The Roles of Cultural Distance and Psychic Distance on Outward FDI: The Case of Turkey

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ABSTRACT

This paper examines the role of culture and psychic distance in Turkish outward foreign direct investment (ODI) decisions to invest in a foreign country, thereby addressing an existing gap in the literature regarding ODI from a developing economy, Turkey. We also believe that, Turkey is a good test case for the general theory of ODI since it presents many special conditions. Accordingly, this study aims to answer the following two questions. First, is cultural distance associated with ODI from Turkey? Second, is psychic distance associated with ODI from Turkey? Accordingly, we apply Hofstede's cultural dimensions using Kogut and Singh`s (1988) method and examine if there is any relationship between the ODI location decisions of Turkish multinationals and cultural distance. We also use Dow and Karunaratna (2006) psychic distance stimuli measures and examine the relation between the ODI location decisions of Turkish multinationals and psychic distance. We use a sample of thirteen countries that host over 53% Turkish ODI stock over the 2001–2012 period. We find that cultural distance plays an important role in the decisions of Turkish Multinational Enterprises (MNEs) outward investments. However, we do not find any statistically significant relation between the psychic distance and Turkish ODI. The main limitation of our study is the lack of availability of Hofstede's national cultural values for all countries that host Turkish ODI. We also note that the impact of psychic distance may vary depending on the size of the MNE or its industry, which we leave it to future research.

Keywords: Cultural Distance, Psychic Distance, Hofstede, Outward Foreign Direct Investment, Turkey.

INTRODUCTION

Turkey`s integration to the world economy began in 1980 following the liberalization of its economic and legal structure. This process accelerated with three major events; (1) the collapse of the Soviet Union and as a result the emergence of independent Turkic states in Central Asia, (2) the integration of Turkey`s economy to Europe in 1996 through the implementation of Customs Union agreement and commencing of accession negotiation with the European Union in 2004, and (3) the 2001 economic crisis and application of reforms in both judiciary and economic systems that improved the business environment and increased competition in the domestic market. All these pull and push factors forced Turkish companies to seek new markets and invest abroad. Although literature exists that investigated the Turkish Outward Direct Investment (ODI), these papers either use a case study approach (Erdilek, 2008) or provide cross sectional evidence (Demirbag, Tatoglu and Glaister, 2009; Anil, Armutlulu, Canel, and Porterfield, 2011) without fully considering the role of cultural and psychic distance; hence understanding the Turkish ODI remains incomplete. Accordingly, this paper examines the roles of cultural distance and psychic distance in ODI decisions of Turkish MNEs, thereby addressing an existing gap in the literature regarding ODI from a developing economy, Turkey. We also believe that Turkey is a good test case for the general theory of ODI since it presents many special conditions[1]. Accordingly, this study aims to answer the following two questions. First, is cultural distance associated with ODI from Turkey? Second, is psychic distance associated with ODI from Turkey?

Within the literature, psychic distance has been defined as the concept of subjective perceptions of self and others operating across international markets. In simpler terms, it is the degree of difference in behaviors and beliefs between the parties involved in an event; in this case the event being the expansion of business across borders. Psychic distance has been linked to international business in many studies (Evans and Mavondo, 2002; Johanson and Vahlne, 1977; Johanson and Wiedersheim-Paul, 1975; Nordstrom and Vahlne, 1994; Vahlne and Wiedersheim-Paul, 1977) as a significant element that helps explain how firms approach internationalization. It has been suggested that psychic distance is a main determinant when firms choose a foreign country in which to expand to. Considering the popularity and widespread acceptance of psychic distance as a factor that influences internationalization decisions, it is somewhat surprising to see that the metrics associated with it are less than stellar. Dow and Karunaratna (2006) states "Psychic distance is one of the most commonly cited, yet vaguely measured, constructs within the realm of international business research." Also, it has, and arguably more importantly, been suggested that psychic distance has significant value as an indicator for the expected level of success of a firm in the host country. Accordingly, we first examine the drivers

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[1] Turkey straddles Asia and Europe, is the only member of customs union of the EU without full membership to the Union, has cultural ties with Central Asian countries, its ODI stock is growing rapidly, and has an important diaspora in EU countries.

of outward foreign direct investment (ODI) for Turkish multinationals and scrutinize if countries receiving high direct investment from Turkey are close to Turkey in Dow and Karunaratna's (2006) psychic distance measures.

