#### ARTICLE



# Determinants of Chinese Exporters' Online De-Internationalization

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#### Abstract

Given the growing trend of using digital platforms for exporters' internationalization, the management of exporters' online internationalization has become a critical issue. However, academic research in this area remains sparse. Specifically, little is known about when and under what conditions exporters may consider discontinuing the use of a digital platform for exporting, i.e., online de-internationalization. This study develops and tests a theoretical framework for these determinants and the contingencies for exporters' online de-internationalization. Specifically, drawing on the de-internationalization literature, we identify sets of internal and external antecedents of exporters' intention to discontinue the use of digital platforms for exporting. Furthermore, we examine the moderating effect of technological opportunism. Based on a unique sample of Chinese exporters registered on Alibaba.com, the world's largest business-to-business platform, the empirical findings support our proposed determinants of online de-internalization. This article ultimately discusses the theoretical and managerial implications.

#### 摘要

隨著出口廠商利用數字化平台實現國際化的趨勢日益增長,如何管理出口廠商的線上國際化已成為 一個關鍵課題。然而,目前對出口廠商何時以及在何種情況下可能考慮停止使用數字化平台進行出 口(即線上去國際化)的認識仍然有限。本研究構建並驗證了一個理論框架,以探討影響出口廠商 線上去國際化的決定因素及其調節條件。 具體來說,本研究借鑒去國際化的相關文獻,識別出影響 出口廠商中止使用數字化平台進行出口的內部與外部前因。此外,我們還探討了科技投機傾向的調 節作用。本研究以阿里巴巴(Alibaba.com,全球最大的企業對企業(B2B)平台)註冊的中國出口 廠商的獨特樣本為研究對象,通过實證研究支持了我們提出的線上去國際化決定因素。 最後,本文 討論了研究的理論意涵和管理意涵

Keywords: Chinese exporters; digital platforms; emerging markets; online de-internationalization; political networking; regulatory distance; technological opportunism

#### Introduction

Digitalization has rapidly transformed exporter internationalization. The emergence of Internet business-to-business (B2B) platforms indeed offers a variety of services on platforms, including advertising, communication, matching, and certification for those exporters who wish to demonstrate the quality of their products, enhance their credibility, and reduce foreign buyers' concerns because of information asymmetry issue. Hence, digital platforms can offer exporters an efficient and effective alternative channel for their internationalization.

Despite these tremendous opportunities, however, digital platforms have both challenges and risks for exporters. For example, due to low entry barriers and network effects (McIntyre & Srinivasan, 2017; Zhu & Iansiti, 2019), digital platforms are crowded and extremely competitive (Cusumano, Gawer, &

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Yoffie, 2019). More than 150,000 sellers compete with one another on Alibaba.com, China's predominant Internet B2B platform (Anwar, 2017). Given these challenges and the risks related to using the digital platform for exporting, exporters may tend to discontinue using the digital platform for exporting.

While previous research has investigated issues related to exporters' de-internationalization, most of that work has focused on decisions regarding export market exits (Choquette, 2019; Sandberg, Sui, & Baum, 2019; Sui & Baum, 2014). No prior academic endeavors have been made to conceptualize and theorize this new type of de-internationalization. Specifically, no prior research has examined exporters' intention to discontinue using the digital platform for exporting, i.e., online de-internationalization. It is still not clear when and under what conditions exporters would intend to discontinue using a digital platform for exporting. This is an important issue, given that online internationalization has been an increasing internationalization approach for many exporters (Sinkovics, Sinkovics, & Jean, 2013). Indeed, the recent work has called for a better understanding of the risks associated with the use of digital platforms for exporter internationalization (Jean, Kim, & Cavusgil, 2020; Lee, Yang, & Ghauri, 2023).

To address these gaps, this study developed and tested a theoretical framework on the determinants of exporters' online de-internationalization. We focus on the determinants of exporters' discontinued use of digital platforms for exporting. Given the increasing importance of digital platforms for the enhancement of firms' internationalization, our research focuses on two-sided electronic platforms (or electronic marketplaces) that connect seller firms and buyer firms and enable them to negotiate and make transactions (Thomas, Autio, & Gann, 2014). Drawing on the available literature on de-internationalization (Jafari-Sadeghi, Amoozad Mahdiraji, Budhwar, & Vrontis, 2023; Kafouros, Cavusgil, Devinney, Ganotakis, & Fainshmidt, 2021; Tang, Zhu, Cai, & Han, 2021), we develop and test a framework for the antecedents of the intention of discontinued use of digital platforms for exporting. We focus on internal organizational factors and external institutional (regulatory) environmental drivers of exporters' discontinued use of digital platforms for exporting. Specifically, we focus on managers' political networking as a major internal driver because political networking has been considered a critical resource, capability, and social capital for Chinese firms' internationalization strategies (Kotabe, Jiang, & Murray, 2017; Li & Zhang, 2007).

Furthermore, the prior research on de-internationalization has identified regulatory distance as an important external dimension that may indeed shape firms' de-internationalization strategies (Jafari-Sadeghi et al., 2023; Kafouros et al., 2021). Hence, we incorporate regulatory distance as an external antecedent of Chinese exporters' discontinued use of digital platforms for exporting. Furthermore, we focus on examining technological opportunism as these firms' distance on the intention of Chinese exporters' decision to discontinue the use of digital platforms for exporting. Technological opportunism, which refers to the sense-and-respond capability of firms with respect to new technologies (Chen & Lien, 2013; Li, Chen, Yan, Xu, & Jiang, 2023; Srinivasan, Lilien, & Rangaswamy, 2002), has been regarded as an important firm capability when adopting new technology. Hence, we include technological opportunism as a technology factor that may shape the effectiveness of the internal and external factors of online de-internationalization, i.e., exporters' discontinued use of digital platforms for exporting. Our proposed conceptual framework is illustrated herein Figure 1.

Our empirical context is Chinese exporters who use Alibaba.com, the largest Internet B2B platform worldwide (www.alibaba.com). Founded in 1998, Alibaba.com primarily provides an electronic market for B2B sellers and buyers. It is a subscription-based platform that offers value-added services to its members and sellers who pay annual access fees. Most sellers on Alibaba.com are Chinese manufacturers, while the buyers are global wholesalers, resellers, and trading companies. Alibaba.com features international exchanges and facilitates transactions between Chinese exporters, sellers, and buyers worldwide. Thus, Chinese exporters using Alibaba.com is an excellent setting for examining the effects of exporters' intention of discontinuing the use of digital platforms for exporting.

