

# E-Commerce Firms' Geographic Scope: Roles of Intangible Resources and Country-Specific Moderators

By Bernhard Swoboda\* and Marius Müller

In an increasingly digitalized economy, e-commerce firms are known to internationalize with a greater scope than offline firms. However, it is important to analyze how their geographic scope depends on intangible resources acquired over time and whether their exploitation is affected by country-specific boundaries. The authors propose a theory-based framework to analyze the relationship between e-commerce firms' intangible resources and geographic scope. Importantly, they apply multilevel modeling with cross-level interactions to provide insights into the role of country-specific moderators, i.e., rule of law, degree of country development, and logistics performance. The authors use data on 263 leading e-commerce firms in Europe and 2,632 market entries over 24 years. The results show that some e-commerce firms have a wider geographic scope than others due to specific intangible resources. However, these relationships change depending on the moderators, which explain country-specific variances differently. The findings have direct implications for managers interested in understanding how resources affect online geographic scope.

## 1. Introduction

Scholars have broadly studied the antecedents of geographic scope or related constructs such as diversification (*Tab. 1*). [1] A wide internationalization scope has been attributed to firms' resources (e.g., experiential knowledge, Beleska-Spasova et al. 2012; intangible assets, Delgado-Gómez et al. 2004). However, almost all studies have addressed manufacturing firms. Only Kotha et al. (2001) have linked internet firms' resources, such as website traffic or reputation, to the number of foreign domains (Batsakis and Mohr (2017) study offline commerce). It is important to analyze the effects of traditional intangible resources, such as international experience, and e-business-specific resources, such as website traffic or social media networks, on geographic scope. Clarification is especially needed in the context of e-commerce firms, as it remains unclear how their specific expansion decisions emerge (likely differ from offline firms). Moreover, few studies have examined the role of external factors in that decision (e.g., risks, Jiménez 2010, country development, Mansion and Bausch 2020). Insights into the role of country-specific factors on this effect are important, as environmental factors are expected to lose relevance in e-business (e.g., Chen et al. 2019). In summary, most studies have addressed firms' resources as antecedents of the geographic scope of manufacturing firms. Scholars have called for respective e-commerce studies (e.g., Chabowski and Samiee 2020; Jean and Kim 2020) as well as for analyses on the role of specific resources of e-commerce firms regarding their geographic scope and the country-specific contexts that facilitate their geographic scope (e.g., Liu et al. 2020; Tolstoy et al. 2021). Understanding the general and relative importance of major contexts for firms' resource effects on geographic scope helps managers successfully operate e-businesses internationally.

This study aims to address these research gaps by analyzing two research questions. First, how do intangible resources affect the geographic scope of e-commerce firms? Second, whether and how do host country factors, i.e., rule of law, country development, and logistics performance, moderate these effects? We thereby offer two important contributions to theory and practice.

First, examining the antecedents of e-commerce firms' geographic scope provides novel insights into their inter-



Bernhard Swoboda is Professor of Marketing and Retailing at Trier University, Universitätsring 15, 54296 Trier, Germany, Phone: +49/651-201-3050, E-Mail: b.swoboda@uni-trier.de  
\* Corresponding author



Marius Müller is Research Assistant and Doctoral Student at the Chair of Marketing and Retailing, Universitätsring 15, 54296 Trier, Germany.

**Acknowledgements:** A preliminary version of the manuscript was awarded with the best paper in the „International and Cross-Cultural Marketing Track“ by the AMA at the annual summer conference of the American Marketing Association, 2022 in Chicago.

		Scope of Internationalization	Related Conceptualizations
Offline firms	Internal factors	<i>Beleska-Spasova et al. 2012;</i> <i>Delgado-Gómez et al. 2004;</i> <i>Gallego and Casillas 2014;</i> <i>George et al. 2005;</i> <i>Hitt et al. 2006b;</i> <i>Kirca et al. 2011;</i> <i>Lin 2012;</i> <i>Lin 2014;</i> <i>Love et al. 2016;</i> <i>Ruzo et al. 2011</i>	Bauweraerts et al. 2019 <sup>1</sup> ; Felzensztein et al. 2015 <sup>1</sup> ; <i>Jean et al. 2020;</i> Kuivalainen et al. 2007 <sup>1</sup> ; Sambharya and Lee 2014 <sup>1</sup> ; Wiersema and Bowen 2008 <sup>1</sup>
	Also external	<i>Jiménez 2010;</i> <i>Kirca et al. 2012;</i> Mansion and Bausch 2020; Navarro-García 2016	-
Online commerce	Internal factors	<i>Kotha et al. 2001</i>	Batsakis and Mohr 2017 <sup>1</sup>
	Also external	<i>This study</i>	-

Notes: Studies focusing scope only (vs. further decisions) in *italics*; <sup>1</sup> Diversification/Entropy Index.

Tab. 1: Literature review

nationalization processes, particularly into their resource-based decision making. Scholars have studied geographic scope based on various theories, such as organizational learning theories, transaction cost theory, or internationalization process theory (e.g., Jiménez 2010; Love, et al. 2016; Wiersema and Bowen 2008). We build on the RBV (i.e., the “resource-based-view” approach of management) because it is the most used theory in scope-related research, and our antecedents are understood as valuable intangible resources driving the geographic scope of e-commerce firms (Kirca et al. 2011; Kozlenkova et al. 2014). The RBV provides a stringent rationale for our research objectives and is more relevant than ever in e-commerce, as new resource-based advantages are being created digitally (e.g., Elia et al. 2021). We contribute to the application of this theory in a digitalizing economy by empirically capturing the effects of the intangible resources of e-commerce firms (responding to calls, e.g., Chabowski and Samiee 2020). Therefore, quicker learning processes due to international online experience may affect geographic scope. Moreover, website traffic and social media networks built over time and based in the home country were chosen as critical marketing-related resources highlighted in recent research (e.g., Dolega et al. 2021). The possible halo-like reputational effects of accumulated website traffic and foreign users’ ease of access to active social media communities are suggested, as resources, to facilitate additional market entries of e-commerce firms (Kotha et al. 2001; Shaheer and Li 2020). While international experience and consumer-related resources have been shown in meta-analyses to affect the geographic scope of manufacturing firms (Kirca et al. 2011), whether they are equally relevant in e-commerce remains unclear.

Second, we contribute to the literature by following calls and examining the contextual factors of e-commerce firms (Jean and Kim 2020). We study interactions with the effects of intangible resources (not only independent effects, e.g., Navarro-García 2016). Applying multilevel modeling with cross-level interactions reveals explained variances of moderators and identifies the strongest levers (Hox et al. 2018, pp. 4–5). We also contribute to the application of the RBV and the suggested role of contextual factors in this theory. Considering actual differences in host country factors (rather than distances, which we test in alternative models) is important, as the explanatory power of distances has been shown to be limited when the actual country context is accounted for (Harzing and Pudelko 2016). We study host countries’ rule of law, representing the legal environment, because of its strong importance as a country-level factor in e-commerce as it is central for resource utilization (e.g., Alsaad et al. 2021; Schu and Morschett 2017). For instance, countries increasing rule of law reduces risk of market entry or enhances transparency or transactional integrity (Oxley and Yeung 2001). The degree of country development is also important to study, as it is the basis for e-commerce diffusion and digital business and thus is highly important to account for in terms of expansions decisions (Alsaad et al. 2021). Resource exploitation may be easier when entering developed countries due to stable societal conditions (Kirca et al. 2011; Lu et al. 2014). However, certain emerging markets are increasingly interesting, as they report strong economic growth (Benmamoun et al. 2019). We finally study host countries’ logistics performance because of its core role for e-commerce firms and potential effects on the value of resources used to increase geographic scope (e.g., for the efficient, timely distribution of online orders, Schu and Morschett 2017; Zhang et al. 2019).

The remainder of this study proceeds as follows: drawing from theory, we derive and test hypotheses based on 2,632 market entries of 263 e-commerce firms over 24 years. After presenting the results, we provide implications and avenues for further research.

## 2. Conceptual framework and hypotheses

To address our research aims, our conceptual framework proposes that e-commerce firms' intangible resources – international online experience, website traffic, and firm's social media use – affect these firms' geographic scope over time (see Fig. 1). These effects are conceptualized to depend on three contextual factors as continuous moderators at the country level.

*Geographic scope* is an important indicator of e-commerce firms' international involvement and is commonly defined as the number of foreign markets entered by country-specific online shops (Kotha et al. 2001; in contrast to the global diversity of firms' sales, for example, Bauweraerts et al. 2019). *International online experience* indicates e-commerce firms' degree of knowledge about foreign markets (Batsakis and Mohr 2017), capturing firms' experience in operating country-specific online shops and gaining knowledge about foreign online markets over time. *Website traffic* was chosen as a critical marketing-related digital resource facilitating market entries online (Dolega et al. 2021). We define an e-commerce firm's website traffic as its customer base or interest in and reputation of its website, as most repeat visitors become customers. Website traffic is also often understood as users' general awareness, indicating current sales potential (Kotha et al. 2001). *Firms' social media use* is chosen as another key marketing-related resource highlighted by recent literature reflecting their tacit digital communication skills and consumer interactions on social media (Elia et al. 2021; Shaheer and Li 2020). Followers on social media represent an engaged audience that can be reached and influenced by an e-commerce firm with the opportunity to gain additional knowledge of their needs and to convert them into customers (Katsikeas et al. 2019). Therefore, social media followers are

more indicative of firms' communication reach and future sales potential than a direct increase in orders or sales.

We study the roles of continuous national moderators reflecting the role of country environments. We consider the rule of law as the predominant part of a country's regulatory system, indicating the extent to which a society's rules and regulations are enforced and freedoms are respected (Oxley and Yeung 2001). Moreover, we take the degree of country development, i.e., countries' economic growth and social and human conditions, into account (Benmamoun et al. 2019; Çilingirtürk and Koçak 2018). Additionally, we consider the aspect of logistics performance, i.e., the availability of logistical infrastructure for efficient and timely deliveries (Arvis et al. 2018, p. 8).

### 2.1. Theoretical background

The RBV suggests that firms' assets, information, or knowledge are important for competitive advantages and strategic decisions, while intangible (vs. tangible) resources are particularly relevant (e.g., Barney 1991; Kozlenkova et al. 2014). Intangible resources do not deteriorate, can be used by firms simultaneously and are difficult to imitate, while they are typically assumed to be valuable, rare, and non-substitutable (Molloy et al. 2011). Firms that own resources that meet these criteria can use them for successful international expansion (Brouthers and Hennart 2007; Hitt et al. 2006b). However, not all intangible resources are equally relevant, and specific intangible resources in an e-environment are critical for internationalization, while traditional resources are questionable (Pezderka and Sinkovics 2011). We study important experiential and consumer-related resources. For e-commerce firms, prior international experience is assumed to remain a critical intangible resource, i.e., a base for entry and geographic scope decisions (Samiee 2020). In a digital environment, firms' website traffic and social media use are expected to be important specific marketing-related resources for e-commerce firms, as they provide unique reputational and social advantages (Elia et al. 2021). Website traffic is generally critical for firms' sales, attributable mostly to customers accessing firm websites increasing their popu-

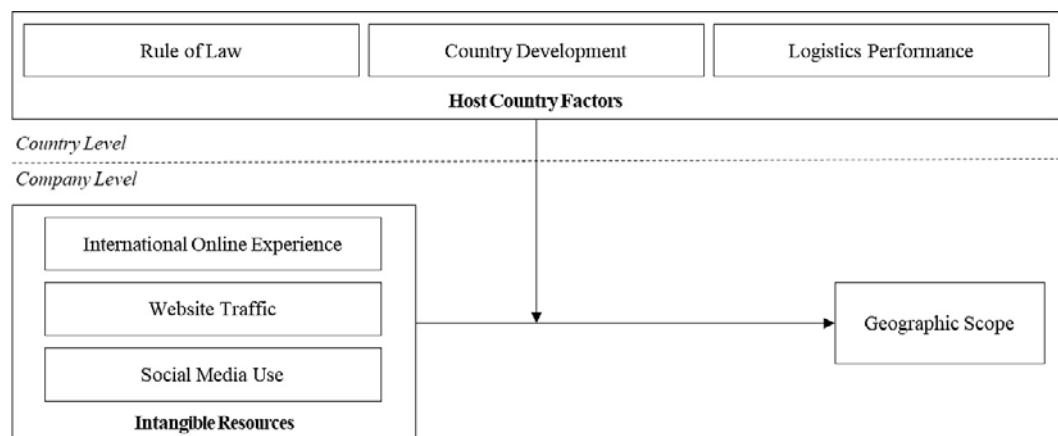


Fig. 1: Conceptual framework

larity; social media is a central resource for digital communications and mutual interactions with consumers based on a social community (Gao et al. 2018; Molla-Descals et al. 2014). All three resources acquired over time are seen as valuable, rare, inimitable, and non-substitutable and they are used to facilitate foreign market entry by e-commerce firms. However, their relative importance for geographic expansion depends on how well they can be transferred to particular countries.