Given the challenges that psychic distance present to researchers trying to study international business behavior based on it, we also use Hofstede's cultural dimensions (Hofstede, 1980) and hence measure the role of cultural distance in the ODI decision of Turkish MNEs. Dow and Karunaratna (2006) and Shenkar (2001) among many others have a consensus agreement that psychic distance is a multidimensional construct. However, at the empirical level the numerous studies used a single metric, specifically Kogut and Singh's (1988) index of Hofstede's (1980) four national culture dimensions (Harzing and Pudelko, 2016). Even though it is disputed that Hofstede index is only a narrow component of psychic distance, it is still accepted as an appropriate measure of national culture (Dow and Ferencikova, 2010). We argue that countries with high cultural distance may be preferred for foreign direct investment (FDI) rather than other entry methods such as exporting or joint ventures due to potential high psychic distance. Thus, in this paper, we also examine if countries that are host to Turkish ODI are close to Turkey in Hofstede's perceptual maps of cultural dimensions.

In our empirical analysis, we use a sample of 13 countries that host over 53% Turkish ODI stock over the 2001–2012 period. We find that cultural distance plays an important role in the decisions of Turkish Multinational Enterprises (MNEs) outward investments. To be more precise, we find positive relationships between Turkish ODI and cultural distance between the host country and Turkey. However, we do not find any significant association between the psychic distance and Turkish ODI.

This paper is organized as follows. First, we review the literature and develop our hypotheses. Next, we describe the recent developments in the universe of the Turkish Outward FDI. Third, we present our sample and test our model. Fourth, results of the analysis are reported and discussed. Finally, we make the concluding remarks.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Cultural characteristics are more of an abstract concept that has been debated across many fields on the proper way of quantifying it. Using Hofstede's model allows for a quantification approach of culture that can be used to execute studies of business behaviors in relation to cultural behaviors. Previous research has attempted various methods to properly use Hofstede's results in the analysis. Loree and Guisinger (1995) used Hofstede's dimensions in their study by including it as one of the independent variables in a regression. Their initial results based on data from 1977 showed significant explanatory power from the culture variable, but the results they attained with data from 1982 did not show explanatory significance in the culture variable. They explain this end result by stating that it seems that cultural difference is losing its explanatory power over

time because the world is moving toward homogeneity, at least in business practices, to a point that cultural differences are becoming less of a concern. The results found in Sehti et al. (2003) support the notion of cultural differences losing influence over the internationalization of a business. However, a review of the methodology used in Loree and Guisinger (1995) brings attention to the use of arithmetic average in an attempt to condense all cultural dimensions in one variable. If firms are concerned with some cultural dimensions over others when considering a foreign country for expansion, the arithmetic average approach may cause the dimensions to cancel each other leading to insignificance. Other studies, like the one performed by Li and Guisinger (1992) show relationships between cultural differences and international business behavior. In addition, there is ambiguity that accompanies conducting transnational business, and it is largely represented by the cultural differences between diverse markets (Doole & Lowe, 2008). The differences in culture are expected to increase information requirements and search costs (Hakanson and Ambos, 2010). Moreover, the greater the cultural distance between the home country and the host countries, the more difficult it will be both to recognize and to analyze information about the host country (Sousa and Bradley, 2006). Accordingly, we argue that, the greater the cultural distance between the home (Turkey) and host countries, Turkish MNEs will be more likely to penetrate into foreign markets in the form of ODI. Thus, we posit that;

> **H1**: The greater the cultural distance between Turkey and the host country of the investment, the more likely the investment is made in the form of ODI.