We expect this research to make the following contributions. First, by drawing on the de-internationalization literature, this study identifies and investigates both internal and external

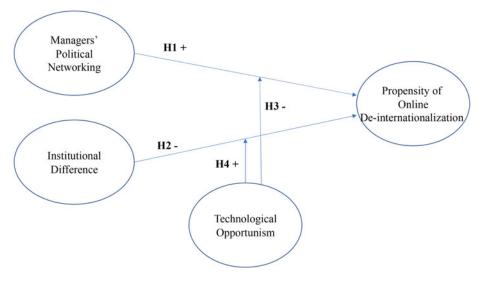


Figure 1. The conceptual model

determinants of online de-internationalization, i.e., the intention to discontinue the use of digital platforms for exporting. Therefore, this study provides a theory-grounded framework to investigate what drives exporters' online dis-internationalization. The previous work on de-internationalization has focused on different types of de-internationalization, such as export exit, foreign divestment, withdrawal of a foreign operation, and global exit (Jafari-Sadeghi et al., 2023; Kafouros et al., 2021; Tang et al., 2021). However, we conceptualize exporters' discontinued use of the digital platform for exporting as a new type of dis-internationalization. Secondly, we examine the moderating effects of technological opportunism in the proposed model. While prior studies have identified sets of different internal and external drivers of firms' de-internationalization, little is yet known about how different internal and external factors will interact to affect a firm's de-internationalization decision, particularly the technological side aspect of internal factors. Recent review work has called for more research to examine the interactions of different dimensions of drivers of de-internationalization (Tang et al., 2021). The current research contributes to this stream of work by examining the moderating effect of technological opportunism on the link between internal and external determinants (i.e., political networking and regulatory distance) and an exporter's intention to discontinue the use of digital platforms.

# **Theoretical Background and Hypotheses Development**

#### Online De-Internationalization by Exporters

International business scholars have discussed different types of de-internationalization, such as export exit, foreign divestment; withdrawal of a foreign operation, and global exit (Kafouros et al., 2021; Tang et al., 2021). With the emergence of the Internet and more advanced technology, digitalization has transformed global business operations, not only for multi-nation companies but also for exporters. For example, the emergence of digital platforms has helped exporters reduce information asymmetry and increase both foreign contact and sales performance (Jean & Kim, 2020). However, digitalization does not just bring opportunities for exporting; it also can generate new types of threats and risks (Jean et al., 2020). For example, participating on a digital platform may incur dysfunctional competition, such as infringement of copyright products and price wars (Jean et al., 2020). In addition, exporters have to pay a certain amount in registration fees to be able to participate in a digital platform for exporting. Hence, exporters may consider discontinuing their use of digital platforms for exporting based on the cost and benefit analysis. Furthermore, there are different digital platforms on the markets that offer similar functions and services for exporters. For example, Amazon also offers

cross-border digital commerce services to exporters that are similar to the services offered by Alibaba.com. Hence, exporters may evaluate the pros and cons of different platforms and consider switching to alternative platforms for exporting. Extending the prior research on deinternationalization, we conceptualize the intention of discontinuing the use of a digital platform for exporting as one type of de-internationalization decision-making. Exporters may also consider discontinuing their registered platform membership if they cannot reap enough significant benefits by participating in the digital platform.

Prior research on de-internationalization has identified different sets of internal and external drivers of firms' de-internationalization. Internal drivers, such as different resources and capabilities, have been identified in this prior research. Most research follows the logic of the resource-based view (RBV) that identifies internal drivers of de-internationalization (Kafouros et al., 2021; Tang et al., 2021). The RBV logic suggests that firms' strategic decision-making is a function of their resources and capabilities (Barney, 1991). For example, Tan and Sousa (2020) suggested that high subsidiary performance reduces foreign market exits. That relationship especially holds true when firms have introduced low levels of incremental innovation or high levels of radical innovation and when low levels of incremental innovation are accompanied by considerable international experience. Yayla, Yeniyurt, Uslay, and Cavusgil (2018) further found that market-oriented firms are characterized by a greater degree of flexibility in their market exit decisions compared to less market-oriented organizations. Host market relational capital also reduces the likelihood of foreign market exit under conditions where there is political conflict.

Drawing on the RBV, we identify a key determinant of the discontinued use of digital platforms for exporting. Specifically, we focus on firm managers' political networking as key resources for exporters (Li & Zhang, 2007). Following Li and Zhang (2007), we define managers' political networking as the extent to which managers have ties with government officials. Previous studies have highlighted the importance of managers' political networking as key critical resources for Chinese firms' internationalization (Zhou, Wu, & Luo, 2007). Furthermore, during our initial qualitative interview with exporting managers, they highlighted the importance of political connection in shaping exporters' use of digital platforms as their internationalization path. For example, one exporting manager indicated 'Given that we don't have sufficient political connections with political agencies such as trade associations in local government to support our exporting, we have to largely rely on Alibaba.com serving as alternative exporting channels'. Hence, we particularly focus on examining the effect of managers' political networking on exporters' discontinued use of digital platforms, i.e., online de-internationalization.

Previous work on de-internationalization has also indicated external factors, such as foreign market environments and conditions that can shape firms' de-internationalization strategies. For example, Gaur and Lu (2007) found that the survival rates of foreign units increase at low to medium levels of regulatory distance and then decrease at high levels of regulatory distance. Bernini, Du, and Love (2016) showed that growth in the domestic market increases the likelihood of exiting export markets, whereas growth in foreign markets reduces the likelihood of foreign market exit. Specifically, we examine the effect of regulatory distance on the effect of exporters' online de-internationalization, as prior work has determined that the institutional environment and differences play a key role in affecting firms' de-internationalization. Furthermore, for firms' use of the digital platform as an alternative channel for internationalization, the recent work also highlighted that regulatory distance may significantly affect the effectiveness of exporters' use of digital platforms (Jean, Kim, Zhou, & Cavusgil, 2021; Jean & Kim, 2021). In addition, during our qualitative interview with exporting managers, they also highlighted that institutional distance such as regulatory differences between home and host countries would affect exporters' use of digital platforms as alternative internationalization channels as it increases our exporting costs. For example, one exporting manager indicated 'Given that we export to many institutionally distant countries, we face significant institutional uncertainty and risk. Alibaba.com can serve as an effective and efficient platform which helped us enter foreign markets more successfully'. In addition to internal organizational and external environmental antecedents of exporters' online de-internationalization, we incorporate a technological dimension of a moderator in our proposed conceptual framework. Recent work on de-internationalization has called for more