The use of firms' resources depends on the host country context, which is relevant for the geographic expansion of e-commerce firms. We study country conditions because they create challenges for e-commerce firms in better exploiting and transferring their resources (for differences to distances, e.g., Harzing and Pudelko 2016). We argue, for example, that the value of e-commerce firms' resources critically depends on the actual degree of local regulations' effectiveness, unlike most studies that focus on institutional distances. We study countries' rule of law, degree of development and logistics performance as critical contextual factors in e-commerce. E-commerce firms need effective local regulations that increase transactional integrity and transparency in a foreign market; for example, the rule of law may enable them to fully leverage their resources (Oxley and Yeung 2001). Likewise, highly developed host countries offer e-commerce firms more stable environments, for example in the case of increasing the number of opportunities to make use of past experiences (Lu et al. 2014). Given the importance of timely delivery in e-commerce, national logistics performance is decisive for firms to derive competitive advantages from resources transferred to foreign markets (Schu and Morschett 2017). For firms, these factors arguably have high potential in reinforcing the transfer of intangible resources to foreign markets.

Next, this study's hypotheses are derived referring to theoretical and empirical insights. First, rationales for the hypotheses on the effects of firms' intangible resources on geographic scope are provided. Second, arguments for each moderator's role in these effects are developed.

## 2.2. Hypotheses development

### 2.2.1. Main effects on firm's geographic scope

The RBV suggests that e-commerce firms' geographic scope depends on their international online experience as an intangible resource. To achieve competitive advantages in a digital economy, the ability to use and transfer prior international online experience is no less important than are new digital resources (Pezderka and Sinkovics 2011; Schu et al. 2016).

E-commerce firms with extensive international online experience possess general knowledge of how to operate in foreign markets and are skilled at using this knowledge as a valuable resource to enter and manage additional markets (Kirca et al. 2011; Kirca et al. 2012). Such experience is acquired mostly through the process of

conducting business abroad and is difficult to imitate or substitute by other means (e.g., Casillas et al. 2015). Firms with international experience have a more global orientation and are more likely to identify expansion opportunities, increasing their value and uniqueness (Mohr and Batsakis 2018). Due to these qualities, international online experience can be simultaneously transferred and used in multiple host markets. Therefore, international online experience enables e-commerce firms to increase their geographic scope.

In summary, we expect e-commerce firms to have a wider geographic scope if they can draw on previous international online experience. Empirical studies support our assumption by showing the positive effects of experience on geographic scope, only for manufacturing firms (e.g., Kirca et al. 2011; Kirca et al. 2012; Love et al. 2016). We hypothesize the following:

*H1: E-commerce firms' international online experience has a positive effect on their geographic scope.*

Theoretically, e-commerce firms' geographic scope is likely to depend on website traffic (Jean and Kim 2020). In a globalized digital economy, new intangible resources should be even stronger drivers of foreign expansion than traditional resources such as international experience (Liu et al. 2020).

Website traffic, as an intangible resource, offers valuable analytical tools for e-commerce firms' customer relations, including information about the global distribution of total website access. Information about website access from outside the home market incentivizes firms to use their already existing customer base as a resource for further market entries into countries where they already have customers via indirect export (Kromidha and Robson 2021). As website traffic increases, its value, inimitability and non-substitutability rise. Because users in foreign markets naturally become more exposed and attracted to highly popular online shops, firms benefit from their total website traffic to efficiently spread their reputation in a new market (Kotha et al. 2001). High website traffic also reflects firms' promotional effectiveness, leading to a higher ranking in search engines, which can be transferred across countries, indicating firms' reputation (Molla-Descals et al. 2014). Likewise, firms benefit from entering local partnerships to monetize website traffic and increase its value in foreign markets where users are confronted more regularly with their advertising (Kotha et al. 2001). We thus argue that firms with high website traffic are able to benefit from their existing customer base as a valuable resource and can more easily transfer it to foreign markets, thus increasing their geographic scope.

In summary, we expect e-commerce firms with higher website traffic to have a wider geographic scope. Empirically, one study on internet firms finds positive effects of website traffic on geographic scope (Kotha et al. 2001). We hypothesize the following:

*H2: E-commerce firms' website traffic has a positive effect on their geographic scope.*

E-commerce firms' social media use is another critical resource for foreign expansion (Shaheer and Li 2020). With consumers worldwide shifting to digital information sources and sharing content across borders, transferring firms' social media as an important intangible resource is critical for their expansion and accommodating new customers (Gao et al. 2018).

In the digital age, e-commerce firms derive value from being present on social media channels, analyzing consumers' needs or feedback and interacting with them through a variety of services (Katsikeas et al. 2019). Firms gain access to sources of firm-specific knowledge about consumers' needs, which might be rare and difficult to copy or substitute, even if social media communication is considered challenging due to fierce competition. Using their built over time social media presence, firms may better transfer and establish important social communications in new host markets. Building on existing social contacts and open user feedback, it becomes easier to form local communities, promote services and quickly gain customers (Li et al. 2021). Moreover, this resource transfer may potentially profit from prior community interactions across borders as firms gain more followers who interact and share content with users from other countries, which induces a domino effect across countries (Dolega et al. 2021). E-commerce firms, which are able to use social media as a resource to transfer their communications, are therefore more likely to increase their geographic scope.

In summary, e-commerce firms with greater social media use realize a wider geographic scope. To the best of our knowledge, no empirical study has shown the role of social media in geographic scope. However, studies have highlighted the importance of social media for international market entry (e.g., Paniagua et al. 2017). We propose the following:

*H3: E-commerce firms' social media use has a positive effect on their geographic scope.*

### 2.2.2. Moderating effects

Regarding the moderation hypotheses, theory suggests that the use of firms' resources may be affected by the legal and regulative conditions of foreign markets (He et al. 2013). Host countries with a strong (vs. weak) rule of law reduce e-commerce firms' difficulties of conducting business in foreign environments (e.g., transactional integrity, Oxley and Yeung 2001). Firms can leverage the potential of their intangible resources and transfer them more easily. Thus, the rule of law is expected to affect the effects of intangible resources on geographic scope.

Regarding international online experience, host countries' legal systems affect the role of acquired knowledge of e-commerce firms in their geographic scope decisions.

International online experience helps firms understand foreign markets' regulatory systems, which affect the value of their resources in foreign contexts (Pezderka and Sinkovics 2011). For example, in host countries with transparent rules and regulations, firms' proprietary rights are protected. Resources are more valuable, and firms can focus on exploiting experiences instead of having to deal with legal issues (Schu and Morschett 2017). An effective rule of law allows e-commerce firms to leverage their international online experience and increase their geographic scope.

Regarding website traffic, host countries' legal systems can affect the efficient use of firms' customer relationship management across countries. Given the advancement of website tracking and analytics, the value of website traffic likely depends on firms' ability to legally make use of such resources (Luo 2022). Host countries with a strong rule of law provide these conditions with transparent and codified laws, reducing online risks (Luo et al. 2005). For example, customers trust in data protection rights, enabling firms to transfer customer relations and to use their online shops to expand (Watson et al. 2018). Monetizing website traffic and entering advertising agreements is also easier, as parties can place their trust in contracts. Conversely, a high rule of law could also restrict possibilities for firms to track and use customer data due to strong data protection rights and thus face a "double-edged sword", as Huang and Sternquist (2007) note. Despite possible counter effects, we arguably assume that an increasing rule of law enables firms to better use their website traffic to increase their geographic scope.

Regarding social media, the rule of law affects e-commerce firms' ability to communicate with consumers in foreign markets and to use collected insights into consumers' needs from prior community interactions (Luo 2022). For firms to gain value from such interactions and for users to be receptive to firms' services, consumers need access to such a platform and must have a general trust in online environments, which is likely the case in countries with a strong rule of law (Alsaad et al. 2021). A weak rule of law poses major hurdles for e-firms in replicating social media services in foreign markets (Katsikeas et al. 2019). Despite the possibility of restrictive data protection reversing our rationale, we believe that a digital environment where users freedoms are protected is a critical basis for firms' successful social media communications and market entry (e.g., Contractor et al. 2020). Social media use is easier when entering contexts where intangible resources and consumer rights are protected, and domino effects are more likely. Thus, an increasing rule of law enables firms to better use social media to increase geographic scope.

Empirically, only Schu and Morschett (2017) have identified rule of law as a factor driving the foreign market selection of e-commerce firms. We propose the following hypothesis:

*H4: An increasing degree of rule of law in a country positively moderates the effects of e-commerce firms' (a) international online experience, (b) website traffic, and (c) social media use on their geographic scope.*

We assume that the usefulness of intangible resources for expansion depends on the degree of host country development. For example, developed countries offer more predictable business environments for e-firms through less volatile economic systems, and resources may have higher value (Kirca et al. 2012). The degree of country development will affect e-firms' use and transfer of resources abroad and thus the effect of intangible resources on geographic scope (Lu et al. 2014).

Considering firms' international online experience acquired over time, host countries' degree of development affects the value of this knowledge. In developed (vs. emerging) countries, the risks of unstable conditions (e.g., economic fluctuations) are much lower, making it easier for firms to rely on past experiences. Host countries with predictable economic or social conditions, e.g., in terms of purchasing power and living standards, increase firms' ability to more easily identify and exploit opportunities for expansion based on their international experience (Nuhu et al. 2021). In predictable environments, firms can transfer knowledge more easily and can make better use of it to increase their geographic scope. E-commerce firms can better exploit their international online experience with an increasing degree of country development.

Country development might affect the value of website traffic transfer to foreign markets. Firms' website traffic highly depends on the accessibility and use of the internet in host countries (Kardes et al. 2020). Developed markets have the highest internet penetration rate worldwide and a more developed internet infrastructure (e.g., connection speed). E-commerce firms' website traffic and popularity are more perceivable to users and valuable in such contexts for increasing geographic scope, and their promotional effectiveness is easier to transfer (Watson et al. 2018). Firms in developed countries can better exploit website analytics to gain customer insights and leverage partnerships with a complex system of local advertisers within advanced digital economies to gain new customers. Increasing country development helps e-commerce firms use website traffic as a resource to increase their geographic scope.

Country development also affects firms' ability to benefit from social media services and consumer interactions. In developed countries, e-commerce firms may better analyze consumers' needs and behaviors, as most of the population is reached through and use popular social media platforms (Vieira et al. 2019). Moreover, in countries with high living standards and advanced needs, users are more conducive to services through social media. Firms may better leverage transnational domino effects, as they are likely to occur in developed parts of the world where countries are strongly linked with each other, increasing

the value of firms' social media communications for foreign markets. As consumers become more aware of online scams in developed societies, the value of firms' social media use for the purpose of expansion increases (Goyens 2020). Thus, e-firms can more easily build on social interactions and transfer their services abroad. Increasing country development enables firms to better use social media as a resource to increase geographic scope.

To the best of our knowledge, no previous study has analyzed this moderation. Therefore, we carefully hypothesize the following:

*H5: An increasing degree of country development positively moderates the effect of e-commerce firms' (a) international online experience, (b) website traffic, and (c) social media use on their geographic scope.*

Resource-based advantages also critically depend on efficient product deliveries by e-commerce firms in host countries. Efficient host country logistics performance provides the infrastructural basis to deliver offerings and services (Arvis et al. 2018, p. 27). Efficient logistics contexts in markets enable firms to better exploit and transfer their intangible resources. We expect logistics performance to affect the impacts of intangible resources on geographic scope.

Local logistics performance affects e-commerce firms' ability to benefit from prior international online experience. Experienced firms possess valuable knowledge about foreign markets. Decreasing logistics performance may restrict the value of such knowledge and the ability to exploit it to expand (Pezderka and Sinkovics 2011). In contrast, increasing local logistics performance supports firms' knowledge transfer and opportunity recognition by not forcing them to build their own logistics infrastructure (Douglas and Craig 2011). E-firms can partner with local logistics providers to exploit their know-how for foreign expansion. Countries with high logistics performance allow firms to use and transfer their international experience to increase their geographic scope.