The Uppsala model of internationalization argues that the psychic distance constrains the internationalization of firms (Johanson and Vahlne, 1977, 1990, 2003). The literature about the mode choices of developed countries MNE's have documented that there is a positive relationship between cultural distance and FDI (Padmanabhan & Cho, 1999; Pan, 1996; Thomas and Grosse, 2001). Besides, according to Li (2003), psychic distance impacts the market selection process and the FDI destination of MNEs from developing countries. To put it alternatively, the greater the psychic distance between the home and host countries, MNEs will be more likely to penetrate into foreign markets in the form of ODI. So, based on these discussions we hypothesize that;

> **H2**: The greater the psychic distance between Turkey and the host country of the investment, the more likely the investment is made in the form of ODI.

GROWTH OF ODI FROM TURKEY

Before the onset of the third millennium, both the economic and political environment in Turkey has offered little incentive for Turkish companies to internationalize. However, since the end of the last decade, there is a growing tendency toward more international involvement from Turkish firms, mainly in the form of the acquisition of companies and the building of new subsidiaries around the globe. The surge of Turkish ODI has both domestic push and

international pull factors. The domestic push factors can be summarized as: the liberalization of the Turkish economy in the last two decades of the 20th century; increased domestic competition following the implementation of Customs Union with the European Union in 1996; and regulatory reforms that exempted the holding companies from taxation for their gains abroad. We can also list the international pull factors as: political changes in the region mainly as the dissolution of Soviet Union and as a result emergence of independent Turkic States (such as Azerbaijan, Turkmenistan, Kazakhstan that have close psychic distance to Turkey), opening the Russian Federation to the world economy, access to natural resources, and access to technology[2].

In Table 1, we present the Turkish Outward FDI flows to host countries used in our analyses for selected years. Turkish outward investment has seen something of a surge in recent years. Table 1 present several insights. We see that, after crossing the USD 1 billion mark for the first time in 2005, outward FDI annual flow reached to over USD 4 billion in 2012. We observe that over one-third of Turkish Outward FDI stock, about 9.3 billion USD, is hosted by Netherlands in 2012[3]. The Netherlands is followed by the United States, which is the only other country with Turkish Outward FDI stock of over USD 1 billion by 2012 in our sample. In Table 1 we also observe that thirteen countries that constitute our sample received between 43.2% (in 2005) to 94.8% (in 2002) of the Turkish ODI annual flows. Moreover, these sample countries host over 53% of total Turkish ODI stock as of 2012.

The majority of Turkish ODI is carried out by conglomerates with diversified investment portfolios which include; electrical equipment, electronics, and consumer durables. These conglomerates are followed by oil and gas industry, infrastructure, construction, glass, energy, food and beverage, communications, and fertilizer[4].

DATA AND ECONOMETRIC MODEL

We collected data for Turkish ODI annual flows from the UNCTAD over the period 2001–2012. Cultural dimensions are gathered from Geert Hofstede`s website and psychic distance measures are collected from Douglas Dow's website. Data for control variables are collected from a variety of resources. We gathered host country Gross Domestic Product (GDP in current USD), ratio of ore and metal exports to merchandise exports, inflation rate, and openness to FDI (annual Inward FDI flows scaled by GDP) from World Bank Development Indicators website. Exports to Turkey from host country and imports from Turkey to host countries are gathered from Turkish Statistical Institute website (both in current USD). Also, we collected annual exchange rates between host country currencies and Turkish Lira from the UNCTAD website and Geographic

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[2] For a more detailed discussion of the causes of Turkey's recent outward foreign direct investment (ODI) surge, see Erdilek (2008).

[3] Although Azerbaijan hosts more than 5 billion USD of Turkish ODI we exclude it from our analysis due to lack of Hofstede`s cultural values for the country. Following Cross et al. (2007), we also exclude Luxembourg and Malta since these countries are known tax havens.

