

How multinationals promote trade: the IKEA case

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Abstract

This paper analyzes the complementarity between investment and trade within a specific framework. It shows that a services multinational, as IKEA, can stimulate trade in goods between its home country and the host countries, by modifying consumers preferences in the latter. We are able to isolate this change in consumer preferences given IKEA specific logistic organization. In order to show that IKEA can have an export promotion role, we compare IKEA impact on trade with the one of embassies. We use data for 1995-2015, on IKEA locations, bilateral country trade, embassies location and standard gravity controls. We find that IKEA fosters trade in goods between the countries it locates in and the Scandinavian countries, and this more than opening an embassy in the former countries.

Keywords: export promotion, multinationals, trade.

JEL classification: E22, F12, F22.

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1 Introduction

Can multinationals enterprises (MNEs) reinforce trade between their home countries and countries they locate in? Are multinationals activities beneficial to trade? The answer is not straightforward. Multinationals behavior has been recently brought to the forefront of the public debate for reasons that might not encourage us to think that they can act as export promoters or ambassadors for their countries. Multinationals have been blamed by policymakers for their tax avoidance behavior (OECD, 2014). They are also made responsible of profit shifting (Vicard, 2014) and of increasing trade deficits through offshoring and outsourcing to low wage countries (OECD, 2014). MNEs are also subject to criticism due to their market power and ability to negotiate policies at their advantage and sometimes at the expense of small and medium enterprises (SMEs). Therefore, governments in developed countries often tend to batch multinationals and choose to apply policies meant to reinforce the activities of domestic SMEs rather than of multinationals. This is not new. As Lipsey (2004) recalls it, multinationals are often criticized as they can depress wages and employment at home by moving production abroad, depress wages in their host countries by exploiting helpless workers and stifle host-country growth by displacing local firms and obstructing their technological progress. Wilkins (1989) underlined this idea as well.

In this paper, we take a different and provocative view with respect to multinationals: we focus on multinationals' ability to promote their home countries' products on foreign markets. This issue, as far as we know it, has been overlooked up to now. We assert that multinationals activities might be beneficial, through the externalities they generate, in specific cases, for their domestic countries' trade. As multinationals have a growing importance in countries economic activities, their behaviour and decisions are far from been neutral for national economies. The baseline hypothesis of our paper is the following: foreign customers learn more about the culture, the tastes, the way of living of other countries through the products offered and advertised by MNEs. Therefore, multinationals can produce a positive externality for their home country and its firms as they can change, through their activities, consumers' preferences in the host countries in favor of products coming from their domestic markets.

We will analyze this by focusing on the impact of IKEA store-location on Scandinavian exports. We choose to analyze the IKEA case as (1) it has a distribution system which allows us to capture the "change in host countries' consumers taste" that we are interested in and to leave aside the upward/downward effects related to its activities; (2) it provides sufficient public information in order to construct a database on its location and distribution centers; (3) it is a services MNE whose image is strongly related to the country where it was created, Sweden. As underlined by Baraldi (2003), IKEA chooses a design and a way to present its

products that can be associated to a global image of Scandinavia. IKEA strives to keep a common identity and image across all its products which are perceived as very Swedish. This product identity is constructed not only around IKEA's style, look and product concept, but also around such macro-spatial aspects as the Swedish (or Scandinavian) style and choice of, for example, light wood sorts. The Swedish culture is also strongly embedded into IKEA's products in another way: they all bear typical Swedish names (for instance first names and cities) and carry this identity wherever they are sold around the world. IKEA applies to all its products another Swedish aspect: the furniture certification "Möbel Fakta", which has gradually obtained international recognition. Hence, we assert that when a firm conveys the global image of its country to this point, it can produce externalities that can be beneficial to its home country.

In order to see if IKEA can have an export promotion role, we will compare IKEA impact on trade with the one of embassies. In other words, the impact of IKEA on trade, through the change it has, in host countries, on consumers preferences, is compared to the effects of embassies on bilateral trade. This is done in order to see if multinationals activities can contribute to promoting bilateral trade, and can thus be beneficial for their countries. If MNEs can have positive spillovers on the firms of their home countries, the latter could be more incited to design policies that help promoting MNEs activities. This can be an interesting and beneficial policy: usually governments try to promote SMEs or national companies activities thorough policies that wish to encourage clusters, subsidies as underlined by Mayer et Martin (2008) or by opening embassies in foreign countries in order to stimulate trade. However, the possible positive effect of multinationals on the conational SMEs and firms activities, in general, should not be neglected at governments level.

The main results of this paper can be summarized as follows. IKEA seems to promote the Scandinavian countries' trade. IKEA promotes trade one third as much as an embassy. However, if IKEA had the size of Sweden, it would promote trade a lot more than an embassy. IKEA fosters in particular the bilateral trade of IKEA-alike products (by more than 50% than that of the products not sold by IKEA). The presence of IKEA seems to encourage bilateral trade, being associated with a positive and significant impact. We show that each store is associated with a rise of 9% to 12% of bilateral exports. This result still holds when it comes to take into account the opening of a first IKEA as well as the opening of additional IKEAs. Several sensitivity analyses are performed: we consistently find a positive effect of IKEA on exports.

The rest of the paper is structured as follows. Section 2 proposes a literature review. Section 3 describes the data and the methodology. Section 4 summarizes the main results and their interpretation. The last section concludes.

