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**What drives business performance of small and medium-sized enterprises in cross-border electronic commerce? A study comparing developed and emerging markets**

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**Abstract**

In cross-border e-commerce, electronic retailers (e-retailers) aim to extend their sales activities via the Internet beyond national borders. Unlike large companies, small and medium-sized enterprises are struggling with their international online expansion. This phenomenon is not limited to countries with a developed e-commerce market; e-retailers from emerging e-commerce markets, too, face the problem. This study investigates what the drivers are of business performance of SMEs in cross-border e-retailing, and how drivers differ between developed and emerging e-commerce markets in Europe. Structural equation modelling analyses with the lavaan package in R on a sample of 453 owners and directors of SMEs from 20 countries, show that foreign market orientation not only directly influences business performance in cross-border e-commerce, but also indirectly through communication efforts in foreign markets. These results hold for both developed and emerging markets, however, there are two interesting differences. First in the influence of foreign market orientation and communication efforts on business performance, and second in the impact of the number of years the electronic e-retailer is active in cross-border e-commerce.

## **1. Introduction**

Domestic business-to-consumer (B2C) electronic commerce (e-commerce) in developed markets such as the UK and Germany is nearing saturation (Ecommerce news Europe, 2016), which makes expansion across national borders for small and medium-sized (SME) e-retailers from developed e-commerce markets (DM-SMEs) an increasingly important strategic choice for revenue growth (European Commission, 2012). SMEs from emerging e-commerce markets (EM-SMEs) also engage in cross-border e-commerce since access to a broader customer base translates into enhanced business performance (Abebe, 2014; Hong, Wang, and Kafouros, 2014; Tolstoy, Jonsson, and Sharma, 2016). However, economic reports show that both DM-SMEs and EM-SMEs are struggling with achieving the expected business performance (European Court of Auditors, 2014; Tolstoy, Jonsson, and Sharma, 2016). It has been suggested that differences in a firm's performance of cross-border expansion can be explained in terms of economic conditions of the home market (Hong, Wang, and Kafouros, 2014; Ramamurti, 2012; Theoharakis & Hooley, 2008). This means that new research needs to include firms from both markets.

Remarkably, there is limited research done in the field of cross-border e-commerce, leaving questions unanswered about the drivers of business performance of SMEs (Colton, Roth, and Bearden, 2010; Tolstoy, Jonsson, and Sharma, 2016). This may be due to the fact that previous studies have been limited in scope. For instance, some studies only include large companies (e.g. Colton, Roth, and Bearden, 2010), others focus exclusively on developed markets (Theoharakis & Hooley, 2008). To gain a better understanding of why SMEs are struggling this study aims to answer the following two research questions: (1) What are the drivers impacting business performance of SMEs in cross-border e-commerce? (2) And, how do these drivers differ between SMEs from developed markets and SMEs from emerging markets?

## **2. Conceptual background and hypotheses**

This study draws on the theory of the Resource Based View (RBV) of the firm. This widely-used theory aspires to explain the internal sources of a firm's competitive advantage (Barney, 1996; Kraaijenbrink, Spender, and Groen, 2010). If a firm pursues competitive advantage and sustainability, this firm must acquire and control valuable strategic resources (Barney, 1996). The RBV has been used in previous research on drivers of large enterprises in cross-border e-commerce (e.g. Colton, Roth, and Bearden, 2010), as well as in research on SMEs' performance (e.g. Lonial & Carter, 2015). Results from these studies indicate two strategic orientations to apply to the context of our study: customer orientation (CO) and foreign market orientation (FMO) (Brockman, Jones, and Becherer, 2012; Colton, Roth, and Bearden, 2010).

Customer orientation (CO) is the focus of the firm on processes for creating customer value in such a way that a customer's interest is put first (Narver & Slater, 1990). Brockman, Jones, and Becherer (2012) argue that CO is important for success in small firms since it provides them with a source of differentiation from other firms. Furthermore, Colton, Roth, and Bearden (2010) argue that CO helps firms focussing on customers' preferences which helps them determining which products and services to bring to market. Both studies suggest a positive relationship between CO and business performance, thus we expect that CO also could support SMEs to convert foreign visitors of their online shop to (returning) buyers:

H1 The stronger the customer orientation, the higher the business performance of SMEs in cross-border e-commerce

Foreign market orientation (FMO) refers to the processes needed to acquire knowledge and experiences that are specific to individual country markets (Colton, Roth, and Bearden, 2010; Lord & Ranft, 2000). Doing business in foreign markets has many challenges due to differences in language, culture, buying habits and product preferences (Hong, Wang, and Kafouros, 2015). The more internal resources the firm devotes to acquiring local market knowledge, the more competent the firm will be

in reaching those foreign customers that are interested in the products and services sold by the online shop (Colton, Roth, and Bearden, 2010). Thus, a firm's FMO can help the e-retailer to be more successful in its sales activities in foreign countries:

H2 The stronger the SME's foreign market orientation, the higher the business performance of in cross-border e-commerce

Recent studies in the field of e-commerce indicate another important driver of business performance to take into account: Marketing communications activities. For example via search engine optimization in Google, an activity used to increase the number of visitors to an online shop by obtaining a high-ranking placement in the search results page (Chaffey & Ellis-Chadwick, 2016). Or via social media, which enables firms to reach (and be reached by) almost everyone at any time (Hennig-Thurau et al., 2010). Such marketing communication activities enable e-retailers to attract foreign customers to their online shops, and make them familiar with the products and services offered:

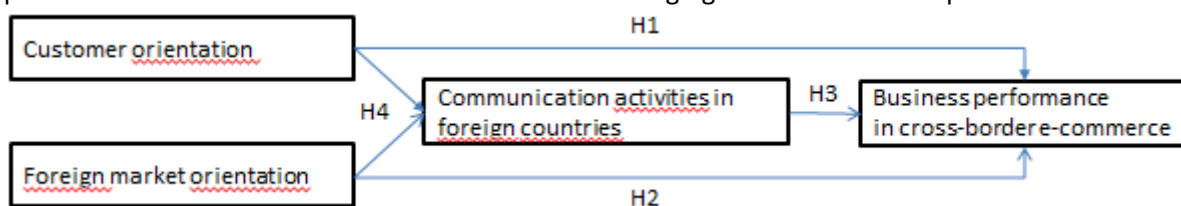
H3 The more the SME will use marketing communication activities in foreign countries, the larger the effect on business performance of SMEs in cross-border e-commerce

More than a decade ago, the chain of marketing activity introduced by Rust et al. (2004) showed how strategic orientations led to tactical marketing actions, which contribute to firms' performance. More recent research indicates that SMEs need marketing communication activities to cope with market competitiveness (Pugna et al., 2016). In the context of our study this would mean that strategic orientations such as CO and FMO would result in more use of marketing communication actions, which subsequently enhances business performance. Thus, we also expect an indirect effect:

H4 The stronger the (a) customer orientation, and the stronger the (b) foreign market orientation, the more the SME will use different marketing communication activities in foreign countries

Our conceptual framework (Figure 1) summarizes our discussion and will serve as the basis for our tests.

Figure 1. The impact of customer orientation and foreign market orientation on business performance in cross-border e-commerce of both emerging market and developed market SMEs



Reports by the European Commission indicate there are differences between countries regarding the economic development of e-commerce markets (European Commission, 2012; European Court of Auditors, 2014). Whereas e-commerce markets in countries such as Germany and the UK are developed and nearing saturation, e-commerce markets in countries such as Poland and Bulgaria are emerging (E-commerce news Europe, 2016). Regardless of the economic development of e-commerce in their home markets, e-retailers are striving for success in cross-border e-commerce. However, as developed markets are more competitive than emerging markets (Hong, Wang, and Kafouros, 2015), chances are that DM-SMEs have had more time to gain operating experience in their domestic market than EM-SMEs (Jaber, 2016; Hong, Wang, and Kafouros, 2015). This is called the learning curve of an organization, which occurs in competitive markets as firms need to sustain competitive advantage to perform well (Jaber, 2016). We therefore expect that:

H5a The relationship between customer orientation and business performance in cross-border e-commerce will be stronger for developed market SMEs compared to emerging market SMEs.

H5b The relationship between customer orientation and business performance in cross-border e-commerce will be stronger for developed market SMEs compared to emerging market SMEs.

### **3. Methodology**

#### *3.1 Sampling and translation*

Data was collected using an online survey among business owners of online shops in 20 European countries. Because, translation in native languages is essential for culture comparative research (Usunier, Van Herk, and Lee, 2017), we developed the source questionnaire in English and had it subsequently translated to 19 other languages following the committee approach (TRAPD procedure) (Harkness, Pennell, and Schoua-Glusberg, 2004). A native speaker of the target language performed the translation from English into the native language; subsequently each translation was checked by and discussed with a second native speaker familiar with terminology used in e-commerce.

#### *3.2 Measurement*

The scales of CO and FMO were measured using five-point multi-item scales adopted from previous research (Brockman, Jones, and Becherer, 2012; Colton, Roth and Bearden, 2010). Reverse coded items were removed or replaced with unreversed items; in this we follow Wong, Rindfleisch, and Burroughs (2003), who found that such items in cross-cultural research might cause bias. Business performance was measured in subjective terms as previous research indicates difficulties associated with obtaining and interpreting objective performance measures (Colton, Roth, and Bearden, 2010). We measured business performance in cross-border e-commerce relative to the performance in the home country on four key performance indicators common in e-commerce (i.e. conversion ratio, online turnover, average basket value, and number of returning customers) (Chaffey & Ellis-Chadwick, 2016), using a 7-point Likert scale. Effort put into marketing communications was measured by asking what type of activities the firm conducts in foreign countries (i.e. SEO, SEA, affiliate marketing, advertising activities and social media) (Chaffey & Ellis-Chadwick, 2016). To arrive at a scale, we counted the number of different communication activities (range 0 – 8).