[4] For a more detailed analysis see: http://ccsi.columbia.edu/files/2015/04/EMGP-Turkey-Report-March-24-2014.pdf

Distance (the distance between the host country capitals and capital of Turkey, Ankara) from the Centre des Etudes Prospectives et D'informations Internationals website.

Table 1: Annual ODI Flows and Stock by Sample Countries for Selected Years (million USD)

Host Country	Annual Outward FDI Flows from Turkey					Stock
	2002	2005	2010	2011	2012	2012
Bulgaria	1	9	1	18	7	167
Romania	25	29	20	27	32	144
Iran	3	3	13	4	2	224
Russia	0	7	74	88	162	426
France	1	1	8	28	4	18
Belgium	1	6	1	1	7	206
Italy	0	106	14	45	23	16
Germany	17	158	68	90	61	759
Switzerland	17	10	37	28	67	406
Netherlands	122	91	699	526	2,765	9,307
United States	43	21	53	41	139	1,746
Ireland	6	1	0	501	0	759
United Kingdom	2	18	25	20	84	274
Sample Total	238	460	1,013	1,417	3,353	14,452
World	251	1,065	1,823	2,542	4,334	27,190
Sample Total/World	94.8%	43.2%	55.6%	55.7%	77.4%	53.2%

Source: UNCTAD Country Report and authors` own calculations

To measure psychic distance, we follow the formative index developed by Dow and Ferencikova (2010). This index uses the five of the major dimensions of psychic distance (differences in language, religion, industrial development, education, and degree of democracy) created by Dow and Karunaratna (2006). Algebraically, the Dow and Ferencikova`s psychic distance index is calculated as:

$$PD_i = \sum_{k=1}^{5}(I_{ijk})^2 / V_k / 5 \qquad (1)$$

where;

I_{ijk} is the distance between countries i and j for the kth dimension of psychic distance, and

V_k is the variance of the kth dimension of psychic distance across 13 countries.

We follow the method developed by Kogut and Singh (1988) and use the four cultural dimensions of Hofstede (Power Distance; Individualism; Uncertainty Avoidance Index; and Masculinity) to create a composite index for each host country measuring the "cultural distance" from Turkey. The deviations are corrected for differences in the variance of each dimension and then arithmetically averaged. Algebraically, the cultural distance index is calculated as:

$$CD_j = \sum_{i=1}^{N} \{(I_{ij} - I_{iN})^2 / V_i\} / 4 \qquad (2)$$

where;

I_{ij} denotes index value for cultural dimension I of country j,

V_i denotes variance of index for dimension i

N denotes home country (in our case, Turkey)

Table 2 reports the psychic and cultural distance values between the host country and Turkey. First, we summarize the Dow and Karunaratna psychic distance measures. We observe that Bulgaria is the most proximate country to Turkey with a psychic distance score of 0.4562, followed by Romania, Iran, and Russia. On the other hand, United States is the most distant country to Turkey with a psychic distant score of 2.1043, and followed by Italy, France, and The Netherlands.

Table 2. Psychic and Cultural Distance Values by Country

Country	Psychic Distance with Turkey	Cultural Distance with Turkey
Bulgaria	0.4562	0.0474
Romania	0.5217	0.3412
Iran	0.7392	0.3437
Russia	0.7829	0.4871
France	1.5836	0.5042
Belgium	1.3811	0.7176
Italy	1.6873	1.2832
Germany	1.5230	1.3869
Switzerland	1.4898	1.7244
Netherlands	1.5710	2.3534
United States	2.1043	2.4961
Ireland	1.1850	2.7183
United Kingdom	1.2811	3.0983

Second, we look at the Kogut and Singh's (1988) cultural distance index values based on of Hofstede's (1980) four national culture dimensions. Accordingly,

we observe that Bulgaria is the most proximate country to Turkey with a cultural distance score of 0.0474, followed by Romania, Iran, and Russia. On the other hand, United Kingdom is the most distant country to Turkey with a score of 3.0983, and followed by Ireland, United States, and the Netherlands.