2 Literature review

In this section a brief review of the literature analyzing multinationals behavior and trade is presented. A large strand of the literature focuses on the multinationals' effects on host country. Within this framework several strands have been developed. Multinationals can affect host economies through a "demonstration effect": they can encourage local firms to imitate their products which might increase their productivity (Wang et Blomström, 1992) and furthermore their needs for specific goods and/or technologies. Competition is another way multinationals can impact host countries. The competition imposed by foreign affiliates in host countries might force local firms to increase their productivity, their reactivity and determine them to propose the same of kinds of goods (Glass et Saggi, 2002). Furthermore, if local firms employ labour force that has previously worked for multinationals, this can contribute significantly to improving their productivity (Fosfour et al., 2001). And finally the classical upward/downward streaming effects related to the MNEs activities can also be mentioned (Javorcik, 2004).

Very few articles study the impact of MNEs on their home market economy. In the literature, this is done mainly by focusing on the presence of spillovers from multinationals to domestic firms in the same industry, through downstream and upstream links. The spillovers are considered (1) to contribute to increasing the domestic firms' productivity (Tang and Atshuler, 2008) or (2) to increase, in home countries, the impact on employees compensation (Desai et al., 2008). The fact that outward FDI may generate positive spillovers to other domestic firms that are not directly related to MNEs, has been largely ignored with several exceptions (Tang and Atshuler, 2008). However, these indirect effects might be as large as, or even larger than, the benefits induced by MNEs expansion to their own country domestic subsidiaries.

Hence, Chepeta et al. (2015) analyze to what extent domestic exporters of a specific good (i.e. food) to a given market are impacted by the location of domestic retailers to that market. To explain this, four mechanisms are put forward: retailers located in a foreign country continue working with their domestic suppliers; domestic exporters can benefit from informational externalities and falling communication cost; retailers can influence consumer demands on foreign markets; and finally they can impact/change the global image of their home country in the host country, improving thus the sales of domestic firms in the latter.

The second mechanism is specifically the one explored by a literature studying the export promotion dimension, underlying that diplomatic relationships, i.e. the presence of embassies and consulates, can affect bilateral trade. During the last ten years, many studies put forward this phenomenon and agreed to say that embassies play an important role in promoting the

exports of the domestic country. Rose (2007) uses a conventional bilateral "gravity" model of trade and finds a robust effect of diplomatic representation abroad on trade: each additional consulate raises exports by 6% to 10%. Segura-Cayuela and Vilarrubia (2008) show that the presence of a foreign service office in a given country increases the probability of trading with that partner between 11% and 18%, but it has no effect on the volume of trade with already existing trading partners. More recently, Ferguson and Forslid (2013) focuses on the effect Swedish embassies have on Swedish exports, using a modified version of the Melitz (2003) monopolistic competition trade model with heterogeneous firms. They find that the number of exporters increases after the embassy is opened and embassies play a key role in promoting the exports of medium-sized firms.

The present paper explores the third and the fourth mechanisms, through the influence on consumers preferences and demand. A multinational that settles abroad has a continuous contact with local consumers and may accustom the latter to their origin country consumption, culture and life style. Therefore, a shift in host country demand in favour of the products coming from the domestic country might arise. This shift might be important especially when it comes to food products or to design goods, as cultures related to these habits differ across countries (Cheptea et al, 2015). A multinational that locates abroad represents its home country's values and culture, on the host countries' market. Thus, a MNE might influence the local demand for products coming from the domestic country and therefore the demand for goods exported by its co-national firms to these markets.

Hereafter, we will focus on the trade externalities of multinationals on home countries products, through changes in consumers' preferences. The idea is to analyze multinationals externalities on home producers via host countries' preferences. However, it is not straightforward how to identify trade externalities of MNEs. Our objective is to look at the impact of MNEs location on exports from home countries, while isolating the preference externality. We are aware of the difficulty to identify a priori this preference effect, from the links that multinationals have with their home country in the production process, as MNEs might themselves import their products (or intermediary inputs) from home to sell (or use) them abroad.

Hence, in this paper we will analyze the case of a multinational, under two hypothesis:

- (1) the MNE does not import (in general) its own products from its home country
- (2) it sells products with high cultural content related to its home country or region

A good candidate for this study would be IKEA due to the high cultural content of the goods it sells and to the firm specific "internal" organization. A short presentation of IKEA and in particular of IKEA specific-product tractability after an opening of an IKEA is proposed hereafter.

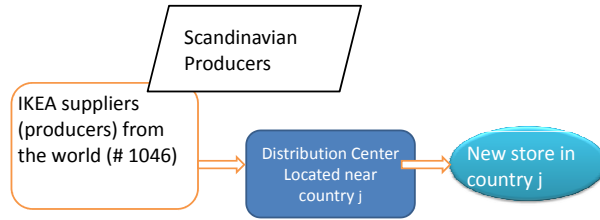


Figure 1 – IKEA specific-product tracability after an opening of an IKEA store

IKEA has more than 1000 suppliers, as of 2010, all around the world. Only 5% of the suppliers are from Sweden, the rest is locate mainly in low wage countries (China) or in Europe (Poland, Lithuania), at least over the last decade.