research on the interaction of different internal and external factors on the actual de-internationalization strategy (Jafari-Sadeghi et al., 2023). Further still, previous work on de-internationalization has identified sets of internal organizational- and environmental-related factors that affect firms' de-internationalization strategies. However, only limited research has examined firms' internal technological resources as factors for de-internationalization. Information systems researchers have examined different technological, organizational, and environmental factors that can lead to firms' technological adoption and withdrawal strategies (Jean, Sinkovics, & Kim, 2014; Zhu & Kraemer, 2005). Following this particular stream of research and extending it to further research on de-internationalization, we investigate the moderating effect of technological opportunism on the effects of political networking and regulatory distance on online de-internationalization, namely, technological opportunism, which refers to the extent to which a firm's capabilities to sense technological opportunities and respond to technological developments (Srinivasan et al., 2002). Technological opportunism has been identified as critical resources and capabilities for a firm's competitive advantage, in particular for Chinese entrepreneurs (Li et al., 2023). Hence, we investigate the moderating effect of technological opportunism on the direct effects of political networking and regulatory distance on actual online de-internationalization.

Figure 1 notes the conceptual framework and interrelationship between the constructs in the model. In the next section, we further develop these hypotheses.

# The Antecedents of Discontinued Use of the Digital Platform for Exporting

#### Political networking

Local political networking refers to the extent to which the relationships between the exporters and government officials at various levels of government, such as tax and administration bureaus (Li & Zhang, 2007), exist. Based on the RBV, local political networking has been regarded as an important managerial resource that helps exporters gain more external resources from local governments, particularly in emerging markets. For example, Peng and Luo (2000) showed that managerial ties with government officials positively relate to firm performance in China because the government has provided strong support for financing, information, and technology to firms in China. Research also shows that exporters can reap significant benefits from political networking with the local governments in terms of gaining foreign market information, tax rebates, and references to foreign customers (Zhou et al., 2007).

Hence, a greater degree of political networking may help Chinese exporters better access foreign buyers. Furthermore, political networking may serve as a critical intermediary that helps exporters reduce coordination and transaction costs when dealing with foreign distributors. Overall, political networking offers positive resources and reduces the barriers for Chinese exporters when developing and maintaining relationships with foreign buyers and distributors. This aspect may drive Chinese exporters to become less motivated to rely on digital platforms as a virtual presence in their foreign market entry. Therefore, the following hypothesis is offered:

*Hypothesis* 1 (H1): *Chinese exporters' political networking positively relates to online de-internationalization for exporting.* 

#### Regulatory distance

Regulatory distance refers to the differences in laws and regulations between the home and host countries (Xu & Shenkar, 2002). Prior studies have shown that the regulatory distance between the home market and host market will create market ambiguity and legitimacy pressure for exporters (Kostova et al., 2020). Market ambiguity makes it more difficult for foreign buyers to evaluate, identify, and interpret market information, such as product quality and behaviors of the sellers. Furthermore, regulatory distance can increase legitimacy pressure for exporters. Regulatory distance also creates concerns and uncertainty for foreign buyers about the exporters' reputation and behavior.

Digital platforms offer marketing mechanisms, such as online websites and matching services, which can help foreign buyers better select and identify Chinese exporters. Furthermore, digital platforms offer

regulatory mechanism services, such as online credit card guarantees, escrow services, and privacy protection, which exist to protect foreign buyers against potential risks in the e-commerce environment. The different services offered by digital platforms help reduce the information asymmetry of quality and behavior and also mitigate online trust issues (Fang et al., 2014). Thus, exporters may be less likely to discontinue their use of digital platforms when entering more regulatorily distant markets, given the significant benefits offered by the different services offered by digital platforms. Hence, we predict:

*Hypothesis 2 (H2): Regulatory distance negatively relates to Chinese exporters' online de-internationalization for exporting.* 

# The Moderating Effects of Technological Opportunism

# Technological opportunism on political networking

Technological opportunism refers to the capability of firms to sense and respond to changes in technology (Sarkees, 2011; Srinivasan et al., 2002). We argue that technological opportunism may negatively moderate the positive relationship between exporters' political networking and online de-internationalization for several reasons: first, the studies have shown that technological opportunistic companies with considerable technological sensing capabilities regularly search for technology-related information that can enable them to track the most recent technological advancements and to learn where new technologies can be acquired and accumulated (Chen & Lien, 2013; Srinivasan et al., 2002). Furthermore, technological opportunistic firms with greater technology-responsive capabilities are highly adaptable, so they tend to rapidly adopt cutting-edge technology across all levels of the business (Voola, Casimir, Carlson, & Anushree Agnihotri, 2012). Following this logic, in our context, while greater political networking may offer Chinese exporters great opportunities for foreign market entry and relationship building with customers and distributors, we argue that Chinese exporters with greater technological opportunism may be more willing to explore the different benefits offered by digital platforms and less likely to discontinue the use of those digital platforms as alternative foreign entry channels. Thus, we predict:

Hypothesis 3 (H3): The positive relationship between exporters' political networking and online de-internationalization is reduced by exporters' technological opportunism.

# Technological opportunism on regulatory distance

Similarly, we argue that technological opportunism may negatively moderate the negative relationship between regulatory distance and online de-internationalization for the following reasons: first, technological opportunistic firms possess both the ability to understand and acquire knowledge about new technology developments and have both the willingness and ability to respond to identified new technologies. These firms regularly scan for information about the development of new technologies that they view as potential sources of growth, then respond proactively to radical technologies (Chen & Lien, 2013), and are thus able to reformulate their business strategies to exploit the opportunities or lessen the threats posed by these new technologies (Srinivasan et al., 2002). In our context, we argue that greater regulatory distance between home and host countries triggers uncertainties and ambiguity for Chinese exporters' entry to foreign markets. Digital platforms offer significant benefits by enabling exporters to mitigate information asymmetry and legitimacy issues regarding foreign market entry. This effect will be particularly salient for technologically opportunistic Chinese exporters because their willingness and motivation to sense and respond to the use of advanced technologies are both greater. In contrast, for less technologically opportunistic Chinese exporters, while digital platforms can serve as an alternative channel for foreign market entry in highly regulatorily distant countries, they will be more hesitant and less likely to actively use digital platform services. Thus, we predict:

Hypothesis 4 (H4): The negative relationship between exporters' regulatory distance and online de-internationalization is enhanced by the exporters' technological opportunism.