As we are estimating the impact of the psychic distance and cultural distance on Turkish ODI, we use a number of control variables that are considered to affect FDI following the previous studies. We discuss the justification for each of these variables now.

Gross Domestic Product (GDP)

We control for Gross Domestic Product (GDP) of the host country in current USD as the measure of the market size. Many studies cite GDP as an indicator of the size (Tsai, 1994; Buckley, 2009; Ramasamy and Yeung, 2010; Voss, 2011). Moreover, many studies document positive association between GDP and ODI (Amal et al., 2009; Frenkel, et al., 2004).

Exchange Rate

The literature on exchange rate and FDI presents conflicting results yet it is accepted that exchange rate impact FDI (Aliber, 1970; Stevens, 1993; Blonigen, 1997). An overvalued (undervalued) home country currency (i.e., Turkish lira) is-a-vis host country currency encourages (discourages) ODI for MNEs undertaking efficiency-seeking projects to decrease production and operational costs (Stevens, 1993; Chen, Rau, and Lin, 2006). In our sample period of 2001–2012 the value of Turkish Lira appreciated and depreciated vis-à-vis the host country currencies. Thus, it is reasonable to accept that an association relation between ODI and exchange rates. Accordingly, we include exchange rate in our model as a control variable.

Openness

Openness (annual Inward FDI flows scaled by GDP) of an economy for foreign investment plays a significant role in drawing FDI (Chakrabarti, 2001). Besides, openness is a proxy measure for the attitude of the host country to FDI and its integration to the global economic system. Hence, it is assumed that it is more (less) likely that a host country that is more open (close) to the world attracts more (less) Turkish ODI.

Geographical Distance

Internalization theory hypothesizes that there is a positive relation between the geographical distance and FDI (Buckley and Casson, 1976). Following Buckley et al. (2007) we use the geographical distance measure to isolate the impacts of cultural distance and psychic distance variables in our models. Based on the theory we can argue that Turkish MNEs would favor FDI to other methods of penetration as geographical distance increases with the host country.

International Trade (Exports and Imports)

The Uppsala internationalization model predicts that as the bilateral trade flows increase between two countries, the firms will increase their knowledge of the

foreign market and therefore increase their involvement through FDI (Johanson & Vahlne, 1977). This argument indicates a positive correlation between bilateral trade and FDI, and postulates that trade and FDI are complements. On the other hand, many other researchers (Swenson, 2004; Amal & Raboch, 2010) claim that FDI and exports are substitutes. Thus, we include annual export and import flows between Turkey and host countries in our model.

Natural Resources

Internalization theory claims that companies invest abroad to control or gain access to scarce natural resources (Buckley and Casson, 1976). Also, Aleksynska and Havrylchyk (2013) documents a positive relation between natural resources in host country and FDI from developing economies. Anil et al. (2011) show that Turkish MNEs invested abroad especially in Turkic Central Asian and also in Balkan countries to gain access to their natural resources such as petroleum, natural gas, and glass. Accordingly, we control for natural resources of the host countries.

Inflation

Inflation rate is a relevant macroeconomic indicator of the economic stability and business climate of host countries. Thomas and Grosse (2001) document that high levels of inflation diminish the appeal of investing in a country. Moreover, Erdilek (2008) argues that galloping inflation rates in Turkey has been one of the push factors for Turkish MNEs to invest abroad. Consequently, we control for annual host country consumer price index in our model.