Local logistics performance might affect firms' ability to meet customers' online shopping expectations. High logistics performance is necessary to transfer firms' customer relations and leverage the full value of website traffic. In countries with efficient logistics infrastructure, customers are used to timely deliveries, leading to their high expectations of e-commerce firms (Katsikeas et al. 2019). Online shoppers might infer that since a firm has, in the past, delivered orders efficiently, it is therefore able to meet their current expectations, increasing the potential value of website traffic for expansion. Likewise, e-commerce firms might be able to gain customers' trust and loyalty more easily (Schu and Morschett 2017). We assume that increasing logistics performance enables firms to benefit from their website traffic and increases geographic scope.

Host countries' logistics performance affects the efficient transfer of social media interactions and their value

for communicating services in foreign markets. Logistics is critical for the ability to deliver service quality as promised in social media communications. With the usual fulfilment time discussed on social media being a key promise, the value of firms' social media information increases (Zhang et al. 2019). In countries with weak logistics performance, firms may face the risk of social media interactions resulting in negative reviews and open complaints. Consequently, domino effects may become a disadvantage if firms gain a reputation for not delivering on their usual services (Luo 2022). Therefore, high logistics performance enables e-commerce firms to transfer their social media services more easily to foreign markets and increase their geographic scope.

Empirically, one e-commerce study controlled for the effects of logistics performance and indicated its role in market entries (Schu and Morschett 2017). We propose the following:

*H6: An increasing degree of host country logistics performance positively moderates the effect of e-commerce firms' (a) international online experience, (b) website traffic, and (c) social media use on their geographic scope.*

### 3. Empirical study

#### 3.1. Database

For sample selection, the foreign market entry of e-commerce firms is commonly defined as the first launch of an online shop in a country with a country-specific domain, language, and currency (Shneor and Flåten 2008). We developed a unique hierarchical database over a 24-year period by using different sources.

The selection of e-commerce firms was based on the 2018 Internet Retailer's ranking of Europe's 500 largest firms (Digital Commerce 360, 2018); this agency tracks e-commerce firms' website traffic and social media platform data based on information from firms or estimated by the agency and verified by each firm (Digital Commerce 360, 2021). Firms on this list operate the leading online shops in Europe but were not necessarily founded in Europe and may be active worldwide. All included firms needed to be present in at least one foreign country. To the best of our knowledge, this is the only database providing expansion data or website and social media analytics on e-commerce firms in Europe. Firms operating only in their home market ( $N = 192$ ) or solely offering international shipping through a "dot-com domain" ( $N = 8$ ) were excluded, resulting in 300 firms.

We collected data on each firm's internationalization step by step through its websites, annual reports, press releases, articles, or social media. Foreign market entries were considered to match the respective year. Seventy-five percent of the data could be verified by two sources, and we opened and double-checked the existence and re-

quirements mentioned on almost every country's website. On this basis, in particular, the data on firms' international online experience were calculated as well as some control variables. Firms' website traffic and social media followers, and some control variables, were obtained from the Digital Commerce 360 (2018) database. Firms for which market entries could not be fully reconstructed and verified over time were excluded ( $N = 37$ ).

Country-level data for rule of law and logistics performance were obtained from the World Bank (2021a), and those on country development were obtained from the United Nations Development Programme (2020), matching the data to the respective years of market entry whenever possible. For each newly entered host country, we considered the rule of law value for the respective year and country. Due to missing data over time, we were not able to consider the values of country development for each year of entry in the main sample but checked for stability in an alternative model with a reduced sample size, which supported our results (see Chapter 3.5.2.). Sufficient and complete logistics performance data for all countries were available only in 2018. As each market entry is represented by a separate line in our dataset, several entries in one year were no issue, and all values could be matched. In summary, the data include 2,632 market entries in 64 host countries over a period from 1994 to 2018 by 263 e-commerce firms originating in 21 home countries (Tab. 2). The median shows eleven market entries per firm. The data were not normally distributed. Therefore, a maximum-likelihood estimator with robust standard errors and chi-square test statistics was used.

#### 3.2. Measurement

##### 3.2.1. Dependent variable

We measured geographic scope dynamically over time as the number of e-commerce firms' foreign country-specific websites at the time of each new entry (as suggested by Schu et al. 2016; Shneor and Flåten 2008). To reduce the natural skewness of the dependent variable, we used the natural logarithm, which is often applied in multilevel modeling (Hox et al. 2018, p. 103). The number of foreign markets is the most common indicator of firms' geographic scope. Relative to related concepts such as indices of global sales distribution, we argue that this traditional measurement is well suited for modeling e-commerce firms' geographic scope (e.g., Schu et al. 2016). Data on sales distribution over time are not available for e-commerce firms to us.

##### 3.2.2. Independent variables

*International online experience:* This concept was measured as the number of years a firm had operated an international online shop since its first foreign market entry (Batsakis and Mohr 2017).

*Firms' unique website traffic:* This is an indicator of the customer base, who mostly accesses firms' websites, re-

Home Countries	Number of E-Commerce Firms	Number of Market Entries
Austria	1	13
Canada	1	2
China	5	99
Czech Republic	4	13
Denmark	5	55
France	50	417
Germany	41	422
United Kingdom	74	698
Indonesia	1	1
Italy	5	58
Lithuania	1	1
Netherlands	13	49
Norway	1	4
Poland	6	33
Romania	1	2
Russia	1	1
Spain	6	108
Sweden	8	135
Switzerland	5	87
Turkey	3	13
United States	31	421
Total	263	2,632

Tab. 2: Sample distribution

flecting e-commerce firms' current online sales potential (Molla-Descals et al. 2014). We measured this variable as the logarithm of firms' (unique) monthly website traffic with data available for 2017 (Kotha et al. 2001).

*Social media usage:* Firms' social media followers (we focused on Facebook, as it is a widespread social media marketing platform, e.g., Dolega et al. 2021) represent the number of reciprocal interactions with consumers in general (Shaheer and Li 2020). Consumers know and communicate with e-commerce firms, often across nations, and thus represent future sales potential. This variable was measured using firms' logarithmized number of likes on Facebook with data available for 2017 (Paniagua et al. 2017). To the best of our knowledge, no longitudinal data on both variables from a consistent source exist.

### 3.2.3. Moderating variables

*Rule of law:* At the country level, rule of law was measured using the World Governance Indicators of the World Bank (2021c) which are widely used in the literature and reflect regulative elements such as the quality of contract enforcement, property rights, the police and court system, and the likelihood of crime and violence. The rule of law value was matched with the respective years before market entry.

*Host country development:* This variable was measured using the Human Development Index provided by the United Nations Development Program (2020; commonly used, e.g., Çilingirtürk and Koçak 2018), which consists of three dimensions assessing a country's standard of living, i.e., life expectancy, education and knowledge, and gross national income (United Nations Development

Programme 2020). Due to missing data over time, we relied on the latest available reports.

*Host country logistics performance:* We measured logistics performance with the World Bank's six-dimensional logistics performance index (Arvis et al. 2018, p. 8; Schu and Morschett 2017). The overall value reflected the quality of cross-border trade infrastructure, ease of logistics services and customs, tracking ability, and timely shipments (World Bank 2021b). We used the latest available and most complete data, which were published in 2018 by World Bank.

### 3.2.4. Control variables

We controlled for variables at the firm and country levels.

*Firm size:* Following studies on the antecedents of geographic scope and e-commerce internationalization, we controlled for e-commerce firms' size (Batsakis and Mohr 2017). Large-scale firms are expected to have more resources for expansion and are argued to be more risk seeking, leading them to expand internationally (Kirca et al. 2012). We measured the logarithm of firms' sales in 2017 because data on the number of employees were not available, and e-commerce firms are known for hiring fewer employees while having high sales volumes (Digital Commerce 360, 2018; Luo et al. 2005).

*Firm age:* We also controlled for firm age at the time of each market entry, measured as the number of years since foundation, which may affect firms' geographic scope (e.g., George et al. 2005). Although the results in the literature are contradictory, age may drive geographic

scope, as older firms have more time to acquire important resources and foreign market experience, which may be used for further expansion (Kirca et al. 2011). Moreover, older firms are more likely to face stagnant domestic sales, pressuring them to expand (Kirca et al. 2012). Hence, we hypothesize the effects of firm age, as we are aware of the born global phenomenon, which is closely linked to e-commerce. Data on firm age were gathered from their websites.

*Mobile site usage:* Firms’ use of mobile sites in 2017 was measured as a dichotomous variable (firms also offer mobile pages = 1 or not = 0) to account for the possible influences of multichannel firms (Schu et al. 2016). Pure e-commerce firms rely more strongly on online channels than do those offering both offline and online channels, which might affect the expansion process and consequently the geographic scope of such firms. Data were acquired from Digital Commerce 360 (2018).

*Home market size:* This variable was controlled for because it is known to have an effect on firms’ geographic scope. Firms originating in countries with large, highly developed home markets typically have acquired more resources, which can be used for strategic expansion (Kirca et al. 2012). It was measured using the logarithm of countries’ gross domestic product per capita, drawing on data from the World Bank (2021a) and matched to the year of each market entry (Schu and Morschett 2017).

*Host market size:* At the host country level, we controlled for market size, as attractive host markets were shown to affect firms’ geographic scope (e.g., Kirca et al. 2012). It may stimulate firms to enter markets with growth opportunities, where intangible resources can be applied effectively (e.g., Shaheer and Li 2020). Host market size was measured by the logarithm of the gross domestic product per capita based on World Bank (2021a) data and matched to the year of each market entry.

Tab. 3 shows descriptive statistics and bivariate correlations of all variables that do not exceed .575 and .917 at the firm and country levels, respectively. We tested for variance inflation factors, which were below the common threshold of 10 (O’Brien 2007). Multicollinearity does not seem to be a serious problem. As our independent variables are not assumed to be closely theoretically related to any other company-level variables (nor the ones available to us), we assumed that endogeneity resulting from omitted variables is not a major concern for our model. Firm-level data reduce endogeneity issues in international business studies (Paniagua et al. 2017).

**3.3. Method**

To test the hypotheses, we relied on multilevel modeling with cross-level interactions using Mplus. This approach accounts for the nested data structure, i.e., firms active in multiple host countries, by simultaneously considering the interactions of firm- and country-level variables while excluding variance that occurs between and within countries (Finch and Bolin 2017, p. 28). Intraclass correlation was calculated in a null model with no predictor variables to test whether multilevel modeling was appropriate. A total of 32.6 % of the variance in firms’ geographic scope is attributed to country differences. Following Hox et al. (2018, p. 215), multilevel modeling is highly appropriate.

We computed stepwise random intercept and slope models (Finch and Bolin 2017, pp. 33–37). Model fit was assessed for each model using AIC and BIC values. First, a baseline model including firm-level controls was calculated and supplemented by adding all additional firm-level independent variables. To increase the interpretability of the intercepts, we applied grand mean centering for all independent variables and moderators (Hox et al. 2018, pp. 61–63). The computed model can be described as follows:

$$GeoScope_{ij} = \beta_{0j} + \beta_{1j}(IntOnExp_{ij}) + \beta_{2j}(WebTraff_{ij}) + \beta_{3j}(SocialMed_{ij}) + \beta_{controls} ILC_{ij} + r_{ij}$$

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Mean	2.499	5.143	14.870	13.801	19.258	3.056	10.591	.985	10.155	1.054	3.634	.889
Standard deviation	1.064	5.050	2.125	2.257	1.536	1.104	.473	.122	.876	.811	.406	.063
Variance inflation factor	-	1.127	1.846	1.763	1.453	1.258	1.143	1.090	6.906	5.591	3.025	8.020
Correlations:												
Geographic scope (1)	1											
Intern. online experience (2)	.292***	1										
Website traffic (3)	.186***	.147***	1									
Social media usage (4)	.324***	.100***	.575***	1								
Firm size (5)	.083***	.193***	.513***	.409***	1							
Firm age (6)	.273***	.201***	-.012 <sup>ns</sup>	.230***	.072***	1						
Home market size (7)	.114***	.106***	-.107***	.028 <sup>ns</sup>	-.028 <sup>†</sup>	.307***	1					
Mobile site usage (8)	.019 <sup>ns</sup>	-.012 <sup>ns</sup>	.182***	.250***	.018 <sup>ns</sup>	.026 <sup>ns</sup>	.013 <sup>†</sup>	1				
Host market size (9)									1			
Rule of law (10)									.841***	1		
Logistics performance (11)									.717***	.809***	1	
Country development (12)									.917***	.866***	.735***	1

Notes: \*\*\* p < .001; \*\* p < .01; \* p < .05; † p < .10; ns = not significant.