#### Methods

# The Sampling Frame and Data Collection

We collected the data for this study from two sources. The secondary data came from Alibaba.com and a survey of Chinese exporters who are currently Alibaba.com subscribers. Alibaba.com is a subscription-based electronic platform (Internet B2B platform) that offers value-adding platformbased services in return for various memberships and service fees. Its members are mainly from China. It offers various services, such as promotion, communication, and matching and serves as a market maker, attracting both Chinese exporters and international buyers. Alibaba.com is the most popular Internet B2B platform with over 600 million active buyers per month.

For our study, this initial data source consisted of survey data collected from current Alibaba.com subscribers regarding their organizational characteristics and strategies. We first conducted in-depth interviews with 20 senior export managers who use Alibaba.com services in Beijing and Guangdong to understand how they use Internet B2B platforms for export. We also interviewed five managers and directors at the Alibaba.com headquarters in Hangzhou to understand the implementation and industry-based practices of Internet B2B platform use.

We developed the survey in line with the procedures recommended by Churchill (1979) and Gerbing and Anderson (1988) wherever possible. We initially developed an English version of the questionnaire, translated it into Chinese, and then back-translated it to ensure conceptual equivalence and reduce any bias (Craig & Douglas, 2000). We then conducted a pre-test with 30 export manufacturers in Beijing and Guangdong and asked three Alibaba.com platform managers to review the questionnaire. After the questionnaire was reviewed, we refined the questions and finalized the survey instrument for primary data collection.

For the formal survey, we selected a random sample of 1,500 exporters who used Alibaba.com from the most developed (Beijing and Guangdong), more developed (Jiangsu, Shandong, Tianjin, and Zhejiang), and developing (Anhui, Hebei, and Liaoning) areas in China. This particular coverage was used to capture within-country variations and subnational differences (Zhou & Poppo, 2010). To reduce costs, we employed the key informant approach and interviewed a senior manager (e.g., CEO or export manager) responsible for using Alibaba.com's platform-based services. We also collaborated with a local research company to ensure that trained interviewers implemented the survey through both on-site and telephone interviews. This process is a recommended protocol in the literature to obtain reliable and high-quality survey information in EMs (Atuahene-Gima, 2005; De Luca & Atuahene-Gima, 2007).

Furthermore, we collected additional firm-level data on each exporter's Alibaba.com website, including firm size, online reputation, reputation management, number of patents, online customer service, number of certificates, market diversification, online response, and immediate performance (i.e., number of quotation inquiries).

#### Variables and Measures

Multi-item scales and 7-point response formats were used to operationalize all the variables. The measurement approach for each theoretical construct in the model is described briefly below. In addition, all the measurement items appear in Table 1.

### Independent and dependent variables

The scale used for *political networking* captures the extent to which exporters maintain good connections with officials in various levels of government (1 = `minimal use' and 7 = `significant use'). A 4-item scale for the government network was adapted from Li and Zhang (2007). *Regulatory distance* between the home and host countries focuses on the difference in institutions between the seller's home country and the host countries (Deng, Jean, & Sinkovics, 2018; Xu & Shenkar, 2002). We used the average of the Euclidean distances based on Worldwide Governance Indicators for the three most important country markets of each exporter. These top three country markets account for 65.1% of their export on average in our data. These indicators captured a

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Table 1. Measures, loadings, and composite reliabilities

Construct (AVE, composite reliability: CRη) Item (loading)

Online de-internationalization (AVE = 0.67, CRη = 0.86) (1 = strongly disagree; 7 = strongly agree)

The renewal of our Alibaba membership next year will not be automatic. (0.79)

Likely, our firm will not renew its Alibaba membership next year. (0.84)

We do not expect the relationship with Alibaba to last for many years. (0.82)

Political networking (AVE = 0.73, CRη = 0.91) (1 = much worse; 7 = much better)

Top managers at our firm have maintained good personal relationships with officials in various levels of government. (0.87)

Top managers at our firm have developed good connections with officials in regulatory and supporting organizations, such as tax bureaus, state banks, and commercial administration bureaus. (0.84)

So far, our firm's relationship with regional government officials has been in good shape. (0.80)

Our firm has spent substantial resources on building relationships with government officials. (0.90)

**Technological opportunism** (AVE = 0.73, CRn = 0.92) (1 = strongly disagree; 7 = strongly agree)

We are often one of the first in our industry to detect technological developments that may potentially affect our business. (0.83)

We actively seek information on technological changes in the environment that are likely to affect our business. (0.86)

We periodically review the likely effects of changes in technology on our business. (0.83)

We are often fast to detect changes in technologies that might affect our business. (0.90)

Instrument for political networking: Quality of domestic networking<sup>a</sup> (AVE = 0.78,  $CR\eta = 0.91$ ) (1 = strongly disagree; 7 = strongly agree)

Managers at our firm have utilized personal guanxi, networks, and connections with managers at domestic supplier firms. (0.88)

Managers at our firm have utilized personal guanxi, networks, and connections with managers at domestic customer firms. (0.94)

Managers at our firm have utilized personal guanxi, networks, and connections with managers at domestic distributors (retailer and wholesaler) firms. (0.82)

Instrument 1 for regulatory distance

Development of the legal environment and market intermediaries for the conservation of the market legal environment.

Instrument 2 for regulatory distance

Development of the legal environment and market intermediaries for the legal protection of

intellectual property.

Control variables<sup>a</sup>:

Firm size (number of employees)

Number of certificates (reported by Alibaba)

Market diversification (degree of market diversity as reported by Alibaba)

Marketing emphasis on Alibaba (AVE = 0.62,  $CR\eta = 0.87$ )

Relying on Alibaba to demonstrate company products/services (0.88), to disseminate product/service information to different markets (0.71), to enhance the company image (0.85), and to create a new advertising channel (0.69).

Tradeshow participation (yes/no)

R&D intensity (an exporter's R&D investment as a percentage of its total sales)

Export intensity (export volume as a percentage of its total sales)

Online transactions amount (as reported by Alibaba)

Online rating (online exporter rating as reported by Alibaba)

Online response rate (ontime response rate as reported by Alibaba)

F	Fit indexes reported by SmartPLS:				
С	Chi-Square = 727.72				
S	RMR = 0.046				

Note: <sup>a</sup>Single-item measures are not included in the CFA.

country's governance efficacy according to (1) voice and accountability, (2) political stability and the absence of violence, (3) governance effectiveness, (4) regulatory quality, (5) the rule of law, and (6) control of corruption. Following the previous studies (e.g., Shirodkar & Konara, 2017), we used Euclidean distance to calculate the regulatory distance as follows:

$$ID_{j} = \sum_{i=1}^{3} \sum_{j=1}^{6} \left[ (I_{ij} - I_{cj})^{2} / V_{j} \right] / 6$$

where  $I_{ij}$  refers to the *j*th regulatory dimension in the country *I*,  $I_{cj}$  captures the *j*th regulatory dimension in the exporter's country, and  $V_j$  is the variance in the *j*th dimension across all countries. The higher the value obtained using the formula, the higher the regulatory distance was between each exporter and its top three buyer countries. In this study, we consider this regulatory distance as, on the online platform, exporters are primarily dealing with the regulatory environments prevailing in the export destination countries, such as the specifications and standardization requirements, environmental and safety regulations, and export documentation.