Econometric Models

Based on our discussion we lay down our econometric models as:

$$LODI_{Turkey,jt} = \beta_0 + \beta_1 CD + \beta_2 LGDP_{jt} + \beta_3 LORE_{jt} + \beta_4 LERATE_{jt} + \beta_5 LOPEN_{jt} + \beta_6 LDIST_{Turkey,j} + \beta_7 LXPRT_{Turkey,t} + \beta_8 LIMPRT_{Turkey,t} + \beta_9 LINF_{jt} + \varepsilon_{jt} \tag{3}$$

$$LODI_{Turkey,jt} = \beta_0 + \beta_1 PD + \beta_2 LGDP_{jt} + \beta_3 LORE_{jt} + \beta_4 LERATE_{jt} + \beta_5 LOPEN_{jt} + \beta_6 LDIST_{Turkey,j} + \beta_7 LXPRT_{Turkey,t} + \beta_8 LIMPRT_{Turkey,t} + \beta_9 LINF_{jt} + \varepsilon_{jt} \tag{4}$$

In our econometric models, β_0 is the constant and ε_{jt} is the residual error. All variables are represented by j, the host country, and t, the year. Our dependent variable, $LODI_{Turkey,jt}$, is the natural logarithm of the official per year amount of capital export of Turkey to host countries. We transform variables other than the psychic distance (PD) and cultural distance (CD) into natural logs to overcome the nonlinearities following the empirical work in the literature (Buckley et al. 2007; Kalotay and Sulstarova, 2010). $LGDP_{jt}$, $LORE_{jt}$, $LINF_{jt}$ are the host country characteristics (host country *GDP* in current dollars, share of natural resources in total merchandise exports in the host country, annual

consumer price index changes), $LDIST_{jt}$ is the distance of host country capitals from the capital city of Turkey, Ankara, $LXPRT_{Turkey,t}$ is the exports of Turkey to host country, $LIMPRT_{Turkey,t}$ is imports of Turkey from the host country, $LERATE_{jt}$ is the host country annual exchange rate against the Turkish lira, and $LOPEN_{jt}$ is the openness of the host country (the ratio of host country FDI flow to GDP).

Table 3: Descriptive Statistics of Turkish ODI Sample: 2001–2012

Characteristics	Mean	Median	Std. Dev.	Max.	Min.	N
Annual Turkish ODI Flow (million USD)	76.54	13.5	247.42	2,765	0.00	156
Psychic Distance	1.2544	1.3811	0.4762	2.1043	0.4562	156
Cultural Distance	1.3463	1.2832	1.0025	3.0983	0.0474	156
GDP (billions USD)	2,050	658	3,518	16,155	14	156
GDP per capita (USD)	31,304	36,150	19,846	88,003	1,762	156
GDP growth (%)	2.25	2.11	3.23	9.12	−7.82	156
Exchange Rate	1.3539	1.5050	0.7843	2.8371	0.0001	156
Openness (%)	7.16	2.84	10.79	87.44	0	156
Geographic Distance (km)	2,263	2,039	1,806	8,071	442	156
Imports from Turkey (billion USD)	3.49	2.47	3.01	13.95	0.15	156
Exports to Turkey (billion USD)	5.92	3.6	5.94	31.36	0.38	156
Natural Resources (%)	8.77	3.17	17.81	96.26	0	156
Inflation Rate (%)	4.82	2.48	5.81	34.47	−4.48	156

Table 3 reports the descriptive statistics of the Turkish ODI, Cultural Distance and Psychic Distance (variables of interest) and control variables used in our model for thirteen sample countries over the 2001–2012. The mean (median) psychic distance of the countries was 1.2544 (1.3811) and showed a large range as the difference between the maximum and minimum was about 1.65. The mean (median) cultural distance of the countries was 1.3463 (1.2832) and showed even a larger range that psychic distance as the difference between the maximum and minimum was about 3.05. The mean (median) value of host country GDP per capita was USD 31,304 (36,149). In view of that, we can argue that Turkish outward investments are directed to high-income countries. We also see that the average economic growth of the sample markets has been only 2.25%. This is not surprising considering the fact that our sample encompasses 2007–2008 global economic recession. We similarly observe that the mean distance of the host countries was 2,262.5 kilometers and shows that the majority of Turkish ODI is directed toward countries with long distances from the home market. In other words, we can argue that Turkish ODI had more global character rather than regional. The average (median) inflation rate was 4.82% (2.48%) and point to stable host country economies. According to UNCTAD 84 countries were host to Turkish ODI as of 2012. In our sample, we