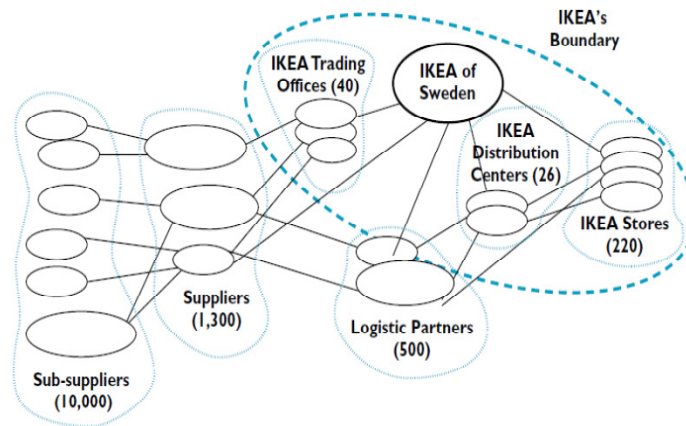


Figure 2 – IKEA and its industrial network. Source : Baraldi (2008)

The goods produced by the suppliers are sent and stocked in distribution centers, located near large markets or closer to relevant markets. IKEA has distribution centers in 16 countries. It is up to these distribution centers to send over the goods to a new store. IKEA has as of 2010, around 287 stores in 38 countries.

This specific organization of IKEA has been subject of numerous analysis in the management literature. They underline that IKEA's products are still perceived as very Swedish, even if only 14% of them are actually made in Sweden (Baraldi (2003)). Concerning its marketing strategy, IKEA is seen as a standardized retailer that wants all markets - and continents - to conform with in a given frame. Burt et al (2011) underline that, compared to several other global retailers operating out of a large store format (Tesco, Wal-Mart, Carrefour) much less adaptation in how the market offer is constructed and portrayed is observed in the IKEA case.

On the managerial side, interpretations of how IKEA manages and communicates values in practising values-based service management show the presence of four different types of "values": economic, social, environmental, and communication-based (Edvardsson et al. (2006), Edvardsson and Enquist (2008)). Finally, the link between IKEA and its suppliers has also been analyzed: a standard global sourcing process has been put forward. Hultman et al (2012) documented the global sourcing process of IKEA and its suppliers, showing rapid progression from domestic to global sourcing. They have thus identified how the global sourcing process went through stages that correspond to the dominant stages models of global sourcing, a process that is also reflected in the established literature on firm internationalization.

Within this framework the question we aim to answer to is the following : what is the impact of an IKEA store opening on Scandinavian trade? In order to answer this question, we build a gravity model that links IKEA location to the trade between Scandinavian countries and the rest of the world. In the next section, we present the data and the empirical strategy.

3 Data and Methodology

The time span under analysis is 1995-2015 and our study concerns a panel of 197 countries. Different sets of data are used.

Firstly, we construct an original dataset on IKEA presence and location in all 197 countries during the analyzed period. In order to create this database we use the information available on the IKEA website. Our IKEA dataset includes data on the IKEA presence in a country - built as a dummy variable that, for a country, takes the value 1 when IKEA is located in, and 0 otherwise - as well as the number of IKEA stores in each country and the year each of them was opened. The latter information was extracted from <http://franchiser.ikea.com/worldmap>

Secondly, a bilateral trade data is used. This database comes from UN COMTRADE -

BACI database developed by CEPII. The trade data is defined at the 4-digit level of the HS nomenclature. This means that about 1200 products are taken into account.

Thirdly, we employ different gravity variables. Among these, we use macroeconomic variables as GDP of exporting and importing countries taken from World Development Indicators of the World Bank. Gravity variables as language and/or other geographical variables (colony, contiguity, common history) are taken from the CEPII geodist database. We also use the bilateral foreign direct investments flows taken from OCDE statistics and we construct a dummy variable for regional trade agreements (that takes the value 1 if there is an agreement between the two countries at time t), following de Sousa (2012).

Fourthly, a database using the number of embassies, consulates, and official foreign missions for 2002 and 2003 (source: Rose, 2007) is also employed. We aim at analyzing this data in parallel with the one related to IKEA location. As argued by Rose (2005), embassies, consulates and foreign service promote exports. Rose (2004) shows that each additional consulate is associated with slightly higher exports (6%).

Before getting to econometrics, we present some stylized facts and descriptive statistics. We plot the total exports of Scandinavian countries (Iceland, Norway, Finland, Denmark and Sweden) on the Market access calculated as the $(GDP_i * GDP_j) / distance_{ij}$ where GDP_i is the GDP of country i and GDP_j is the one of country j and $distance_{ij}$ is the distance between countries i and j . Typically, on the Market access, we have first plotted the trade of Scandinavian countries with countries that have no IKEA store (in dark blue) and then with countries that have IKEA stores. We notice in Figure 3 (first graph) that the slope translating the Scandinavian trade with the former might be stronger, except for countries that have an easy market access. However, overall, the outcome is not clear cut.

Therefore we go further in the analysis and plot on the Market Access, first, the Scandinavian trade with countries that have no IKEA store and then, with countries that have 1 IKEA store, 2 to 5 IKEA stores and finally more than 5 stores. Figure 3 (second graph) shows that these three lines, translating the trade with countries that have IKEA stores (1 or 2-5 or more than 5) are above the one capturing the trade with countries that have no IKEA (except for countries that have an easy market access as in their case, adding one more IKEA on their markets does not change anything). This effect is even more clear cut when we construct the same graphs but using data on the trade in furniture. Plotted on the Market Access, the trade of furniture of Scandinavian countries is stronger with countries where IKEA is present, compared to countries that do not have an IKEA store, as shown in Figure 4 (first graph).