For online de-internationalization, i.e., the intention of discontinued use of digital platforms, we developed a scale that was designed to capture an exporter's intention to discontinue their subscription to Alibaba.com.

For *technological opportunism*, the moderator in the study, we developed scales to capture an exporter's emphasis on the use of new technology for its business and thereby looking for new opportunities associated with new technology (Li et al., 2023; Srinivasan et al., 2002).

#### Instrumental variables

In this study, we adopted three instrumental variables - domestic network quality for the government network and two variables from the Chinese NERI Marketization Index for regulatory distance. A three-item scale for domestic network quality assesses an exporter's quality of its relationships with its domestic suppliers, customers, and distributors. The two items from the marketization index focused on the development of the legal environment and market intermediaries for (i) the conservation of the market legal environment and (ii) the legal protection of intellectual property. The NERI Marketization Index reports institutional/regulatory development at the province level in China (Deng et al., 2018; Fan, Wang, & Zhu, 2011). The NERI index consists of five subdimensions: (1) government intervention in the economy, (2) the development of the private sector, (3) the degree of protectionism, (4) the development of the factor market, and (5) the development of market intermediaries and the legal environment. The NERI index has been widely used in international business and strategy research (Huang & Li, 2019; Xie & Li, 2018). We used two subdimensions of the fifth dimension, 'market intermediary development', focusing on the development of different legal and market intermediaries for the conservation of the market legal environment and the legal protection of intellectual property. We used the exporter's address already reported on Alibaba.com to identify its region in the NERI index.

#### Control variables

Our fieldwork identified *firm size* as a key influencer of export performance for privately owned Chinese firms, which was consistent with the extant research on export performance (Leonidou et al., 2010). Consequently, we controlled for firm size, which is operationalized as the number of

employees; the variable was log-transformed to alleviate any univariate non-normality and account for potential nonlinear effects (Wooldridge, 2012).

Furthermore, an exporter's current *number of product-related certificates* should affect its buyers' perception of the trade risk since the number of certificates indicates a firm's efforts to signal its product and service quality through third-party approval. Such approval is expected to transfer to its online signaling strategy and eventually affect the export sales performance. Thus, this study controlled for the number of certificates that an exporter has.

An exporter's *market diversity* captures the extent to which exporters enter diverse geographical markets (Aulakh, Kotabe, and Teegen, 2000). Using the share of each exporter's market spread over different regions as reported by Alibaba.com, we used an entropy-type measure (Zahra, Ireland, & Hitt, 2000) to calculate each exporter's level of market diversification as follows:

$$D = \sum_{i} \left[ P_i \times \ln\left(1/P_i\right) \right],$$

where  $P_i$  is the share of export market region *i* for each firm and  $\ln(1/P_i)$  is the weight given to each export market region, as defined by the natural logarithm for the inverse of its sales. The index ranges from 0 to 1, with greater values indicating a higher level of export market diversification for the exporter. This entropy-type measure has been widely applied in previous work to measure international diversification (Zahra et al., 2000). This measure considers both the number of export market regions and the relative importance of each export market region to total sales.

An exporter's emphasis on its marketing activities on Alibaba is expected to improve its export performance according to the literature (Jean & Kim, 2021). Thus, we use an exporter's marketing emphasis on Alibaba as reported in the survey to control for its effects on export performance and, thus, its intention to de-internationalize Alibaba.

For most exporters, attending tradeshows allows them to be exposed to the market and new potential buyers and export opportunities. As an exporter becomes active by participating in various tradeshows, its incremental benefits from maintaining its presence on Alibaba will diminish. Therefore, this study controls for the impact of tradeshow participation.

*R&D intensity* can facilitate new product development and enhance product quality, thus affecting a firm's export behavior (Gao, Murray, Kotabe, & Lu, 2010). Therefore, we controlled for this aspect as the ratio of R&D expenditure to a firm's total revenue. We also considered an exporter's innovation outcome by incorporating its number of patents as that *firm's innovativeness*. While R&D intensity is regarded as an exporter's R&D input, the number of patents is viewed as the output, and we control for both in our study.

We also control for export intensity. *Export intensity* indicates the emphasis an exporter places on exporting activities, and it is critical to their future export intention (Gao et al., 2010). Thus, we included it as the ratio of the export revenue to total revenue (Gao et al., 2010).

For online transaction amounts, we obtained the monthly transaction amount reported by Alibaba.com. As an exporter's performance on Alibaba improves, it is likely that its intention to de-internationalize on Alibaba decreases. Thus, we controlled each exporter's transaction amount as a proxy of its export performance online.

A valuable piece of information that signals the quality of a firm's general online practices is online *buyer rating* (Reuter & Fischer, 2009). As a third-party endorsement signal, previous studies have shown that a firm's average rating affects sales performance (Langan, Besharat, & Varki, 2017; Tang, 2017; Zhu & Zhang, 2010). So, we captured that information on Alibaba.com for each exporter to use as control variables.

An exporter's *responsiveness* refers to how timely an exporter's responses to buyers' questions on Alibaba.com are. This variable informs potential buyers of the probability of receiving answers to their inquiries in a timely manner. As an exporter's online responsiveness reflects its communication quality (Hu, Rabinovich, & Hou, 2015), we included it as the ratio of the number of business inquiries to which it responded within 3 days and the messages sent within 1 h. The responsiveness is reported by Alibaba.com.

#### Survey Response and Informant Evaluation

Of the 1,500 surveys distributed, we received 350 completed questionnaires, representing a response rate of 23.3%. Nonresponse bias was assessed by classifying the responses into two groups, namely, early and late responses (Armstrong & Overton, 1977). We performed *t*-tests on the demographic variables, such as revenue (t = 1.424), employee number (t = 0.508), and firm age (t = 0.506). These variables exhibited no significant differences. Hence, nonresponse bias was not a concern in this study (Armstrong & Overton, 1977).