use 13 countries (USA, Germany, U.K., The Netherlands, Belgium, Romania, Russia Federation, Italy, France, Switzerland, Ireland, Bulgaria, and Iran) and run our regression models on these countries due to the abovementioned data limitations. We use balanced pooled regression to estimate our models.

ANALYSIS AND RESULTS

In Table 4, we document the pairwise correlations among the variables used in our model. Overall, the correlation matrix shows that there are no general problems with the data. Specifically, the correlation matrix shows correlations between the model variables do not exceed 90%, which could cause multicollinearity.

Table 5 presents the results of the regression analysis that estimates Equation 3. Model 1 only includes the cultural distance (CD) variable. In Model 2 we add all the control variables described above. The coefficient on the cultural distance (CD) variable has the hypothesized sign (i.e., positive) and is statistically significant in both models. These findings support our hypothesis that the greater the cultural distance between Turkey and the host country of the investment, the more likely the investment is made in the form of FDI. This finding indicates two conceivable implications. The first implication suggests that the higher the cultural distance is, the more likely Turkish MNEs will show greater commitment and higher allocation of resources in the host country. The participation in countries with high cultural distance implies more risk and uncertainty, inducing Turkish MNEs make a higher effort to the development of specific ownership advantages and capabilities to overcome the liability of foreignness.

Model 3 only includes the psychic distance (PD) variable. In Model 4 we add all the control variables described above. The coefficient on the psychic distance (PD) has the hypothesized sign (i.e. positive) yet it is marginally statistically significant only in model 3 and insignificant in model 4. These findings do not support our hypothesis that the greater the psychic distance between Turkey and the host country of the investment, the more likely the investment is made in the form of FDI. In Model 5, we add the CD variable in addition to all variables in Model 4. We see that the CD variable is still significant and positive and PD is still insignificant. We also observe that the value of the adjusted R-squared increases as we add the CD variable from 18% to 21% in model 5. This finding suggest that CD is an important factor that affect ODI decisions.

In all three models (Model 2, 4 and 5), we find that the *LXPRT* variable is the only significant control variable. This finding indicates that Turkish ODI has both a conventional and an idiosyncratic nature. This also supports the existing literature that FDI and exports are substitutes. On the other hand, we see that *LIMPRT* variable is insignificant. The insignificant *LGDP* variable indicates that size of the market is not a major factor in ODI decision of Turkish MNEs. This is not surprising considering that most of our sample countries are European Union members and Turkish MNEs can export to these markets without any

Table 4. Correlation Matrix of Model Variables

	PD	CD	LODI	LGDP	LORE	LERATE	LOPEN	LDIST	LXPRT	LIMPRT
PD	1.0000									
CD	0.5932	1.0000								
LODI	0.1340	0.1488	1.0000							
LGDP	0.8037	0.4670	0.2706	1.0000						
LORE	−0.1780	0.2773	−0.1853	−0.3277	1.0000					
LERATE	0.6546	0.6074	0.1626	0.3997	0.1409	1.0000				
LOPEN	−0.0197	0.1864	0.0450	−0.2590	0.2638	0.2420	1.0000			
LDIST	0.7723	0.5826	0.0219	0.7232	0.0448	0.2883	−0.0251	1.0000		
LXPRT	0.3549	0.0490	0.4386	0.7173	−0.4878	0.2731	−0.2247	0.1382	1.0000	
LIMPRT	0.3167	−0.0813	0.2818	0.7184	−0.4704	−0.0179	−0.3559	0.2564	0.8250	1.0000
LINF	−0.6109	−0.4761	−0.1316	−0.3663	−0.0936	−0.7743	−0.1738	−0.2861	−0.1845	−0.0373

