. This ensured that core explanatory variables exerted no real effects, meaning the estimated coefficient β should be 0 and the mean of β could be computed. Results showed that the mean of the stochastically processed β was 0.000141, nearing 0, and the average of t was 0.054. The β and t values randomly distributed 500 times are displayed in Figures 1 and 2. It can be found that all these values linger around 0, suggesting unobserved factors could barely make an impact on regression results. That, therefore, consolidated the robustness of our conclusions.

4.5. Robustness Test. To make our conclusions more reliable, we took the following steps to test robustness.

(1) Replace the core explanatory variable. To overcome the impact of differences in the length of annual reports, we, by following the method proposed by Li et al. [21], multiplied *INT*3 (meaning the total of Internet terms divided by the word count of annual reports) by 100. As Column (1) in Table 6 notes, the coefficient of *INT*3 is 0.003 at the significance level of 1%.

(2) Swap the explained variable. Inspired by the research of Boubakri et al. [1], the paper used *RISK*2 to indicate the level of risk tolerance, and *INT*3 remained a core explanatory variable. Column (2) in Table 6 shows that the estimated coefficient is 0.005 at the significance level of 1%.

(3) Change the estimation time period. By adopting the research time period suggested by Yang and Bi [18], we removed data on companies trading on Chinese stock exchanges between 2010 and 2012 and made a regression analysis on data from 2013 through 2019. The conclusions, upon the analysis, stayed robust, as results from Column (3) in Table 6 found.

(4) Remove corporate samples that fail to carry out an Internet-based business model. Nearly half of the sample pool we built was not committed to a network-driven commercial mode. And to overcome the impact presented by these samples, we acknowledged the approach proposed by Li et al. [21] by merely estimating the samples whose *INT*1 was greater than 0. The estimated coefficient is 0.009 at the significance level of 5%, as is shown in Column (4) in Table 6.

Table 4: Mechanism of action testing.

Variables	(1) RISK1	(2) ASY	(3) RISK1	(4) RISK2	(5) ASY	(6) RISK2
INT1	0.007***	−0.026***	0.006**	0.012**	−0.026***	0.010**
	(2.70)	(−6.60)	(2.24)	(2.53)	(−6.60)	(2.08)
ASY			−0.044***			−0.082***
			(−6.60)			(−6.61)
Constant	0.439***	6.964***	0.747***	0.823***	6.964***	1.397***
	(5.15)	(45.70)	(7.63)	(5.15)	(45.70)	(7.62)
Year/Ind/Region	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
N	10036	10036	10036	10036	10036	10036
R^2	0.095	0.631	0.100	0.095	0.631	0.099

Table 5: Endogeneity reduction.

Variables	(1) RISK1	(2) RISK2	(3) RISK1	(4) RISK1	(5) RISK1
INT1	0.005*	0.010*	0.009**		
	(1.87)	(1.85)	(2.37)		
Treat × Post				0.041***	
				(3.32)	
Treat				−0.009*	
				(−1.68)	
Post					
Lambda			0.095***		
			(2.95)		
Treat × Year2015					−0.014
					(−1.22)
Treat × Year2016					−0.011
					(−0.88)
Treat × Year2017					0.042***
					(3.13)
Treat × Year2018					0.007**
					(2.34)
Constant	1.007***	1.890***	0.282**	0.441***	0.433***
	(5.34)	(5.33)	(1.97)	(5.20)	(5.10)
Firm	Yes	Yes	NO	NO	NO
Year/Ind/Region	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes
N	10036	10036	10036	10036	10036
R^2	0.397	0.397	0.401	0.095	0.095

5. Further Analysis

5.1. Moderation Effect Analysis. The preceding paragraphs suggested that an Internet-based business model allows enterprises to ease the constraints imposed by information failure as they make investment decisions and thus enhances their risk tolerance. The information empowerment effect created by such a model, however, could be affected by an interplay of internal and external elements, with the external market environment and the restrictions on corporate financing being typical ones.