If we deepen the analysis, we can see that this insight holds also with the extension of IKEA in different groups of countries (having 1 IKEA store, or 2-5 IKEA stores or finally

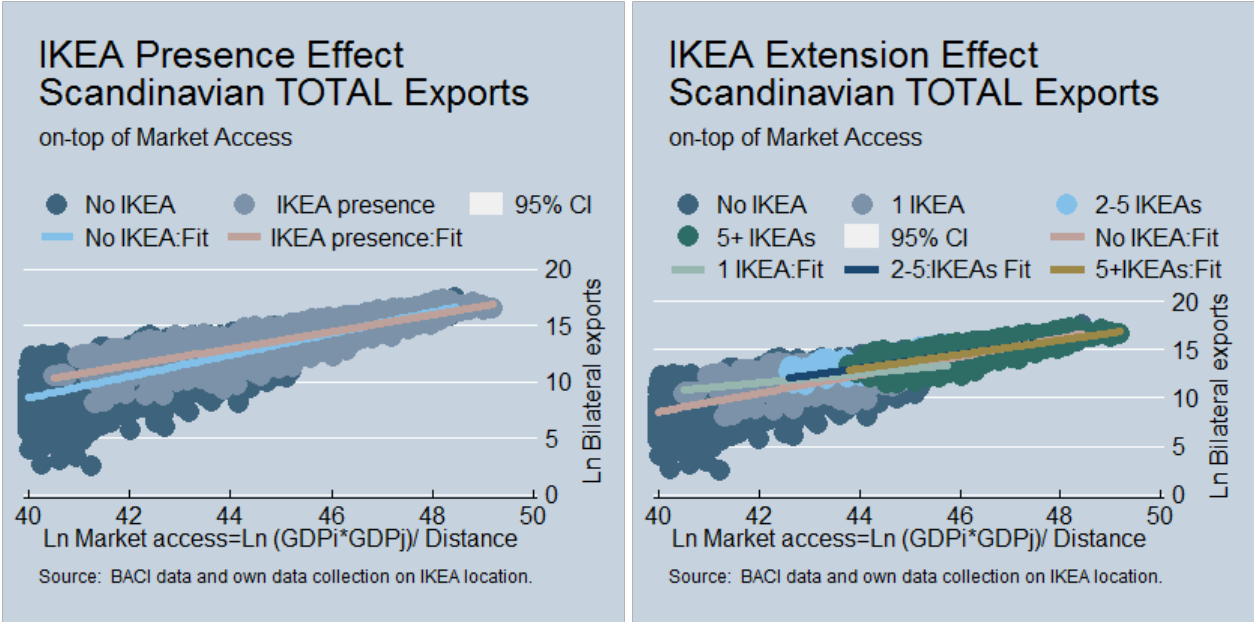


Figure 3 – Market Access, Trade and IKEA Location

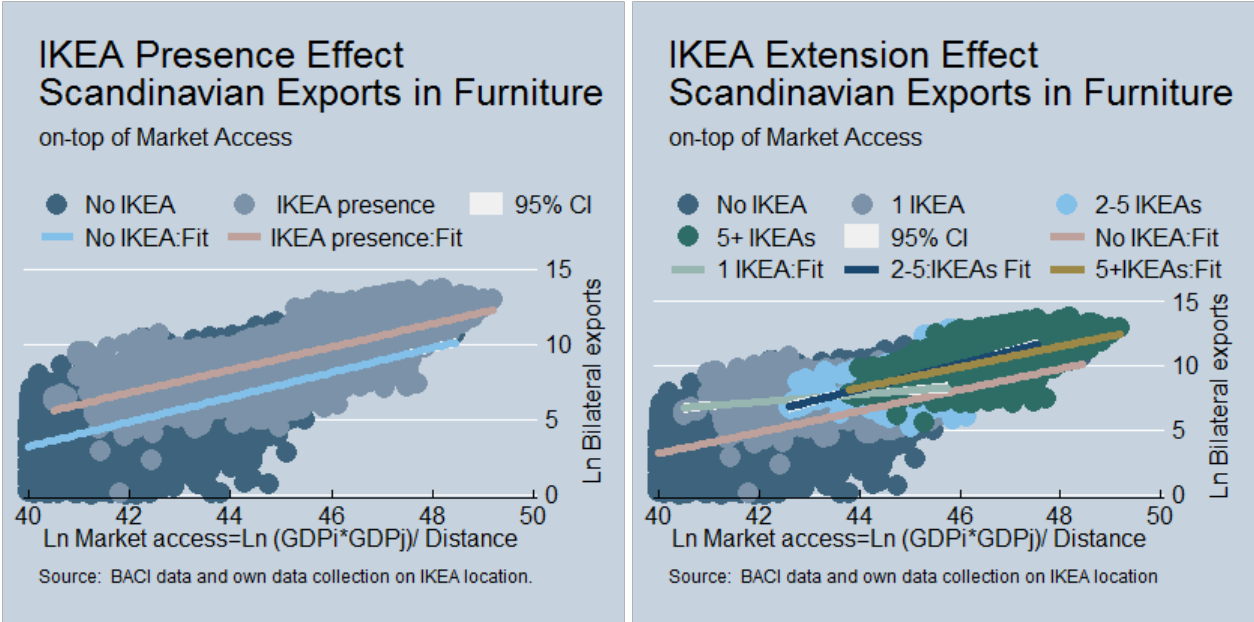


Figure 4 – Market Access, Trade in Furniture and IKEA Location

more than 5 stores) as underlined in Figure 4 (second graph).

3.1 From Theory to Empirics

We estimate the impact of IKEA location on the exports of Scandinavian countries. In order to do this we use a bilateral gravity model of trade. This model links the exports positively

to the economic size of countries in the analysis and negatively to the economic distance. The standard bilateral demand for imports is derived from a SDS (Spencer-Dixit-Stiglitz) sub-utility function (Anderson and Wincoop, 2004).

$$X_{ijht} = \alpha_{ij} p_{iht}^{1-\sigma} \tau_{ijt}^{1-\sigma} \frac{Y_{iht}}{\pi_{jht}^{1-\sigma}} \quad (1)$$

where X_{ijht} is the bilateral annual real imports of j from exporter i of product h and α_{ij} is the taste parameter meant to capture the IKEA's impact. p_{iht} is the mill-factory price, τ_{ijt} is the transaction cost shifter. Y_{iht} is the demand by j and π_{jht} is the price index (average price in j).

