



# Information voids and cross-border bandwagons of foreign direct investment into an emerging economy

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## Abstract

**Research Summary:** This study examines cross-border bandwagons of foreign direct investment (FDI), a mass FDI entry process, into an emerging economy by following global investors from multiple home countries. Complementing the frequency mechanism, we introduce a cohesion mechanism that can also drive cross-border bandwagons of FDI. Drawing on the notion of information voids, we submit that the two mechanisms are based on different origins of information, and their relative effects vary depending on the extent of information voids in the host country. Analyzing a firm-level data set of Japanese firms' FDI entries into China between 1986 and 2000, we find a high level of information voids in the host country strengthens Japanese firms' cohesion-based cross-border bandwagons of FDI, while suppressing their frequency-based cross-border bandwagons of FDI.

**Managerial Summary:** Cross-border bandwagons of FDI into emerging economies have been a prominent phenomenon driving globalization in the past three decades. It is noteworthy that global investors from different countries contributed unequally to this process.

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This is because the information voids in an emerging economy create challenges for global investors to effectively source FDI bandwagon information from other countries, restricting the frequency mechanism in driving cross-border bandwagons of FDI. In this article, we introduce a new cohesion mechanism in driving cross-border bandwagons of FDI: an investor's international networks of FDIs. We then compare the relative effectiveness of the two mechanisms and find that the frequency mechanism weakens while the cohesion mechanism strengthens, when the level of information voids in a host country increases.

#### KEY WORDS

cross-border bandwagons of FDI, emerging economy, foreign market entry, information voids

## 1 | INTRODUCTION

Foreign direct investment (FDI) bandwagons refer to a mass FDI entry process where the sheer number of early foreign entries into a host market creates competitive and mimetic isomorphism to drive new foreign entries into that market (Abrahamson & Rosenkopf, 1993; Gimeno et al., 2005; Guillén, 2002; Henisz & Delios, 2001). Prior studies on FDI bandwagons examine Korean firms' FDI bandwagons into China (Guillén, 2002), Japanese firms' FDI bandwagons into multiple host countries (Henisz & Delios, 2001) and into China (Belderbos et al., 2011), and U.S. firms' bandwagons of foreign entries into other developed countries (Gimeno et al., 2005) and into China (Li et al., 2015).

However, this stream of literature on FDI bandwagons has two limitations. First, existing studies primarily focus on FDI bandwagons among foreign investors from a same home country (i.e., home-country bandwagons of FDI; Gimeno et al., 2005; Guillén, 2002; Henisz & Delios, 2001; Li et al., 2015), although organizational theorists advocate that bandwagons can diffuse across countries (e.g., Cole, 1985, 1989; Gooderham et al., 1999). In fact, only a few studies specifically examine FDI bandwagons among foreign investors from *multiple home countries* (Li et al., 2007; Xia et al., 2008). This is quite surprising as one of the prominent phenomena in the world economy in the past decades is the mass FDI entries made by firms from different parts of the world into fast-growing emerging economies (e.g., China, Brazil, and recently India and Vietnam). Such cross-border bandwagons of FDI have turned these emerging economies into popular and leading destinations for global investors (UNCTAD, 1996, 2005). China, for instance, started to receive FDI when it opened its doors in the late 1970s. It took only about a decade for China to develop from a nation receiving zero FDI into the biggest FDI recipient among the emerging economies by the mid-1990s (UNCTAD, 1996). In this process, global investors from different countries started making investments to ride on the FDI bandwagons into China at different times. Their combined efforts helped to turn China into a prominent FDI recipient. For instance, Japan, Singapore, and the U.S. were the top investor groups in



China by 1986, then Britain, Germany, and Thailand joined the top investing groups by 1990, and were followed by Korea, Canada, Australia, and France by 1995 (*Almanac of China's foreign economic relations and trade*, various years). As such, illuminating the diffusion of FDI bandwagons across multiple home countries (hereinafter the cross-border bandwagons of FDI) will advance our understanding of FDI bandwagons.

The second limitation of the extant literature on FDI bandwagons is that, although several studies find some evidence in support of cross-border bandwagons of FDI into an emerging economy (e.g., Li et al., 2007; Xia et al., 2008), they essentially employ the frequency mechanism to show that an increasing frequency of early foreign entries (with certain ownership form) from other home countries into a host country of emerging economy stimulates mass new entries (with the same ownership form) into the emerging economy. However, when explaining cross-border bandwagons of FDI with the frequency mechanism, studies fail to address two important questions: (1) where to source the bandwagon information of early foreign entries in an emerging economy, made by global investors from various home countries; and (2) how such FDI bandwagon information would diffuse among prospective foreign investors from different home countries.

The two questions bear important implications to explicate the underlying mechanisms in driving cross-border bandwagons of FDI, especially into a host country of emerging economy. First, sourcing the bandwagon information of early foreign entries from various home countries into a host country is critical, as it is a prerequisite for the occurrence of cross-border bandwagons of FDI. We identify two information origins<sup>1</sup> from which global investors can source the FDI bandwagon information. The first origin is the host country where early FDI entries from different foreign countries flow into, and the second origin is home countries from which these FDI entries flow out.

Second, we conceptualize that the first information origin is more associated with the frequency mechanism studied in the extant literature, while the second information origin is more likely to steer a firm-country cohesion mechanism. This new cohesion mechanism enables a foreign investor from a home country (Country A) to access the bandwagon information about other home countries' (Country B) outbound FDI entries into the host country, from which the investor from Country A can sense the bandwagon pressures and follow suit to invest in the same host country (hereinafter the cohesion-based cross-border bandwagons of FDI).

On this basis, we posit that frequency and cohesion mechanisms provide alternative access to the information on cross-border bandwagons of FDI. However, when the host country is an emerging economy where information voids—lack of credible and publicly available information—prevail (Khanna & Palepu, 2010; Kingsley & Graham, 2017), the relative effects of the two mechanisms in driving cross-border bandwagons of FDI would vary. A high level of information voids in the host country limits the supply of public information on early FDI entries or provides low informational value regarding the FDI bandwagons to global investors. As such, information voids are likely to reduce the effectiveness that global investors can source FDI bandwagon information from the host country (i.e., the first origin) via the frequency mechanism, while enhancing the importance of the information sourced from other home countries (i.e., the second origin) via the cohesion mechanism. Specifically, we argue that high-level information voids in the host country suppress the frequency mechanism while

<sup>1</sup>The third information source could be the home countries from which investors can source the bandwagon information of early FDI entries and drive their *home-country bandwagons of FDI*. However, as discussed, the home-country bandwagons of FDI are widely researched and, hence, are not the focus of the current article.



strengthening the cohesion mechanism in driving cross-border bandwagons of FDI. We test our theoretical predictions in the context of FDI entries into China. As a major emerging economy known for high-level information voids, China provides an ideal context to test our theoretical predictions. Results of empirical analysis with Japanese firm-level data during the period of 1986–2000 corroborate our theoretical predictions.

This article contributes to the literature on FDI bandwagons primarily in two ways. First, we challenge the existing studies examining the frequency mechanism in fostering cross-border bandwagons of FDI that assume the bandwagon information on early FDI entries into a host country of emerging economy is readily available to global investors. Drawing on the notion of information voids (Khanna & Palepu, 1997, 2010; Kingsley & Graham, 2017), we identify a new cohesion mechanism in driving cross-border bandwagons of FDI into an emerging economy, in addition to the frequency-based counterpart established in the extant literature (Li et al., 2007; Xia et al., 2008). Second, we further contrast frequency and cohesion mechanisms, and highlight that the two mechanisms, depending on the host country' informational context, vary in their effectiveness in driving cross-border bandwagons of FDI into the host country. As such, our article illuminates an important boundary condition affecting the effectiveness of cross-border bandwagons of FDI into a host country of emerging economy.

## 2 | BANDWAGONS: MECHANISMS AND BOUNDARIES

The term bandwagon refers to a diffusion process whereby organizations adopt an idea, technology, product, or practice largely because many other organizations have adopted it (Abrahamson & Rosenkopf, 1993; Tolbert & Zucker, 1983). Multiple theoretical perspectives, such as economic theories and organization theories (Fiol & O'Connor, 2003; Lieberman & Asaba, 2006), are employed to explain bandwagon diffusions of organizational practices, with emphasis on different rationales, ranging from highly rational assessments of positive externalities (Katz & Shapiro, 1985) to conformist behaviors driven by social pressures toward isomorphism (Abrahamson & Rosenkopf, 1993; DiMaggio & Powell, 1983).

Two mechanisms are documented to drive bandwagon diffusions: frequency and cohesion (Haunschild & Beckman, 1998; Haunschild & Miner, 1997). Frequency-based bandwagons describe mass adoption behaviors that arise largely from observing the increasing number of early adoptions (e.g., Greve, 1996; Haveman, 1993), while cohesion-based bandwagons refer to mass adoption behaviors that occur mainly among firms that have close contacts (e.g., Davis, 1991; Marsden & Friedkin, 1993). Despite the differences, both reside within the framework of information-based bandwagons (Semadeni & Anderson, 2010), which suggests that firms actively look for useful information cues from other firms to guide their actions. In general, frequency-based bandwagons are more associated with gaining bandwagon information via observation, whereas cohesion-based bandwagons are more related to garnering bandwagon information via connections.

In addition to the two mechanisms of bandwagon diffusions, there are two boundaries of bandwagon pressures: *within a country* and *across countries*. If information originates from a same country, it would not be too difficult for firms operating in that country to look for information cues from other firms in the same country. However, due to the liabilities of outsidership (Johanson & Vahlne, 2009), information is less diffusible between firms operating in different countries than those in the same country (Kim, 2013; Kogut, 1991).

