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The sister cities program and tourism

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ABSTRACT

This research attempts to examine the extent to which the Sister Cities program, affects local tourism. The theoretical model presented here argues that for both countries to benefit from that program a mutual compatibility must be met. The compatibility requirements suggested are same size category and mutual cultural environment that includes political, religious, and ideological agenda. Empirical testing has found that the most beneficial coupling method, in terms of the number of tourists and the length of time they spend, was the same sizes method (Big-Big and Small-Small), with an emphasis on Big-Big, which was found to be the best coupling method. The model designed here, and the empirical results may assist tourism policy makers to design a more efficient Sister Cities engagement policy for their country.

1. Introduction

Sister Cities is a program in which cities that are apart from each other geographically, and sometimes also politically, are matched to embrace mutual tourism and personal relations. The program started in Europe after world war two to connect nations across the continent through projects that benefitted both sides. The U.S. sister city program began in 1956 when President Dwight D. Eisenhower proposed a people-to-people, citizen diplomacy initiative. Originally a program of the National League of Cities. Sister Cities International (SCI) became a separate, nonprofit corporation in 1967, due to the growth and popularity of the U.S. program. According to the SCI, a U.S. city should have only one sister city in a country. However, this rule was not upheld as long as the two cities have roughly the same size and are compatible partners in terms of mutual ideology, interests, and culture (Baycan-Levent et al., 2010). The international Sister Cities program was designed to yield the international partners, cultural, economic, and political benefits. But mainly it connects people with different backgrounds and languages, leading them to a better understanding of each other and hopefully a long run cooperation. The wide range of influential factors on both partner cities is a fertile ground for researchers. However, the scope of academic research addressing those issues is limited and concentrates mainly on the matching process and the developing relationships between the engaging cities. The following research focus on the impact of the Sister Cities program on tourism in terms of the number of visitors and the time they spend in the foreign country. It is difficult to isolate the influence of the Sister Cities program on tourism since other interventions factors may influence the suspected connections. To ease that difficulty, we used data from two different countries (U.S.A and Israel) over a long period of time.

The endeavor of two cities from different cultural and economic background is to form a regional strategic alliance that focus on mutually beneficial activities. Various studies provide evidence on the motivation behind organizations cross-border alliances and regional economic integration, suggests that such integration has a positive impact on the overall national economies (Krugman & Obstfeld, 2002) and reinforce the strategic operations within region (Rugman & Verbeke, 2005). Moreover, it leads to improvement of the aggregate economic situation of the overall integrated areas in the long run, creating growth opportunities for organizations (Krugman & Obstfeld, 2002).

Countries can benefit greatly from cooperation when they share common physical resources such as: rivers, fishing grounds, hydroelectric power, or cultural such as: religion, ideology, and values. In the presence of economies of scale or inter-country externalities, single market solutions are generally sub-optimal, and failing to cooperate can be very costly. Cross-national collaboration is defined as the degree of cooperation and the extent of representation by country-level within a multinational system in the development of global strategies. The literature on international strategic alliances addresses several motivations, economic and non-economic. Those studies argued that technology exchange, R&D, and marketing collaboration are major motives behind many of the strategic alliances formed among international organizations. Companies tend to internationalize in order to benefit from market experience of their foreign partners, transferring technology and information, resources, and talent pool, and exceeding legal limitations (Bingol & Begec, 2020). Klus et al. (2019) found that in times of digitalization, firms in the financial services sector increasingly

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form alliances with start-up companies to satisfy he customers' demand for rapid innovation and cope with the growing dynamics of markets. Ferreira and Franco (2019) claimed that strategic alliances are also a way to overcome resources constraints in terms of human capital. The relations between international firms are increasingly important for their sustainability and development. Acting in isolation in a global market can reduce the firm's chances to survive.