### **4. Countries and Respondents**

We include 20 nations: Bulgaria, Croatia, Denmark, Estonia, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the UK. We use the MSCI Market Classification (2017) to split the nations into 2 groups: Developed markets in group DM-SMEs, emerging and frontier markets in group EM-SMEs. Since Slovakia and Latvia are not mentioned in this classification we used data from Statista (2017) to calculate e-commerce revenues per inhabitant, which allows us to compare Slovakia and Latvia with the other nations in our study. Both nations are added to group EM-SMEs as the e-commerce revenues per inhabitant of both nations fall within the same range as the e-commerce revenues per inhabitant of the other nations in this group.

A structured questionnaire and a cover letter explaining the purpose of the study was mailed in 2 waves to a stratified sample of owner-managers of 7865 online shops between November 2016 and May 2017. We received 464 valid responses (i.e., from online shops active cross-border in B2C e-commerce), a response rate of 5.9 percent. We removed 8 respondents as they did not fit the definition of SMEs (number of employees  $\leq$  250) (European Commission, 2013), and 3 respondents due to missing data. 75.5% of the remaining 453 respondents are from micro firms (number of employees  $\leq$ 10), 18.3% from small firms (number of employees 11  $\leq$  50 employees), and 6.2% from medium-sized firms (number of employees 51  $\leq$  250). Of the 453 respondents, 85% has conducted cross-border e-commerce no more than 10 years.

## 5. Validity and reliability analysis

We use the lavaan package in R for multi-groups analysis to test for validity and reliability (Rosseel, 2012). The Cronbach's alpha of the scales are .70 for CO, .63 for FMO, and .78 for BP, providing evidence of acceptable reliability (Tabachnik & Fidel, 2014). This is followed by confirmatory factor analysis (CFA) to assess the structure of the first order factors. Table 1 summarises the fit indices of the CFA, the outcomes demonstrate an overall good fit (Tabachnick & Fidel, 2014). We then analysed measurement invariance across the two groups (i.e. DM-SMEs and EM-SMEs) by constraining factor loadings to be equal across both groups in a multi-groups CFA, resulting in a non-significant change in the chi-square (Steenkamp & Baumgartner, 1998).

Table 1 Goodness-of-fit indices for CFA

Group	N	$\chi^2$	df	CFI	NFI	TLI	GFI	AGFI	RMSEA	SRMR
DM-SMEs	258	24.896	64							
EM-SMEs	195	48.570	64							
Total	453			.990	.932	.978	.998	.995	.026	.040

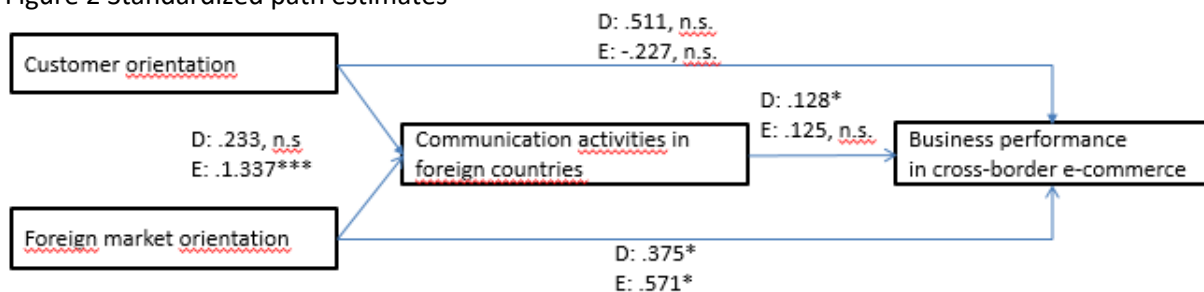
## 6. Structural model

We test our model (Figure 1) using Structural Equation Modelling for multiple groups with lavaan (version 0.5-23.1097) in R (Rosseel, 2012). The model demonstrates a good fit (Table 2) (Tabachnik & Fidell, 2014) and has a *R-squared* of 18.6% in the group developed, and a *R-squared* of 17.5% in the group emerging. In both groups, we find a significant relationship between FMO and BP, and a non-significant relationship between CO and BP. The results of the mediation analysis is different between the two groups. We find a partial mediation of FMO and communication activities on business performance in the group developed, and a full mediation in the group emerging (Pieters, 2017) (see figure 2 the standardized path estimates). We then analyse differences between groups by constraining loadings to be equal across both groups, resulting in a non-significant chi-square ( $\text{chisq}_{\text{diff}}=4.805$ ,  $\text{df}=7$ , n.s.), indicating there is no difference in the strength of the relationships of the paths estimated between the two groups. Results are controlled for number of years online in the domestic market, number of years online cross-border, and company size. In the group developed the number of years online cross-border significantly affects business performance (.061,  $p < .05$ ), this result is not found in the group emerging.

