Article

EFFECT OF ONE BELT ONE ROAD INITIATIVE (OBORI) POLICY ON THE INTERNATIONAL SPREAD OF CHINESE BRANDS

Karamoko K.E.H. N'DA 1, Jiaoju Ge 2,*, Steven Ji-Fan Ren 3 and Jia Wang 4

- School of Economics and Management, Harbin Institute of Technology (Shenzhen), Shenzhen, China, 518055; andabuy@yahoo.com
- ² School of Economics and Management, Harbin Institute of Technology (Shenzhen), Shenzhen, China, 518055; jiaoge@hit.edu.cn
- ³ School of Economics and Management, Harbin Institute of Technology (Shenzhen), Shenzhen, China, 518055; renjifan@hit.edu.cn
- School of E-Commerce and Logistics, Suzhou Institute of Trade & Commerce, 215009, P.R. China; wangjia@szjm.edu.cn
- * Correspondence: jiaoge@hit.edu.cn

Received: date; Accepted: date; Published: date

Abstract: Since the advent of the OBORI, it was subjected to numerous studies. However, most previous studies investigated only the potential impact of the OBORI on the Chinese economy and geopolitics. Therefore, its real effect on Chinese international commerce in OBORI countries is not evaluated yet. Accordingly, this study intends to model the OBORI effect on Chinese product brand purchases across country members. The assessment is made on 18362 purchases of the International Online Consumers (IOCs) from a Chinese international online selling platform. The Data was obtained from a programming language and the octopus software. The OBORI policy's effect on Chinese brands' purchases was examined through a Different In Different Model (DIDM). Results show that the impact of OBORI is weak in the real market. However, it could be significant if OBORI includes more developed and economically strong countries. To Chinese brands and policymakers, we show how the inclusion in the OBORI project of developed countries could contribute more to Chinese product brands' purchases. Thus, the study enables decision-makers to understand the current impact of OBORI on the real market and its potential effect if more developed and economically strong countries are included.

Keywords: International Online Shopping; One Belt One Road Initiative; Chinese Bands; Brand Preference; International Online Consumers

1. Introduction

The advent of online platforms [1], has brought the world together by breaking down the traditional national borders [2]. As a result, a Chinese product brand, for example, can reach in the New York market, before the Beijing market. In this context, China's impressive achievement over the last decade, in the domestic e-commerce field, spawned new scope for Chinese International Online Shopping (CIOS) [3]. According to [4] transaction rate via CIOS has increased from 10% in 2010 to 40% in 2015. It is projected that this year (2020), the turnover would reach 12 trillion RMB, representing 37.6% of Chinese international commerce [4]. As a result, Electronic devices, mobile phones, clothes, shoes, household goods, etc. are exported every day through CIOS. We see an unprecedented growth of Chinese product brand sales across the globe through CIOS. In this perspective, many policies for supporting CIOS are implemented to improve Chinese companies' competitiveness [4]. Such as the OBORI proposed by the Chinese government.



According to [5], OBORI is a global expansion strategy of the Chinese economy, which offers opportunities to Chinese companies and product brands at the international level. It constitutes sturdy support for Chinese international trade [6], and Chinese brands. In this perspective, numerous studies have been carried out to study the OBORI policy from various angles and implications (e.g., economic, finance, and geopolitical implications) [7]. However, research on the OBORI remains related mainly to geopolitical and economic issues [7], while the real market is ignored. For instance, the literature forgot to investigate the impact that the OBORI on Chinese product brands' purchases across OBORI countries. Therefore, this study aims to examine the effect of OBORI on Chinese product brands' purchases across OBORI countries. We propose a DIDM to investigate the OBORI policy's impact on Chinese product brands' purchases across OBORI countries. We base our investigation on Chinese mobile phone brands. We apply the model to a dataset comprising 18362 purchases made by the IOCs. These IOCs come from 75 countries. Out of the 75 countries, 27 are members of the OBORI. The result shows that the impact of the OBORI remains weak across OBORI countries in terms of purchases of Chinese product brands; however, it could be significant if the OBORI countries more developed and economically strong countries.

Consequently, this work's contribution lies in the fact that it will allow decision-makers to understand the OBORI policy's influence: (1) on Chinese brands' purchases across OBORI countries through the framework of CIOS. (2) on the practical market since its advent and its potential effect if developed countries were included.

The study is organized in these ways. First, we examine the relevant literature related to OBORI, the market of Chinese mobile phone brands and the CIOS, and see how our study extends previous studies. Next, we present the data description. Then, we develop a DIDM to evaluate the impact of the OBORI policy on the purchases of Chinese product brands. Next, we analyze the results and discuss managerial implications. We end the paper with the conclusion and proposition of subsequent research.

2. Literature Review

2.1. The OBORI Policy

Within this section, we review two core streams of literature. First of all, we review previous works on OBORI. Second, we present research carried out on CIOS and the market of Chinese mobile phone brands.

Since the OBORI advent, numerous academic studies have been carried out to better understand the OBORI and its goals. In this direction, the literature on OBORI is divided into two core streams of research. The first stream of research concerns the geopolitical issues. The second streams of research are related to economic and financial matters. For scholars, OBORI is motivated towards economic and geopolitical issues.