(1) Market-based moderation. The market environment is crucial for a company's investment decisions [33]. A freer market tends to boast a more mature combination of market systems, factors of production, and intermediaries and also results in improved Internet infrastructure and network-based platforms. That means a region whose development is driven more by market forces will see a significant enhancement in the accessibility, penetration, and efficiency of Internet services and thus create synergy between the market environment and information technology. With market-oriented institutions and Internet technology, businesses can largely reduce information asymmetry when making investment decisions. That helps level up their willingness and capacity to take risks in a way that justifies the role the Internet has in facilitating corporate risk-taking. Inspired by Hou et al. [33], we employed the Fan Gang-proposed Marketization Index to indicate the level of marketization on a provincial level and had it fitted through average growth in indices between

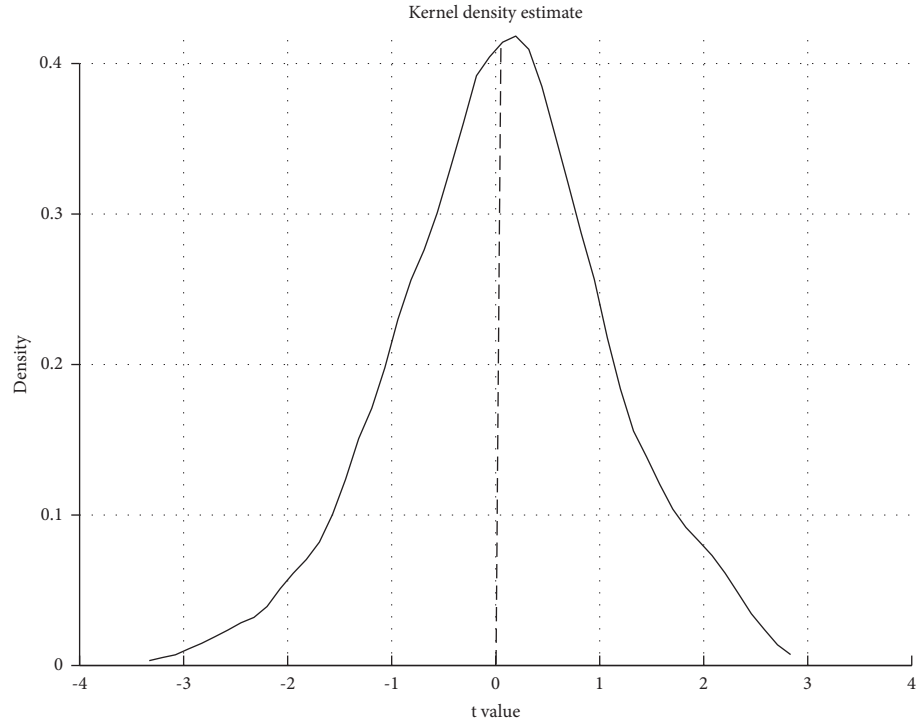

Figure 1: Distribution of the stochastically processed β.