Studies have shown that through developing and combining the knowledge residing in its network, international partners can exploit existing repositories of knowledge in each country and combine these resources to explore new global strategies across markets (Hewett & Bearden, 2001; Najafi-Tavani et al., 2015; Schlegelmilch & Chini, 2003). Thus, the collaboration must structure itself to (1) gain its customers' participation in the new product or services development process (Fang, 2008) and (2) integrate the cross-national knowledge of its marketing personnel. The network must work to leverage knowledge resources that are diffused across geographic boundaries (Crespo et al., 2014; De Brentani & Kleinschmidt, 2004; Im & Nakata, 2008). Alhorr et al. (2012) explained that the emergence and the adoption of economic integration policies at the country level, impact the patterns and structures of strategic alliances practiced between member countries. Specifically, the adoption of common market policies among members of an economic community has implications on the pattern and structure of strategic collaborative relationships of firms within these member countries.

On the regional level, cooperation among neighboring countries include public goods such as water basins, infrastructure, energy, and the environment. A major problem in reaching a cooperative solution is likely to be the lack of trust. If neighboring countries do not trust each other because of past problems, they may fail to reach a cooperative solution as each of them try to maximize gains from their regional public good. These strategies typically do not account for spillover effects and ultimately leads to losses for all parties. Other constraints on reaching a cooperative solution are its complexity and the financial requirements. According to Schiff and Winters (2002), two types of solutions may help resolve some of these problems. First, international organization can help with trust, expertise, and financing. Second, regional integration agreements, may be helpful by embedding the negotiations on regional cooperation in a broader institutional framework. Cross regional cooperation may result in community-based enterprises that are based on local control, social equity, and cultural diversity (Apo, 2004).

We develop here a theoretical model that aim to assist tourism policy makers in building a successful Sister Cities policy aimed to increase the local foreign tourism. Our theoretical model predicts that two major factors determine the success of the cities coupling process: compatibility and the invested resources. We start the empirical section of this paper examining the link between the number of Japanese and Italian sisters' cities coupled with cities in California and Florida,[1] and the number of Japanese and Italian tourists visiting those states. The Sister Cities phenomena is also popular in Israel. Many cities and municipal regions invest efforts and funds to find and cultivate tourism and cultural relations with foreign cities and regions. The number of the sister cities relative to Israel's size, and the fact that it is on a fast-growing path, makes Israel a perfect location for research examining the program's effectiveness in promoting both the number of tourists that visit the country and the length of time they spend there. Our data contains eleven years (2007–2017) of official Israeli ministry of tourism data on the number of tourists from different nationalities that entered the country and the length of time they spent there.

2. Literature review

An international Sister Cities program primely involves a cross cultural relationships of which each partner has different values and beliefs (Leavitt & Bahrami, 1988). The elements of culture like language, tradition, family structure, society norms and gender role have impact on consumers behavior (Usunier, 2000). Hofstede (2001) has developed a model that measures national cultural differences called Value Survey Model (VSM) which includes five cultural elements: individualism, masculinity,[2] uncertainty avoidance, confusion dynamism[3] and power distance.[4] Several studies show there is a significant perceived difference between tourist's behavior of different nationalities (for example: Ozdenmir & Yolal, 2016; Zgolli & Zaiem, 2017; Crotts & Pizam, 2002). Since culture influences people's behavior, the integrated marketing strategy must take into consideration different attitudes towards price negotiations, promotion mix, hospitality preferences etc. For example: messages must use language symbols and style that consumers in the host country can understand (De Mooij, 1998). Naipaul et al. (2009) claimed that forming partnerships among different destinations can face major challenges in developing and sustaining such long-term partnerships which include differing priorities, different marketing directions, and limited resources. The partners need to be informed and educated not only about advantages of the partnership but also how they can overcome potential challenges together in this endeavor. Informal working relationships and trust among executives are crucial in forming and maintaining such a partnership.