TABLE 1 Classification of studies on bandwagons

(a) General bandwagons		Mechanism of bandwagons	
		Frequency-based bandwagons	Cohesion-based bandwagons
Boundary of bandwagons	Within country bandwagons	Fligstein (1985) Haunschild and Miner (1997) Haveman (1993)	Burns and Wholey (1993) Davis (1991) Davis and Greve (1997) Haunschild (1993) Palmer et al. (1993) Westphal et al. (1997)
	Cross-border bandwagons	Cole (1989) Gooderham et al. (1999) Hannan et al. (1995)	Guler et al. (2002)
(b) FDI bandwagons		Mechanism of FDI bandwagons	
		Frequency-based bandwagons of FDI	Cohesion-based bandwagons of FDI
Boundary of FDI bandwagons	Home-country bandwagons of FDI	Belderbos et al. (2011) Gimeno et al. (2005) Guillén (2002) Henisz and Delios (2001) Li et al. (2015)	Henisz and Delios (2001) Guillén (2002) Martin et al. (1995, 1998)
	Cross-border bandwagons of FDI	Li et al. (2007) Xia et al. (2008)	Nil

In panel a of Table 1, we list previous studies examining bandwagon diffusions of organizational practices along two dimensions: *mechanisms* and *boundaries*. Frequency and cohesion mechanisms are extensively researched in the bandwagon diffusion of organizational practices within countries (i.e., within-country bandwagons) (e.g., Abrahamson & Fairchild, 1999; Fligstein, 1985; Haunschild & Miner, 1997; Haveman, 1993). Although a few studies note that organizational practices diffuse cross-borders (i.e., cross-border bandwagons; e.g., Cole, 1985, 1989; Gooderham et al., 1999), they are largely implicit about where and how firms from Country A can access information about the organization practices adopted by foreign firms in Country B. A notable exception is Guler et al. (2002), who show that firms in Country A are influenced by the level of ISO adoption of firms in Country B to the extent that Countries A and B have strong, cohesive trade ties between them. Guler et al. (2002), however, focus on the high-level inter-country cohesion (i.e., trade ties) in driving cross-border bandwagons.

We also map the studies of FDI bandwagons along the two dimensions of mechanisms and boundaries in Panel b of Table 1. Consistent with Panel a, research primarily focuses on FDI bandwagons among foreign firms from the same home country (i.e., home-country bandwagons of FDI) through both frequency and cohesion mechanisms (Belderbos et al., 2011; Gimeno et al., 2005; Guillén, 2002; Henisz & Delios, 2001). Only a few studies examine cross-border bandwagons of FDI (i.e., Li et al., 2007; Xia et al., 2008). However, among the few, none examines the cohesion mechanism. Our article aims to fill this void in the literature and further



examines how frequency and cohesion mechanisms play out differently to drive cross-border bandwagons of FDI.

### 3 | INFORMATION VOIDS AND CROSS-BORDER BANDWAGONS OF FDI

In the context of FDI bandwagons, studies on home-country bandwagons of FDI primarily adopt organization theories and suggest that firms make inferences from the increasing number of early foreign entries in a host country, ranging from defending competitive status to seeking legitimacy to conform to social pressures and vicarious learning under uncertainty (Gimeno et al., 2005; Guillén, 2002; Haveman, 1993; Henisz & Delios, 2001; Martin et al., 1998).

When extending the theoretical perspectives used to explain home-country bandwagons of FDI to understand cross-border bandwagons of FDI, we must address the questions of where and how foreign firms obtain the bandwagon information on early FDI entries in an emerging economy before they can draw any inferences from such information. To this end, it is important to note that emerging economies are often replete with institutional voids—a scarcity of institutions such as market intermediaries that can analyze and produce information critical to the decision calculus of foreign investors (Doh et al., 2017; Khanna & Palepu, 1997; Khanna & Rivkin, 2001). Well-functioning institutions facilitate information flows, while poorly functioning or underdeveloped institutions constrain information flows to foreign investors (Khanna & Palepu, 2010; Makhija & Stewart, 2002). Institutional voids are often accompanied by information voids—the absence of credible and readily available information about the local investment climate (Kingsley & Graham, 2017). It is suggested that a country like China, characterized by prominent information voids, fails to publicize sufficient and credible information that embraces important insights into the current conditions and future potential of the country (Kingsley & Graham, 2017).

In this light, information voids in a host country of emerging economy would limit the provision of public information on early FDI entries, and the provided information would also be low in value regarding FDI bandwagons. As such, information voids in a host country of emerging economy impose constraints on foreign investors to react to bandwagon information sourced from the host country (i.e., the first origin). Consequently, foreign investors would need to rely more on the other source to obtain cross-border bandwagon information of FDI: the foreign countries that have made FDI entries into the host country. As documented by extant studies on home-country bandwagons of FDI into an emerging economy (Belderbos et al., 2011; Guillén, 2002; Henisz & Delios, 2001, *inter alia*), it would not be difficult for a foreign investor to obtain information on early FDI entries made by its compatriot firms in the same home country. However, due to the liabilities of outsidership (Johanson & Vahlne, 2009), it would be a challenge for the foreign investor to obtain information about foreign entries into the host country made by firms from other home countries. Hence, to understand how cross-border bandwagons of FDI occur in a host country of emerging economy where information voids prevail and limit the effectiveness of the frequency mechanism, it is important to examine how bandwagon information on early foreign entries into the host country diffuses between prospective foreign investors originating from various home countries, especially when the flow of information is localized and not readily transferable across national boundaries (Kim, 2013; Kogut, 1991). We argue that a firm's cohesion with different home countries can be an important channel in diffusing such FDI bandwagon information.

Prospective investors, other than being interested in investing in a host country of emerging economy, may have already invested in other foreign countries, where they may notice that indigenous firms from these countries have also invested in the concerned host country of emerging economy. Such international networks of FDIs provide foreign investors with an important alternative channel of information to sense cross-border bandwagon pressures of FDI. Specifically, presenting and operating physically in a foreign country helps to reduce foreign investors' liability of outsidership (Johanson & Vahlne, 2009) and increases their cohesion with the country. Such cohesion enables foreign investors to better access local information, including where local firms invested overseas, how they entered, how many and even how well they performed. This in turn enables foreign investors to extract valuable information from prior FDI entries and better sense the cross-border bandwagon pressures of FDI. On this basis, we submit that a foreign investor's international networks of FDIs provide an alternative approach—the cohesion-based mechanism—in driving its engagement in cross-border bandwagons of FDI into the host country.

## 4 | HYPOTHESES

### 4.1 | Frequency-based cross-border bandwagons of FDI

In the context of foreign market entry, a plethora of studies demonstrates that an increase in the frequency of previous foreign entries into a host country from a particular home country tends to drive more foreign entries from that home country (Belderbos et al., 2011; Guillén, 2002; Henisz & Delios, 2001). The logic of frequency-based home-country bandwagons of FDI has been extended to understand FDI bandwagons among foreign investors across different home countries (e.g., Li et al., 2007; Xia et al., 2008).

In line with existing FDI bandwagon studies, the current study also draws on organization theories (Abrahamson & Rosenkopf, 1993) and considers industry peers as the relevant reference groups (Belderbos et al., 2011; Guillén, 2002; Henisz & Delios, 2001; Li et al., 2007; Lu, 2002; Soule et al., 2014; Xia et al., 2008, *inter alia*). Specifically, we postulate that the increases in the number (i.e., frequency) of FDI entries into a host country by industry peers from other home countries can create both institutional and competitive bandwagon pressures for prospective investors and drive their new entries into the same industry in the host country. The institutional bandwagon pressures arise from the threat of lost legitimacy and loss of stakeholder support (Abrahamson & Rosenkopf, 1993; Guillén, 2002; Henisz & Delios, 2001), while the competitive bandwagon pressures derive from the threat of lost competitive advantage (Abrahamson & Rosenkopf, 1993; Gimeno et al., 2005; Martin et al., 1998). As firms operating in the same industry tend to be direct competitors (e.g., Hannan & Freeman, 1989), the competitive bandwagon pressures are likely industry-bounded. Institutional bandwagon pressures may extend beyond industry boundaries, but confining our analysis by industry, we believe, can capture the bandwagon pressures more effectively.

The foregoing discussion suggests that, in a host country of emerging economy, increases in the frequency of early foreign entries in an industry by investors from other home countries impose both competitive and institutional bandwagon pressures, driving new foreign entries by firms from a different home country. This leads to our baseline prediction regarding frequency-based cross-border bandwagons of FDI as follows:



*Baseline Hypothesis (Hb).* A foreign firm's likelihood of entering an industry in a host country of emerging economy will be higher, the larger the number of FDI entries established in the same host country and industry by firms from other home countries.

## 4.2 | Cohesion-based cross-border bandwagons of FDI

In the context of FDI, cohesion-based bandwagons are found in firms that follow their customers and suppliers into a host country (Martin et al., 1995, 1998). In addition, firms affiliated with a business group are found to follow other member firms' international expansions (Guillén, 2002; Henisz & Delios, 2001). Certainly, a firm's connection to other foreign investors who have invested in a host country gives the firm access to information about those investors' early foreign entries in the host country and stimulates the firm to make its own entries there (Guillén, 2002; Henisz & Delios, 2001). The tenet here is that cohesive ties between firms originating from a same country often facilitate the flow of FDI information, bestowing information advantages to the connected firms and thus driving the home-country bandwagons of FDI.