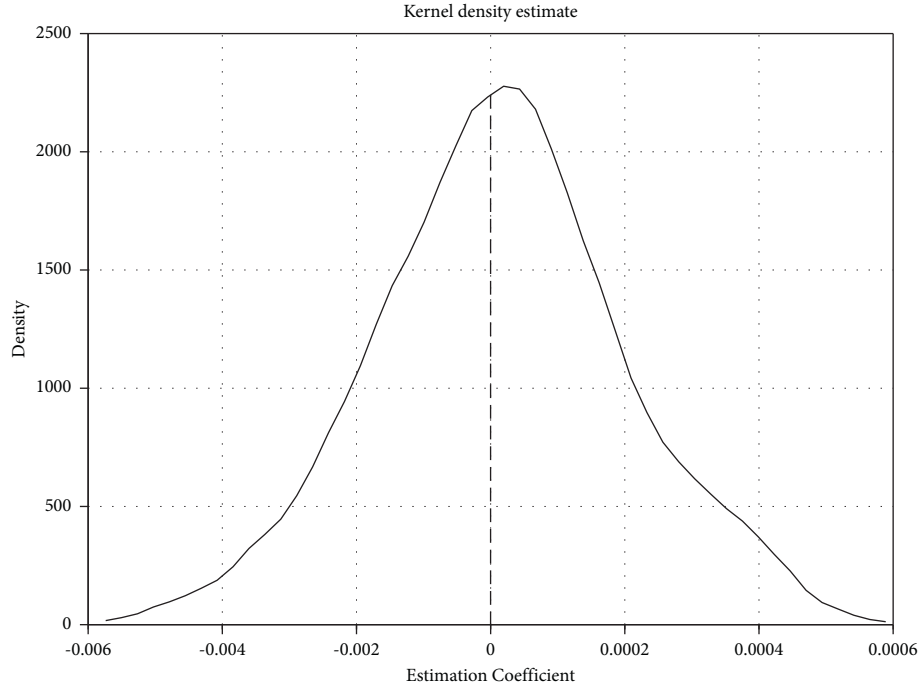

Figure 2: Distribution of the stochastically processed t.

2010 and 2019. Results from regression analysis, shown in Columns (1) and (2) in Table 7, find that the coefficients of $INT1 \times Market$ are positive at the significance level of 1%, meaning in an enabling market environment, the enhancement of a company's risk capacity can be driven more by an Internet-based business model. Therefore, a blend of increased marketization and the web-powered commercial mode is of significance to inspire enterprises to take risk.

Table 6: Robustness test.

Variables	(1) RISK1	(2) RISK2	(3) RISK1	(4) RISK1
INT3	0.003***	0.005***		
	(2.90)	(2.74)		
INT1			0.005**	0.009**
			(2.06)	(2.37)
Constant	0.441***	0.827***	0.393***	0.343***
	(5.18)	(5.18)	(3.36)	(2.65)
Year/Ind/Region	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
N	10036	10036	7693	5372
R^2	0.095	0.095	0.114	0.113

Table 7: Moderation effect testing.

Variables	(1) RISK1	(2) RISK2	(3) RISK1	(4) RISK2
INT1	−0.025**	−0.046**	0.065***	0.124***
	(−2.44)	(−2.41)	(2.63)	(2.71)
INT1 × Market	0.004***	0.007***		
	(3.05)	(2.97)		
Market	0.018**	0.033**		
	(2.35)	(2.36)		
SA			0.020	0.039
			(1.16)	(1.18)
INT1 × SA			−0.017**	−0.032**
			(−2.35)	(−2.44)
Constant	0.509***	0.951***	0.333***	0.620***
	(5.80)	(5.78)	(2.82)	(2.80)
Year/Ind/Region	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
N	10036	10036	10036	10036
R^2	0.096	0.096	0.075	0.075

(2) Moderation of internal financing constraints. The relationship between an Internet-based business model and corporate risk-taking could concern the financing constraints of a company. Previous studies found that financial embarrassment exerts a great impact on a firm's willingness to take the risk [6]. In reality, a lack of resources would hold back firms from carrying out ambitious investment plans, despite a host of business opportunities for them. Therefore, when companies grapple with many financing constraints, their desire for higher risk capacity cannot be effectively driven by a network-based commercial mode. By adopting the method proposed by Hadlock and Pierce [34], we used the value of the index *SA* to indicate the extent to which a company is financially constrained. The greater the value, the more financially embarrassed the company is. Regression results, displayed in Columns (3) and (4) in Table 7, show that *the coefficients of INT*1×*SA* are negative at the significance level of 5%, signaling that when more financing constraints are imposed on a company, the role of an Internet-based business model in facilitating corporate risk-taking would be undermined to a large extent.