Tab. 3: Descriptive statistics

where *i* denotes e-commerce firms, and *j* denotes host countries. GeoScope<sub>*ij*</sub> reflects firm *i*'s geographic scope. IntOnExp<sub>*ij*</sub> indicates firm *i*'s international online experience, WebTraff<sub>*ij*</sub> indicates firm *i*'s unique website traffic, and SocialMed<sub>*ij*</sub> represents firm *i*'s social media use. IL-*C*<sub>*ij*</sub> includes firm-level control variables. β<sub>*0j*</sub> denotes the first-level intercept, whereas β<sub>*1j*</sub>, β<sub>*2j*</sub> and β<sub>*3j*</sub> indicate the regression scores of the independent variables at the firm level. Intercept β<sub>*0j*</sub> and slopes β<sub>*1j*</sub>, β<sub>*2j*</sub> and β<sub>*3j*</sub> are allowed to vary across countries. Finally, *r*<sub>*ij*</sub> is the first-level error term.

In a second baseline model, a country-level control was included, followed by models with moderators added. All of these models served to predict variation in the β coefficients:

$$\begin{aligned} \beta_{0j} &= \gamma_{00} + \gamma_{01}(CLV_j) + \gamma_{02}(CLC_j) + u_{0j}, \\ \beta_{1j} &= \gamma_{10} + \gamma_{11}(CLV_j) + u_{1j}, \\ \beta_{2j} &= \gamma_{20} + \gamma_{21}(CLV_j) + u_{2j}, \\ \beta_{3j} &= \gamma_{30} + \gamma_{31}(CLV_j) + u_{3j} \end{aligned}$$

where γ<sub>00</sub> denotes the second-level intercept of firms' scope. γ<sub>10</sub>, γ<sub>20</sub> and γ<sub>30</sub> represent the intercepts of the second-level random slopes of international online experience, website traffic and social media use, respectively. CLV<sub>*j*</sub> represents one of the three country-level variables, *u*<sub>*qj*</sub> (*q*=0–3) represents country-level residual variances, and CLC<sub>*j*</sub> represents the country-level control variable. For each moderator, a separate multilevel model was used for hypothesis testing. The following equation comprises equations and shows the multilevel regressions including cross-level interactions:

$$\begin{aligned} GeoScope_{ij} &= \gamma_{00} + \gamma_{01}(CLV_j) + \gamma_{10}(IntOnExp_{ij}) + \\ &\gamma_{21}(CLV_j)(IntOnExp_{ij}) + \gamma_{20}(WebTraff_{ij}) + \\ &\gamma_{31}(CLV_j)(WebTraff_{ij}) + \gamma_{30}(SocialMed_{ij}) + \\ &\gamma_{41}(CLV_j)(SocialMed_{ij}) + \gamma_{ILC}ILC_{ij} + \\ &\gamma_{CLC}CLC_{ij} + error. \end{aligned}$$

### 3.4. Results

The results of the hypothesis tests are shown in Tab. 4. Unstandardized coefficients are shown, as standardized

	Null Model	Baseline Model 1	Full Model	Baseline Model 2	ROL	CD	LP
<b>Direct effects</b>							
IntOnExp → Scope			.034 (.323)***	.034 (.323)***	.035 (.332)***	.029 (.275)***	.026 (.247)**
WebTraff → Scope			.021 (.084)*	.022 (.088)*	.022 (.088)*	.023 (.092)**	.021 (.084)*
SocialMed → Scope			.116 (.463)***	.115 (.459)***	.112 (.447)***	.100 (.399)**	.103 (.411)***
<b>Cross-level interaction</b>							
Rule of law → Scope					-266 (-.406)†		
Rule of law x IntOnExp → Scope					.016 (.024)***		
Rule of law x WebTraff → Scope					.005 (.008) <sup>ns</sup>		
Rule of law x SocialMed → Scope					.035 (.053)**		
Country development → Scope						-5.217 (-.618)*	
Country development x IntOnExp → Scope						.188 (.022)***	
Country development x WebTraff → Scope						-.043 (-.005) <sup>ns</sup>	
Country development x SocialMed → Scope						.377 (.045)**	
Logistics performance → Scope							-1.056 (-.805)***
Logistics performance x IntOnExp → Scope							.043 (.033)***
Logistics performance x WebTraff → Scope							.004 (.003) <sup>ns</sup>
Logistics performance x SocialMed → Scope							.043 (.033)*
<b>Controls (Company level)</b>							
Firm Size → Scope		.011 <sup>ns</sup>	-.087***	-.086***	-.087***	-.081***	-.080***
Mobile Site → Scope		.117 <sup>ns</sup>	-.428***	-.426***	-.426***	-.452***	-.451***
Home MS → Scope		.088*	.086*	.086*	.086*	.100**	.099**
Firm Age → Scope		.156***	.093***	.094***	.094***	.092***	.089***
<b>Control (Country Level)</b>							
Host MS → Scope					-.180***	.008 <sup>ns</sup>	.149*
<hr/>							
Residual Variance (Company Level)		.768	.682	.682	.675	.677	.675
Explained Variance (Company Level)		4.5%	11.2%	0.0%	1.0%	0.7%	1.0%
Residual Variance (Country Level)		.391	.287	.252	.227	.221	.143
Explained Variance (Country Level)					12.2%	9.9%	43.2%
AIC	7,077.671	6,968.819	6,665.555	5,857.148	1,552.682	5,699.280	5,753.300
BIC (Adjusted)	7,085.766	6,987.706	6,692.537	5,886.828	1,593.155	5,739.753	5,793.773

Notes: \*\*\* *p* < .001; \*\* *p* < .01; \* *p* < .05; † *p* < .10; ns = not significant.

Parameters = unstandardized coefficients. Effect sizes are shown in parentheses.

CD = Country development; Home MS = Home market size; Host MS = Host market size; IntOnExp = International online experience;

LP = Logistics performance; ROL = Rule of law; SocialMed = Social media; WebTraff = Website traffic.

Tab. 4: Main results

coefficients cannot be computed in random intercept and slope models (Hox et al. 2018, pp. 17–18). Because of model convergence challenges in cross-level models, the moderating effects were tested separately (e.g., Kline 2015, p. 81).

**Main effects:** Firms' international online experience has a highly significant positive effect on geographic scope, as expected ( $b = .034, p < .001$ , see baseline 2 model). The more international experience e-commerce firms have acquired over time, the larger their geographic scope (Kirca et al. 2011; Kirca et al. 2012). *H1* is supported. Increasing the website traffic of e-commerce firms also has a positive effect on their geographic scope ( $b = .022, p < .05$ ). The higher firms' website traffic is, the more foreign markets they enter. *H2* is supported. E-commerce firms' use of social media has a highly significant positive effect on their geographic scope ( $b = .115, p < .001$ ). The more social media followers a firm has, the greater its geographic scope. *H3* is supported.

**Moderating effects of rule of law:** An increasing rule of law positively moderates the effect of international online experience on firms' geographic scope ( $b_{\text{ROL} \times \text{IntOnExp}} = .016, p < .001$ ); *H4a* is supported. It does not moderate the effect of website traffic on geographic scope ( $b_{\text{ROL} \times \text{WebTraff}} = .005$ , ns); thus, *H4b* has to be rejected. The value and transferability of website traffic, i.e., an implicit idea of existing customer relations, may not be affected by rule of law, since it is hardly observable and thus does not require explicit adaptation (Kotha et al. 2001). A weaker rule of law might also facilitate the tracking of more sensitive customer data in foreign markets, which could cancel out the expected effects, or the rule of law might even have opposite effects in the case of website traffic. Rule of law positively moderates the effect of social media use on geographic scope ( $b_{\text{ROL} \times \text{SocialMed}} = .035, p < .01$ ). *H4c* is supported. Overall, the rule of law explains 9.9 % of country-level variance.

**Moderating effects of country development:** Regarding the moderation of country development, the results support *H5a*. Country development positively moderates the effects of international online experience on geographic scope ( $b_{\text{CD} \times \text{IntOnExp}} = .188, p < .001$ ). As above, *H5b* is rejected, given that country development does not significantly moderate the effect of website traffic on the scope of e-commerce firms ( $b_{\text{CD} \times \text{WebTraff}} = -.043$ , ns). Firms' use and transfer of website traffic is not affected by host countries' degree of country development. As with rule of law, we conclude that stable societal conditions do not increase the value of website traffic for expansion due to its implicit nature. As the sign is negative, it might even be reasonable that for some important countries (e.g., BRIC countries), e-commerce firms benefit from lower degrees of development for specific resources (Swoboda and Sinning 2020). However, we find support for *H5c*. Country development positively moderates the effect of social media on geographic scope ( $b_{\text{CD} \times \text{SocialMed}} = .377,$

$p < .01$ ). Overall, this variable explains 12.3 % of the country-level variance.

**Moderating effect of host country logistics performance:** A country's higher logistics performance moderates the effect of international online experience on geographic scope ( $b_{\text{LP} \times \text{IntOnExp}} = .043, p < .001$ ). *H6a* is supported. However, logistics performance does not moderate the relationship between website traffic and geographic scope ( $b_{\text{LP} \times \text{WebTraff}} = .004$ , ns). *H6b* is rejected. Logistics performance does not affect firms' use of website traffic for expansion. In line with the previous nonsignificant results, the value of website traffic is in turn not affected by the logistics context. The effect of social media on geographic scope is positively moderated by logistics performance, which is in line with expectations ( $b_{\text{LP} \times \text{SocialMed}} = .043, p < .05$ ); *H6c* is supported. Logistics performance explains 43.2 % of the country-specific variance.

For our controls, we find additional significant negative effects exerted by firm size, whether the firm has a mobile site, and at the country level, host country market size. Home market size and firm age have significant positive effects on e-commerce firms' geographic scope.

### 3.5. Stability checks of the estimates

#### 3.5.1. Random split half test

We randomly split the sample in half and re-estimated the effects of our models to support the robustness of our results (Sui and Baum 2014). Results for the effect hypotheses and the moderation hypotheses remain stable (despite those of website traffic, see *Tab. 5*).

#### 3.5.2. Estimation of three alternative models

Alternative models were tested. First, we included host country online shops that did not offer local currencies to our sample, leading to 3,015 market entries in 125 host countries. This was done because the between-variance in country-level factors might differ. The results which are contained in *Tab. 6* show stable positive effects of international online experience ( $b = .032, p < .001$ ), website traffic ( $b = .031, p < .01$ ), and social media use ( $b = .110, p < .001$ ). The moderating effects of rule of law ( $b_{\text{ROL} \times \text{IntOnExp}} = .013, p < .01$ ;  $b_{\text{ROL} \times \text{WebTraff}} = -.004$ , ns;  $b_{\text{ROL} \times \text{SocialMed}} = .034, p < .01$ ), country development ( $b_{\text{CD} \times \text{IntOnExp}} = .139, p < .01$ ;  $b_{\text{CD} \times \text{WebTraff}} = -.104$ , ns;  $b_{\text{CD} \times \text{SocialMed}} = .399, p < .001$ ), and logistics performance ( $b_{\text{LP} \times \text{IntOnExp}} = .035, p < .001$ ;  $b_{\text{LP} \times \text{WebTraff}} = -.019$ , ns;  $b_{\text{LP} \times \text{SocialMed}} = .051, p < .05$ ) support our findings. The explained variances are 6.0–9.9 % for rule of law, 12.3–12.8 % for country development, and 43.0–43.2 % for logistics performance.