According to [8], OBORI is made up of two projects: the Silk Road Belt (SRB) and Maritime Silk Road (MSR), which together, are made up of almost 65 countries from different continents. [9] studied the economic and political cost of involvement of the Southeast Asian region countries in the MSR. They highlighted that although the initiative is seen in terms of financial as an essential development factor in economic-diplomatic relations between China and Southeast Asian countries; however, it is important for China to clarify its real motivation behind the OBORI. In terms of economic impact, they show through their analysis and estimations that the GDPs of countries members, and trade flows between China and those countries, will be positively influenced by the investment level through the implementation of the OBORI. [10] examined the issues and advantages of the MSR in the Bay of Bengal region in India. He highlights that the differences in the development, infrastructure and trade capability, constitute significant factors. Accordingly, these issues must be solved before implementing the OBORI to ensure a strong influence in those regions.

[11] evaluated the OBORI from the perspective of geopolitics. They stated that OBORI is associated with China's policy to oppose to the encircling of its territory, and thus the OBORI reflects

the discourse of protection against the west's domination. According to [12], OBORI is President Xi's most important international policy that endeavors to set a more active foreign policy. [13] argue that OBORI is China's new world order vision founded on interconnected capitalism. For [14], the OBORI could be seen as an institutional strengthening effort of China. In this regard, [15] investigated China's connections and 16 countries of Europe. He concluded that the relationships under the OBORI are for inducing a politico-economic vision change at the global level. Therefore, the OBORI will be crucial for the determination of bilateral relationships. Similarly, [16] analyzed the OBORI and stated that the OBORI could be an option against America's leadership. He concludes by drawing the attention of thinkers and policymakers on the strategic implications of OBORI. In this perspective, [17] thinks that OBORI is one of China's leading global initiatives. However, the main difficulties about the OBORI lie at the level of the under-development politico-economic of the members.

Some authors analyzed the motivation behind the OBORI. For instance, [18] explored the motivation of the OBORI and concluded that it motivated by the goal of China to be the new superpower. However, according to [19], OBORI's main objectives are policy coordination, interpersonal contacts, financial integration, and trade. In this direction, [20] analyzed the economic, political, and moral dimensions of the OBORI by explaining China's vision about the initiative. He points out that the OBORI is like a new alternative against how the West is directing the globalization in the political and economic terms.

[21] shows that China is investing hugely in countries members of the OBORI since the advent of the OBORI. He highlighted that China's planned investment under the OBORI is about \$ 6 trillion.

Likewise, studies have carried out to analyze China's international economic policy through OBORI countries. For instance, from the optimal currency area theory, [7] investigated the optimal monetary zones between China and the OBORI countries. They identified the OBORI countries with the best economic and financial stability potential in terms of costs and benefits for China's cooperation. [22] investigated the effectiveness of the foreign direct investment of China in OBORI countries. They showed that there were substantial differences in performance between the OBORI countries. They highlighted that there was is a strong potential for China's investments in OBORI member countries. However, if China wants to leverage advantages on those investments, China needs to eliminate certain obstacles, such as obstacles commercial, poverty in the country members, etc. Concerning China's commercial, economic, and banking activities in OBORI countries, [8] reveal that they increase since the OBORI's advent. [23] examined and worked out misery alleviation and urbanization models in OBORI countries based on data characterizing 20 years of activities in those countries. The results show that over 20 years, the urbanization level has been about 48%. [24] examined the agribusiness issues under the OBORI. They concluded that under the OBORI, the agroindustry should be an essential bridge between consumers' concerns, factories, and products. [25] reviewed infrastructure development under OBORI by showing the relationship between the environment and social, economic, and political factors.

Some studies have also been carried out from the perspective of OBORI countries' interests. For instance, [26] investigate how Russia sees OBORI. They conclude that for Russia, the OBORI as a prime concern in its relationship with China since it could be a worthwhile project for both parts. [27] analyzed the initiative from the perspective of Europe's interest. For them, the initiative would be advantageous for Europe in terms of trade with China. Other studies have also been carried out in the context of international online shopping. In this regard,[28] examined the development of the international online shopping in the context of the OBORI. They state that the OBORI could play a crucial role in the economic development of China through international online shopping. However, they did not provide any evidence to shore up their point of view.

In summarize, one observes a lack of studies focusing on the impact of OBORI on purchases of Chinese product brands, whether through traditional international commerce or international online shopping. Accordingly, this study intends to examine the OBORI policy's impact on Chinese product brands' purchases across OBORI countries and within the CIOS framework.

2.2. The CIOS Framework

Since a decade, CIOS entered into a growing process [29-30]. According to [29], CIOS is the new way of expanding Chinese companies and Chinese brands outside China. This international commerce model plays an incommensurable part of China's international commerce [30]. Accordingly, several studies were carried out to understand this new opportunity for Chinese firms and product brands. For instance, [31] studied the history and the evolution of CIOS since its advent. They pointed out the rapid growth of CIOS since its advent. [32], presented the state of CIOS, by comparing existing marketplaces and the various commercial models related to it and examining the essential barriers opposing CIOS development (e.g., the problems of customs clearance). They concluded that although CIOS has become a crucial part to promote China's international commerce; however, there are still issues existing in the regulations system which undermine its fast development. From the development status of CIOS, [33] analyzed the situation and the elements upon which the CIOS may be innovated. They concluded that innovation should enhance the competitiveness and marketing model through logistics and supply chain development. However, the competitiveness and marketing models have to be also built upon strong workers skills operating in that field. In this regard, [34] pointed out a lack of qualified personnel in the international online shopping domain in Chinese higher and vocational schools. [30] examined the issues related to CIOS development by analyzing the selling context. They have highlighted many matters related to the selling framework of CIOS (e.g., goods clearance, exchange settlements, logistics, and taxes). However, they think that these issues can not hinder the growth and fast development trend of CIOS.