5.2. Extensibility Analysis. The preceding part of the paper demonstrated how the adoption of an Internet-based business model can encourage a company to take a risk. But will a company see its ability to create value enhance as its risk tolerance increases? To explore the issue, we examined the economic consequences presented by corporate risk-taking under an Internet-based business model and see whether risk capacity could contribute to the enhancement of corporate value. Inspired by Ferris et al. [35], we employed *TobinQ* to indicate corporate value and created the explained variable values with one or two time lags, given that the impact of an Internet-based business model on corporate value could be delayed. This is how we could fully observe the dynamic impact of risk tolerance on a company's value in a web-driven commercial mode.

Results from Columns (1) and (2) in Table 8 reveal that the coefficients of $RISK1 \times INT1$ are both positive. The coefficients of $RISK2 \times INT1$, as shown in Columns (3) and (4), are positive at the significance level of 5%. That means under an Internet-based business model, risk tolerance plays an important role in facilitating corporate value. At the same time, despite delayed effects, such facilitation helps sustain the generation of business value. Additionally, the study demonstrated a significant mediation effect among the Internet-driven commercial mode,

Table 8: Testing of consequences presented by corporate risk-taking under an Internet-based business model.

Variables	(1) $TobinQ_{it+1}$	(2) $TobinQ_{it+2}$	(3) $TobinQ_{it+1}$	(4) $TobinQ_{it+2}$
RISK1	0.258***	0.099		
	(4.37)	(1.46)		
RISK2			0.138***	0.053
			(4.39)	(1.49)
RISK1 × INT1	0.085**	0.088*		
	(2.46)	(1.95)		
RISK2 × INT1			0.047**	0.048**
			(2.56)	(2.00)
INT1	0.005	−0.002	0.004	−0.003
	(0.37)	(−0.16)	(0.28)	(−0.21)
Constant	9.839***	9.976***	9.838***	9.974***
	(26.53)	(22.98)	(26.53)	(22.97)
Year/Ind/Region	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
N	10036	8200	10036	8200
R^2	0.410	0.385	0.410	0.386

corporate risk-taking, and business value by introducing a mediation effect model, proving that under such a model, risk capacity can maximize corporate value on a continuous basis.

For example, the Chinese company Xiaomi makes smartphones its core business. In recent years, Xiaomi has actively built a product ecosystem based on the Internet-based business model. With the support of the Internet platform, Xiaomi has established supply chain partnerships with more than 400 companies and successfully incubated nearly 300 ecological chain companies. The Internet-based "investment + incubation" model significantly expands the investment scale, improves the level of risk-taking in investment decisions, and increases the value and brand influence of Xiaomi. The company ranked the 222nd among the largest listed companies in the world, according to the 2021 ranking by Forbes. Its ranking continued to improve in the past years.

6. Conclusions and Implications

Leveraging the data about companies trading on China's stock exchanges between 2010 and 2019, we identified the interconnectedness between an Internet-based business model and corporate risk-taking from the perspectives of information acquisition, integration, and application through a series of empirical analyses and tests. The study noted that the introduction of a network-driven commercial mode allows businesses to be more willing to take a risk. Such a model can effectively reduce information asymmetry, thus enhancing corporate risk-taking, the mechanism of action analysis found. The enhancement of risk capacity, as was indicated by the moderation effect study, will be more noticeable when there is a freer market and the company itself is less financially constrained. And the analysis of economic consequences showed that under an Internet-based business model, a company's risk tolerance can sustain the increase of its business value. The findings contributed to the following implications for policy.

Ramped-up efforts should be made by governments to see the Internet Plus initiative materialize. As the study showed, the Internet-based business model motivates enterprises to take risks in a way that creates greater value. Although the initiative has been of national and strategic significance since it was first proposed by the Chinese government in 2015, the willingness and capacity to capitalize on the Internet remain to be improved. Given that, the government should advance the implementation of the Internet Plus initiative, encourage businesses to go digital in a way that suits their realities, and develop action plans and supporting policies that facilitate digitalization on the part of enterprises.