Table 2 Goodness-of-fit indices for structural model

CFI	NFI	TLI	GFI	AGFI	RMSEA	SRMR
.976	.914	.966	.997	.993	.039	.043

Figure 2 Standardized path estimates



D: group developed, E: group emerging

\*  $p < .05$ , \*\*  $p < .001$ , \*\*\*  $p < .000$ .

## 7. Discussion

Our analysis reveals that FMO is highly relevant for business performance of SMEs in cross-border e-commerce, but that CO is not. The relationship between FMO and business performance is in line with what was found for multinationals in international e-retailing (Colton, Roth and Bearden, 2010). We also found a positive influence of FMO on the number of communication activities SMEs conduct in foreign countries. These communication activities help e-retailers to attract foreign customers to their online shop (Chaffey and Ellis-Chadwick, 2016), which translates into a better business performance in cross-border e-commerce.

Although CO has proved to be relevant for the performance of multinationals in international e-commerce (Colton, Roth and Bearden, 2010), no such effect was found in our study. In other research on CO and business performance of small firms, effects were only found under high levels of risk-taking and opportunity focus, but not under low level conditions (Brockman, Jones and Becherer, 2012). This might explain the lack of a positive effect of CO on SMEs' performance in cross-border e-commerce. Apparently, cross-border e-commerce is not considered more risk-taking than existing business in the domestic market, nor does it involve breaking away from established procedures, or requires more focus on customers' latent needs.

The strength and the direction of the results hold for both developed and emerging markets SMEs. Both DM-SMEs and EM-SMEs are able to use their strategic orientation on foreign markets to conduct marketing communication activities to attract foreign customers. There is no difference in the strength of these effects, however, for SMEs from emerging markets the impact of FMO on business performance is fully mediated by the number of communication activities, whereas SMEs from developed markets also use FMO to directly impact their business performance in foreign markets. Perhaps the discussion about the lack of difference in the strength of effects is the same for SMEs as for multinational enterprises (MNEs), as there have been aspects of theories that were found universally valid among emerging market MNEs and developed market MNEs, as well as aspects of theories that were not (Ramamurti, 2012). Our study shows that theory about FMO and CMA as drivers of business performance in cross-border e-commerce apply to both DM-SMEs and EM-SMEs. However, there are some differences. When controlling for firm characteristics, another difference between the two groups was found. For SMEs from developed markets, the number of years online cross-border positively influences their business performance in foreign markets. This effect was not found for SMEs from emerging markets. The two differences we found in our study indicate that in future research comparisons between firms from developed versus emerging markets should always be included.

## **8. Managerial implications**

Our study has several implications for SMEs in cross-border e-commerce. First, SMEs should be aware of their strategic orientation on foreign markets. They should gain enough knowledge about foreign markets to know how to successfully market their products and services. Second, it is important to allocate resources to marketing communication activities such as search engine advertising and social media in foreign countries. Third, our study indicates there are some differences between SMEs from emerging versus developed e-commerce markets. Policy makers and consultants can support both DM-SMEs and EM-SMEs with knowledge about foreign e-commerce markets and marketing communication activities to reach foreign customers, yet, they should keep in mind there are some differences between these two groups. Our study suggests that CO is less important for SMEs in cross-border e-commerce.

## **9. Limitations and future research**

The results of our study provide opportunities for follow-up studies on how SMEs can improve their performance abroad. First, researchers might evaluate effects related to a geographical expansion (Ojala, 2015). Does physical and cultural distance also matter in the context of cross-border e-commerce? Second, owner characteristics have been suggested as an extension of the RBV for small firms (Kraaijenbrink, Spender and Groen, 2010) and might also apply to cross-border e-commerce

studies. Third, we did not include Asian countries in our study, while the Asia-Pacific is the largest B2C e-commerce region in the world (Ecommerce news Europe, 2016).

## 10. Doctoral research

The current study is one of three studies that will be merged in a dissertation, which aims to answer the following research question: How do differences between countries impact selling & shopping in cross-border e-commerce? The first study, presented above, focusses on the drivers that impact business performance of SMEs in cross-border e-commerce. The second study focusses on the impact of firm-owner characteristics on the business performance of SMEs in cross-border e-commerce. The third study focusses on the interplay between perceptions of consumers of countries, and of websites of online shops from these countries, in cross-border e-commerce.

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