Table 5: Turkish ODI and Psychic and Cultural Distance Regression Model Results

	(1)	(2)	(3)	(4)	(5)
CD	0.753*	1.599**			1.695**
	(0.064)	(0.014)			(0.012)
PD			1.427*	−0.215	1.517
			(0.095)	(0.935)	(0.572)
LGDP		−1.012		0.239	−1.373
		(0.350)		(0.829)	(0.276)
LORE		−2.163		0.672	−1.100
		(0.558)		(0.872)	(0.791)
LERATE		−2.911		−1.901	−3.668
		(0.126)		(0.400)	(0.116)
LOPEN		5.104		7.770	4.788
		(0.319)		(0.130)	(0.354)
LDIST		0.172		−0.169	−0.051
		(0.901)		(0.909)	(0.972)
LXPRT		3.739***		3.301***	4.016***
		(0.000)		(0.003)	(0.000)
LIMPRT		−0.569		−1.368	−0.530
		(0.538)		(0.123)	(0.568)
LINF		−11.383		−9.518	−10.141
		(0.317)		(0.421)	(0.382)
Intercept	14.153***	−25.987**	13.377***	−29.379**	−22.865*
	(0.000)	(0.013)	(0.000)	(0.013)	(0.054)
N	156	156	156	156	156
Adj. R^2	0.02	0.22	0.01	0.18	0.21

***,* * and * indicate that the coefficient is significant at the 1, 5 and 10% levels, respectively

trade barriers. We see that the *LORE* variable is insignificant. This finding is potentially the result of our limited sample due to the lack of cultural distance values. The negative and insignificant *LERATE* variable indicate that exchange rate did not play a significant role in the ODI decisions of Turkish MNEs in our sample period. This finding is potentially due to our limited sample size and time period. Our model also presents the expected positive signs both for *LOPEN and LDIST* variables and a negative sign for LINF. However, coefficients of all these variables are insignificant. These results are potentially driven by the lack of variation in the openness, geographical distance, and inflation variables in our sample.

Our adjusted *R*-squared values for models 3, 4 and 5 has the range of 18% to 22%. Albeit these figures might be considered low, it is consistent with the single country ODI literature. For instance, Buckley, Forsans, and Munjal

(2009) examine the determinants of Indian ODI and report adjusted *R*-squared values ranging between 17% and 19%. Similarly, Kalotay and Sulstarova (2010) models the Russian ODI and report adjusted *R*-squared values ranging between 19% and 21% and Amal and Kegel (2012) models the Brazilian ODI and report adjusted *R*-squared values ranging between 27% and 29%.

CONCLUSIONS

In this study, we aimed to establish the impact of cultural and psychic distance on ODI decisions of Turkish MNEs. We believe that this study represents a significant contribution in understanding the dynamics of Outward FDI from Turkey. The results of the econometric model used to test our hypotheses show that cultural distance proximity, our variable of interest, is statistically and economically significant in relation to Turkish ODI.

Our results suggest that culture, as prescribed by Hofstede, does play an important role in the foreign investment decision of Turkey enterprises. We show that the greater the cultural distance between a host country and Turkey, the more ODI can be expected. This result supports our hypothesis and is in accordance with Padmanabhan and Cho (1999) and Pan (1996), which states that countries with cultural proximity are more inclined to invest in each other's capital markets, but when they are culturally distant their investments may come in the form of FDI because it provides better control mechanisms to the investors. Besides, high cultural distance spawns ODI because of the need to customize products to host country conditions (consumer tastes and preferences, regulations, barriers to exports), rather than just exporting from the home country. The main limitation of our study is the lack of availability of Hofstede's national cultural values for all countries that host Turkish ODI. We also note that the impact of psychic distance may vary depending on the size (i.e. market capitalization) of the MNE or its industry. Our study does not control for these factors and leave it to future research.

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