In addition, we identified a group of randomly selected non-respondents and called them to obtain their explanations for their lack of response. A reliable assessment of non-response bias can only be achieved via feedback from the non-respondents themselves. In all cases, the reasons provided to us for the lack of response were related to the lack of time to fill out the questionnaire, the general belief that the questionnaire was too demanding, and other requests for feedback had to be prioritized. These findings imply that non-response bias did not pose a significant threat to the study.

All 350 firms in our sample are privately owned. The average firm age is 7.38 years, with 69.7% of the firms being between 4 and 10 years old, indicating that the firms were mostly young. The average number of full-time employees was 161; 69.3% of the participants had 50–200 employees and 14.6% had fewer than 50 employees, showing that the majority of participants were small- and medium-sized firms. The average export percentage was 63.54%, indicating that most firms rely heavily on exporting. The average number of foreign markets was 9.45, with 27.3% reporting 7–9 markets, 15.6% reporting 4–6 markets, 4.4% reporting 3 or fewer markets, and 51.2% reporting 10 or more markets. The firms operate in various industries, including machinery; industrial parts and tools (7.3%); electrical and telecommunication equipment and parts (24.4%); metal, chemicals, rubber, and plastics (13.7%); electronics (18.5%); household goods (6.3%); and home, lighting, and construction (13.2%). Regarding location, 44.9% of the sampled firms come from the most developed regions (Beijing and Guangdong), 36.6% are from more developed regions (Jiangsu, Shandong, Tianjin, and Zhejiang), and the rest come from developing regions (Anhui, Hebei, and Liaoning). The correlation coefficients among the study variables are reported in Table 2.

#### Measurement Model Results

In our analysis, we relied on partial least squares (PLS) in estimating our study model. PLS utilizes OLS regression to simultaneously estimate a complex model (Hair, Hult, Ringle, & Sarstedt, 2016; Hair, Hult, Ringle, Sarstedt, & Thiele, 2017). Plus, PLS offers a measurement model assessment that OLS regression analysis does not (Hair, Hult, Ringle, & Sarstedt, 2016; Hair, Hult, Ringle, Sarstedt, & Thiele, 2017). Furthermore, PLS helps address potential issues stemming from any multicollinearity among the independent variables in the estimation process (El-Salam, 2014; Wondola, Aulele, & Lembang, 2020). Thus, we employed SmartPLS 3.0 to estimate our model using a bootstrapping specification of 500 as the number of resamples (Hair et al., 2016). The model estimation results indicated a good fit with SRMR of 0.035 with its Chi-square value being 424.51.

With this good fit of the measurement model, we evaluated the construct validity of each construct by investigating their unidimensionality, convergent, and discriminant validity, and the reliability for internal consistency (Fornell & Larcker, 1981; Gerbing & Anderson, 1988). First, for unidimensionality, there should not be standardized residuals greater than 4. In our results, the standardized residuals were much less than the cutoff value, indicating that there was no significant threat to the unidimensionality of the constructs (Fornell & Larcker, 1981). Moreover, all items were significantly loaded on their corresponding factors (p < 0.01) and their loadings were all greater than 0.5, as shown in Table 1. These loadings indicated an adequate level of convergent validity (Nunnally & Bernstein, 1994). For discriminant validity, we compared the shared variance with the associated average variance extracted (AVEs) (Fornell & Larcker, 1981). For each construct to have an adequate level of discriminant validity, its AVE should be greater than the shared variances. According to our assessment, the largest shared variance of 0.06 between the intention of de-internationalization and marketing emphasis was much less than the smallest AVE of 0.62 for marketing emphasis. Therefore, the results supported an adequate level of discriminant validity for each of our study constructs. Finally, to assess the internal consistency of our measures, the composite reliability of each construct was calculated using the formula suggested in the literature (Fornell & Larcker, 1981), and these results are reported in Table 1. All composite reliabilities were greater than 0.86 and above the acceptable level of 0.7 discussed in the literature (Nunnally & Bernstein, 1994). These measurement model results indicate that all of the study constructs had good construct validity and reliability.

#### Addressing Endogeneity

The two independent variables in our study, namely, the government network and regulatory distance, could be endogenous (Hult et al., 2018; Wooldridge, 2010). There are multiple sources of endogeneity according to the literature, including simultaneity, reverse causality, common method variances, and omission bias (Jean, Deng, Kim, & Yuan, 2016). Our study's model would be prone to potential common method variance and omission bias, as it uses survey data for some of the variables, and the control variables used would not be exhaustive. Therefore, we used the control function, one of the instrumental variable approaches, to address potential endogeneity in our study (Petrin & Train, 2010; Wang, Lee, Fang, & Ma, 2017). This approach requires an additional control variable in the regression equation to account for the potential adverse effect of unknown sources of endogeneity. The result is expected to mitigate any concern that our independent variables (marketing focused and institutional/regulatory mechanism services) correlate with the error term in the regression equation (Sridhar & Srinivasan, 2012; Wang et al., 2017). In other words, this control variable is added to the model to retain the independence assumption between each independent variable and the error term in the equation (Sridhar & Srinivasan, 2012; Wang et al., 2017).

In the first step, three instrumental variables that met the relevance and exogeneity requirements for the two independent variables were selected (Hult et al., 2018). This study uses a firm's domestic network quality as the instrumental variable for government networks. Given that a firm's domestic network quality should explain its current effort to maintain its government network, that quality (?) should meet the relevance requirement. Further still, the variable exhibited no significant correlation with the error term of the model (p > 0.10), meeting both the relevance and the exogeneity requirements of the control variable (Hult et al., 2018; Wooldridge, 2010).

As for the instrumental variable for regulatory distance, this study adopted items from the NERI index that have been widely used in international business and strategy research (Huang & Li, 2019; Xie & Li, 2018). Specifically, we used two subdimensions of the fifth dimension, *'market intermediary development'*, thereby focusing on the development of different legal and market intermediaries for the conservation of the market legal environment and the legal protection of intellectual property. Both items revealed their significant correlations with regulatory distance (p < 0.05) and no significant correlation with the error term of the model (p > 0.10), thus supporting both their relevance and exogeneity requirements.

Given the requirements for both instrumental variables were satisfied, we regressed domestic network quality on the government network and two marketization items on regulatory distance with all of the control variables in the study included, thereby generating the predicted residuals. These predicted residuals served as an effective control function variable to address any potential endogeneity concerns in the model (Wang et al., 2017; Wooldridge, 2010). We then added the predicted residuals as additional explanatory variables for the intention of de-internationalization, our dependent variable, to control for potential endogeneity in the model (Wang et al., 2017; Wooldridge, 2010) (Table 2).