After some simplifications and connections with observables, we estimate the following equation:

$$X_{ijht} = aY_{jt} + b \ln \tau_{ijt} + cf(IKEA)_{ij} + dEmbassy + FE_{iht} + FE_{jht} \quad (2)$$

In this model, $\ln \tau_{ijt}$ is the usual transaction costs variables related to language, distance and colonies. Language is a "dummy" variable that takes value 1 if i and j have a common language and 0 otherwise. Cont is a binary variable that is equal to 1 if i and j have a common border. Col is a dummy variable that is equal to 1 if i and j are colonies at time t . Y_{jt} is the annual real GDP per capita in dollars. Embassy is the number of embassies, consulates and official foreign missions that country i has in country j . The IKEA shifter $f(IKEA)_{ij}$ can be expressed: (i) as a dummy variable that captures the IKEA presence in the analyzed countries or (ii) as a continuous variable that is represented as $\ln(1 + \text{number of stores})$

The fact that this variable can have a non linear effect on exports will be translated by the introduction in the equation of both $\ln(1 + \text{number of stores})$ and $\ln(1 + \text{number of stores})^2$.

We aim to show that beyond the traditional determinants of international trade, there is still a room left over for the presence and the number of multinationals location (i.e. IKEA presence and number of stores) to explain bilateral trade.

The coefficient of interest for us is c which represents the marginal effect of a new or additional IKEA store on exports. Depending on the model, it can also reflect the impact of the number of IKEA stores on the bilateral trade.

We construct the correlation matrix between the variables included in the analysis. The strongest correlation is 0.46 which suggests that multicollinearity is not likely to be a problem in our estimations.

3.2 Empirical strategies

We propose different specifications that allow us to estimate the impact of IKEA (i.e. IKEA presence, IKEA first store, additional store and total number of stores) on the bilateral trade between home and host countries.

In order to capture the export promotion effect, we employ different strategies. First, an organization-linked strategy is also enhanced. Given IKEA specific organization, we exclude countries that have an IKEA distribution center (16 countries are excluded from the analysis). Second, a product strategy is performed. For this, two regressions are run: first, using data on the IKEA type of products and then on products that are not sold by IKEA. Estimating a gravity equation can be subject to several econometric challenges. We address one endogeneity concern by using different fixed effects. We integrate various combinations of fixed effects (origin, destination, year, sector, origin/year, destination/year) and this allows us to control for the multilateral resistance effect (i.e. a country's trade with any given partner is dependent on its average remoteness to the rest of the world) and to limit the omitted variables bias.

4 Results and Interpretation

The results are summarized in the Tables 1, 2 and 3.¹ Table 1 presents our global results, excluding the countries that have an IKEA distribution center. Table 2 presents the results differentiating per products (goods produced or not by IKEA). In table 3 we add a $t * j * hs4$ fixed effect, keeping excluded the countries that have a distribution center and interacting the IKEA's variables with the type of goods produced by IKEA (the presence of IKEA and its number of stores are only taken into account when the good has the same $hs4$ as the goods produced by IKEA). This allows us to keep the effect only on the types of goods produced by IKEA, and to control for a price effect including the $t * j * hs4$ fixed effect.²

In general, the global model shows that the gravity variables behave as usual. The coefficients are intuitive in sign and size. They are economically and statistically significant. Countries export less to further destinations. Larger countries as well as countries linked by a common border, language or history do more business (i.e. colonies trade more with their colonizers). All this is conventional (Rose, 2007).

¹Descriptive statistics concerning the sample can be available upon request.

²We also propose other specifications to test the robustness of our results, which could be found in the appendix.

	(1)	(2)	(3)	(4)
LgGDPi	0.021***	0.022***	0.022***	0.022***
LgGDPj	0.052***	0.052***	0.052***	0.052***
LgDistance	-0.163***	-0.163***	-0.162***	-0.162***
Contiguity	0.946***	0.934***	0.932***	0.932***
Common language	0.098***	0.096***	0.097***	0.097***
Colonial relationship	0.357***	0.355***	0.354***	0.355***
Dummy embassies	0.882***			
Dummy IKEA	0.679***			
No of embassies		0.334***	0.334***	0.334***
No of IKEA stores			0.092***	0.090***
Dummy new IKEA store		0.635***		
Dummy additional IKEA store		1.034***		
Number of IKEA store ²				-0.004***
RTA	0.660***	0.656***	0.656***	0.656***
LgFDI	0.218***	0.218***	0.217***	0.217***
Constant	2.952***	2.943***	2.942***	2.942***
Fixed effects t* _i * _{hs4}	yes	yes	yes	yes
R ²	0.13	0.13	0.13	0.13
Observations	47,419,400	47,419,400	47,419,400	47,419,400

Note: *, ** and *** denote significance at the 10%, 5% and 1% level, respectively.