Second, we tested institutional distances (regulative, normative, and cultural-cognitive, according to Scott 2014, p. 56). Host country distances are expected to affect the value of intangible resources and e-commerce firms' expansion or geographic scope, respectively (Shaheer and

		Null Model	Baseline Model 1	Full Model	Baseline Model 2	ROL	CD	LP
<b>Direct effects</b>								
IntOnExp	→ Scope			.039***	.038***	.040***	.035***	.032***
WebTraff	→ Scope			.014 <sup>ns</sup>	.015 <sup>ns</sup>	.017 <sup>ns</sup>	.016 <sup>ns</sup>	.013 <sup>ns</sup>
SocialMed	→ Scope			.116***	.113***	.109***	.086***	.099***
<b>Cross-level interaction</b>								
Rule of law	→ Scope					-.230 <sup>ns</sup>		
Rule of law x IntOnExp	→ Scope					.016*		
Rule of law x WebTraff	→ Scope					.006 <sup>ns</sup>		
Rule of law x SocialMed	→ Scope					.054***		
Country development	→ Scope						-5.155†	
Country development x IntOnExp	→ Scope						.160*	
Country development x WebTraff	→ Scope						.024 <sup>ns</sup>	
Country development x SocialMed	→ Scope						.676***	
Logistics performance	→ Scope							-.948***
Logistics performance x IntOnExp	→ Scope							.038*
Logistics performance x WebTraff	→ Scope							.015 <sup>ns</sup>
Logistics performance x SocialMed	→ Scope							.061†
<b>Controls (Company level)</b>								
Firm Size	→ Scope		-.004 <sup>ns</sup>	-.094***	-.091***	-.089***	-.087***	-.087***
Mobile Site	→ Scope		.154 <sup>ns</sup>	-.355†	-.340†	-.371*	-.389*	-.361*
Home MS	→ Scope		.091†	.106***	.087†	.113*	.112*	.109*
Firm Age	→ Scope		.180***	.088†	.119***	.108***	.111***	.103***
<b>Control (Country Level)</b>								
Host MS	→ Scope				-.177**	-.036 <sup>ns</sup>	.148 <sup>ns</sup>	.101 <sup>ns</sup>
Residual Variance (Company Level)		.848	.803	.721	.721	.709	.712	.712
Explained Variance (Company Level)			5.3%	10.2%	0.0%	1.7%	1.2%	1.2%
Residual Variance (Country Level)		.375	.379	.269	.212	.201	.193	.139
Explained Variance (Country Level)					21.2%	5.2%	9.0%	34.4%
AIC		3,655.217	3,593.609	3,454.121	3,163.956	1,050.586	3,015.659	3,090.082
BIC (Adjusted)		3,661.235	3,607.650	3,474.179	3,186.019	1,080.673	3,045.746	3,120.169

Notes: \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$ ; †  $p < .10$ ; ns = not significant.

Parameters = unstandardized coefficients. Effect sizes are shown in parentheses.

CD = Country development; Home MS = Home market size; Host MS = Host market size; IntOnExp = International online experience;

LP = Logistics performance; ROL = Rule of law; SocialMed = Social media; WebTraff = Website traffic.

Tab. 5: Split half test results

Li 2020). High institutional distance might create additional obstacles for e-commerce firms' expansion, as they lack important knowledge about foreign markets, limiting the value of their resources (Schu et al. 2016). Firms' resource transfer is likely more difficult when entering institutionally distant foreign markets. Regulatory distance was measured using the six dimensions of the World Governance Indicators provided by the World Bank (2021c), which are often used for measuring distances. The dimensions include voice and accountability, political stability and absence of violence, government efficiency, regulatory quality, rule of law, and control of corruption (e.g., Ang et al. 2015). Normative distance was measured based on a seven-item scale of the Global Competitiveness Report adopted from Kostova et al. (2020). For measuring cultural-cognitive distance, we referred to the theoretically profound cultural value model of Schwartz (1994), which is argued to explain more country-level variance than the most common model of

Hofstede (1984). As Schwartz' dimensions are binary, cultural-cognitive distance was measured using the dimensions embeddedness, hierarchy, and mastery. To account for the multidimensionality of institutions, we computed Mahalanobis distances, because of the ability to include the variance-covariance matrix of the underlying institutional dimensions (e.g., He et al. 2013). The findings of our models' estimates are contained in Tab. 7.

In line with our reasoning, international online experience ( $b = .039$ ,  $p < .001$ ), website traffic ( $b = .018$ ,  $p < .10$ ), and social media use ( $b = .115$ ,  $p < .001$ ) exhibit stable effects. However, we find mixed results on the moderation. Regulatory distance negatively moderates the effects to some degree ( $b_{\text{REGDIS} \times \text{IntOnExp}} = -.004$ ,  $p < .01$ ;  $b_{\text{REGDIS} \times \text{WebTraff}} = .000$ , ns;  $b_{\text{REGDIS} \times \text{SocialMed}} = -.012$ ,  $p < .001$ ). Normative distance shows no moderating effects, and cultural distance shows marginal moderation for the effects of website traffic only. The explained vari-

	Null Model	Baseline Model 1	Full Model	Baseline Model 2	ROL	CD	LP
<b>Direct effects</b>							
IntOnExp	→ Scope		.032 (.283)***	.032 (.283)***	.033 (.292)***	.018 (.159)**	.014 (.124)**
WebTraff	→ Scope		.032 (.123)**	.031 (.119)**	.033 (.126)*	.045 (.172)**	.044 (.169)***
SocialMed	→ Scope		.110 (.429)***	.110 (.429)***	.106 (.414)***	.062 (.242)***	.079 (.308)***
<b>Cross-level interaction</b>							
Rule of law	→ Scope				-.184 (-.293)†		
Rule of law x IntOnExp	→ Scope				.013 (.021)**		
Rule of law x WebTraff	→ Scope				-.004 (-.006) <sup>ns</sup>		
Rule of law x SocialMed	→ Scope				.034 (.054)**		
Country development	→ Scope					-3.587 (-.560) <sup>†</sup>	
Country development x IntOnExp	→ Scope					.139 (.022)**	
Country development x WebTraff	→ Scope					-.104 (-.016) <sup>ns</sup>	
Country development x SocialMed	→ Scope					.399 (.062)***	
Logistics performance	→ Scope						-.991 (-.853)**
Logistics performance x IntOnExp	→ Scope						.035 (.030)***
Logistics performance x WebTraff	→ Scope						-.019 (-.016) <sup>ns</sup>
Logistics performance x SocialMed	→ Scope						.051 (.044)*
<b>Controls (Company level)</b>							
Firm Size	→ Scope	-.002 <sup>ns</sup>	-.107***	-.103***	-.100***	-.099***	-.097***
Mobile Site	→ Scope	.110 <sup>ns</sup>	-.446***	-.450***	-.493***	-.492***	-.485***
Home MS	→ Scope	.118**	.105**	.104**	.123**	.120**	.120**
Firm Age	→ Scope	.165***	.107***	.106***	.100***	.100***	.096***
<b>Control (Country Level)</b>							
Host MS	→ Scope			-.377***	-.264**	-.067 <sup>ns</sup>	-.027 <sup>ns</sup>
Residual Variance (Company Level)		.819	.782	.696	.694	.689	.688
Explained Variance (Company Level)			4.5%	11.0%	0.3%	0.7%	0.9%
Residual Variance (Country Level)		.616	.553	.470	.249	.234	.142
Explained Variance (Country Level)					47.0%	6.0%	12.8%
AIC		8,253.736	8,115.196	7,784.747	7,030.933	2,393.280	6,741.662
BIC (Adjusted)		8,262.238	8,135.033	7,813.087	7,062.107	2,435.789	6,784.172

Notes: \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$ ; †  $p < .10$ ; ns = not significant.

Parameters = unstandardized coefficients. Effect sizes are shown in parentheses.

CD = Country development; Home MS = Home market size; Host MS = Host market size; IntOnExp = International online experience;

LP = Logistics performance; ROL = Rule of law; SocialMed = Social media; WebTraff = Website traffic.

Tab. 6: Alternative model without local currencies

ances for all three country-level variables do not exceed a value of 3.9 %. We conclude that the role of institutional distance is less relevant for e-commerce firms in our context.

Third, we checked whether measuring the degree of country development over time would produce stable results despite a smaller sample of 2,479 market entries due to missing data over time. Findings are shown in Tab. 8.

In line with our main model, international online experience ( $b = .034$ ,  $p < .001$ ), website traffic ( $b = .020$ ,  $p < .05$ ), and social media use ( $b = .112$ ,  $p < .001$ ) show the same effects, supporting our hypotheses. The same is true for the moderating hypotheses, mirroring our main findings for rule of law ( $b_{\text{ROL} \times \text{IntOnExp}} = .016$ ,  $p < .001$ ;  $b_{\text{ROL} \times \text{WebTraff}} = .008$ , ns;  $b_{\text{ROL} \times \text{SocialMed}} = .042$ ,  $p < .001$ ), country development ( $b_{\text{CD} \times \text{IntOnExp}} = .155$ ,  $p < .01$ ;  $b_{\text{CD} \times \text{WebTraff}} = .050$ , ns;  $b_{\text{CD} \times \text{SocialMed}} = .381$ ,  $p < .05$ ), and lo-

gistics performance ( $b_{\text{LP} \times \text{IntOnExp}} = .042$ ,  $p < .001$ ;  $b_{\text{LP} \times \text{WebTraff}} = .010$ , ns;  $b_{\text{LP} \times \text{SocialMed}} = .050$ ,  $p < .05$ ).

## 4. Discussion and implications

This study contributes to our understanding of how experiential and consumer-related intangible resources affect the geographic scope of e-commerce firms, referring to recent calls (e.g., Liu et al. 2020; Tolstoy et al. 2021). Our study further advances research by showing that the effects of intangible resources depend on important local host country boundaries (e.g., Jean and Kim 2020). We provide theoretical and managerial implications.

### 4.1. Theoretical implications

Regarding our *first research question*, the results reveal positive effects of e-commerce firms' international online experience, website traffic, and social media use on

		Null Model	Baseline Model 1	Full Model	Baseline Model 2	ROL	CD	LP
<b>Direct effects</b>								
IntOnExp	→ Scope			.039***	.039***	.040***	.039***	.039***
WebTraff	→ Scope			.018†	.018†	.018†	.018†	.017†
SocialMed	→ Scope			.116***	.115***	.113***	.115***	.115***
<b>Cross-level interaction</b>								
REGDIS	→ Scope					.038 <sup>ns</sup>		
REGDIS x IntOnExp	→ Scope					-.004**		
REGDIS x WebTraff	→ Scope					.000 <sup>ns</sup>		
REGDIS x SocialMed	→ Scope					-.012***		
NORDIS	→ Scope						-.022 <sup>ns</sup>	
NORDIS x IntOnExp	→ Scope						.000 <sup>ns</sup>	
NORDIS x WebTraff	→ Scope						.000 <sup>ns</sup>	
NORDIS x SocialMed	→ Scope						-.002 <sup>ns</sup>	
CULDIS	→ Scope							-.026 <sup>ns</sup>
CULDIS x IntOnExp	→ Scope							.001 <sup>ns</sup>
CULDIS x WebTraff	→ Scope							-.007†
CULDIS x SocialMed	→ Scope							.003 <sup>ns</sup>
<b>Controls (Company level)</b>								
Firm Size	→ Scope		.037**	-.057***	-.056***	-.054***	-.056***	-.056***
Mobile Site	→ Scope		.080 <sup>ns</sup>	-.455***	-.458***	-.478***	-.459***	-.458***
Home MS	→ Scope		.090*	.080*	.081*	.088**	.081*	.083*
Firm Age	→ Scope		.158***	.090***	.089***	.087***	.089***	.089***
<b>Control (Country Level)</b>								
Host MS	→ Scope				-.228***	-.211**	-.211***	-.229***
Residual Variance (Company Level)		.827	.788	.694	.693	.690	.693	.693
Explained Variance (Company Level)			4.7%	11.9%	0.1%	0.4%	0.0%	0.0%
Residual Variance (Country Level)		.275	.233	.172	.127	.127	.122	.124
Explained Variance (Country Level)					26.2%	0.0%	3.9%	2.4%
AIC		7,187.593	7,061.906	6,734.198	6,379.960	12,826.586	20,588.600	18,317.751
BIC (Adjusted)		7,195.718	7,080.865	6,761.282	6,409.752	12,867.212	20,629.226	18,358.377

Notes: \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$ ; †  $p < .10$ ; ns = not significant.

Parameters = unstandardized coefficients. Effect sizes are shown in parentheses.

CD = Country development; Home MS = Home market size; Host MS = Host market size; IntOnExp = International online experience;

LP = Logistics performance; ROL = Rule of law; SocialMed = Social media; WebTraff = Website traffic.