	1	2	3	4	5	6	7	8	9	10	11
1. Online de-internationalization											
2. Political networking	0.13										
3. Regulatory distance	-0.06	0.03									
4. Technological opportunism	0.13	0.22	0.04								
5. Firm size	-0.05	-0.06	0.12	-0.03							
6. Number of certificates	0.01	-0.02	0.22	-0.05	0.12						
7. Market diversity	-0.01	0.02	-0.04	-0.02	0.07	0.04					
8. Marketing emphasis	-0.24	0.13	-0.04	0.23	0.09	0.11	0.03				
9. Tradeshow participation	-0.01	0.16	-0.05	0.29	-0.05	-0.09	0.02	0.15			
10. R&D intensity	0.01	0.02	-0.06	0.08	-0.03	-0.11	0.01	-0.03	0.10		
11. Export intensity	-0.03	-0.02	0.18	0.05	0.21	-0.11	-0.14	0.06	0.13	0.02	
12. Online transaction amount	-0.01	-0.01	0.08	-0.01	0.16	0.24	-0.08	-0.01	0.07	-0.05	0.11
13. Firm online rating	-0.07	-0.03	0.11	0.09	0.04	0.05	-0.07	-0.08	0.14	0.12	0.10
14. Online response rate	-0.14	0.02	0.13	0.17	0.06	0.22	0.03	0.13	0.06	0.15	-0.04
Mean	3.09	4.31	5.50	4.05	7.21	1.81	0.193	5.22	4.61	15.3	53.1

1.29

4.80

1.52

0.183

1.29

1.45

11.3

28.9

1.51

1.29

4.76

S.D.

13

12

0.24 0.14

142.9

289.9

0.29

1.76

2.33

0.657

0.340

13

14

#### Results

To test our hypotheses, the proposed model was estimated using SmartPLS, and these results are reported in Table 3. While PLS is an extension of OLS regression, it is a better method whenever there are multiple dependent variables and indirect relationships to test (Iacobucci, Saldanha, & Xiaoyan, 2007). However, specifying interaction terms in structural equation modeling is often considered complicated and has a potential identification issue (Cortina, Chen, & Dunlap, 2001). The built-in feature of SmartPLS allows for the specification of two moderating effects while allowing the entire model to be estimated with bootstrapping.

Before we proceeded to test our hypotheses, we estimated three additional models, including the control variables only in Model 1. Three main effects were added to Model 1 in Model 2, and then finally, all variables were added in Model 2, with the control function variables added in Model 3 to demonstrate the consistent results of our main model, Model 4. The results of all four models are reported in Table 3. Given the consistent results shown across those models, we proceeded to test our hypotheses based on the SmartPLS results reported in Model 4, the full model. In H1, we postulated that an exporter's government network positively affects its intention to discontinue the use of digital platforms for exporting. According to the results, this hypothesis is supported, with b = 0.232 (p < 0.05).

In H2, we proposed that an exporter's average regulatory distance between its home market and export markets influenced its intention to discontinue the use of the digital platform for exporting negatively. The results here lend support to this hypothesis, with b = -0.116 (p < 0.05). As for the moderating effects, we maintained, in H3, that an exporter's technological opportunism decreases the impact of its government network on the intention to discontinue the use of digital platforms for exporting. According to the results, an enhanced level of an exporter's technological opportunism negatively moderates the relationship between political networking and the intention to discontinue the use of digital platforms for exporting for exporting might be = -0.088 (p < 0.05). Thus, H3 is supported.

Finally, in H4, we argued that an exporter's technological opportunism negatively moderates the impact of regulatory distance on the discontinued use of digital platforms for exporting. These results do not offer support for this hypothesis, as technological opportunism moderated the impact of regulatory distance on the intention to discontinue using digital platforms insignificantly with b = 0.065 (p > 0.05). One plausible reason may be that technologically opportunistic Chinese exporters may be more likely to explore other digital platforms, which may drive their intention to discontinue using their current digital platform. We also got some insights from our qualitative interviews with exporting managers. For example, one exporting manager highlighted that 'We are always proactive to adopt new functions offered by Alibaba.com such as matching and request for quotations. We would also like to explore new opportunities offered by other digital platforms and our own websites to serve as alternative exporting channels. Hence, we may be less likely to reply on a single digital platform such as Alibaba for internationalization'. Based on those insights, the more technologically opportunistic exporters may be likely to increase their intention to withdraw Alibaba.com as an exporting channel for internationalization under a high institutional distance.

Figure 2 and Table 3 summarize the results of our hypotheses testing, and Figure 3 shows the results of the simple slope analyses.

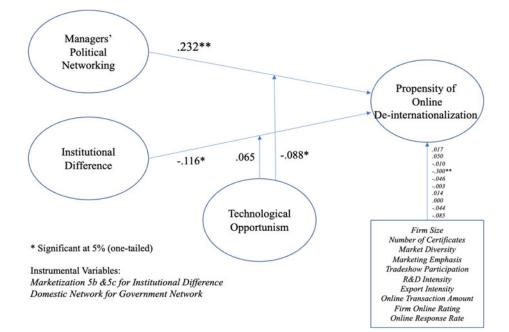
#### **Robustness Checks**

We conducted several robustness tests. First, to assess the stability of the PLS model estimation (Hair et al., 2016), we ran two additional estimations using 200 and 1,000 resamples in the bootstrapping process. Secondly, we used a composite measure for regulatory distance; yet the sub-dimension of government effectiveness is expected to play a similar role. Thus, we used the single-item measure of government effectiveness instead of regulatory distance. Finally, for our moderator, we used an alternative three-item scale that captures an exporter's technology-based opportunity-seeking behavior. The results remained largely the same, showing the robustness of the PLS method and the measures that this study used.