To understand the lack of confidence in transactions of CIOS, [35] examined the behaviors of buyers, sellers, and the foundations of trust issues. They have proposed solutions to the trust issues to reinforce cooperation between sellers and buyers by improving the system of credit, strengthening the supervision, and establishing a harsh punitive system. [36], analyzed the influences of sellers' trust on buyers' and the sellers' perceived risk about chargeback fraud. They found out that the perceived integrity reinforces sellers' trust, which reduces chargeback fraud perceived risk. They have shown that when sellers see that they are protected from buyers' fraud that increases their trust. [6] have shown that factors such as trust, perceived benefit, cost, the quality of the CIOS system, and service quality constitute the crucial transactional factors which preoccupy sellers and the reasons of their engagement in CIOS platforms. They further stated that the success of CIOS is also based on sellers' behaviors and their decision to be engaged on the CIOS platforms.

Concerning the transactional factors from the seller side, [4] investigate the effect of transaction cost of CIOS on the purchases, through a comparative advantage model by examining different expenses related to the transaction. They found out that a higher transaction cost has adverse effects on consumer purchases. [3] have analyzed the impact of CIOS on China's international trade by suggesting strategies to develop CIOS. In this optic, they argue that many national companies increasingly enter the CIOS field. However, compared to other International online shopping marketplaces, CIOS is still underdeveloped due to numerous issues: The environment of business and the regulation system.

Likewise, some authors focused on the issues of logistics and taxation issues. In this optic, [37] studied the logistics services development of CIOS. They argued that from a development view, CIOS logistics has made great strides. However, the logistics of CIOS can still be significantly improved in terms of fast customs clearances, cost, taxes, and the quality of services. In this direction, based on the advantages of overseas warehouses, [38] made suggestions on the healthy and sustainable development of CIOS and the reasonable use of overseas warehouses for sellers' commercial activities. They proposed that given the high cost of warehouses abroad, the construction of overseas warehouses by platforms to facilitate goods' shipment. In this regard, they

highlight that China should use the context of promotion of the OBORI to build CIOS local service networks in countries members of the OBORI and making Chinese product brands go global. [39] examined taxation customs measurements by making suggestions about the customs administration to contribute to CIOS development. Some studies also focused on case studies. For instance, utilizing a cosmetic industry company as a case study, [40] investigate the effect of factors constituting the exterior environment on CIOS through the PEST theory. They highlight that political, economic, technical, and social factors favor the development of CIOS, although there are still operational issues concerning the standardization between Chinese online sales platforms.

Finally, some works analyzed the CIOS from a regional or provincial perspective. For instance, [41] built two competitive theory models from bilateral market theory and geographic location to suggest prices for two main markets of CIOS. Namely Dalian and Tianjin. They have shown that the features of the markets affect the sale strategy of those markets. [29] analyzed the issues and advantages of CIOS in Ningbo province. They point out that factors like infrastructures and the geographical situation of the region of Ningbo as the coastal province give the area considerable advantage on the logistics development plan compared with other provinces in China. However, at the transaction level, there are few kinds of products exported from that province. Likewise, concerning the distribution of products by logistics companies, payment safety, and the number of talents specialized in the International Online Shopping field, Ningbo is lagging (Niu and Li, 2017)29. [42] have built a spatial model for CIOS pilot areas. They show that the areas structures and competition influence the development of CIOS in those areas.

As we have seen from the above studies, CIOS constitutes an essential part of china's international commerce. However, in the context of CIOS, the OBORI motivate the purchases of brands of Chinese products in OBORI countries? Until now, there is no study to confirm or unconfirmed that assumption. Accordingly, in this study, we model the OBORI policy's impact on Chinese product brands' purchases across OBORI countries in the CIOS framework.

3. The market of Chinese mobile phone brands

The market for Chinese phone brands is large. Out of the 76 brands of mobile phones worldwide [43], China accounts for more than 12 mobile phone brands [43]. Such as Huawei, Xiaomi, Meizu, Oppo, VIVO, and Coolpad. For this current study, we focused on just four of them because of their popularity within the Chinese international selling platform. These brands enter the international market with a strategy of affordable prices, which increases their market shares over different world regions, especially across developing and emerging countries where the income levels are low. According to Dedrick and Kraemer (2016)44, in 2016, Huawei mobile phone products were sold in around 170 countries. During the second trimester of 2018, Huawei was the top mobile phone brand in China, with 28.1% of the market share. By the third trimester of 2018, Huawei and Xiaomi were classified among the top five mobile phone brands within the Chinese market [45]. At the same time, Huawei sold about 30.72 million mobile phones with a share of 28.6%, followed by Xiaomi, which sold about 12.61 million products with a share of 11.7%, while the selling of Meizu products dropped about 53% [45]. By 2014 Xiaomi, the fourth-largest phone brand in the world with high sophisticated phones but at low-cost was classified as the biggest mobile phone company in the Chinese market [46]. During, the third trimester of 2018, it has become the top phone brand within India mobile phone market, with 12.1 million phones sold and representing about 28.8% as market share [46]. According to [47], the data show that between 2008 and 2014, the market share of the Coolpad brand has increased from around 1% to around 9.88% in the Chinese market.

3. Data Description

18362 transaction data have been collected from more than 50 online retail stores using a programming language and octopus software within a CIOS platform. These 50 online retail stores

are made up of brand stores as well as individual stores. Brand stores are selling the B2C mode while the individual stores are selling through C2C selling mode. The Data consists of 4 Chinese mobile phone brands, purchased by consumers from 75 countries. Namely Huawei (Br0=0), Xiaomi (Br1=1), Meizu (Br2=2), and Coolpad (Br3=3). Out of the 75 states, we have 27 OBORI countries. To identify the OBORI countries, we used the list of OBORI countries from the study of [7] plus Italy, which integrated the OBORI in 2019. Since the Chinese government has not yet officially presented the definitive list of OBORI countries. The dataset contains consumers' purchase during the year 2016 and the consumers' purchase after the year 2016. Given the heterogeneity among the OBORI countries in terms of socio-economic development, we grouped countries in terms of the region, continents, and economic development level. Thus the dataset contains 14 regions, 5 continents, and 3 economic development levels, which we named status (Developed country=1, Developing country=2, Emerging country=3). Table1 exposes variables and present the descriptive statistic of the dataset.