Priority should be given to carrying out the Internet Plus initiative as businesses make risk management decisions. The mechanism analysis found that an Internet-based business model helps enhance corporate risk-taking by allowing enterprises to reduce information asymmetry as they gather, absorb, and apply data. That means the adoption of such a novel model should not be treated as an option to go with the stream, nor a strategic behavior to garner public attention. Instead, enterprises need to develop "Internet thinking," or Internet-oriented ideology, and follow the rules and patterns in the Internet business world. In so doing, they should blend the attributes of the Internet-based business model with their decision-making so as to create and deliver business value.

Sound internal and external environments serve as the solid groundwork and vital catalyst for the Internet-driven commercial mode. That means, on the one hand, the functions of government should be further transformed and the building of market-oriented regions advanced. This is how the external environment can be shaped to promote the business model. On the other hand, financing constraints should be high on the agenda for enterprises, and when implementing such a model, companies should overcome the obstacle posed by capital shortage and ensure the model is given full play by shaping enabling internal and external environments.

Data Availability

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

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Acknowledgments

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References

[1] N. Boubakri, J. C. Cosset, and W. Saffar, "The role of state and foreign owners in corporate risk-taking: evidence from privatization," *Journal of Financial Economics*, vol. 108, no. 3, pp. 641–658, 2013.

[2] J. Li and Y. Tang, "CEO hubris and firm risk taking in China: the moderating role of managerial discretion," *Academy of Management Journal*, vol. 53, no. 1, pp. 45–68, 2010.

[3] M. Cucculelli and B. Ermini, "New product introduction and product tenure: what effects on firm growth?" *Research Policy*, vol. 41, no. 5, pp. 808–821, 2012.

[4] K. John, L. Litov, and B. Yeung, "Corporate governance and risk-taking," *The Journal of Finance*, vol. 63, no. 4, pp. 1679–1728, 2008.

[5] K. Y. Qiao, "Listed Chinese firms' risk aversion: theory and evidence based on factor model," *Journal of Financial Research*, vol. 2014, no. 1, pp. 180–193, 2014.

[6] R. D. Mclean and M. Zhao, "The business cycle, investor sentiment, and costly external finance," *The Journal of Finance*, vol. 69, no. 3, pp. 1377–1409, 2014.

[7] M. Çanakcı, "Role of oil prices and major macroeconomic factors in the economic growth of selected G20 countries," *International Journal of Sustainable Development and Planning*, vol. 16, no. 2, pp. 347–356, 2021.

[8] D. Qehaja and G. Zhushi, "Macroeconomic policy changes and its impact on trade unions, an empirical study on OECD countries for the period 2001-2020," *International Journal of Sustainable Development and Planning*, vol. 16, no. 8, pp. 1575–1582, 2021.

[9] A. Habib, M. M. Hasan, and S. Cahan, "Firm life cycle, corporate risk-taking and investor sentiment," *Accounting and Finance*, vol. 57, no. 2, pp. 465–497, 2017.

[10] P. Nguyen, "The impact of foreign investors on the risk-taking of Japanese firms," *Journal of the Japanese and International Economies*, vol. 26, no. 2, pp. 233–248, 2012.

[11] C. J. Wang, "Board size and firm risk-taking," *Review of Quantitative Finance and Accounting*, vol. 38, no. 4, pp. 519–542, 2012.

[12] P. Jiraporn and P. Chintrakarn, "How do powerful CEOs view corporate social responsibility (CSR)? An empirical note," *Economics Letters*, vol. 119, no. 3, pp. 344–347, 2013.

[13] M. A. Serfling, "CEO age and the riskiness of corporate policies," *Journal of Corporate Finance*, vol. 25, pp. 251–273, 2014.

[14] P. Koudijs and H. J. Voth, "Leverage and beliefs: personal experience and risk-taking in margin lending," *The American Economic Review*, vol. 106, no. 11, pp. 3367–3400, 2016.

[15] H. Almeida, "Financial constraints, asset tangibility, and corporate investment," *Review of Financial Studies*, vol. 20, no. 5, pp. 1429–1460, 2007.