However, it can be problematic when extending the cohesion mechanism that is well established within the home-country boundary to the cross-border context. Indeed, inter-firm ties such as alliances or trade relationships linking foreign firms from different home countries may create cohesion and facilitate the flow of information on FDIs among them. However, when located outside a country, any foreign firms, even those having cohesive ties with local firms in the country, are still subject to the liability of outsidership (Johanson & Vahlne, 2009). Such liability can significantly constrain their access to local information, such as the country's FDI entries into another country. Specifically, geographic distance increases spatial frictions in various dimensions (Beugelsdijk et al., 2010; Ghemawat, 2001; Hillberry & Hummels, 2008). Due largely to spatial frictions, the flow of information tends to be localized in its geographic scope (Alcácer & Chung, 2007; Cantwell & Mudambi, 2011; Kim et al., 2018). Furthermore, "country borders are less permeable than firm borders" (Kogut, 1991, p. 40). As such, in order to better access local information in a country, firms need to be locally present in the country (Kim, 2013).

In this light, we identify a new firm-country cohesion mechanism in driving cross-border bandwagons of FDI: *a firm's international networks of FDI*. Conducting FDIs means that firms establish a physical presence in foreign countries, operate locally, and interact with local stakeholders directly within the boundary of foreign countries. Such physical presence and operation in a foreign country enable firms to access localized information more *directly* and effectively, reduce their liability of outsidership (Johanson & Vahlne, 2009), and create advantages in accessing information of these countries' FDIs into other countries, like China.

By considering barriers that the liability of outsidership creates for foreign firms to access local information, we offer that this new cohesion mechanism via international networks of FDI enables foreign firms to better access the information sourced from other foreign countries (i.e., the second origin) regarding these countries' outbound FDI entries into a host country of interest. Equipped with better access to the FDI bandwagon information, prospective foreign investors can better sense cross-border bandwagon pressures of FDI to drive their own entries into the country. Hence, we derive the following hypothesis on the cohesion-based cross-border bandwagons of FDI:



**Hypothesis 1.** A foreign firm's likelihood of entering an industry in a host country of emerging economy will be higher, the larger the number of FDI entries established in the same host country and industry by firms from other home countries where the focal firm has made FDI entries.

#### 4.3 | The moderating role of host country information voids

Information voids in a host country may have differential impacts on the two mechanisms driving cross-border bandwagons of FDI. Information voids not only limit the supply of information on early FDI entries from the host country, but also reduce informational value embodied in the information sourced from this origin. In the context of a host country where heightened information voids make the information of early FDI entries by non-home country investors less available, prospective investors are less likely to react to FDI bandwagon information sourced from the host country (i.e., the first origin) via the frequency mechanism. As a result, prospective investors have to rely more on the cohesion mechanism to obtain FDI bandwagon information from other home countries (i.e., the second origin). When this occurs, a firm's international networks of FDI become a more effective channel for sourcing FDI bandwagon information.

In contrast, in a specific context of a host country where the supply of public information on early FDI entries is relatively more abundant and complete than that in another context (i.e., reduced information voids), prospective foreign investors, with or without cohesion with foreign countries that have made FDI entries in the host country, are both able to observe prior FDI entries and access FDI bandwagon information effectively from the host country (i.e., the first origin). As such, prospective foreign investors can reduce their reliance on the cohesion mechanism in sourcing FDI bandwagon information. The foregoing discussion suggests that the relative effectiveness of frequency and cohesion mechanisms in driving cross-border bandwagons of FDI can vary depending on the extent of information voids in an emerging host country.

Information voids in a host country, thus, act as an important boundary condition that affects foreign investors' relative reliance on the two origins of information to source FDI bandwagon information, leading to differential moderating effects on the two mechanisms underlying cross-border bandwagons of FDI. Specifically, we offer that heightened information voids in a host country suppress frequency-based cross-border bandwagons of FDI that rely on sourcing FDI bandwagon information from the host country while strengthening cohesion-based cross-border bandwagons of FDI that rely on sourcing FDI bandwagon information from other foreign countries.

We identify two factors that can affect the extent of information voids regarding FDI bandwagon information in an emerging country like China: *FDI restricted industries* and *bank presence*. The former captures the extent of regulatory restrictions across industries that control and limit information flow on prior FDI entries, thus aggravating the extent of information voids, while the latter captures the extent of development in market intermediaries that facilitates information flow on FDI entries, thus mitigating the extent of information voids. The role of regulatory restrictions in reducing public information provision and flows is well documented in prior research (e.g., Huang, 1998; Makhija & Stewart, 2002). Having sufficient market intermediaries, especially information-focused market intermediaries, is also found to be critical to increasing information flows (Khanna & Palepu, 1997). In combination, the two factors capture the varying extent of information voids across different industries and over different time periods within an emerging economy.



#### 4.3.1 | FDI restricted industries

FDI restricted industries refer to those industries in a host country where FDIs are subject to more regulatory restrictions (Norton & Chao, 2001; Xia et al., 2008). Policy makers in emerging economies increasingly notice the merits of inward FDI in terms of employment, capital, and, especially, technology transfer. Consequently, many have undertaken reforms and liberalization to reduce restrictions and provide incentives to encourage inward FDIs (UNCTAD, 1996). However, the reforms are incremental, and liberalization across industries tends to progress at different rates, depending on the government's agenda (Gomes-Casseres, 1990; Hoskisson et al., 2000; Siegel, 2009). For instance, the Chinese government has issued a *Guiding Catalogue for Foreign Investment in Industry* (the Catalogue), classifying FDI by industry as encouraged, permitted, restricted, or prohibited. These classifications guide authorities in deciding whether to approve a foreign investment.

In FDI-restricted industries, although allowed to enter, foreign entries are subject to substantial scrutiny and constraints, and need to meet onerous requirements imposed by authorities in the approval process. For instance, foreign investors are often required to form joint ventures, cooperative, or contractual partnerships with Chinese firms in FDI restricted industries (Buckley et al., 2010; Xia et al., 2008), although wholly owned foreign subsidiaries have been allowed since 1986 in most other industries (Li et al., 2007; Xia et al., 2008). These ownership requirements, however, are only one of the many restrictions that Chinese authorities imposed on FDI entries into the restricted industries. Authorities may also make specific requirements on the type and amount of technology transfer, employment of local employees, and many others. As there is no standard approval process, and authorities can delay, suspend, or withhold their approval for a project at their discretion, FDI entries into the restricted industries are usually "constrained choice" (Hoskisson et al., 2000), rather than "free choice."

Stringent regulatory restrictions on FDI entries can hinder the flow and provision of public information (e.g., Makhija & Stewart, 2002) due to the onerous, protracted, and uncertain market entry process for foreign entries in FDI restricted industries (Huang, 1998). The dearth of public information on prior FDI entries into a host country's FDI restricted industries with uncertain regulatory approval processes is likely to aggravate the extent of information voids in these industries relative to others (Khanna & Palepu, 2010; Kingsley & Graham, 2017). With heightened information voids in FDI restricted industries, the FDI bandwagon information sourced from the host country (i.e., the first origin) via the frequency mechanism may fail to provide the necessary information about how prior FDI entries successfully enter these industries. Consequently, prospective investors tend to discount the value of this source of FDI bandwagon information, resulting in a weakened effect of frequency-based cross-border bandwagons of FDI.

In contrast, the cohesion mechanism enables foreign investors to better access the information on FDI bandwagons in FDI-restricted industries from other foreign countries (i.e., the second information origin) through these countries' outbound FDI entries into a host country of interest. Via the cohesion mechanism, foreign investors are likely to obtain more comprehensive information regarding early FDI entries, including how they gained regulatory approval and entered FDI restricted industries. Therefore, in FDI restricted industries with heightened information voids, we maintain that the FDI bandwagon information sourced from foreign home countries via the cohesion mechanism provides stronger informational value for foreign investors on prior FDI entries, resulting in a stronger effect in driving cross-border bandwagons of FDI. The foregoing discussion leads to the following moderating hypotheses.

**Hypothesis 2a.** The positive effect of frequency-based cross-border bandwagons of FDI into a host country of emerging economy (as proposed in  $H_b$ ) would be weaker in FDI restricted than in unrestricted industries in the host country.

**Hypothesis 2b.** The positive effect of cohesion-based cross-border bandwagons of FDI into a host country of emerging economy (as proposed in  $H1$ ) would be stronger in FDI restricted than in unrestricted industries in the host country.

#### 4.3.2 | Bank presence

Information voids emerge and prevail when market intermediaries are absent or poorly functioning (Khanna & Palepu, 2010). Among various market intermediaries, financial institutions such as banks and their representative offices are important, as they have the privilege to collect, analyze, and diffuse information on early FDI entries, including detailed arrangements (e.g., Kingsley & Graham, 2017). Hence, the development of a banking sector in an emerging economy facilitates local information flows. A high level of bank presence facilitates prospective foreign investors to observe prior FDI entries and provide related information that may not be publicized by host country government authorities. Banks can also cross-validate FDI bandwagon information observed in the host country, increasing its reliability and accuracy to capture cross-border FDI bandwagon pressure (García-Herrero et al., 2006, 2009; Healy & Palepu, 2001). In this light, we submit that greater bank presence strengthens the effect of first information origin, making the frequency mechanism stronger in driving cross-border bandwagons of FDI.

In addition, with decreasing information voids due to increased bank presence, prospective foreign investors, with or without cohesion with foreign countries that had FDI outflows into the host country, are both able to observe prior FDI entries and access FDI bandwagon information effectively from the host country (i.e., the first origin). Therefore, we maintain that, with increased bank presence, the cohesion mechanism decreases its value for potential investors seeking FDI bandwagon information. The preceding discussion suggests that bank presence has differential moderating effects on frequency and cohesion mechanisms, leading to the following hypotheses.