Table 1. Descriptive statistics

	Table 1. Descriptive statistics						
Variables	Definitions	Mean	Std. Dev.	Min	Max		
after2016	whether a purchase made in years after 2016 (1) or not (0)	0.11	0.99	0	1		
OBORI	whether the order made from a country of OBORI(1) or not (0)	0.35	0.86	0	1		
Country	from which country the order made	15.31	56.82	1	75		
Continent	the continent of consumer	0.42	3.92	1	5		
Region	The belonging Region of the consumers country	1.22	5.29	1	14		
Status	the market status of the country (emerging, developed or developing market)	0.65	2.71	1	3		
Purchase quantity	Product quantity purchases by consumer	0.68	1.05	1	50		
Brand preferences	Chosen brands	0.78	2.24	1	4		
	Coolpad	Huawei	Meizu	Xiaomi	Grand Total		
Price	174.62	276.36	132.32	174.21	180		
Total Purchase quantity	2317	1711	1607	13769	19404		
Total Purchase quantity (Obori)	2057	1213	1544	11665	16479		
Total Purchase quantity (NOBORI)	260	498	63	2104	2925		
Total Market share (\$)	404598.25	472844.6 4	212642.80	2398654.87	3492633.62		
Market share (\$) (Obori)	359196.64	335219.4 9	204306.46	2032123.54	2966146.64		
Market share (\$) (NOBORI)	45401.62	137625.1 5	8336.34	366531.33	526486.98		
Total Market share (%)	11.57	13.64	6.11	68.68	100		

Market share (%) (Obori)	12.13	11.45	6.91	69.51	100
Market share (%) (NOBORI)	8.5	23	1.49	67	100
Countries	54	63	20	70	75
Obori countries (1)	22	23	6	25	27
NOBORI Countries (0)	32	40	14	45	48

In Table 2, we present the trends of purchases across the world's regions. Out of 14 regions, 4 are the most important in terms of purchase. Namely, the regions of Eastern Europe (16252), the European Union (1968), North America (235), and South America (286). The Middle East, as well as regions of Africa, are the areas where the Chinese brands less purchased through the CIOS framework from the dataset.

Table 2. Trends of brands purchased across the regions of the world

OBORI	Region	Coolpad	Huawei	Meizu	Xiaomi	Grand Total
NOBORI Countries	Central America	13	32	1	89	135
	Central Asia	2	16	0	17	35
	Eastern Africa	1	1	0	3	5
	Eastern Asia	3	6	0	16	25
	Eastern Europe	66	41	21	327	455
	European union	130	251	33	1071	1485
	Middle East	0	1	0	0	1
	Northern Africa	3	0	0	14	17
	Northern America	11	69	5	150	235
	Oceania	6	15	3	211	235
	South America	25	65	0	196	286
	Southern Africa	0	1	0	9	10
	Western Africa	0	0	0	1	1
Total NOBORI	13	260	498	63	2104	2925
OBORI countries	Central Asia	10	3	0	25	38
	Eastern Asia	0	5	1	3	9
	Eastern Europe	1970	1132	1539	11156	15797
	European union	42	40	4	397	483
	Middle East	0	2	0	3	5
	Northern Africa	1	1	0	1	3
	Southern Asia	27	27	0	52	106
	Western Africa	7	3	0	28	38
Total Obori	8	2057	1213	1544	11665	16479
Grand Total		2317	1711	1607	13769	19404
NOBORI	Developed country	181	357	39	1443	2020
	Developing country	53	45	23	385	506
	Emerging country	26	96	1	276	399
Obori	Developed country	14	18	1	276	309
	Developing country	71	53	61	407	592
	Emerging country	1972	1142	1482	10982	15578

This model deals with the OBORI policy's effect on Chinese product brands' purchases through OBORI countries. Accordingly, we assume that since the OBORI has been proposed in 2015 (Wang, 2016) by the Chinese government, it took almost a year for decision-makers and governments to promote the OBORI and to allow the consumers to adapt to that. Consequently, this model's data are those of 2016 and the years after 2016 (2017 & 2018). Within the dataset, we have three dummy variables, indicating:

- (1) Whether a purchase was made in the years after 2016 (1) or not (0).
- (2) Whether the order made from a country of OBORI member (1) or not (0) and the interaction term between the two dummy variables, which give us the effect of the OBORI as shown in the equation (2). Likewise, within the dataset, we have variables indicating the number of purchases in the stores

4. Theoretical Model

In this section, we model the effect of the OBORI on the purchases through OBORI countries using the DIDM [48]. We use OLS DID estimator because of our dataset's nature (cross-section data) [49]. Therefore, we are in a binary treatment case before and after implementation of the OBORI policy. We have two groups or clusters. We have two groups or clusters (c = 1 and c = 2) for observations in two different times (t = 1, 2) [48]. In the first time, cluster (c = 1) and cluster (c = 2) are subject to to the control situation [48]. In the second time, one of the groups is subjected to the treatment [50].