Dependent variable: bilateral trade
Table 1 – Global Results

Above this, there is still a role for multinationals export promotion. In particular, the presence of IKEA seems to encourage bilateral trade, being associated with a positive and significant impact in column (1). In columns (3) and (4), we see that if the number of stores increases by one unit, this is associated with a rise of approximately 9% of the bilateral exports. This result still holds when it comes to take into account the opening of a first IKEA as well as the opening of additional IKEAs in column (2), but has to be nuanced. Indeed, it shows that the opening of the first IKEA has a smaller effect than the opening of additional stores, which are strongly related to bilateral trade. As we isolate here the impact

via changes in consumer preferences and demand, we can think of it as a time process. The opening of the first IKEA doesn't have the time to create a strong enough modification of the preferences in the year it implants. However, when IKEA opens an additional store, its brand had more time to be strongly implanted in the consumers' mind, so the additional openings are associated with a stronger impact.

The role of foreign service through embassies is larger, each embassy or consulate being associated with a rise of exports of 33%. If we compare the role of number of embassies and of the number of IKEA stores on the bilateral trade the latter is more modest. However, IKEA represents 20% of the GDP of a country while producing more than one third of the effect of the number of embassies. Therefore, at equal size (meaning, if IKEA had the size of Sweden GDP), the effect of IKEA on bilateral trade will be 64% higher than the one of embassies. As shown by the square of the number of IKEA stores which is significantly negative, the effect of the first IKEA store is large but the effect of additional number of IKEAs tend to decrease if there are already more IKEA stores in the country. The first IKEA store in a country promotes the bilateral trade of Scandinavian countries with that specific country. Additional IKEA stores stimulates trade even more but the marginal impact of each store is decreasing. When the number of stores is getting higher (aprox $11=0.09/(2*0.004)$), opening more stores might not encourage trade anymore.

The model fits the data well : it explains around 13% of the variations in the bilateral exports, and even more if we consider only the goods produced by IKEA. When controlling for the demand in the host country and products fixed effects, the presence of IKEA in a country stimulates more the bilateral trade between Scandinavian countries and host country than the presence of embassies at equal size.

The IKEA presence increases the trade of IKEA-linked products. One more store increases the trade of IKEA-alike products by between 6% and 14% (Table 2). The effect is of course less important for the other products, not similar to those produced by IKEA (between 4% and 9%), although it is still significantly positive.

	Produced by IKEA			Not Produced by IKEA				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
LgGDPi	-0.059***	-0.058***	-0.058***	-0.058***	0.028***	0.030***	0.029***	0.029***
LgGDPj	0.085***	0.086***	0.085***	0.085***	0.081***	0.081***	0.081***	0.081***
LgDistance	-0.238***	-0.238***	-0.237***	-0.237***	-0.211***	-0.210***	-0.210***	-0.210***
Contiguity	1.140***	1.112***	1.110***	1.115***	1.024***	0.998***	0.997***	1.000***
Common language	0.321***	0.320***	0.320***	0.320***	0.126***	0.125***	0.125***	0.125***
Colonial relationship	0.655***	0.650***	0.654***	0.653***	0.423***	0.420***	0.423***	0.422***
Dummy embassies	1.089***				0.937***			
Dummy IKEA	0.963***				0.630***			
No of embassies		0.272***	0.272***	0.272***		0.224***	0.224***	0.224***
No of IKEA stores			0.062***	0.145***			0.043***	0.097***
Dummy new IKEA store		0.021				0.015		
Dummy additional IKEA store		0.984***				0.834***		
Number of IKEA store ²				-0.003***				-0.002***
RTA	0.862***	0.864***	0.865***	0.860***	0.641***	0.641***	0.641***	0.639***
LgFDI	0.249***	0.252***	0.249***	0.248***	0.223***	0.225***	0.223***	0.223***
Constant	4.649***	4.645***	4.645***	4.646***	2.540***	2.526***	2.529***	2.532***
Fixed effects t [*] i*hs4	yes	yes	yes	yes	yes	yes	yes	yes
Fixed effects t [*] j*hs4	no	no	no	no	no	no	no	no
R ²	0.22	0.22	0.22	0.22	0.16	0.17	0.17	0.17
Observations	3,572,178	3,572,178	3,572,178	3,572,178	56,601,045	56,601,045	56,601,045	56,601,045

Note: *, ** and *** denote significance at the 10%, 5% and 1% level, respectively.
Table 2 – Results obtained based on products differentiation

Furthermore, keeping excluded the countries that have an IKEA distribution center and interacting the IKEA variables with the types of goods produced by IKEA, we aim at controlling for a price effect adding the $t * j * hs4$ fixed effect (Table 3). Our results still hold : in the case of the goods similar to those produced by IKEA, the IKEA presence is associated with almost 10% increase in the bilateral exports.

	(1)	(2)	(3)	(4)
LgGDPi	0.062***	0.062***	0.062***	0.062***
LgGDPj	0.080***	0.080***	0.080***	0.080***
LgDistance	-0.488***	-0.488***	-0.488***	-0.488***
Contiguity	0.794***	0.788***	0.788***	0.788***
Common language	0.404***	0.403***	0.403***	0.403***
Colonial relationship	0.494***	0.494***	0.494***	0.496***
Dummy embassies	0.582***			
Dummy IKEA'	0.090***			
No of embassies		0.192***	0.192***	0.192***
No of IKEA stores'			0.025***	0.065***
Dummy new IKEA store'		0.093***		
Dummy additional IKEA store'		0.223***		
Number of IKEA store ^{2'}				-0.005***
RTA	0.518***	0.516***	0.516***	0.516***
LgFDI	0.135***	0.135***	0.135***	0.135***
Fixed effects $t*i*hs4$	yes	yes	yes	yes
Fixed effects $t*j*hs4$	yes	yes	yes	yes
R ²	0.15	0.15	0.15	0.15
Observations	46,420,785	46,420,785	46,420,785	46,420,785

Note: *, ** and *** denote significance at the 10%, 5% and 1% level, respectively. ' denotes that the variable is interacted with a binary variable indicating if the good is produced by IKEA (so the variable is only considered when the good is produced by IKEA).