**Hypothesis 3a.** The positive effect of frequency-based cross-border bandwagons of FDI into a host country of emerging economy (as proposed in  $H_b$ ) would become stronger as bank presence increases in the host country.

**Hypothesis 3b.** The positive effect of cohesion-based cross-border bandwagons of FDI into a host country of emerging economy (as proposed in  $H1$ ) would become weaker as bank presence increases in the host country.

## 5 | DATA AND METHODS

To test the hypotheses, we analyze a firm-level data set of Japanese firms' FDI entries into China between 1986 and 2000. The focus of the analysis is to examine whether firms from Japan (i.e., the home country) are likely to enter an industry in China (i.e., the host country)



when the sheer number of foreign entries from other countries increases in that industry in China (i.e., frequency-based cross-border bandwagons of FDI), or from those countries with which the Japanese firms have made foreign direct investments (i.e., cohesion-based cross-border bandwagons of FDI).

## 5.1 | Data

Japan was one of China's earliest and largest foreign investors during the study period (Yang et al., 2015; Zhou et al., 2002). Indeed, almost all manufacturing industries in China at the 2-digit SIC level except SIC 21 (tobacco and related products) received Japanese FDIs. Information on Japanese parent firms is extracted from the *Nikkei Economic Electronic Databank System* (NEEDS), which provides comprehensive annual financial, accounting, business, and demographic data on Japanese firms (Delios & Beamish, 2001). NEEDS is an electronic database compiled annually since 1964 by *Nihon Keizai Shinbun-sha*.

Data on Japanese firms' entries into China are extracted from a directory of foreign expansions of Japanese firms, *Kaigai Shinshutsu Kigyou Souran* (*Japanese Overseas Investment*), published by *Toyo Keizai*. This publication is based on an annual census of Japanese FDIs completed by both Japanese subsidiaries and their Japanese parents. The census captures more than 99% of FDI activities by publicly listed Japanese companies (Henisz & Delios, 2001). We use the 1987–2001 editions of the *Toyo Keizai* annual survey to construct a complete historical data set of Japanese firms' entries into China between 1986 and 2000. In the year 2001, China joined the World Trade Organization, which obliged it to improve its transparency on laws, regulations, and disclosure of information from governments. As a result, China's investment climate for foreign investors, such as information voids, has improved significantly since then. This could function as an external shock that may alter the underlying mechanisms driving FDI bandwagons as developed in this article. As such, we limit our analysis to the year 2000.

## 5.2 | Dependent variable and unit of analysis

Our initial data set consists of 909 Japanese companies listed on the Tokyo Stock Exchange by the end of 1979 and whose primary line of business was manufacturing. Each Japanese firm in our sample has a varying degree of likelihood of entering a relevant manufacturing industry in China in a given year. An industry is defined as relevant for a focal firm when it is one of the listed industries of the firm, or one in which the firm had previously invested in other countries. We compute the dependent variable,  $Entry_{ijt}$ , as a dummy variable, which equals 1 if Japanese firm  $i$  invested in China in relevant industry  $j$  in year  $t$ , and 0 otherwise.

## 5.3 | Independent variables

The independent variables consist of two sets of FDI entry counts by non-Japanese firms in a specific industry in China prior to the focal year. Such information comes from the database published by the research institute of China's *Ministry of Foreign Trade and Economic Cooperation* (MOFTEC) in 2001. This database contains brief profiles of foreign-invested firms that

registered and operated in China in 1979–2000, providing information on the national origins of their foreign parents, the industry concerned, the total amount of investments, and ownership types.

The first count is to indicate *frequency-based cross-border bandwagons of FDI*. This variable is measured as the total number of foreign subsidiaries established in a specific industry in China by firms from different home countries other than Japan each year. Hence, the subsidiaries created by firms from the same home country in the same industry are excluded from this measure but are included in the model analysis as a control variable.

The second count is to capture *cohesion-based cross-border bandwagons of FDI*. This variable is operationalized as a composite measure by jointly considering a Japanese firm's FDIs in a specific industry across different countries and the number of FDI entries outflowed from those countries into the specific industry in China. The greater a (Japanese) firm's FDIs in numerous foreign countries in a particular industry, the greater the cohesion the firm develops with these foreign countries in that industry. This cohesion would, in turn, enable the firm to obtain valuable local information, such as these countries' outbound FDI entries into China in the same industry. Specifically, we quantified such firm-country cohesion by using a focal firm  $i$ 's FDIs in another country  $j$  in industry  $k$ . This number is then further multiplied by the number of FDIs made from  $n$

$$\text{Cohesion-based cross-border bandwagons of } FDI_{ikt-1} = \sum_{j=1}^n (FDIC_{jkt-1} \times FDIJ_{jkt-1}), \quad j=1...55$$

where  $FDIC_{jkt-1}$  is the number of FDI entries into China by firms from country  $j$  (other than Japan) in industry  $k$  at year  $t - 1$ ,  $FDIJ_{jkt-1}$  is the total number of FDI entries established by a focal Japanese firm  $i$  in the foreign country  $j$  in the industry  $k$  during the year  $t - 1$ .

## 5.4 | Moderating variables

### 5.4.1 | FDI restricted industries

Governments in emerging economies often impose various regulatory restrictions on FDI entries (e.g., Xia et al., 2008). Since the early 1990s, China's government has issued the *Guiding Catalogue for Foreign Investment in Industry* (the Catalogue hereafter), which classifies FDI by industry as encouraged, permitted, restricted, or prohibited. These classifications guide local authorities in deciding whether to approve foreign investments. For instance, foreign firms are barred in the tobacco, telecommunications, and mining industries. If an industry is categorized as encouraged or permitted, the approval process should be reasonably straightforward with well-defined criteria and the authorities will generally approve the project if it meets the criteria (Norton & Chao, 2001; Xia et al., 2008). If an investment is in an encouraged sector, it may even attract tax subsidies and other preferential treatment. In FDI restricted industries, there is no standard approval process, and authorities can delay, suspend, or withhold their approval for a project at their sole discretion.

The Catalogue does not specify industry classification codes (such as the SIC code) for restricted industries. But Xia et al. (2008) identified the 2-digit manufacturing industries that are considered as restricted for foreign investments (appendix, p. 217). These restricted



industries include apparel, lumber and wood products, furniture, leather products, printing and publishing, petroleum and oil products, and transport equipment, consistent with the prescription of the 1995 and 1997 Catalogues. Thereby, we code Japanese firms' primary industries as either restricted or unrestricted. A dummy indicator is then created, with 1 indicating the restricted industries, and 0 the unrestricted industries, including permitted and encouraged industries.

#### 5.4.2 | Bank presence

Bank information is obtained from the *Branch Database of Chinese Commercial Bank* in the *Chinese Research Data Service (CNRDS) Platform*, which includes the establishment of all Chinese commercial banks and their branches since 1948 in each city. To reflect the unbalanced development of the banking sector across different regions in China, we compute a weighted bank presence by considering the distribution of banks and branches across different provinces over the years. Specifically, the weight was computed as a ratio of the number of provinces where commercial banks or branches are established by year to 30, the total number of provinces in China. We then use the weight in each year to multiply the total number of banks and their bank branches in the same year to indicate bank presence. As such, this weighted indicator for bank presence varies by year.

### 5.5 | Controls

#### 5.5.1 | Parent firm controls

To control for parent firm characteristics, we first account for a foreign investor's *host country experience* (Delios & Beamish, 2001; Guillén, 2002). Specifically, *host country experience* is measured as the number of a focal Japanese firm's prior entries into China. We also account for parent firm age and size in the model analyses. Firm age is measured as the number of years in logarithm elapsed since the firm's founding in Japan, and firm size is measured as the firm's annual sales in logarithm (Guillén, 2002; Henisz & Delios, 2001). We also control for parent firms' research and development (R&D) intensity as well as advertising intensity, both of which are expected to produce advantages for firms competing in a foreign market (Henisz & Delios, 2001).

#### 5.5.2 | Environmental controls

Prior studies find evidence for home-country bandwagons of FDI (Henisz & Delios, 2001; Li et al., 2007). We, thus, include the number of Japanese FDI entries into a focal industry of China in the prior year to control for this effect. Market entry studies normally consider legitimization and competition as a function of industry density, defined as the number of organizations competing in an industry (Hannan & Carroll, 1992; Hannan & Freeman, 1989). Two types of density are considered in this study. First, *foreign firm density* is calculated as the number of foreign subsidiaries from all nations active in the target industry in China at the end of each year. Both its linear and squared terms are included to account for the legitimization and



competition effects among foreign firms (Hannan & Carroll, 1992; Li et al., 2007). Second, *domestic firm density* is computed as the number of domestic Chinese firms active in the industry at the end of each year. Such density information is extracted mainly from the *China Statistical Yearbook*. Third, we include industry dummies to control for industry heterogeneity in China. Lastly, we specify the year-fixed effects in our model analyses. It is worthwhile to note that along with the development of FDI bandwagons, the number (frequency) of foreign entries established in a host country industry increases over time naturally, making it highly correlated with time and difficult to empirically disentangle the effect of FDI bandwagons from the effect of time. This could be an important reason why many early studies on FDI bandwagons did not specify the year-fixed effects in their modeling (e.g., Guillén, 2002; Li et al., 2007; Lu, 2002; Xia et al., 2008).<sup>2</sup>

## 5.6 | Modeling

Among 909 Japanese firms in the initial sample, 349 (38%) made actual entries to China during the investigation period. As our dependent variable is a binary choice, we employ logistic regression to model Japanese firms' FDI entries into China (Henisz & Delios, 2001). The merit of including those Japanese firms that made no entries in our sample of analysis during the study period is that we can use all the information provided by right-censored cases and, thus, helps to avoid the potential selection biases when analyzed with a reduced sample. All independent and control variables in our models are lagged by 1 year. The final sample comprises 21,460 firm-year observations.