In the case of this study, our control cluster or group (cluster = 1) is the group "Nobori" and constituted by the set of countries no members of the OBORI until the end of 2016. Our treatment cluster ("Obori" = cluster = 2) thus comprises countries members of the OBORI. Let $O_c = 1$ (t = 2) be the binary variable measuring consumers' purchases from countries members the OBORI after the end of 2016. $E_t = 1$ for (t = 2) denotes the consumers' purchases after the end of 2016. As we see E_t written without cluster subscript and O_c is also written without time subscript since the time does not change through the clusters, and cluster membership is invariant in time [48]. Accordingly, the interaction variable can write as an interaction between the two dummy variables B

$$B_{ct} = O_c * E_t \tag{1}$$

Thus, B_{ct} for clusters "NOBORI" and "Obori" in the time 1 is equal to 0 since Et = 0; and Oct = 1 for Obori's cluster in second time (t = 2). Accordingly, one can write the equation of the standard DID estimator:

$$Y_{tc} = \beta + \gamma E_t + \delta O_C + \theta (E_t * O_C) + \varepsilon_{ct}$$
 (2)

Y is the dependent variable. β is the constant term. γ , δ , and θ are, respectively the coefficients of *variables Year2016*, *obori*, *and interaction*. ε represents *the error terms*; Oc is the group dummy and takes care of the differences between treatment (Obori)and control group (Nobori). E_t is the year dummy variable, which tells us if we are in 2016 or not. The inclusion of this variable in the equation is taking care of the time trend issue; that is to say if the purchases of Chinese product brands have increased or decreased over time. B_{ct} is the interaction term between Oc and E_t . It gives us our actual estimation treatment (DID) effect. Table 3 presents the effect of the OBORI on purchases of Chinese brands across OBORI countries. And Figure 1 presents purchase trends in 2016 and after 2016.

5. Results and Discussion

Here, we discuss the practical impact of the OBORI policy from the DIDM. Table 1 and Table 2 show that the sales of product brands obtained from OBORI countries (16479) are higher than those of NOBORI countries (2925). However, the dataset contained just 27 OBORI countries out of 75 countries. This result seems to indicate that OBORI countries appreciate more Chinese product brands than NOBORI countries. Going further, one sees that the Xiaomi brand appears to be the most appreciated in the OBORI countries, follows respectively by Coolpad, Huawei, and Meizu

brands. However, within the NOBORI countries, Xiaomi, the market leader, was followed by the Huawei brand (the second-highest market share). As we see from Table 2, the best market shares of all of the four brands within the NOBORI countries, have been getting in the European Union countries (1485 items sold; Huawei (251) and Xiaomi (1071)). We observe that despite the relatively high average price of Huawei products (\$ 276.36), its products have been well sold in that region (European Union countries). However, in that region, one finds most of the developed and not members of the OBORI (NOBORI countries). In Tables 3, we see that our after 2016 variable has a positive coefficient (0.70; p< .001). That signifies that the purchases were trending up over time. The Obori variable is positive, as well (0.58; p< .001). That shows that the purchases in OBORI countries, regardless of the country, have been high. The coefficient of interaction variables θ is negative (-0.34; p<.001). That denotes the OBORI did not influence the purchases and the market shares of Chinese brands of the study. The reason for this negative outcome is that the purchases made by NOBORI countries from the year 2016 (1.34) to the years after 2016 (2.04) have increased than those of OBORI countries during the same period (Table 3). For instance, one observes that the purchases of NOBORI countries of European Union or North American have increased than those of OBORI countries during the same period (from 2016 to the years after 2016). That indicates that the OBORI, to contribute significantly to influencing the purchase of Chinese product brands, must necessarily include the developed countries. This result confirms the view of some researchers, who think that for OBORI to get more economic, and commercial influence, it has to make efficient economical decisions in favor of most of the members.

From Fig.a, we see that for all of the four brands' purchases increased in Years after 2016. However, those purchases are weak compared to those of Nobori countries on the whole (Table 3). That means the OBORI to expand its influence on the purchase of Chinese product brands must include the developed countries, as stated; especially those of the European Union countries.

Table 3. Impact of One belt one road initiative (OBORI) on consumer brand purchases

Source	SS	P-values	df	MS
Model	173.61		3	57.87
Residual	11009.78		18,36	0.6
Total	11183.39		18,36	0.61
DD Variables	Coef.		-	-
After2016	0.70***	0.000	-	-
	(0.12)			
Obori	0.58***	0.000	-	-
	(0.13)			
interaction	-0.34***	0.000	-	-
	(0.14)			
_cons	1.34***	0.000	-	-
	(0.12)			
	Year		Obori	Purchase
2016-NOBORI	0		0	1.34
2016-OBORI	0		1	1.91
Yearsafter2016-NOBORI	1		0	2.04
Yearsafter2016-NOBORI	1		1	2.28
NOBORI = controle	-		Obori= Treatement	DD
0.701	-		0.36	-0.34

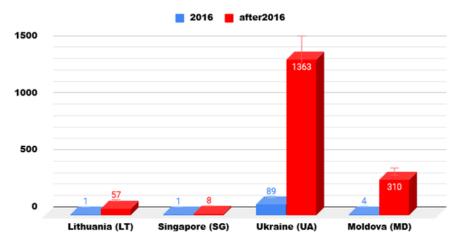


Figure 1. Purchase trends

5. Conclusions

Utilizing DIDM to quantify the impact of the OBORI on Chinese product brand purchases, the analysis showed that the OBORI policy's effect is not significant enough to contribute to Chinese product brands' purchases within OBORI countries. As shown in Fig.1, Chinese product brands' purchases are increased in countries members of the OBORI. However, this growth across OBORI countries is less than that of countries non-members of the OBORI (NOBORI).