Table 3 – Results controlling for the $t * j * hs4$ dimension

5 Robustness check

We test the robustness of our results using two main approaches.

First, a geographic strategy is conducted: it implies that we exclude only Sweden from the analysis. The underlying assumption is that IKEA will promote (export) goods from the region, from Scandinavia. This is in line with the fact that IKEA is selling goods that have Scandinavian names. In other terms, it promotes "Scandinavian". Within this framework, we run the global estimations, on all products in order to obtain results that can be compared to those of Table 1. Our new findings (Table 4 in the appendix) confirm previous results. Moreover, keeping the same sample (without Sweden) we distinguish between goods similar or not to those produced by IKEA and run estimations on the former. The results do not change significantly with respect to the ones of our baseline product differentiating scenario (Table 5-6 in the appendix).

Second, if we introduce the value added this might also allow us to further see that for a given price the effect of IKEA on trade does not change, underlying that the initial impact that we've already found still holds. In order to control for the price effect, we add the unit value (volume of sales divided by the number of products) in the regressions. We notice that for a given price, the IKEA impact does not change. The unit value acts negatively on bilateral trade. The higher the unit value, the lower the bilateral trade and this is true for both IKEA and non-IKEA products. The export promotion effect of multinationals still holds. The decreasing returns to scale effect is present and significant. These results are available upon request.

In this paper, using the case of IKEA, we show that a services multinational can stimulate trade in goods between its home country and the host countries, by modifying consumers preferences in the latter. This change in consumer preferences can be isolated (*i*) given IKEA specific logistic organization (e.g. the company does not import (in general) its own products from its home country) and given the fact that (*ii*) IKEA sells products with high cultural content related to its home country or to the Scandinavian region. Our three strategies then allow us to isolate the effect of IKEA by the modification of the consumers' preferences and demand. Indeed, due to IKEA specific organization, excluding the countries where there is an IKEA distribution center allows us to exclude the impact of internal trade of IKEA and the trade between IKEA and its suppliers in Scandinavia. We also control for informational externalities and falling communication cost via the presence of embassies, the foreign direct investments and the regional trade agreements variables. Thus, the impact of IKEA on bilateral trade we obtain is due to changes in the consumers' preferences (and demand) and to modifications related to the global image of the domestic country(ies) in the host country.

Overall, IKEA might have positive spillovers on companies of its European home country/regions and strengthen their trade integration. This brings new insights into the debate on the complementary between trade and capital mobility within the European context and can have interesting implications in terms of economic policy. If in general governments usually try to promote national companies activities through policies that aim to encourage clusters organization or by opening embassies or foreign missions in partner countries in order to stimulate trade, they could also take into account the positive effect that multinationals might have on the national enterprises' activities.

Several sensitivity analysis were performed. We consistently find the effect of IKEA on exports to be positive. We investigate thus if the opening of the first store has a different effect than opening any additional ones. We further test a non-linear effect of IKEA on bilateral trade. Thus, we include in the equation a binary dummy variable for the first store in a country, as well as a separate variable for the total number of IKEAs opened in the country. We estimate this with pooled OLS, adding successively exporter-year fixed effects, importer-year fixed effects, and both together. The results show evidence of a non-linear effect of the number of IKEAs on exports. The establishment of the first IKEA is associated with a substantial effect on trade. Additional IKEAs seems to further enhance bilateral trade, but less than the first, as the coefficient of the square of the number of IKEAs is significantly negative.

6 Conclusions

In this paper, we take a provocative view with respect to multinationals: we focus on multinationals' ability to promote their home countries' products on foreign markets. This issue, as far as we know it, has been overlooked up to now. We assert that multinationals activities might be beneficial, through the externalities they generate, in specific cases, to their domestic countries trade.

Using a bilateral gravity trade model that includes IKEA location data we find that IKEA plays a role of export promoter for the Scandinavian countries and this especially when it comes to trade in goods that are similar to the ones sold by IKEA. IKEA promotes trade a third as much as an embassy. However, if IKEA had the size of Sweden, it would promote trade a lot more than an embassy. IKEA fosters in particular the bilateral trade of IKEA-alike products (by more than 50% than that of the products not sold by IKEA). The presence of IKEA seems to encourage bilateral trade, being associated with a positive and significant impact. We see that each store is associated with a rise of between 9% and 12%

of bilateral exports. This result still holds when it comes to take into account the opening of a first IKEA as well as the opening of additional IKEAs. Several sensitivity analysis were performed. We consistently estimate the effect of IKEA on exports to be positive.

Further investigation could be performed. Firstly, the non-linearity along with the endogeneity are issues that deserve further research. The investigations we perform leave open the simultaneity problem. IKEA can locate in a specific country as a consequence of the current level of bilateral trade between the host and home countries. We will run an exogeneity test as in Bayer (2007) to reduce concerns on simultaneity problem. Further on, we intend to take on board recent gravity specification and estimation techniques highlighted by Head and Mayer (2014) (i.e. the PPML estimator in order to better control for zero flows).

Secondly, showing that outward FDI, in the IKEA case, generates positive externalities at home can put forward the fact that national policies could make a case for subsidizing the foreign activities of home country MNEs (as suggested by Tang and Altshuler, 2014). Some further research issues that could be developed in connection with the analysis provided in the paper are related to new bilateral trade (especially when it concerns IKEA alike products) associated to IKEA location, in other words with a trade creation or a reinforcement of the existing bilateral trade.