## 6 | RESULTS

Table 2 presents descriptive statistics and bivariate correlations for the main variables included in our analysis. The correlations are generally low but with several above .70. Multicollinearity may inflate standard errors and lower the efficiency of parameter estimates, particularly when sample sizes are small (Cohen & Cohen, 1983). Our sample size is not small, but to reduce the potential multicollinearity in our model analyses, we follow recent practices to orthogonalize the concerned variables (e.g., Bermiss et al., 2017; Greve & Seidel, 2015). Specifically, we use the Stata *orthog* command to orthogonalize *frequency-based cross-border bandwagons of FDI* and the three control variables that are highly correlated with it—*home country bandwagons of FDI* ( $r = .74$ ), *foreign firm density* ( $r = .70$ ), and its square term ( $r = .67$ )—in the order they appear here. Through this transformation, we construct a new set of uncorrelated variables to replace the original ones. The coefficient of each new variable expresses the net effect of the variable after excluding the effects of the other variables preceding it in the orthogonalized transformation. Therefore, there is no need to consider the correlations among these orthogonalized variables when assessing their individual effects. We also test for multicollinearity among the unorthogonalized variables and find that the average variable inflation factor (VIF) is 3.19, with all individual VIF values being below 10, the rule-of-thumb threshold (O'Brien, 2007). The VIF results suggest that multicollinearity would not be a major concern in our model analyses with

<sup>2</sup>We are grateful to one of the anonymous reviewers who pointed this out and suggested we specify the year-fixed effects in our model analyses.



TABLE 2 Descriptive statistics and correlations

Variables	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) Entry into a host country	.04	.20	1.00															
(2) Frequency-based cross-border bandwagons of FDI/ $10^3$	.32	.43	.13	1.00														
(3) Cohesion-based cross-border bandwagons of FDI/ $10^3$	.04	.16	.25	.29	1.00													
(4) FDI restricted industries	.48	.50	.01	−.07	−.01	1.00												
(5) Bank presence	48.35	4.91	.09	.64	.23	.00	1.00											
(6) Host country experience	1.00	3.79	.18	.19	.37	.00	.27	1.00										
(7) Firm age	.05	.02	.06	.22	.10	−.05	.30	.15	1.00									
(8) Firm size	1.85	1.52	.19	.01	.27	.05	.07	.36	.21	1.00								
(9) Advertising intensity	.01	.02	.03	−.02	.05	.04	−.02	.03	−.03	.10	1.00							
(10) R&D intensity	.02	.02	.10	.05	.16	−.14	.08	.19	.09	.28	.11	1.00						
(11) Home country bandwagons of FDI/ $10^2$	37.88	48.10	.14	.74	.25	.03	.47	.10	.17	.01	.03	.00	1.00					
(12) Foreign firm density/ $10^3$	3.78	1.60	.12	.70	.26	.15	.86	.23	.25	.07	−.02	.08	.62	1.00				
(13) Foreign firm density square/ $10^6$	2.61	4.26	.05	.67	.24	.17	.69	.24	.16	.03	−.07	.04	.39	.71	1.00			
(14) Domestic firm density/ $10^4$	2.00	1.39	.02	.24	.08	−.33	−.01	.00	−.01	−.08	.02	−.10	.38	.08	.01	1.00		
(15) Period of political disturbance	.06	.23	−.03	−.16	−.06	.00	−.05	−.02	.00	.01	.00	−.13	−.06	−.14	.01	1.00		
(16) Period of further economic reform	.40	.49	.14	.77	.29	.00	.86	.26	.26	.06	−.02	.07	.56	.78	.70	.03	−.20	1.00
(17) Period of Asia financial crisis	.17	.38	−.03	.30	.09	.00	.75	.23	.20	.03	−.01	.04	.48	.56	−.13	−.11	.55	

Note: N = 21,460.

TABLE 3 Results of logistic regressions on FDI entry

Variables	Model 1 <sup>a</sup>	Model 2 <sup>a</sup>	Model 3 <sup>a</sup>	Model 4 <sup>a</sup>	Model 5 <sup>a</sup>	Model 6
Frequency-based cross-border bandwagons of FDI/ $10^3$	0.343 (.000)	0.628 (.000)	0.682 (.000)	0.112 (.719)	0.131 (.673)	-0.937 (.162)
Cohesion-based cross-border bandwagons of FDI/ $10^3$	2.553 (.000)	1.142 (.000)	0.632 (.076)	3.964 (.002)	3.335 (.014)	3.335 (.014)
Frequency-based bandwagons/ $10^3 \times$ FDI restricted industries			-0.022 (.836)		-0.017 (.881)	-0.038 (.881)
Cohesion-based bandwagons/ $10^3 \times$ FDI restricted industries			0.948 (.019)		0.965 (.023)	0.965 (.023)
Frequency-based bandwagons/ $10^3 \times$ Bank presence				0.007 (.045)	0.008 (.035)	0.018 (.035)
Cohesion-based bandwagons/ $10^3 \times$ Bank presence				-0.038 (.015)	-0.036 (.021)	-0.036 (.021)
FDI restricted industries				-2.342 (.000)	-2.342 (.000)	-2.495 (.000)
Bank presence				-0.000 (.946)	-0.001 (.862)	-0.040 (.606)
Host country experience				0.013 (.114)	0.012 (.162)	0.017 (.082)
Firm age				-0.889 (.780)	-1.280 (.690)	-1.324 (.767)
Firm size				0.451 (.000)	0.453 (.000)	0.447 (.000)
Advertising intensity				4.698 (.007)	4.519 (.009)	4.487 (.009)

TABLE 3 (Continued)

Variables	Model 1 <sup>a</sup>	Model 2 <sup>a</sup>	Model 3 <sup>a</sup>	Model 4 <sup>a</sup>	Model 5 <sup>a</sup>	Model 6
R&D intensity	2.582 (.220)	3.259 (.114)	2.726 (.193)	3.300 (.108)	3.300 (.108)	3,300 (.108)
Home country bandwagons of FDI/ $10^2$	0.420 (.000)	0.432 (.000)	0.436 (.000)	0.449 (.000)	0.075 (.770)	0.075 (.770)
Foreign firm density/ $10^3$	1.059 (.000)	1.090 (.000)	1.045 (.000)	1.058 (.000)	1.541 (.000)	1.541 (.000)
Foreign firm density square/ $10^6$	-0.193 (.005)	-0.210 (.007)	-0.200 (.005)	-0.221 (.006)	-0.083 (.006)	-0.083 (.006)
Domestic firm density/ $10^4$	0.250 (.220)	0.241 (.247)	0.271 (.192)	0.283 (.179)	0.283 (.179)	0.283 (.179)
Industry fixed effects	Included	Included	Included	Included	Included	Included
Year fixed effects	Included	Included	Included	Included	Included	Included
Constant	-3.763 (.000)	-10.235 (.000)	-7.893 (.000)	-7.942 (.000)	-7.864 (.000)	-11.279 (.000)
Wald $\chi^2$ (df)	267.71 (2)	1089.18 (37)	1275.11 (39)	1096.20 (39)	1211.45 (41)	1211.45 (41)
Log-likelihood	-3249.13	-2727.62	-2721.71	-2719.47	-2713.77	-2713.77
Pseudo $R^2$	0.0934	0.2389	0.2405	0.2412	0.2427	0.2427

Note: N = 21,460, p-values are in parentheses.

<sup>a</sup>Frequency-based cross-border bandwagons of FDI, home country bandwagons of FDI, foreign firm density and foreign firm density square are orthogonalized.

original variables. Therefore, we use both the orthogonalized and unorthogonalized variables to test the hypotheses.

Table 3 reports the results of logit regressions on Japanese firms' new entries into China. Model 1 is the baseline model that includes only the independent variables of frequency- and cohesion-based cross-border bandwagons of FDI. Model 2 includes all independent variables and control variables, including the industry and the year dummies. Model 3 adds to Model 2 the interaction terms between the two types of cross-border bandwagons of FDI and the first indicator for information voids (i.e., *restricted industries*). Model 4 adds to Model 2 the interaction terms between the two types of cross-border bandwagons of FDI and the second indicator for information voids (i.e., *bank presence*). Model 5 is a full model with all four interaction terms added to Model 2. Models 1–5 employ the orthogonalized variables, while Model 6 is a full model with all the variables *unorthogonalized*. The purpose of specifying Model 6 in Table 2 is to compare the results between models employing orthogonalized and unorthogonalized variables.

Our baseline hypothesis ( $H_b$ ) is on the frequency-based cross-border bandwagons of FDI, which predicts that the likelihood of a foreign firm's new FDI entry in China increases when the frequency of early FDI entries invested by firms from other home countries increases. Models 1 and 2 show the frequency-based bandwagons of FDI have a positive effect ( $\beta = .343$ ,  $p < .001$ ;  $\beta = .628$ ,  $p < .001$ , respectively), corroborating the baseline hypothesis ( $H_b$ ).

Hypothesis 1 is on the cohesion-based cross-border bandwagons of FDI, and predicts that the increasing number of early FDI entries in China by firms from other home countries where a focal firm has made a large number of foreign investments, drives the focal firm's new entries into China. Models 1 and 2 in Table 3 show that the cohesion-based cross-border FDI bandwagons have a positive effect ( $\beta = 2.553$ ,  $p < .001$ ;  $\beta = 1.142$ ,  $p < .001$ , respectively), supporting Hypothesis 1.