OBORI countries represent only 18% of the world's GDP [7]. Hence, if the goal of the OBORI is to contribute to strengthening the sale of Chinese products brands; it will be necessary to promote the OBORI toward the developed countries. Since it is projected that the OBORI will influence international trade by about 5% in around 2030 [21].

In summarize, our model offers a more unobstructed view of the effect of the OBORI on purchases of Chinese product brands through country members of the OBORI and NOBORI countries. The study enables decision-makers about the OBORI to understand the impact of the OBORI on the real market since its advent. However, this study has certain limitations to a certain extent despite the contribution it makes to the OBORI literature within the international online shopping framework. The first limitation of this work concerns the source of the data. Indeed, the data utilized have been collected from a single Chinese international online sales platform. The second limitation of this work concerns the official number of the OBORI, which has been utilized in this current study (27 countries). With the geopolitical and economical dynamics, new countries continue to integrate the OBORI. However, we could not consider those countries in this study. Since we took into account only the OBORI countries' list of the study of [7] plus Italy (which integrated the initiative in 2019). As a result, additional research could be conducted by collecting data from other or several Chinese international sales platforms and incorporating the omit countries in this current research to verify our results.

Our study could extend in these ways. Future research can examine the influence of the Chinese brands' performance on consumers choice preferences across OBORI countries.

Author Contributions:

Karamoko K.E.H. N'da collects data, performs the formal analysis and writes the original draft. Jiaoju Ge supervises, providing the funding; review, editing and finalizing the article. Steven Ji-Fan Ren co-supervises and reviews the draft. Jia Wang co-supervises and reviews the draft.

Funding: This research was funded by National Natural Science Foundation of China (No. 71831005 and No. 71402039).

Acknowledgments: The authors would like to thank the editors and the anonymous reviewers for their valuable insights.

Conflicts of Interest: The authors declare no conflict of interest.

References

- 1. Nambisan, S.; Zahra, S. A.; Luo, Y., Global platforms and ecosystems: Implications for international business theories. Journal of International Business Studies **2019**, 50 (9), 1464-1486.
- 2. Strizhakova, Y.; Coulter, R. A.; Price, L. L., Branded Products as a Passport to Global Citizenship: Perspectives from Developed and Developing Countries. Journal of International Marketing **2008**, 16 (4), 57-85.
- 3. Wang, P., On the Development of Cross-Border E-Commerce and the Transformation of Foreign Trade Model. Modern Economy **2018**, 09 (10), 1665-1671.
- 4. 4. Wang, Y.; Wang, Y.; Lee, S., The Effect of Cross-Border E-Commerce on China's International Trade: An Empirical Study Based on Transaction Cost Analysis. Sustainability **2017**, 9 (11).
- 5. He, C.; Baranchenko, Y.; Lin, Z.; Szarucki, M.; Yukhanaev, A., From Global Mindset to International Opportunities: The Internationalization of Chinese Smes. Journal of Business Economics and Management 2020, 21 (4), 967-986.
- 6. Cui, Y.; Mou, J.; Cohen, J.; Liu, Y., Understanding information system success model and valence framework in sellers' acceptance of cross-border e-commerce: a sequential multi-method approach. Electronic Commerce Research 2019, 19 (4), 885-914.
- 7. Sun, J.; Hou, J. W., Monetary and Financial Cooperation Between China and the One Belt One Road Countries. Emerging Markets Finance and Trade 2018, 55 (11), 2609-2627.
- 8. Shahriar, S., Lu, Q., Irshad, M. S., Kea, S., Abdullahi, N. M., & Sarkar, A., Institutions of the 'Belt & Road' Initiative: A Systematic Literature Review. Journal of Law, Policy and Globalization 2018, October (77), 1–13.
- 9. Chung, C.-P., & Voon, T. J., China's Maritime Silk Road Initiative: Political-Economic Calculations of Southeast Asian States. Asian Survey **2017**, 3 (57), 416–449.
- 10. 10. Palit, A., India's Economic and Strategic Perceptions of China's Maritime Silk Road Initiative. Geopolitics 2017, 22 (2), 292-309.
- 11. Sidaway, J. D.; Woon, C. Y., Chinese Narratives on "One Belt, One Road" (一带一路) in Geopolitical and Imperial Contexts. The Professional Geographer **2017**, 69 (4), 591-603.
- 12. Ferdinand, P., Westward ho-the China dream and 'one belt, one road': Chinese foreign policy under Xi Jinping. International Affairs **2016**, 92 (4), 941-957.
- 13. Nordin, A. H. M.; Weissmann, M., Will Trump make China great again? The belt and road initiative and international order. International Affairs **2018**, 94 (2), 231-249.
- 14. Ren, X., China as an institution-builder: the case of the AIIB. The Pacific Review 2016, 29 (3), 435-442.
- 15. Vangeli, A., China's Engagement with the Sixteen Countries of Central, East and Southeast Europe under the Belt and Road Initiative. China & World Economy **2017**, 25 (5), 101-124.
- 16. Rolland, N., China's "Belt and Road Initiative": Underwhelming or Game-Changer? The Washington Quarterly **2017**, 40 (1), 127-142.
- 17. Huang, Y., Understanding China's Belt & Road Initiative: Motivation, framework and assessment. China Economic Review **2016**, 40, 314-321.
- 18. Yu, H., Motivation behind China's 'One Belt, One Road' Initiatives and Establishment of the Asian Infrastructure Investment Bank. Journal of Contemporary China **2016**, 26 (105), 353-368.
- 19. Shahriar, S. M., & Qian, L., Bangladesh-China-India-Myanmar (BCIM) Economic Corridor in the Context of the "Belt & Road" Initiative. Journal of Economics and Sustainable Development 2017, 8 (20), 2222–1700.
- 20. Yiwei, W., The Belt and Road Initiative: What Will China Offer the World in Its Rise. 2016.
- 21. Zhai, F., China's belt and road initiative: A preliminary quantitative assessment. Journal of Asian Economics **2018**, 55, 84-92.
- 22. 22. Fan, Z.; Zhang, R.; Liu, X.; Pan, L., China's outward FDI efficiency along the Belt and Road. China Agricultural Economic Review 2016, 8 (3), 455-479.
- 23. Chen, M.; Sui, Y.; Liu, W.; Liu, H.; Huang, Y., Urbanization patterns and poverty reduction: A new perspective to explore the countries along the Belt and Road. Habitat International **2019**, 84, 1-14.