Finally, the comparison of IKEA's and embassies' impact on trade can be further investigated. Thus, compared with an embassy whose functioning costs are supported by its home country, in the multinational case, and IKEA case in particular, such costs of foreign service are not an issue. In the case of embassies, we just considered the gross effect of embassies on trade without compare it with its functioning costs abroad, financed by the home country.

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Appendix

	(1)	(2)	(3)	(4)
LgGDPi	0.028***	0.027***	0.026***	0.026***
LgGDPj	0.081***	0.080***	0.080***	0.080***
LgDistance	-0.212***	-0.210***	-0.209***	-0.209***
Contiguity	1.027***	1.002***	1.004***	1.004***
Common language	0.136***	0.135***	0.136***	0.136***
Colonial relationship	0.433***	0.426***	0.428***	0.428***
Dummy embassies	0.941***			
Dummy IKEA	0.646***			
LgNo of embassies		1.283***	1.283***	1.283***
LgNo of IKEA stores			0.346***	0.300***
Dummy new IKEA store		0.017		
Dummy additional IKEA store		0.841***		
LgNo of IKEA store ²				0.017***
RTA	0.652***	0.650***	0.647***	0.647***
LgFDI	0.224***	0.227***	0.225***	0.225***
Fixed effects t*i*hs4	yes	yes	yes	yes
Fixed effects t*j*hs4	no	no	no	no
Constant	2.544***	2.579***	2.584***	2.584***
R ²	0.17	0.17	0.17	0.17
Observations	60,173,223	60,173,223	60,173,223	60,173,223

Note: *, ** and *** denote significance at the 10%, 5% and 1% level, respectively.

Table 4 – Global Results

	(1)	(2)	(3)	(4)
LgGDPi	0.075***	0.076***	0.076***	0.076***
LgGDPj	0.096***	0.097***	0.097***	0.097***
LgDistance	-0.536***	-0.535***	-0.535***	-0.535***
Contiguity	0.857***	0.845***	0.845***	0.845***
Common language	0.395***	0.396***	0.396***	0.396***
Colonial relationship	0.401***	0.403***	0.402***	0.402***
Dummy embassies	0.707***			
Dummy IKEA'	0.176***			
No of embassies		0.116***	0.116***	0.116***
No of IKEA stores'			0.009***	0.032***
Dummy new IKEA store'		0.100***		
Dummy additional IKEA store'		0.236***		
No of IKEA store ^{2'}				-0.0007***
RTA	0.531***	0.528***	0.529***	0.529***
LgFDI	0.139***	0.139***	0.139***	0.139***
Fixed effects t*i*hs4	yes	yes	yes	yes
Fixed effects t*j*hs4	yes	yes	yes	yes
R ²	0.17	0.17	0.17	0.17
Observations	59,187,369	59,187,369	59,187,369	59,187,369

Note: *, ** and *** denote significance at the 10%, 5% and 1% level, respectively. ' denotes that the variable is interacted with a binary variable indicating if the good is produced by IKEA (so the variable is only considered when the good is produced by IKEA).

Table 5 – Global results

	Produced by IKEA			
	(1)	(2)	(3)	(4)
LgGDPi	0.005	0.006	0.006	0.006
LgGDPj	0.125***	0.125***	0.125***	0.125***
LgDistance	-0.845***	-0.844***	-0.844***	-0.844***
Contiguity	0.748***	0.738***	0.738***	0.738***
Common language	0.577***	0.578***	0.578***	0.578***
Colonial relationship	0.568***	0.568***	0.568***	0.569***
Dummy embassies	0.596***			
Dummy IKEA	0.067***			
No of embassies		0.103***	0.103***	0.103***
No of IKEA stores			0.001**	0.015***
Dummy new IKEA store		0.025		
Dummy additional IKEA store		0.086***		
Number of IKEA store ²				-0.0004***
RTA	0.416***	0.414***	0.414***	0.414***
LgFDI	0.126***	0.127***	0.127***	0.127***
Fixed effects t*i*hs4	yes	yes	yes	yes
Fixed effects t*j*hs4	yes	yes	yes	yes
R ²	0.25	0.25	0.25	0.25
Observations	3,527,296	3,527,296	3,527,296	3,527,296

Note: *, ** and *** denote significance at the 10%, 5% and 1% level, respectively.
Table 6 – Results differentiating per products

	LgValue	LgGDPi	LgGDPj	LgDistance	LgFDI	Dummy IKEA	Dummy Embassy	LgNumber of embassy
LgValue	1.000							
LgGDPi	0.092	1.000						
LgGDPj	0.142	-0.041	1.000					
LgDistance	-0.029	0.232	0.266	1.000				
LgFDI	0.187	0.133	0.131	-0.007	1.000			
Dummy IKEA	0.029	0.013	0.063	-0.018	0.065	1.000		
Dummy Embassy	0.028	0.086	0.033	0.039	-0.076	-0.006	1.000	
LgNumber of embassy	0.050	0.076	0.048	0.027	-0.068	-0.008	0.896	1.000
Dummy New IKEA	0.003	0.002	0.003	-0.002	0.010	0.176	-0.004	-0.004
Dummy Add IKEA	0.024	0.006	0.034	-0.015	0.022	0.447	0.002	-0.0004
LgNumber of stores	0.037	0.012	0.068	-0.023	0.078	0.917	-0.006	-0.008
LgNumber of stores \hat{A}	0.038	0.011	0.064	-0.023	0.081	0.789	-0.006	-0.007

Table 7 – Correlation Matrix