Hypothesis 2a proposes that the effect of frequency-based cross-border bandwagons of FDI is weaker in FDI restricted industries than in unrestricted industries, while Hypothesis 2b suggests that the effect of cohesion-based cross-border bandwagons of FDI is stronger in FDI restricted industries than in unrestricted industries. In Models 3, 5, and 6, the coefficients of the interaction terms between FDI restricted industries and the frequency-based bandwagon are negative but weak ( $\beta = -.022$ ,  $p = .836$ ;  $\beta = -.017$ ,  $p = .881$ ;  $\beta = -.038$ ,  $p = .881$ , respectively), while the coefficients of the interaction terms with the cohesion-based bandwagons are all positive ( $\beta = .948$ ,  $p = .019$ ;  $\beta = .965$ ,  $p = .023$ ;  $\beta = .965$ ,  $p = .023$ , respectively). Thus, the results support Hypothesis 2b, not Hypothesis 2a.

Hypothesis 3a predicts that the effect of frequency-based cross-border bandwagons of FDI becomes stronger, whereas Hypothesis 3b proposes the effect of cohesion-based cross-border bandwagons of FDI becomes weaker when bank presence increases. In Models 4–6 in Table 3, the coefficients of the interaction term between the frequency bandwagons and the bank presence are positive ( $\beta = .007$ ,  $p = .045$ ;  $\beta = .008$ ,  $p = .035$ ;  $\beta = .018$ ,  $p = .035$ , respectively), while the coefficients of its interaction term with cohesion-based bandwagons are negative ( $\beta = -.038$ ,  $p = .0115$ ;  $\beta = -.036$ ,  $p = .021$ ;  $\beta = -.036$ ,  $p = .021$ , respectively). Therefore, the analysis results provide support for both Hypothesis 3a and Hypothesis 3b.

Models 3–6 in Table 3 provide information for the traditional approach to testing the interaction effects. Specifically, they provide information on the interaction terms' coefficients and standard errors. However, unlike linear models, nonlinear models present inherent difficulties in interpreting the coefficients for moderating effects (Bowen, 2012; Hoetker, 2007; Norton et al., 2004; Wiersema & Bowen, 2009). To address this issue, we



TABLE 4 Results of simulation-based logistic regression with robust standard errors (Hypotheses 2 and 3)

Variables	Model 1 <sup>a</sup>	Model 2 <sup>a</sup>	Model 3 <sup>a</sup>	Model 4
Frequency-based cross-border bandwagons of FDI/ $10^3$	0.682 (.000)	0.112 (.698)	0.131 (.648)	-0.937 (.156)
Cohesion-based cross-border bandwagons of FDI/ $10^3$	0.632 (.013)	3.964 (.000)	3.335 (.001)	3.335 (.001)
Frequency-based bandwagons/ $10^3 \times$ FDI restricted industries	-0.022 (.817)		-0.017 (.867)	-0.038 (.867)
Cohesion-based bandwagons/ $10^3 \times$ FDI restricted industries	0.948 (.002)		0.965 (.003)	0.965 (.003)
Frequency-based bandwagons/ $10^3 \times$ Bank presence		0.007 (.037)	0.008 (.027)	0.018 (.027)
Cohesion-based bandwagons/ $10^3 \times$ Bank presence		-0.038 (.003)	-0.036 (.004)	-0.036 (.004)
FDI restricted industries	-2.557 (.000)	-2.342 (.000)	-2.507 (.000)	0.290 (.351)
Bank presence	0.003 (.685)	0.005 (.431)	0.004 (.530)	-0.039 (.000)
Host country experience	0.012 (.054)	0.018 (.004)	0.017 (.012)	0.017 (.012)
Firm age	-1.280 (.619)	-0.943 (.713)	-1.324 (.609)	-1.324 (.609)
Firm size	0.453 (.000)	0.445 (.000)	0.447 (.000)	0.447 (.000)
Advertising intensity	4.519 (.013)	4.619 (.009)	4.487 (.013)	4.487 (.013)
R&D intensity	3.259 (.056)	2.726 (.121)	3.300 (.056)	3.300 (.056)
Home country bandwagons of FDI/ $10^2$	0.432 (.000)	0.436 (.000)	0.449 (.000)	0.075 (.757)
Foreign firm density/ $10^3$	1.090 (.000)	1.045 (.000)	1.058 (.000)	1.541 (.000)
Foreign firm density square/ $10^6$	-0.210 (.001)	-0.200 (.000)	-0.221 (.001)	-0.083 (.001)
Domestic firm density/ $10^4$	0.241 (.214)	0.271 (.162)	0.283 (.149)	0.283 (.149)
Industry fixed effects	Included	Included	Included	Included
Year fixed effects	Included	Included	Included	Included
Constant	-7.179 (.000)	-7.860 (.000)	-7.768 (.000)	-14.064 (.000)

TABLE 4 (Continued)

Variables	Model 1 <sup>a</sup>	Model 2 <sup>a</sup>	Model 3 <sup>a</sup>	Model 4
Wald $\chi^2$ (df)	1393.15 (39)	1368.07 (39)	1412.55 (41)	1412.55 (39)
Log-likelihood	-2721.71	-2719.47	-2713.77	-2713.77
Pseudo $R^2$	0.2405	0.2412	0.2427	0.2427

Note:  $N = 21,460$ ,  $p$ -values are in parentheses.

<sup>a</sup>Frequency-based cross-border bandwagons of FDI, home country bandwagons of FDI, foreign firm density and foreign firm density square are *orthogonalized*.

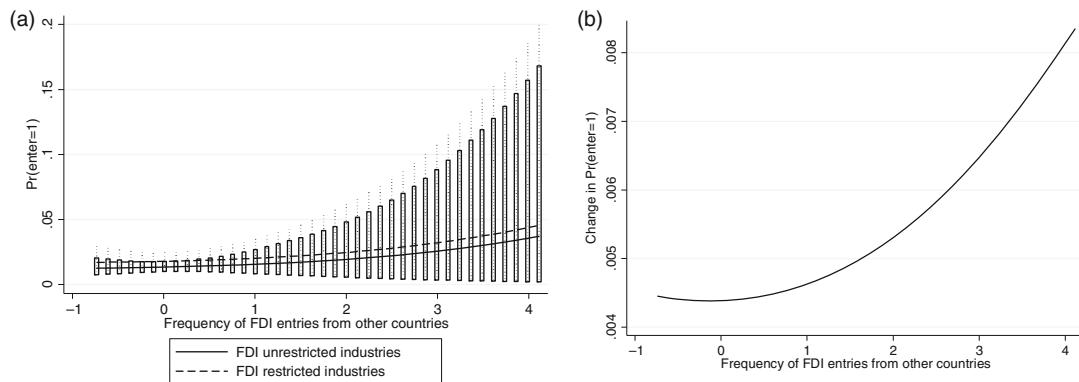


FIGURE 1 The moderating effect of FDI restricted industries on frequency-based cross-border bandwagons of FDI (H2a).

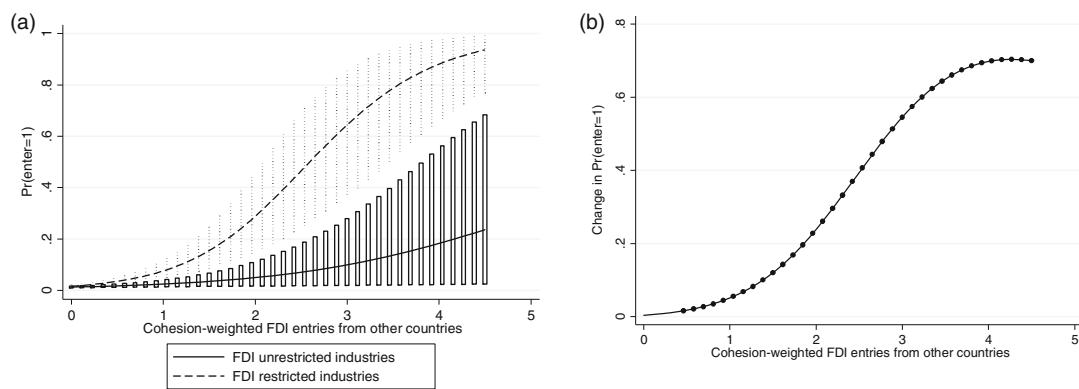
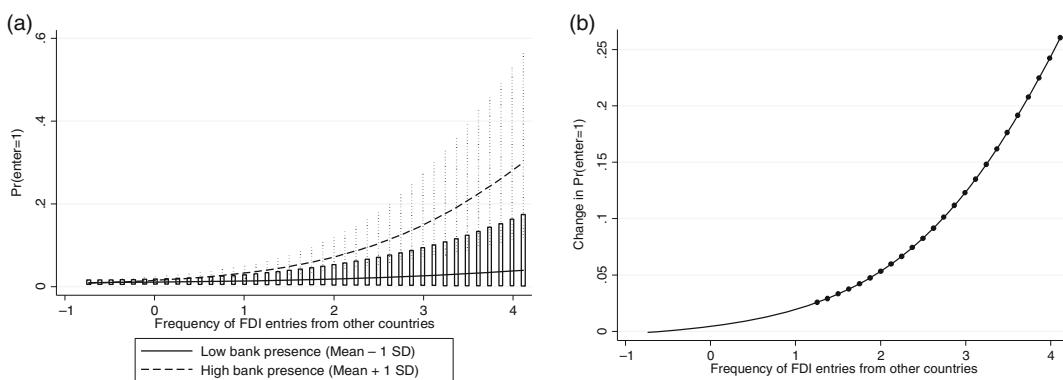
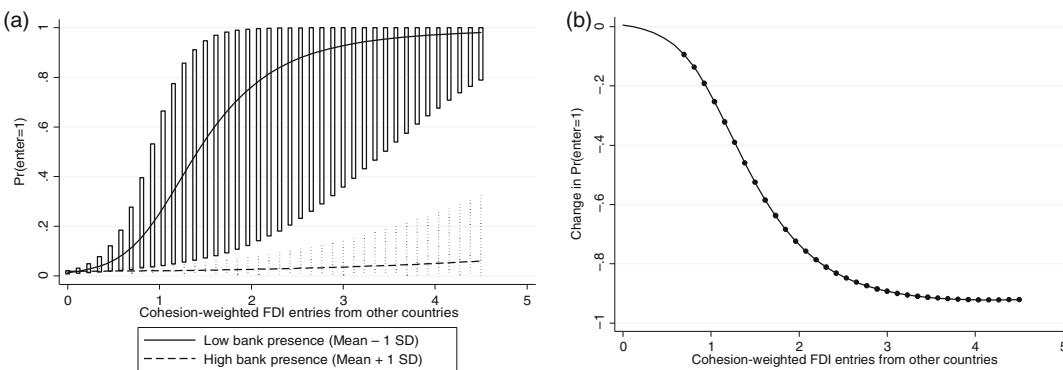