- 24. Cui, L.; Zhang, M.; Wu, K.-J.; Tseng, M.-L., Constructing a Hierarchical Agribusiness Framework in Chinese Belt and Road Initiatives under Uncertainty. Sustainability 2018, 10 (1).
- 25. 25. Teo, H. C.; Lechner, A. M.; Walton, G. W.; Chan, F. K. S.; Cheshmehzangi, A.; Tan-Mullins, M.; Chan, H. K.; Sternberg, T.; Campos-Arceiz, A., Environmental Impacts of Infrastructure Development under the Belt and Road Initiative. Environments **2019**, 6 (6).
- 26. Zimofeev, I.; Lissovolik, Y.; Filippova, L., Russia's Vision of the Belt and Road Initiative: From the Rivalry of the Great Powers to Forging a New Cooperation Model in Eurasia. China & World Economy **2017**, 25 (5), 62-77.
- 27. Herrero, A. G.; Xu, J., China's Belt and Road Initiative: Can Europe Expect Trade Gains? China & World Economy 2017, 25 (6), 84-99.
- 28. Yang, N., Fu, J., & Wang, Y., Study of the Impact of the Cross-border E-commerce Model Based on the Belt and Road on China's International Trade System. Revista de La Facultada de Ingenieria U.C.V 2017, 32 (8), 490–496.
- 29. 29. Niu, J.-b.; Li, S.-y., The Operation Status of Cross-border E-commerce in Ningbo. DEStech Transactions on Economics, Business and Management 2017, (eced).
- 30. 30. Qiang, S.; Zhenhua, Y., Problems in Cross-border E-commerce Export Trade in China a Countermeasure Analysis. In Proceedings of the **2015** Conference on Informatization in Education, Management and Business, 2015.
- 31. Liu, X., & Liu, R., The Comparison and Analysis of China Cross-border E-commerce Business Model. **2017**; pp 85–88.
- 32. 32. Fang, Y., Current Situation, Obstacles and Solutions to China's Cross-Border E-Commerce. Open Journal of Social Sciences **2017**, 05 (10), 343-351.
- 33. 33. He, W.; Xu, Y., Cross-Border Electronic Commerce Development Present Situation and the Innovation Research in China. American Journal of Industrial and Business Management **2018**, 08 (08), 1825-1842.
- 34. Zhong, X., Countermeasure Research on the Cultivation of Cross-border E-Commerce Merchants in Higher Vocational Colleges under the Background of "Internet Plus". Francis Academic Press 2019, 570–576.
- 35. Xing, F.; Li, Y., A Study on Credit System of Cross-Border E-Commerce from the Perspective of the Game Theory. In ISME 2016 Information Science and Management Engineering IV, **2016**; pp 268-273.
- 36. Guo, Y.; Bao, Y.; Stuart, B. J.; Le-Nguyen, K., To sell or not to sell: Exploring sellers' trust and risk of chargeback fraud in cross-border electronic commerce. Information Systems Journal 2018, 28 (2), 359-383.
- 37. Liu, B. L.; Wang, L.; Lee, S. J.; Liu, J.; Qin, F.; Jiao, Z. L., Contemporary logistics in China: Proliferation and internationalization. Springer-Verlag: Berlin Heidelberg, **2015**; Vol. 94.
- 38. Xu, S.; Liang, J., Research on the Operation Mode and Countermeasure of Cross-Border E-Commerce Export Overseas Warehouse in China. In 2018 4th International Conference on Innovative Development of E-commerce and Logistics (ICIDEL 2018), **2018**.
- 39. Li, F., Research on Customs Administration to Cross-Border Electronic Commerce Importation under Taxation Measurement. American Journal of Industrial and Business Management 2017, 07 (05), 581-590.
- 40. 40. Chen, Y.; Wang, M.; Xu, Y., The Current Situation and Measures of Cross-Border E-Commerce in Cosmetics Industry: Case Study of Company ABL. Open Journal of Business and Management 2018, 06 (02), 265-278.
- 41. Lu, B.; Wang, H., Research on the Competitive Strategy of Cross-Border E-Commerce Comprehensive Pilot Area Based on the Spatial Competition. Scientific Programming **2016**, 2016, 1-9.
- 42. 42. Wang, H., Xiao, M., & Huo, Y., Research On The Construction Strategy Of Cross-Border E-Commerce : Comprehensive Pilot Area Based On Salop Model. International Journal of Innovative Computing, Information and Control **2017**, 13 (5), 1563–1577.
- 43. Li, Y., Research on Huawei Mobile Phone Marketing Strategy Based on Market Segmentation Theory. In Proceedings of the 5th Annual International Conference on Social Science and Contemporary Humanity Development (SSCHD 2019), **2019**.
- 44. Dedrick, J., & Kraemer, K., Intangible assets and value capture in value chains: the smartphone industry. World Intellectual Property Organization **2016**, 41 (November), 1–56.