CULDIS = Cultural distance; NORDIS = Normative distance; REGDIS = Regulative distance.

Tab. 7: Alternative model with institutional distances

geographic scope. Hence, firms' intangible resources are critical drivers of their foreign expansion in a digital environment (Schu et al. 2016). In line with theory, our results support the notion that the examined intangible resources are valuable, mostly rare, inimitable, and non-substitutable. Building on these properties, firms may transfer these resources to foreign markets efficiently and exploit them to achieve competitive advantages internationally (e.g., Molloy et al. 2011). Additionally, referring to research on manufacturing firms, this study extends the scarce literature on e-commerce firms' geographic scope decisions (Kotha et al. 2001). Focusing on each independent variable allows for the identification of fine-grained theoretical implications.

- We underscore the relevance of international (online) experience. Knowledge acquired over time is an important base for e-commerce firms' ability to transfer their business to foreign markets and exploit opportu-

nities more effectively. As experience can be used in multiple markets simultaneously, it is valuable for increasing geographic scope. Our results are consistent with those of studies on manufacturing firms and the role of international experience, which is important in e-commerce as well. Moreover, we contribute to the application of such theory by examining consumer-related intangible resources that are unique to the online context and have only more recently been introduced in the literature (e.g., Samiee et al. 2021).

- Website traffic, i.e., firms' information on existing customer relations and online shop popularity as an indicator of firms' reputation, is found to be a valuable digital resource for international expansion. Using website traffic, firms can leverage their analytical tools in foreign markets, transfer their customer reputation, or benefit from better access to advertising partnerships (Molla-Descals et al. 2014).

		Null Model	Baseline Model 1	Full Model	Baseline Model 2	ROL	CD	LP
<b>Direct effects</b>								
IntOnExp	→ Scope			.035***	.034***	.036***	.036***	.026***
WebTraff	→ Scope			.020*	.020*	.021*	.021*	.018 <sup>†</sup>
SocialMed	→ Scope			.113***	.112***	.108***	.109***	.098***
<b>Cross-level interaction</b>								
Rule of law	→ Scope					-.268 <sup>ns</sup>		
Rule of law x IntOnExp	→ Scope					.016***		
Rule of law x WebTraff	→ Scope					.008 <sup>ns</sup>		
Rule of law x SocialMed	→ Scope					.042***		
Country development	→ Scope						-3.638 <sup>ns</sup>	
Country development x IntOnExp	→ Scope						.155**	
Country development x WebTraff	→ Scope						.050 <sup>ns</sup>	
Country development x SocialMed	→ Scope						.381*	
Logistics performance	→ Scope							-1.078***
Logistics performance x IntOnExp	→ Scope							.042***
Logistics performance x WebTraff	→ Scope							.010 <sup>ns</sup>
Logistics performance x SocialMed	→ Scope							.050*
<b>Controls (Company level)</b>								
Firm Size	→ Scope		.004 <sup>ns</sup>	-.091***	-.091***	-.086***	-.086***	-.084***
Mobile Site	→ Scope		.130 <sup>ns</sup>	-.387**	-.385**	-.420***	-.419***	-.416***
Home MS	→ Scope		.078 <sup>†</sup>	.094***	.076*	.094*	.089*	.090**
Firm Age	→ Scope		.156***	.076*	.094***	.092***	.093***	.090***
<b>Control (Country Level)</b>								
Host MS	→ Scope				-.184**	.001 <sup>ns</sup>	.073 <sup>ns</sup>	.154*
Residual Variance (Company Level)		.800	.765	.681	.681	.672	.675	.673
Explained Variance (Company Level)			4.4%	11%	0.0%	1.3%	0.8%	1.1%
Residual Variance (Country Level)		.400	.401	.297	.260	.236	.239	.147
Explained Variance (Country Level)					12.0%	9.2%	8.0%	43.5%
AIC		6,655.998	6,556.795	6,278.497	5,486.144	1,289.107	-8,930.366	5,383.071
BIC (Adjusted)		6,663.913	6,575.263	6,304.881	5,515.166	1,328.682	-8,890.791	5,422.646

Notes: \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$ ; <sup>†</sup>  $p < .10$ ; ns = not significant.

Parameters = unstandardized coefficients. Effect sizes are shown in parentheses.

CD = Country development; Home MS = Home market size; Host MS = Host market size; IntOnExp = International online experience;

LP = Logistics performance; ROL = Rule of law; SocialMed = Social media; WebTraff = Website traffic.

Tab. 8: Alternative model with country development over time

• Firms' social media use is the strongest resource in terms of geographic scope in this study (due to effect size), enabling firms to exploit and transfer communications and promoted services across borders based on established social feedback from their online community. Despite fierce competition, social media interactions induce beneficial cross-border domino effects as firms gain followers who share their experiences (Li et al. 2021). Surprisingly, this is a stronger driver than international online experience, underlining the importance of digital resources for e-commerce expansion (Chabowski and Samiee 2020). Moreover, website traffic, as the weakest independent variable, underscores our conclusions. Notably, the effects of website traffic are not affected by country-level moderators, i.e., relevant for scope decisions in general.

In summary, we find support for one prior study on the important role of intangible resources in driving e-commerce firms' geographic scope (Kotha et al. 2001).

E-commerce firms may focus on international online experience and social media use in particular. We advance the prior research accounting for traditional and new digital consumer-related resources acquired over time. Studying the effects of intangible resources on geographic scope, we also empirically add to the application of RBV in a digital economy.

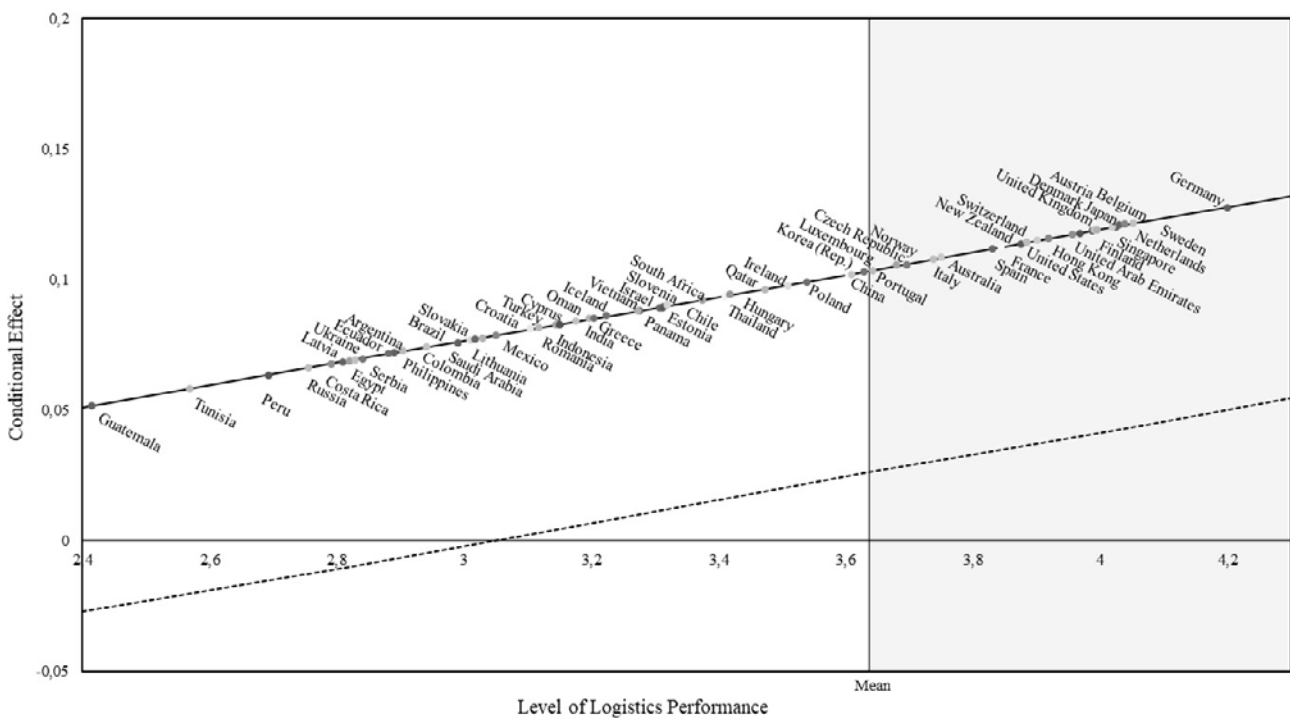
Regarding our *second research question*, we shed light on the important role of local host country contexts, which affect e-commerce firms' resource transfer to foreign markets (referring to calls, Jean and Kim 2020; Liu et al. 2020). Host countries' rule of law, country development, and logistics performance have been identified as critical contextual factors in e-commerce. We empirically confirm the importance of these factors for the RBV by using appropriate multilevel modeling and important cross-level interactions, in contrast to independent effects (Navarro-García 2016). Our theoretical implications are threefold.

- In line with theory, the value and transferability of firms' international experience and social media use is affected by local regulatory conditions (He et al. 2013). An increasing rule of law offers higher transparency and transactional integrity to e-commerce firms operating in foreign markets (apparently outweighing the possible adverse effects of strict data protection regulations). Instead of facing legal issues, firms can transfer their international online experience and use it to better exploit opportunities. With proprietary rights being protected by a strong rule of law, firms may better use social media to transfer communications and services to foreign markets (Katsikeas et al. 2019). Insights from community interactions are more valuable for increasing geographic scope, and cross-border domino effects are more likely to occur in contexts where societal rules and freedoms are enacted.
- The degree of host countries' development is a more important contextual factor that affects the value of e-commerce firms' international experience and social media for expansion. Firms' international experience is more valuable and relying on past experiences is less risky in stable and predictable environments. Although there might also be exceptions (e.g., BRIC countries), promising opportunities can be identified and exploited more effectively, as consumer needs fluctuate less in developed countries (e.g., Nuhu et al. 2021). Moreover, firms may better reach consumers and analyze their needs on social media in contexts with broad access to the internet and popular social

media platforms (e.g., Vieira et al. 2019). In developed contexts, social interactions are even more valuable, as consumers who are aware of online fraud can interact with a firm via social media.

- We show a strong impact of logistics performance on the value of international experience and social media use in foreign markets. Sufficient logistics performance is a necessary condition for firms' ability to exploit opportunities and use valuable international experience in foreign markets. Firms may cooperate with local logistics partners rather than investing in their own logistics infrastructure (Douglas and Craig 2011). The value of social media as a communication tool for firms' services is higher, as high logistics performance enables firms to optimize their fulfillment, which provides them with a critical competitive advantage (Zhang et al. 2019). Finally, the risks of detrimental domino effects and reputational damages are decreased, enabling firms to take full advantage of social media.

In summary, e-commerce firms can best transfer their resources to increase geographic scope by entering host countries with a strong rule of law, a high degree of country development and, most importantly, high local logistics performance. Specifically, logistics performance is the strongest lever for e-commerce firms' effective expansion, explaining 43.2 % of the country-level variance. Fig. 2 shows the linear moderating cross-level interaction effect of logistics performance. The higher the degree of logistics performance is, the more e-com-



Note: Continuous line represents the conditional effect on social media use, the dotted line the conditional effect on international online experience. The graph indicates the 64 host countries examined in this study. The grey box indicates, starting from the mean of logistics performance, in which countries e-commerce firms can best use their social media or international online experience.

Fig. 2: Moderating Cross-level Interaction Effect of Logistics Performance

merce firms can benefit from their past international experience and, in particular, social media use in terms of geographic scope.

#### 4.2. Managerial implications

Managers in e-commerce firms need to be aware of which intangible resources are most valuable for international country expansion. Importantly, understanding host country environments is relevant for leveraging and transferring these resources to increase geographic scope.

Given our findings, firms may tend to gain critical knowledge through international online experience and build online-specific consumer-related resources. Managers may expect that international online experience affects the geographic scope of online expansions, which might be relevant for further international decisions (e.g., speed, Luo et al. 2005). However, in particular, firms' website traffic – not affected by any local contextual factor – and social platform interactions – the strongest lever – are of major importance for international geographic expansion. Managers focusing on only one adjustment may prioritize social media use because social media not only plays an important role in geographic expansion but is also known as a key touchpoint that may offer unique services to consumers (Dolega et al. 2021). The important role of social media is underlined through the top 10 % of firms in terms of geographic scope in our sample, which have an average of 9.635 million followers on Facebook alone. Moreover, e-commerce firms such as Zalando have strongly invested in social media, with the number of their followers rapidly increasing (Zalando 2021a). Zalando is one of the leading fashion commerce firms in Europe due to its communications being shared and its services being discussed across digital borders. This example highlights the important role of large and interactive social communities for expansion and increasing geographic scope in the digital age (Paniagua et al. 2017).