FIGURE 2 The moderating effect of FDI restricted industries on cohesion-based cross-border bandwagons of FDI (H2b).

conduct additional simulation-based analysis (King et al., 2000; Zelner, 2009). This approach derives the robust standard errors of the effect at each observation based on repeated simulations from the multivariate normal distribution. This simulation-based approach has an advantage over conventional mathematical techniques and produces more accurate results, because it does not rely on the “delta method” and corrects for a bias in the



**FIGURE 3** The moderating effect of bank presence on frequency-based cross-border bandwagons of FDI (H3a).



**FIGURE 4** The moderating effect of bank presence on cohesion-based cross-border bandwagons of FDI (H3b).

formula used for the calculation (Zelner, 2009). Also, in contrast to the conventional approach that interprets the signs and significances of interaction effects based only on coefficients and standard errors, the simulation-based approach depicts the signs and statistical significance of the estimated effect of an independent variable, conditional on each observation of its moderating variable, with different confidence intervals specified.

Toward this end, we use *Intgph logit* in STATA (King et al., 2000; Zelner, 2009) and conduct additional simulation-based analysis to test Hypotheses 2 and 3. The results are reported in Table 4. Models 1–3 show the results with the orthogonalized variables, while Model 4 lists the results with the unorthogonalized variables. Models 1, 3, and 4 show that FDI restricted industries do not weaken the effect of frequency-based cross-border bandwagons of FDI ( $\beta = -.022, p = .817; \beta = -.017, p = .867; \beta = -.038, p = .867$ ), while strengthening the effect of the cohesion-based cross-border bandwagons of FDI into an emerging host country ( $\beta = .948, p = .002; \beta = .965, p = .003; \beta = .965, p = .003$ ). Models 2–4 show that bank presence in an emerging host country strengthens the effect of the frequency mechanism ( $\beta = .007, p = .037; \beta = .008, p = .027; \beta = .018, p = .027$ ), while it weakens the effect of the cohesion mechanism ( $\beta = -.038, p = .003; \beta = -.036, p = .004; \beta = -.036, p = .004$ ) in driving the cross-border

bandwagons of FDI into the host country. These results are consistent with those with logistic regression analysis reported in Table 3.

We also graphically illustrate the results reported in Table 4 to provide a reference for interpreting the marginal effects of frequency- and cohesion-based cross-border bandwagons of FDI across various values of the moderators, while the rest of the variables are held at their mean values. Specifically, in Figures 1–4, we plot the interactions between the two mechanisms driving the cross-border bandwagons of FDI and the two moderators (i.e., FDI restricted industries and bank presence) using the full model (Model 3) in Table 4.

Figure 1a illustrates how the predicted probability of a Japanese firm's foreign entry into China changes as the frequency of FDI entries from other countries varies, when it attempts to enter the FDI restricted industries versus the unrestricted industries, respectively. Unlike the prediction in Hypothesis 2a, the marginal effect of frequency-based FDI bandwagons appears to be not larger in restricted industries than that of unrestricted industries. Utilizing the same model estimates, Figure 1b plots the difference between the predicted probabilities of new Japanese entries into the FDI restricted industries versus the unrestricted industries across various values of the frequencies of FDI entries. A solid line represents the range where the 95% confidence interval of the difference between the two predicted probabilities includes zero, while a dotted line captures the range where the 95% confidence interval does not include zero. The upward-sloping curve away from zero in Figure 1b suggests that the difference between the predicted probabilities in the two types of industries (i.e., FDI restricted–FDI unrestricted) becomes larger as the values of the frequency of FDI entries increase. Yet such difference is not statistically different from zero as represented in the solid line across the entire range of frequency of FDI entries from other countries.

Figure 2a illustrates the predicted probability of a Japanese firm's foreign entry into China changes across various values of cohesion-weighted FDI entries from other countries, when the firm enters the FDI restricted industries versus the unrestricted industries, respectively. As predicted in Hypothesis 2b, the marginal effect of cohesion-based bandwagons of FDI appears to be larger in restricted industries than that in unrestricted industries. Figure 2b plots the difference between the predicted probabilities between the two groups of industries. The upward-sloping curve away from zero suggests that the difference between the predicted probabilities in the two types of industries (i.e., FDI restricted–FDI unrestricted) becomes larger as cohesion-weighted FDI entries increase. The solid line with small dots shows the difference becomes statistically significant when cohesion-weighted FDI entries are larger than 0.5 (i.e., 50 weighted FDI entries).

Figure 3a illustrates how the extent of bank presence in China changes the effect of the frequency of FDI entries from other countries on the probability of a Japanese firm's entry into China. In line with the prediction in Hypothesis 3a, the effect of frequency-based bandwagons of FDI appears to be stronger when the extent of bank presence is great (mean + 1 SD), as shown in the steeper slope of frequency of FDI entries (indicated by the dashed line), while the effect becomes weaker when the extent of bank presence is low (mean – 1 SD), as shown in the solid line with a flatter slope. Figure 3b further plots that the difference between the predicted probabilities (i.e., High bank presence–Low bank presence) becomes wider and eventually statistically significant, as represented in the line with small dots, when the frequency of FDI entries from other countries (orthogonalized) is greater than 1.3 (i.e., 130 FDI entries from other countries). The patterns underscore that the effect of frequency-based bandwagons of FDI increases when bank presence is high.



Figure 4a illustrates how the extent of bank presence in China changes the effect of the cohesion-weighted FDI entries from other countries on the probability of a Japanese firm's entry into China. Clearly, the effect of cohesion-weighted FDI entries from other countries appears to be larger when the extent of bank presence is lower (mean - 1 SD) than when it is higher (mean + 1 SD). Figure 4b plots the difference between the predicted probabilities (i.e., High bank presence-Low bank presence). As predicted, the downward-sloping curve away from zero suggests that the difference between the predicted probabilities becomes larger as the cohesion-weighted FDI entries increase. In addition, the difference is statistically significant across the entire range of cohesion-weighted FDI entries, as represented in the solid line with dots.

Overall, the results of logistic regression analysis, simulation-based analysis, and graphical illustrations of the simulation analysis consistently corroborate our hypotheses on the cohesion mechanism (i.e., Hypotheses 1, 2b, and 3b). First, the cohesion mechanism has a positive effect on driving the cross-border FDI bandwagons into a host country of emerging economy (H1), and the positive effect becomes more pronounced in FDI restricted industries than in unrestricted industries (H2b), yet weakens as bank presence in the host country increases (H3b). Second, however, we find mixed results for the frequency mechanism. As reported in Table 3, the frequency mechanism has a positive effect on driving cross-border bandwagons of FDI into an emerging economy (H<sub>b</sub>). Although the interaction effect with bank presence (H3a) shows consistent results across different types of analysis, the prediction of the interaction effect between the frequency mechanism and restricted industries (H2a) is not supported. Our conjecture for the unsupported Hypothesis 2a is that the moderating effect of regulatory restrictions on the frequency mechanism via observation is more complicated than what we hypothesized.

Control variables in our models show generally consistent results with those of prior research. For instance, Japanese firms are less likely to enter FDI restricted industries in China. The positive coefficient estimates of *home experience* indicate that, if Japanese firms had launched numerous entries in China before, they would be more likely to enter China again. We also find that large firms and firms with greater advertising intensity and R&D intensity are more likely to enter China. With regard to the environmental control variables, the foreign firm density, as expected, shows an inverted U-shaped relationship with new entries (Hannan & Carroll, 1992; Li et al., 2007). Consistent with the literature, home-country FDI bandwagons show a positive effect, on driving new entries into China.

## 6.1 | Robustness checks

We conducted a set of additional analyses to examine the robustness of our findings. First, research points out that graphically illustrating the results of the simulation-based approach that we present above (King et al., 2000; Zelner, 2009) has limitations, as it only considers the effects of the concerned independent variable when a moderator changes between a limited number of data points, normally two data points that are often set at a low (e.g., mean - 1 SD) level and at a high (e.g., mean + 1 SD) level. Recent developments in this area advocate that the marginal effects technique is a good practice for testing moderating effects in nonlinear models with limited dependent variables (e.g., Aguinis et al., 2017; Bowen, 2012; Busenbark et al., 2022). To apply this technique, we used Stata *margins* command to graphically illustrate the nuanced and more comprehensive relationship between the independent and dependent variables over different values of moderators. The marginal effects approach does generate

findings consistent with that of our simulation-based regressions, providing more robust evidence in support of our moderating hypotheses.