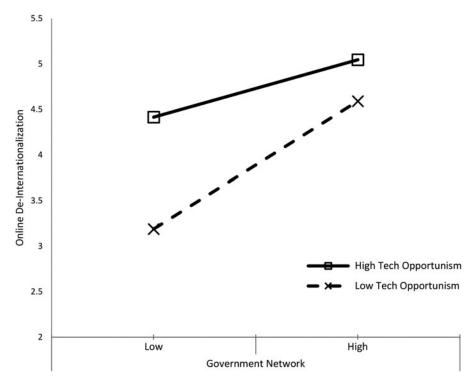
Variables	Model 1	Model 2	Model 3	Model 4
Firm size	-0.028	0.005	0.016	0.017
Number of certificates	0.069	0.063	0.057	0.050
Market diversity	-0.006	-0.013	-0.017	-0.010
Marketing emphasis	-0.244**	-0.293**	-0.297**	-0.300**
Tradeshow participation	0.035	-0.040	-0.044	-0.046
R&D intensity	0.016	-0.002	-0.004	-0.003
Export intensity	-0.006	0.006	0.005	0.014
Online transaction amount	-0.003	-0.001	0.000	0.000
Firm online rating	-0.041	-0.037	-0.044	-0.044
Online response rate	-0.082	-0.080	-0.071	-0.085
Control function for government network			-0.100	-0.097
Control function for ID			0.029	0.028
Political networking (PN)		0.151**	0.241**	0.232**
Regulatory distance (ID)		-0.104*	-0.126*	-0.116*
Technological opportunism (TO)		0.194**	0.187**	0.192**
PN × TO				-0.088*
ID × TO				0.065
R <sup>2</sup>	0.073	0.141	0.144	0.160

#### Table 3. Results of the model estimations<sup>a</sup>

Notes: <sup>a</sup>One-tailed test (\* significant at 5%, \*\* significant at 1%)







Effect of Technological Opportunism for Political Networking

Figure 3. Simple slope analysis of the moderating effect

#### Discussion

Given the increasing digitalization and globalization, exporters from emerging markets, such as Chinese exporters, have multiplied and conducted their business across national borders using the digital platform trend. However, these firms still face considerable challenges and risks when entering international markets through digital platforms. As yet, few studies have paid attention to when and under what conditions exporters will discontinue using digital platforms for exporting, i.e., online de-internationalization. Extending the prior de-internationalization research (Kafouros et al., 2021; Tang et al., 2021), we investigate the antecedents of exporter's online de-internationalization and the intention of discontinued use of digital platforms. We also investigated the boundary conditions on the link between determinants and online de-internationalization outcomes. The results indicate that exporters' political networking and regulatory distance will affect exporters' intention to discontinue the use of digital platforms, but the extent of that impact is contingent on the exporters' technological opportunism. This study, therefore, broadens and deepens our understanding of the antecedents and contingencies of online de-internationalization. These empirical findings contribute to the extant literature in several major ways.

First, prior research on de-internationalization has focused much of its efforts on different types of de-internationalization, such as export exit, foreign divestment and export reduction, withdrawal of a foreign operation and global exit, and the termination of international joint ventures and backshoring (Kafouros et al., 2021; Tang et al., 2021). With the emergence of digital platforms as an alternative internationalization path for exporters, little research has yet conceptualized and theorized the risk and failure of this new type of de-internationalization. Extending prior de-internationalization literature and drawing on recent digital platform risk literature (Lee et al., 2023), our work conceptualizes an exporter's intention of the discontinued use of digital platforms as a new dimension of de-internationalization. Hence, this research makes a significant

theoretical contribution to the de-internationalization research and the now emerging perspective on the dark side of digital globalization (Verbeke & Hutzschenreuter, 2021).

Furthermore, prior de-internationalization research has used the RBV to discuss different renounces and capabilities, such as international experience, innovation, and international performance as determinants of de-internationalization (Sui & Baum, 2014; Sui, Baum, & Malhotra, 2019; Tan & Sousa, 2019, 2020), most work has focused on examining internal and exertional resources and capabilities individually. Little work simultaneously has examined the effects of internal and external renounces on firms' de-internationalization. Drawing on the RBV in the information systems literature, we conceptualize two determinants of exporters' de-online internationalization, i.e., the intention to discontinue the use of digital platforms for exporting. Specifically, we make a significant contribution to the research on the determinants of de-internationalization by examining political networking as internal resources and regulatory distance as external resources and both their effects on exporters' intention to discontinue the use of digital platforms for exporting.

Finally, most of the prior work based on RBV examined the determinants of de-internationalization and identified a couple of boundary conditions. However, how different types of internal and external resources and capabilities interact to affect the de-internationalization decision has remained inconclusive. For example, against their expectations, Tan and Sousa's (2020) recent research showed that government support has a positive moderating effect on the link between international performance and de-internationalization for Chinese multinational companies. Hence, this current research contributes to this stream of work by examining the moderating effect of technological opportunism on the link between the determinants and the exporter's intention of the use of digital platforms. Specifically, our results show that technological opportunism moderates the effect of political networking on the discontinued use of the digital platforms for exporting.

#### Managerial Implications

This research has major implications for practitioners. For exporters, we demonstrated that different internal and external factors, including political networking and regulatory distance, affect exporters' intention of the discontinued use of digital. Therefore, Chinese exporting managers should be aware of their decisions regarding participating in digital platforms for exporting under different internal and external resources and environmental conditions. The results further show that exporters with greater political networking may be less likely to continue to utilize digital platforms for their internationalization. In contrast, those exporters who are entering high regulatory distance countries may consider discontinuing the use of platform services for exporting because they can reap many benefits from digital platforms.

The results also indicate that exporters should be aware of their levels of technological opportunism whenever participating in digital platforms for exporting. The levels of exporters' technological opportunism may shape the decision-making for whether they should discontinue the use of digital platforms for exporting. Technological opportunistic Chinese exporters may be less likely to discontinue using the digital platforms for exporters while they are having greater political networking with local governmental officials.

#### Limitations and Future Research Directions

The results of this study should be interpreted in light of several inherent limitations. First, we only focused on a particular type of online de-internationalization, i.e., the intention to discontinue use of the digital platforms. Future research might examine other forms of online de-internationalization, such as withdrawal from digital platforms. In addition, future research might examine other types of antecedents of online de-internationalization, such as different firms' resources and capabilities. For example, the prior international business and exporting literature (Knight & Cavusgil, 2004; Knight & Kim, 2009; Weerawardena, Mort, Salunke, Knight, & Liesch, 2014) highlighted certain critical resources and capabilities, such as international marketing orientation, international orientation, and foreign distributor capabilities, which may shape the degree of exporters' online

de-internationalization. Furthermore, future research might investigate other contingent factors, namely, external environmental factors such as external shocks like the COVID-19 pandemic. Finally, the measurement items used in this study are developed with Alibaba as the online platform in mind. Therefore, the adoption of these scales in the context of other online platforms should consider our study context to minimize any potential issues arising from differences in the platform environments and user characteristics, among others.

Another limitation of this study is its cross-sectional design. Future studies could overcome this limitation by using longitudinal data, even over relatively short periods. Finally, because our empirical context is China, and in particular B2B platforms, these results may not apply to other emerging markets or platforms. Future research could extend and replicate the results of this study to address other emerging markets or platforms.

Data availability statement. Data available upon request from the authors.

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