- 45. Li, H.; Wei, Y., Analysis the Impacting of "User Experience" for Chinese Mobile Phone's Brands Market Changing. In Design, User Experience, and Usability. Practice and Case Studies, **2019**; pp 277-287.
- 46. 46. Tabassum, R.; Ahmed, S., Xiaomi invades the smartphone market in India. Decision 2020, 47 (2), 215-228.
- 47. 47. Yu, P.; Shi, J.; Sadowski, B. M.; Nomaler, Ö., Catching Up in the Face of Technological Discontinuity: Exploring the Role of Demand Structure and Technological Regimes in the Transition from 2G to 3G in China. Journal of Evolutionary Economics 2020, 30 (3), 815-841.
- 48. 48. Wing, C.; Simon, K.; Bello-Gomez, R. A., Designing Difference in Difference Studies: Best Practices for Public Health Policy Research. Annu Rev Public Health **2018**, 39, 453-469.
- 49. Lechner, M.; Rodriguez-Planas, N.; Fernández Kranz, D., Difference-in-difference estimation by FE and OLS when there is panel non-response. Journal of Applied Statistics **2015**, 43 (11), 2044-2052.
- 50. 50. Wooldridge, J., Difference-in-Differences Estimation. **2012**, 1–70.
- 51. Chen, M.; Sui, Y.; Liu, W.; Liu, H.; Huang, Y. Urbanization patterns and poverty reduction: A new perspective to explore the countries along the Belt and Road. *Habitat Int.*, **2019**, *84*, 1–14.
- 52. Cui, L.; Zhang, M.; Wu, K.J.; Tseng, M.L. Constructing a Hierarchical Agribusiness Framework in Chinese Belt and Road Initiatives under Uncertainty. *Sus.-Basel*, **2018**, 10(251), 1–17._
- 53. Teo, H. C.; Lechner, A. M.; Walton, G. W.; Chan, F. K. S.; Cheshmehzangi, A.; Tan-Mullins, M.; Chan, H. K.; Sternberg, T.; Campos-Arceiz, A. Environmental Impacts of Infrastructure Development under the Belt and Road Initiative. *Environments*, **2019**, 6(6), 72.
- 54. Timofeev, I.;Lissovolik, Y.; Filippova, L. Russia's Vision of the Belt and Road Initiative: From the Rivalry of the Great Powers to Forging a New Cooperation Model in Eurasia. *China World Econ.*, **2017**, 25(5), 62–77.
- 55. Herrero, A. G.; Xu, J. China's Belt and Road Initiative: Can Europe Expect Trade Gains? China World *Econ.*, **2017**, 25(6),84–99.
- 56. Yang, N.; Fu, J.; Wang, Y. Study of the Impact of the Cross-border E-commerce Model Based on the Belt and Road on China's International Trade System. *Revista de La Facultada de Ingenieria U.C.V.*, **2017**, 32(8), 490–496.
- 57. Niu, J.; LI, S. The Operation Status of Cross-border E-commerce in Ningbo. 3rd International Conference on E-Commerce and Contemporary Econ. Dev. (ECED), 2017,14–19.
- 58. Yang Zh.; Shen. Q. Problems in Cross-border E-commerce Export Trade in China a Countermeasure Analysis. *Iemb*, **2015**, 848–854.
- 59. Fang, Y.. Current Situation, Obstacles and Solutions to China's Cross-Border E-Commerce. *Open J. Social Sci.*, **2017**, *5*(10), 343–351.
- 60. He, W.; Xu, Y. Cross-Border Electronic Commerce Development Present Situation and the Innovation Research in China. *American J. of Ind. Bus. Manag.*, **2018**, 8(08), 1825–1842.
- 61. Zhong, X. Countermeasure Research on the Cultivation of Cross-border E-Commerce Merchants in Higher Vocational Colleges under the Background of "Internet Plus". *Francis Academic Press*, **2019**, 570–576.
- 62. Li, Y.; Xing, F. A Study on Credit System of Cross-Border E-Commerce from the Perspective of the Game Theory. *J. Appl. Stat.*, **2016**, 268–273.
- 63. Guo, Y.; Bao, Y.; Stuart, B. J.; Le-Nguyen, K. To sell or not to sell: Exploring sellers' trust and risk of chargeback fraud in cross-border electronic commerce. *Inf. Syst. J.*, **2018**, *28*(2), 359–383.
- 64. Xu, S.; Liang, J. Research on the Operation Mode and Countermeasure of Cross-Border E-Commerce Export Overseas Warehouse in China. *Icidel*, **2019**, 213–222.
- 65. Li, F. Research on Customs Administration to Cross-Border Electronic Commerce Importation under Taxation Measurement. AM *L.Ind.Bus.Manag.* **2017**, *7*(05), 581–590.
- 66. Chen, Y.; Wang, M.; Xu, Y. The Current Situation and Measures of Cross-Border E-Commerce in Cosmetics Industry: Case Study of Company ABL. *Open J. BUus. Manag.*, **2018**, 6(02), 265–278.
- 67. Lu, B.; Wang, H. Research on the Competitive Strategy of Cross-Border E-Commerce Comprehensive Pilot Area Based on the Spatial Competition. *Sci. Program.*, **2016**.
- 68. Wing, C.; Simon, K.; Bello-Gomez, R. A. Designing Difference in Difference Studies: Best Practices for Public Health Policy Research. *Annu. Rev. Public Health*, **2018**, 39(1), 453–469.