In addition, considering our measures of frequency- and cohesion-based cross-border bandwagons of FDI comprise overlapping information, we decompose the original measure of total frequency of FDI into two sub-components: *nonoverlapping* and *overlapping frequency-based cross-border bandwagons of FDI*.<sup>3</sup> The first component indicates the number of prior FDI entries into China by firms from home countries (other than Japan) where a focal Japanese firm has not made any foreign direct investments. This one does not overlap with our measure for cohesion-based cross-border bandwagons of FDI. The second component captures the remaining number of prior FDI entries into China from home countries (other than Japan) where the focal Japanese firm has made foreign direct investments. Unlike the first component, this one has an overlapping portion with our measure for cohesion-based cross-border bandwagons of FDI. In sum, the total frequency of FDI that we originally employed to operationalize frequency-based cross-border bandwagons of FDI is a sum of the overlapping frequency of FDI and the nonoverlapping frequency of FDI as shown below:

$$\text{Total frequency of FDI} = \text{Overlapping frequency of FDI} + \text{Nonoverlapping frequency of FDI}$$

It is worthwhile to note that the original independent variable, *Total frequency of FDI entries*, is highly correlated with the nonoverlapping measure ( $r = .83$ ), while less so with the overlapping counterpart ( $r = .28$ ), suggesting that our original measure for frequency-based mechanisms largely captures the nonoverlapping portion of the variance. We then re-test all the hypotheses, by replacing the total frequency of FDI entries with the *nonoverlapping* frequency of FDI entries, with both logistic regressions and simulation-based logistic regressions. The new analysis results remain largely consistent with those using the total frequency of FDI entries.

Lastly, we construct additional indicators to measure bank presence. First, we use a simplified indicator that counts the total number of commercial banks and their branches every year in China to measure bank presence. We also compute another measure by replacing the overall bank presence with foreign bank presence. Moreover, we also extract data from MOFTEC on foreign entries in the professional service domain, including information service (SIC4: 8200), consulting (SIC3: 8220), and accounting, auditing and statistics (SIC: 8223), and then use the presence of foreign service firms to indicate information-focused market intermediaries in China. The analysis results of using these alternative indicators are largely consistent with the results of using bank presence.

## 7 | DISCUSSION

By mapping the literature on bandwagons of organizational practices, we identify two mechanisms of bandwagon diffusions (i.e., *frequency* versus *cohesion*) and two boundaries of bandwagon pressures (i.e., *within home country* versus *across countries*) (Table 1). Although researchers acknowledge that organizational practices diffuse across borders unevenly, they pay limited attention to where and how firms from one country can access information about the organization practices adopted by firms in another country. In the context of FDI, for instance,

<sup>3</sup>We are grateful to one of the anonymous reviewers for recommending this approach.



it is unclear from which sources foreign investors would obtain information of cross-border bandwagons of FDI into an emerging economy.

Cross-border bandwagons of FDI, reflected as mass FDI entries, into emerging economies, have been one of the prominent phenomena driving globalization in the past three decades. One notable pattern in this process is that global investors from different countries contributed unequally to the bandwagons of FDI. We posit that this could be due to an important prerequisite for the occurrence of FDI bandwagons: global investors must be aware of the information on early FDI entries into emerging economies. As discussed, this prerequisite can be difficult to meet, especially in emerging economies where information voids prevail. Despite its important theoretical and managerial implications, however, the few studies that find evidence in support of cross-border FDI bandwagons into emerging economies (Li et al., 2007; Xia et al., 2008) fail to explicitly consider the prerequisite.

A central argument of this article is that the information voids in a host country of emerging economy create challenges for foreign investors to effectively source the bandwagon information about early FDI entries from the host country (i.e., the first information origin), thus limiting the occurrence of frequency-based cross-border bandwagons of FDI in the country. As an alternative to this frequency mechanism, we introduce a new cohesion mechanism—an investor's international networks of foreign direct investments—in driving cross-border bandwagons of FDI. We then contrast the relative effectiveness of frequency and cohesion mechanisms in fostering cross-border bandwagons of FDI across a varying level of information voids within a big emerging host country. We maintain that the effect of frequency-based cross-border bandwagons for FDI weakens, and that of cohesion-based cross-border bandwagons for FDI strengthens, when the level of information voids in a host country increases. We find support for our hypotheses by analyzing a firm-level data set of Japanese firms' foreign entries into China during the period between 1986 and 2000.

## 7.1 | Theoretical contributions

This article contributes not only to the literature on cross-border bandwagons of FDI in particular, but also to the literature on cross-border bandwagons of organizational practices in general. First, illuminating prevailing information voids in emerging economies, we identify a new cohesion mechanism driving cross-border bandwagons of FDI into an emerging economy. Complementing the frequency mechanism as established in prior studies (e.g., Li et al., 2007; Xia et al., 2008), the new cohesion mechanism underscores the importance of a firm's international networks of FDI in sourcing bandwagon information of FDI entries from other countries in fostering the occurrence of cross-border bandwagons of FDI, especially in the context of high information voids. International networks of FDI facilitate the flow of FDI information between countries, bestowing information advantages to global investors who have invested in those countries with firms that have made FDI entries in the concerned host country. Our findings extend the cohesion mechanism that was found effective in driving the cross-border diffusions of organizational practices (Guler et al., 2002), into the context of FDI bandwagons, especially those into emerging economies.

In addition, we contrast the two mechanisms (i.e., *frequency* versus *cohesion*) in driving cross-border bandwagons of FDI and illuminate their differential effects across the varying extent of information voids. Our results demonstrate that a high level of information voids



acts as an impetus for the cohesion mechanism in propelling cross-border bandwagons of FDI but serves as a barrier for the frequency mechanism. As such, this article identifies an important contingency factor – the extent of information voids. A high level of information voids inhibits prospective investors from effectively sourcing information of cross-border bandwagons of FDI from the host country, forcing the investors to source the FDI bandwagon information more from their international networks of FDI in those countries (the alternative source) that have embedded in FDI bandwagons into the host country. The importance of this contingency factor resides in its role in determining foreign investors' relative reliance on the two information origins to sense the FDI bandwagon pressures derived from early FDI entries. Our findings shed light on the international diffusion of organizational practices and suggest that the same contingency may alter the relative effectiveness of frequency and cohesion mechanisms in driving cross-border diffusion of other organizational practices.

## 7.2 | Managerial implications

Cross-border mass FDI entries into emerging economies intensify globalization and, thus, facilitate the cross-border flows of goods, services, capital, information, people, and culture (Guillén, 2002; Guler et al., 2002). In this light, our study on the differential effects of frequency and cohesion mechanisms in propelling cross-border bandwagon of FDI in the face of information voids provides important managerial implications. First, this article offers important implications on firms' mimetic foreign entry behaviors and their impacts on globalization. For instance, our results show the importance of a firm's international networks of FDI as conduits for FDI bandwagon pressures and highlight how crucial they are for driving mass foreign entries into an emerging economy where information voids are typically great. As such, in order to better sense the pressures of FDI bandwagons into emerging economies, managers may need to develop a cohesive international network.

In addition, by analyzing the influence of information voids on cross-border bandwagons of FDI into China, this article offers important implications for policymakers. Our findings show that reducing information voids has differential impacts on driving the development of different mechanisms of cross-border bandwagons of FDI. Ameliorating information voids would have important implications for an emerging host country's integration into the global economy. Specifically, to increase China's integration into the global economy and foster global investors to invest in China, it is important that China develops more market intermediaries, publicizes more credible information about the market entry process and prior FDI entries in the local environments and improves global investors' access to such information.

## 7.3 | Limitations and future research

Despite its theoretical contributions and managerial implications, this article is limited in several ways that suggest areas for future research. First, we focus on one host country in this article. Although China, as one of the largest and fast-growing emerging economies, serves as an ideal context for testing our theoretical predictions, future research is warranted to examine cross-national diffusion of foreign entries into other emerging host countries. In addition, it would be interesting to examine to what extent the two types of cross-border bandwagons of FDI may occur among multiple host countries where information voids vary significantly.



Second, this article shows that international networks of FDI can transmit FDI bandwagon pressures, providing a substantial impetus for mass foreign entries from different home countries into an emerging host country. Further research on cross-national bandwagons would benefit from investigating other types of cohesion mechanisms or global networks. Future research is also warranted to test if our theoretical framework may explain mass entries of non-Japanese foreign investors into a host country of emerging economy, or to predict if such cross-border bandwagons of FDI may also drive foreign investors to enter subnational locations within the host country.

Finally, we could not completely rule out the possibility that our analyses omitted variables that are correlated with both our main theoretical variables and outcome variable, which led to the current findings. Hence, more research using other methods such as natural experiments to substantiate the causal relationship is necessary.

## 8 | CONCLUSIONS

At the beginning of this article, we raise two questions: (1) where to source the bandwagon information of early foreign entries in an emerging economy, made by global investors from other home countries; and (2) how such FDI bandwagon information would diffuse among prospective foreign investors from different home countries. To address these questions, we identify a new cohesion mechanism—a foreign investor's international networks of foreign direct investments—in driving the information diffusion on FDI bandwagons across borders. Both frequency and cohesion mechanisms propel mass FDI entries from different home countries into a host country, yet their relative effects vary depending on the extent of information voids in the host country. Specifically, the effect of frequency mechanism decreases, while that of cohesion mechanism increases as the level of information voids in the host country increases.

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## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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