Moreover, managers might consider the role of host country local contexts in exploiting firms' intangible resources for geographic expansion (Pezderka and Sinkovics 2011). Host countries' rule of law, degree of country development, and logistics performance are important levers for e-commerce firms. To increase the value of international online experience and social media use, firms may focus on contexts with a strong rule of law, high country development, and especially high logistics performance. The latter explains by far the highest country-level variance and is most important. Quick delivery is known to affect e-commerce firms' performance and regional expansion, which can possibly explain the focus of fashion commerce firm Zalando being on European countries. When facing a choice, we very carefully advise e-commerce firms to enter contexts where they can benefit from high logistics performance (explaining 43.2 % of country variance). Moreover, countries with

both a high degree of logistics performance and country development most strongly facilitate e-commerce firms' resource-based geographic expansion (e.g., in Europe, Germany, Sweden, or Belgium, see Fig. 2). Ultimately, these insights may provide an important basis for linking geographic scope decisions with the successful expansion of e-commerce firms (e.g., Liu et al. 2020).

#### 5. Limitations and suggestions for further research

This study has certain limitations that suggest future research directions.

We refer to a unique longitudinal, geographically diversified database, but broader data would allow further conclusions. We calculated geographic scope, international online experience, and most controls dynamically over time, but respective data on website traffic and social media are missing, which is why we draw our conclusions carefully. Although we believe the values in 2017 reflect the overall development over time of these variables to some degree, they are still useful for research. Data for country development and logistics performance could not be matched with the years of market entry, but our results provide initial insights for further research. A worldwide database will improve generalizability but, to the best of our knowledge, is not yet available. We focus on country-specific online shops, but insights into local presence with logistic investments or studying emerging market e-commerce firms are promising approaches (e.g., Benmamoun et al. 2019).

Regarding our measures, we refer to geographic scope as the number of foreign markets entered. Capturing geographic scope in terms of regional spread vs. individual countries will reveal additional insights (Bauweraerts et al. 2019). Related multidimensional measures such as the degree of internationalization might allow for a more refined view of e-commerce firms' expansion decisions. We also use the available number of Facebook followers as a common proxy for social media use, while social media includes a variety of elements that may be relevant (Samiee et al. 2021). Moreover, we suggest measuring further important variables in e-commerce that were not available to us (e.g., competitive intensity and home market development), as they are known to affect the geographic scope of offline firms (e.g., Kirca et al. 2012).

Regarding our conceptual framework, scholars may view geographic scope as a mediator of e-commerce firms' performance, as this topic is unexplored in e-commerce (e.g., Kirca et al. 2011). E-commerce firms' performance is expected to grow, but only to a certain level. We focused on the important intangible resources of e-commerce firms, but the role of firm ownership, team characteristics, or transaction-related website functions should be studied (e.g., Bauweraerts et al. 2019; Love et al. 2016). Our alternative models show that institutional dis-

tances explain less country-level variance, but studying further moderators is interesting (e.g., social media strategies and environmental uncertainties, Li et al. 2021). However, to draw valid conclusions, future research needs to methodologically account for nested data structures.

## Note

[1] A literature review was performed in over 40 journals, focusing on empirical studies published in 2010 or later with cross-citation of the most often used studies. The keywords used on Google Scholar were geographic scope, export/internationalization scope, geographic diversification, internet firms, and e-commerce.

## References

- Alsaad, A., Taamneh, A., Sila, I., & Elrehail, H. (2021). Understanding the Global Diffusion of B2B E-Commerce (B2B Ec): An Integrated Model. *Journal of Information Technology*, 36(3), 258–274.
- Ang, S. H., Benischke, M. H., & Doh, J. P. (2015). The Interactions of Institutions on Foreign Market Entry Mode. *Strategic Management Journal*, 36(10), 1536–1553.
- Arvis, J.-F., Ojala, L., Wiederer, C., Shepherd, B., Raj, A., Dairabayeva, K., & Kiiski, T. (2018). *Connecting to Compete 2018: Trade Logistics in the Global Economy – the Logistics Performance Index and Its Indicators*. Washington, DC: The World Bank Group.
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120.
- Batsakis, G., & Mohr, A. T. (2017). Revisiting the Relationship between Product Diversification and Internationalization Process in the Context of Emerging Market MNEs. *Journal of World Business*, 52(4), 564–577.
- Bauweraerts, J., Sciascia, S., Naldi, L., & Mazzola, P. (2019). Family CEO and Board Service: Turning the Tide for Export Scope in Family SMEs. *International Business Review*, 28(5), 101583.
- Beleska-Spasova, E., Glaister, K. W., & Stride, C. (2012). Resource Determinants of Strategy and Performance: The Case of British Exporters. *Journal of World Business*, 47(4), 635–647.
- Benmamoun, M., Singh, N., Lehnert, K., & Lee, S. B. (2019). Internationalization of E-Commerce Corporations (ECCs): Advanced Vs Emerging Markets. *Multinational Business Review*, 27(4), 317–338.
- Brouthers, K. D., & Hennart, J.-F. (2007). Boundaries of the Firm: Insights from International Entry Mode Research. *Journal of Management*, 33(3), 395–425.
- Casillas, J. C., Barbero, J. L., & Sapienza, H. J. (2015). Knowledge Acquisition, Learning, and the Initial Pace of Internationalization. *International Business Review*, 24(1), 102–114.
- Chabowski, B. R., & Samiee, S. (2020). The Internet and the International Management Literature: Its Development and Intellectual Foundation. *Journal of International Management*, 26(1), 100741.
- Chen, L., Shaheer, N., Yi, J., & Li, S. (2019). The International Penetration of Ibusiness Firms: Network Effects, Liabilities of Outsidership and Country Clout. *Journal of International Business Studies*, 50(2), 172–192.
- Çilingirtürk, A. M., & Koçak, H. (2018). Human Development Index (HDI) Rank-Order Variability. *Social Indicators Research*, 137(2), 481–504.
- Contractor, F. J., Dangol, R., Nuruzzaman, N., & Raghunath, S. (2020). How Do Country Regulations and Business Environment Impact Foreign Direct Investment (FDI) Inflows? *International Business Review*, 29(2), 101640.
- Delgado-Gómez, J. M., Ramírez-Alesón, M., & Espitia-Escuer, M. A. (2004). Intangible Resources as a Key Factor in the Internationalisation of Spanish Firms. *Journal of Economic Behavior & Organization*, 53(4), 477–494.
- Digital Commerce 360 (2018). *2018 Digital Commerce 360 Europe 500 Database*. Retrieved 21.06.2021 from [https://www.digitalcommerce360.com/product/europe-500-database/?utm\\_source=Web&utm\\_campaign=2020-Article&cmp=1&utm\\_medium=Article](https://www.digitalcommerce360.com/product/europe-500-database/?utm_source=Web&utm_campaign=2020-Article&cmp=1&utm_medium=Article).
- Digital Commerce 360 (2021). *Digital Commerce 360 Research & Data*. Retrieved 15.06.2021 from <https://www.digitalcommerce360.com/about-our-research/>.
- Dolega, L., Rowe, F., & Branagan, E. (2021). Going Digital? The Impact of Social Media Marketing on Retail Website Traffic, Orders and Sales. *Journal of Retailing and Consumer Services*, 60(May), 102501.
- Douglas, S. P., & Craig, C. S. (2011). Convergence and Divergence: Developing a Semiglobal Marketing Strategy. *Journal of International Marketing*, 19(1), 82–101.
- Elia, S., Giuffrida, M., Mariani, M. M., & Bresciani, S. (2021). Resources and Digital Export: An RBV Perspective on the Role of Digital Technologies and Capabilities in Cross-Border E-Commerce. *Journal of Business Research*, 132(August), 158–169.
- Felzensztein, C., Ciravegna, L., Robson, P., & Amorós, J. E. (2015). Networks, Entrepreneurial Orientation, and Internationalization Scope: Evidence from Chilean Small and Medium Enterprises. *Journal of Small Business Management*, 53, 145–160.
- Finch, H., & Bolin, J. (2017). *Multilevel Modeling Using Mplus*. Boca Raton: CRC Press.
- Gallego, Á., & Casillas, J. C. (2014). Choice of Markets for Initial Export Activities: Differences between Early and Late Exporters. *International Business Review*, 23(5), 1021–1033.
- Gao, H., Tate, M., Zhang, H., Chen, S., & Liang, B. (2018). Social Media Ties Strategy in International Branding: An Application of Resource-Based Theory. *Journal of International Marketing*, 26(3), 45–69.
- George, G., Wiklund, J., & Zahra, S. A. (2005). Ownership and the Internationalization of Small Firms. *Journal of Management*, 31(2), 210–233.
- Goyens, M. (2020). Effective Consumer Protection Frameworks in a Global and Digital World. *Journal of Consumer Policy*, 43(1), 195–207.
- Harzing, A.-W., & Pudelko, M. (2016). Do We Need to Distance Ourselves from the Distance Concept? Why Home and Host Country Context Might Matter More Than (Cultural) Distance. *Management International Review*, 56(1), 1–34.
- He, X., Brouthers, K. D., & Filatotchev, I. (2013). Resource-Based and Institutional Perspectives on Export Channel Selection and Export Performance. *Journal of Management*, 39(1), 27–47.
- Hitt, M. A., Bierman, L., Uhlenbruck, K., & Shimizu, K. (2006b). The Importance of Resources in the Internationalization of Professional Service Firms: The Good, the Bad, and the Ugly. *Academy of Management Journal*, 49(6), 1137–1157.
- Hofstede, G. (1984). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills, CA: Sage.
- Hox, J. J., Moerbeek, M., & Van de Schoot, R. (2018). *Multilevel Analysis: Techniques and Applications*. New York: Routledge.
- Huang, Y., & Sternquist, B. (2007). Retailers' Foreign Market Entry Decisions: An Institutional Perspective. *International Business Review*, 16(5), 613–629.
- Jean, R.-J., & Kim, D. (2020). Internet and SMEs' Internationalization: The Role of Platform and Website. *Journal of International Management*, 26(1), 100690.
- Jean, R.-J., Kim, D., & Cavusgil, E. (2020). Antecedents and Outcomes of Digital Platform Risk for International New Ventures' Internationalization. *Journal of World Business*, 55(1), 101021.
- Jiménez, A. (2010). Does Political Risk Affect the Scope of the Expansion Abroad? Evidence from Spanish MNEs. *International Business Review*, 19(6), 619–633.