[16] H. Almeida and M. Campello, "Financial constraints, asset tangibility, and corporate investment," *Review of Financial Studies*, vol. 20, no. 5, pp. 1429–1460, 2007.

[17] C. Paunov and V. Rollo, "Has the internet fostered inclusive innovation in the developing world?" *World Development*, vol. 78, no. 2, pp. 587–609, 2016.

[18] D. M. Yang and J. Q. Bi, "Internet plus, entrepreneurs' external investment and corporate valuation," *China Industrial Economics*, vol. 2019, no. 6, pp. 136–153, 2019.

[19] E. Brynjolfsson, D. Rock, and C. Syverson, "Artificial intelligence and the modern productivity paradox: a clash of expectations and statistics," *NBER Chapters*, no. 24001, 2018.

[20] L. Zhang and S. Chen, "China's digital economy: opportunities and risks," *IMF Working Papers*, vol. 19, no. 16, p. 1, 2019.

[21] X. Li, H. Chang, and Z. F. Lu, *Microsystems & nanoengineering*, vol. 6, no. 10, pp. 66–81, 2020.

[22] L. Muzellec, S. Ronteau, and M. Lambkin, "Two-sided Internet platforms: a business model lifecycle perspective," *Industrial Marketing Management*, vol. 45, no. 1, pp. 139–150, 2015.

[23] G. C. Biddle, G. Hilary, and R. S. Verdi, "How does financial reporting quality relate to investment efficiency?" *Journal of Accounting and Economics*, vol. 48, no. 2-3, pp. 112–131, 2009.

[24] W. B. Arthur, "The structure of invention," *Research Policy*, vol. 36, no. 2, pp. 274–287, 2007.

[25] H. Liu, Q. Huang, S. Wei, and L. Huang, "The impacts of IT capability on internet-enabled supply and demand process integration, and firm performance in manufacturing and services," *International Journal of Logistics Management*, vol. 26, no. 1, pp. 172–194, 2015.

[26] C. Forman and N. V. Zeebroeck, "From wires to partners: how the internet has fostered R&D collaborations within firms," *Management Science*, vol. 58, no. 8, pp. 1549–1568, 2012.

[27] L. Dahlander and D. M. Gann, "How open is innovation?" *Research Policy*, vol. 39, no. 6, pp. 699–709, 2010.

[28] D. J. Teece, "Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance," *Strategic Management Journal*, vol. 28, no. 13, pp. 1319–1350, 2007.

[29] Y. Amihud, "Illiquidity and stock returns: cross-section and time-series effects," *Journal of Financial Markets*, vol. 5, no. 1, pp. 31–56, 2002.

[30] R. M. Baron and D. A. Kenny, "The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations," *Journal of Personality and Social Psychology*, vol. 51, no. 6, pp. 1173–1182, 1986.

[31] Y. He, W. L. Yu, and M. Z. Yang, "CEOs with rich career experience, corporate risk-taking and the value of enterprises," *China Industrial Economics*, vol. 2019, no. 9, pp. 155–173, 2019.

[32] Q. Liu and Y. Lu, "Firm investment and exporting: evidence from China's value-added tax reform," *Journal of International Economics*, vol. 97, no. 2, pp. 392–403, 2015.

[33] F. Hou, W. Tang, H. Wang, and H. Xiong, "Economic policy uncertainty, marketization level and firm-level inefficient investment: evidence from Chinese listed firms in energy and power industries," *Energy Economics*, vol. 100, no. 2, Article ID 105353, 2021.

[34] C. J. Hadlock and J. R. Pierce, "New evidence on measuring financial constraints: moving beyond the KZ index," *Review of Financial Studies*, vol. 23, no. 5, pp. 1909–1940, 2010.

[35] S. P. Ferris, D. Javakhadze, and T. Rajkovic, "CEO social capital, risk-taking and corporate policies," *Journal of Corporate Finance*, vol. 47, no. 12, pp. 46–71, 2017.