- Kardes, I., Flynn, L. R., & Dugan, M. (2020). Online Retailing: Determinants of Competition between Multinationals and Local Firms in Emerging Markets. *International Journal of Retail & Distribution Management*, 49(2), 263–280.
- Katsikeas, C., Leonidou, L., & Zeriti, A. (2019). Revisiting International Marketing Strategy in a Digital Era: Opportunities, Challenges, and Research Directions. *International Marketing Review*, 37(3), 405–424.
- Kirca, A. H., Hult, G. T. M., Roth, K., Cavusgil, S. T., Perry, M. Z., Akdeniz, M. B., Deligonul, S. Z., Mena, J. A., Pollitte, W. A., & Hoppner, J. J. (2011). Firm-Specific Assets, Multinationality, and Financial Performance: A Meta-Analytic Review and Theoretical Integration. *Academy of Management Journal*, 54(1), 47–72.
- Kirca, A. H., Roth, K., Hult, G. T. M., & Cavusgil, S. T. (2012). The Role of Context in the Multinationality-Performance Relationship: A Meta-Analytic Review. *Global Strategy Journal*, 2(2), 108–121.
- Kline, R. B. (2015). *Principles and Practice of Structural Equation Modeling*. Guilford publications.
- Kostova, T., Beugelsdijk, S., Scott, W. R., Kunst, V. E., Chua, C. H., & van Essen, M. (2020). The Construct of Institutional Distance through the Lens of Different Institutional Perspectives: Review, Analysis, and Recommendations. *Journal of International Business Studies*, 51(4), 467–497.
- Kotha, S., Rindova, V. P., & Rothaermel, F. T. (2001). Assets and Actions: Firm-Specific Factors in the Internationalization of US Internet Firms. *Journal of International Business Studies*, 32(4), 769–791.
- Kozlenkova, I. V., Samaha, S. A., & Palmatier, R. W. (2014). Resource-Based Theory in Marketing. *Journal of the Academy of Marketing Science*, 42(1), 1–21.
- Kromidha, E., & Robson, P. J. (2021). The Role of Digital Presence and Investment Network Signals on the Internationalisation of Small Firms. *International Small Business Journal*, 39(2), 109–129.
- Kuivalainen, O., Sundqvist, S., & Servais, P. (2007). Firms' Degree of Born-Globalness, International Entrepreneurial Orientation and Export Performance. *Journal of World Business*, 42(3), 253–267.
- Li, F., Larimo, J., & Leonidou, L. C. (2021). Social Media Marketing Strategy: Definition, Conceptualization, Taxonomy, Validation, and Future Agenda. *Journal of the Academy of Marketing Science*, 49(1), 51–70.
- Lin, W.-T. (2012). Family Ownership and Internationalization Processes: Internationalization Pace, Internationalization Scope, and Internationalization Rhythm. *European Management Journal*, 30(1), 47–56.
- Lin, W.-T. (2014). How Do Managers Decide on Internationalization Processes? The Role of Organizational Slack and Performance Feedback. *Journal of World Business*, 49(3), 396–408.
- Liu, C.-L. E., Zhang-Zhang, Y., & Ghauri, P. N. (2020). The Influence of Internet Marketing Capabilities on International Market Performance. *International Marketing Review*, 37(3), 447–469.
- Love, J. H., Roper, S., & Zhou, Y. (2016). Experience, Age and Exporting Performance in UK SMEs. *International Business Review*, 25(4), 806–819.
- Lu, J., Liu, X., Wright, M., & Filatotchev, I. (2014). International Experience and FDI Location Choices of Chinese Firms: The Moderating Effects of Home Country Government Support and Host Country Institutions. *Journal of International Business Studies*, 45(4), 428–449.
- Luo, Y. (2022). A General Framework of Digitization Risks in International Business. *Journal of International Business Studies*, 53(2), 344–361.
- Luo, Y., Zhao, J. H., & Du, J. (2005). The Internationalization Speed of E-Commerce Companies: An Empirical Analysis. *International Marketing Review*, 22(6), 693–709.
- Mansion, S. E., & Bausch, A. (2020). Intangible Assets and SMEs' Export Behavior: A Meta-Analytical Perspective. *Small Business Economics*, 55(3), 727–760.
- Mohr, A., & Batsakis, G. (2018). Firm Resources, Cultural Distance and Simultaneous International Expansion in the Retail Sector. *International Business Review*, 27(1), 113–124.
- Molla-Descals, A., Frascuet, M., Ruiz-Molina, M.-E., & Navarro-Sanchez, E. (2014). Determinants of Website Traffic: The Case of European Fashion Apparel Retailers. *The International Review of Retail, Distribution and Consumer Research*, 24(4), 411–430.
- Molloy, J. C., Chadwick, C., Ployhart, R. E., & Golden, S. J. (2011). Making Intangibles “Tangible” in Tests of Resource-Based Theory: A Multidisciplinary Construct Validation Approach. *Journal of Management*, 37(5), 1496–1518.
- Navarro-García, A. (2016). Drivers of Export Entrepreneurship. *International Business Review*, 25(1), 244–254.
- Nuhu, N. S., Owens, M., & McQuillan, D. (2021). International Entrepreneurship from Emerging to Developed Markets: An Institutional Perspective. *International Marketing Review*, 38(3), 453–486.
- O'Brien, R. M. (2007). A Caution Regarding Rules of Thumb for Variance Inflation Factors. *Quality & Quantity*, 41(5), 673–690.
- Oxley, J. E., & Yeung, B. (2001). E-Commerce Readiness: Institutional Environment and International Competitiveness. *Journal of International Business Studies*, 32(4), 705–723.
- Paniagua, J., Korzynski, P., & Mas-Tur, A. (2017). Crossing Borders with Social Media: Online Social Networks and FDI. *European Management Journal*, 35(3), 314–326.
- Pezderka, N., & Sinkovics, R. R. (2011). A Conceptualization of E-Risk Perceptions and Implications for Small Firm Active Online Internationalization. *International Business Review*, 20(4), 409–422.
- Ruzo, E., Losada, F., Navarro, A., & Díez, J. A. (2011). Resources and International Marketing Strategy in Export Firms: Implications for Export Performance. *Management Research Review*, 34(5), 496–518.
- Sambharya, R. B., & Lee, J. (2014). Renewing Dynamic Capabilities Globally: An Empirical Study of the World's Largest Mncs. *Management International Review*, 54(2), 137–169.
- Samiee, S. (2020). International Marketing and the Internet: A Research Overview and the Path Forward. *International Marketing Review*, 37(3), 425–436.
- Samiee, S., Katsikeas, C. S., & Hult, G. T. M. (2021). The Overarching Role of International Marketing: Relevance and Centrality in Research and Practice. *Journal of International Business Studies*, 52(8), 1429–1444.
- Schu, M., & Morschett, D. (2017). Foreign Market Selection of Online Retailers – a Path-Dependent Perspective on Influence Factors. *International Business Review*, 26(4), 710–723.
- Schu, M., Morschett, D., & Swoboda, B. (2016). Internationalization Speed of Online Retailers: A Resource-Based Perspective on the Influence Factors. *Management International Review*, 56(5), 733–757.
- Schwartz, S. H. (1994). Are There Universal Aspects in the Structure and Contents of Human Values? *Journal of Social Issues*, 50(4), 19–45.
- Scott, W. R. (2014). *Institutions and Organizations: Ideas, Interests, and Identities*. Thousand Oaks, CA: Sage.
- Shaheer, N. A., & Li, S. (2020). The Cage around Cyberspace? How Digital Innovations Internationalize in a Virtual World. *Journal of Business Venturing*, 35(1), 105892.
- Shneor, R., & Flåten, B.-T. (2008). The Internet-Enabled Internationalization Process: A Focus on Stages and Sequences. *Journal of e-Business*, 8(1), 45–52.
- Sui, S., & Baum, M. (2014). Internationalization Strategy, Firm Resources and the Survival of SMEs in the Export Market. *Journal of International Business Studies*, 45(7), 821–841.
- Swoboda, B., & Sinning, C. (2020). How Country Development and National Culture Affect the Paths of Perceived Brand Glob-

- alness to Consumer Behavior across Nations. *Journal of Business Research*, 118, 58–73.
- Tolstoy, D., Nordman, E. R., Hånell, S. M., & Özbek, N. (2021). The Development of International E-Commerce in Retail SMEs: An Effectuation Perspective. *Journal of World Business*, 56(3), 101165.
- United Nations Development Programme. (2020). *Human Development Reports*. Retrieved 15.06.2021 from <http://hdr.undp.org/en/data>.
- Vieira, V. A., de Almeida, M. I. S., Agnihotri, R., & Arunachalam, S. (2019). In Pursuit of an Effective B2B Digital Marketing Strategy in an Emerging Market. *Journal of the Academy of Marketing Science*, 47(6), 1085–1108.
- Watson, G. F., Weaven, S., Perkins, H., Sardana, D., & Palmatier, R. W. (2018). International Market Entry Strategies: Relational, Digital, and Hybrid Approaches. *Journal of International Marketing*, 26(1), 30–60.
- Wiersema, M. F., & Bowen, H. P. (2008). Corporate Diversification: The Impact of Foreign Competition, Industry Globalization, and Product Diversification. *Strategic Management Journal*, 29(2), 115–132.
- World Bank (2021a). *World Bank Open Data*. Retrieved 15.06.2021 from <https://data.worldbank.org/>.
- World Bank (2021b). *World Development Indicators*. Retrieved 15.06.2021 from <https://databank.worldbank.org/reports.aspx?source=2&series=LP.LPI.OVRL.XQ&country=>.
- World Bank (2021c). *Worldwide Governance Indicators*. Retrieved 15.06.2021 from <https://databank.worldbank.org/source/worldwide-governance-indicators>.
- Zalando (2021a). *Annual Report*. Retrieved 01.07.2021 from <https://corporate.zalando.com/en/investor-relations/annual-report-2020>.
- Zalando (2021b). *Corporate Strategy*. Retrieved 15.06.2021 from <https://corporate.zalando.com/de/unternehmen/unsere-geschaeftsfelder>.
- Zhang, J., Onal, S., Das, R., Helminsky, A., & Das, S. (2019). Fulfillment Time Performance of Online Retailers-an Empirical Analysis. *International Journal of Retail & Distribution Management*, 47(5), 493–510.

## Keywords

E-Commerce Firms, Geographic Scope, Resources, Country Context

ISSN 0344-1369

**MARKETING**  
ZFP – Journal of Research and Management

**Editor-in-Chief:** Prof. Dr. Heribert Gierl, Chair of Marketing at the Faculty of Business Administration and Economics, University of Augsburg, Universitätsstr. 16, D-86159 Augsburg, Phone: +49 821 598 4052, E-Mail: [editor@marketing.zfp.de](mailto:editor@marketing.zfp.de)

**Senior Editors:** Prof. Dr. Yasemin Boztuğ, University of Göttingen, Prof. Dr. Andrea Gröppel-Klein, Saarland University, Prof. Dr. Lutz Hildebrandt, Humboldt-University of Berlin, Prof. Dr. Hans Mühlbacher, International University of Monaco, Prof. Dr. Henrik Sattler, University of Hamburg, Prof. Dr. Bernhard Swoboda, University of Trier, Prof. Dr. Dirk Temme, University of Wuppertal, Prof. Dr. Udo Wagner, Modul University Vienna.

**Manuscripts:** We ask all authors who would like to submit a paper to send this paper to the Editors-in-Chief Yasemin Boztuğ and Dirk Temme via email: [editor@marketing-zfp.de](mailto:editor@marketing-zfp.de). Neither the publisher nor the editors assume any liability for unsolicited manuscripts. Unsolicited manuscripts will only be returned if accompanied by return postage. The acceptance of a contribution has to be in writing.

**Copyright:** Upon acceptance for publication the author transfers to the C.H.BECK the exclusive copyright of his or her contribution for the duration of the copyright as laid down by law. The copyright covers the exclusive right and licence to reproduce, publish, distribute and archive the article in all forms and media of expression now known or developed in the future, including reprints, translations, photographic reproductions, microform, electronic form (offline and online) or any other reproduction of similar nature. The author's second window right after the expiry of 12 months after first publication, as laid down in article 38/4) German Copyright Law, remains unaffected. All articles published in this journal are protected by copyright law. Without first obtaining permission from the publisher, no material published in this journal may be reproduced, distributed, performed or displayed publicly, or made accessible or stored in electronic databases or reproduced, distributed or utilized electronically, outside the narrow limitations of copyright law.

**Publisher:** C.H.BECK oHG, Wilhelmstr. 9, 80801 München; postal address: P.O.Box 40 03 40, 80703 München; phone: +49 89 38189 0; fax: +49 89 38189 398, Bank account: Postbank München IBAN: DE82 7001 0080 0006 2298 02, BIC: PBNKDEFFXXX. The publisher is a *offene Handelsgesellschaft* under Ger-

man law with Dr. Hans Dieter Beck and Dr. h.c. Wolfgang Beck as partners.

**Subscription:** An annual subscription to the journal comprises four issues.

**Subscription rates 2022:** € 259 (VAT incl.) annual subscription rate, campus licence € 389 (VAT incl.). Single Issue: € 77 (VAT incl.), shipping charges have to be added to the rates. Subscription and rate include print issue and a licence for the online archive. The components cannot be cancelled separately. Complaints about copies not received must be lodged within 6 weeks starting at the end of the quarter.

**Subscription service:** Please order with either the publisher or any book shop.

**CustomerServiceCenter:** Phone: +49 89 38189 750, Fax: +49 89 38189 358, E-Mail: [kundenservice@beck.de](mailto:kundenservice@beck.de)

**Cancellation:** The subscription may be cancelled in writing 6 weeks before the end of a calendar year.

**Citation:** Marketing ZFP – Journal of Research and Management, number of volume(number of issue), year, page.

**Typesetting:** FotoSatz Pfeifer GmbH, 82152 Krailling.

**Printing:** Druckerei C.H.Beck Nördlingen (publisher's address).