Modern tourism should be comprehended as a network system that must be integrated with other planning for social and economic development (Gunn, 2004; Jamal et al., 2004). Tazim and Jamrozy (2006) explained that traditional, destination management organizations tend to represent the tourism industry's interests. Their mission is building and enhancing a favorable destination image to attract targeted tourists and increase visitor numbers. Though their actual role should be more holistic and integrated to create real value for the potential tourists and to the countries involved. Moreover, the integrated destination management framework should bring in the destination's ecological-human communities as equitable and integrated members of planning-marketing and goal setting. That approach integrates economic viability, social equity, and environmental responsibilities towards achieving quality of life within systems. Multiple stakeholders can explore diverse views and develop shred appreciation and learnings of mutual issues as well as joint solutions (Hall, 2000; Walker et al., 1999).

Tourism today needs organizations and managers who understand how to operate in a global environment. According to Go and Fenema (2003) those mangers must coordinate process to overcome local differences and forge a global operational management standard. They also argued that in a global environment, marketing a city involves myriad of stakeholders including users (tourists) commercial marketing, multinational interests, public planning and professional practitioners with different background and interests. It is a teamwork in which a large number of actors play on a large number of stages and must be able to work independently within their specialized fields of expertise and networks. Too much central control in such a diverse field lead to a system failing to function. It is about all the actors working on a cooperative basis with the same toolkit (Berenschot, 2004). The literature involving Sisters Cities usually considers enhancing the matching process before the agreement is signed. Zelinski (1991) argues that the choice of a Sister City is not a random process, but instead, it is based on historical connections and shared cultural, economic, recreational, and ideological concerns. He also showed that since the

[1] California and Florida are the two U.S. states with the largest amount of foreign sister cities.

[2] The extent to which gender roles are clearly distinct.

[3] Long versus short term orientation in life.

[4] The extent of power inequality.

sister cities movement began, 11,000 pairings have been formalized among a wide range of communities in over 159 countries. As a result, the number of sporting events and cultural activities have risen dramatically, and international tourism has grown to include new destinations.

Cremer et al. (2003) and Ramasamy and Cremer (1998) introduced an "Integrated Approach" to the analysis of Sister Cities, whereby cities rediscover one of their original role as meeting places for different people and cultures, and thus create a place for economic and business activities. Cremer et al. (2003) expands the debate and suggests that the human nature determines that a successful operation of sister city programs will not occur when the individuals involved act with nothing more than self-interest. They focused on simultaneously operating multi-level entrepreneurial partnerships necessary to sustain active sister-city relationships and demonstrated that the emergence and development of embedded partnership ties is vital to deriving sustainable economic and social benefits. Moreover, they argued that while the global outreach of the sister-cities phenomenon appears to transcend the geographic confines of cities, strong locality considerations and local activism nevertheless predominate.

Baycan-Levent et al. (2004) claim that individual private contacts help to establish and maintain good relationships between cities. In a later paper (Baycan-Levent et al., 2008), the authors claimed that cities from different regions and countries tend to share their experience and culture within the networks to develop common spatial or social strategies and further cooperation. The city network paradigm claims that through participation in the networks, cities exploit scale economics and synergies (Capello, 2000; Ferguson, 2003). Baycan-Levent et al. (2010) argue that the existence of any former relationships with sister cities positively affects the success of the relationship. These former relationships make it easier to have a future relationship with an economic partnership, while shortening the process and accelerating the economic partnership. Sometimes, a well-developed city adopts an undeveloped poorer city as a humanitarian gesture and directs technical and financial aid flows between the cities. O'toole (1999, 2000) stated that there are three phases in the development of a relationship between two cities. He named the first phase the "associate phase", in which cities become aware of each other and exchange culture. The second phase is the "reciprocative phase" in which educational exchange systems are developed. The last phase is the "commercial phase", in which the relationship between the two cities is exploited to the commercial and economic benefit of both sides.

3. Theory and model

The reasons for the Sister Cities program are to promote tourism and to advance long run mutual economic and cultural relationships between the two engaged cities and countries. However, in our opinion, not every arbitrary coupling between two cities is effective in the same way. Among other considerations that should affect tourism, such as religion, distance and the population of the foreign country, the coupled cities' individual population sizes are also important. Four coupling scenarios can be adopted: 1. Big-Big (BB), meaning that both the foreign and local city are highly populated. 2. Big-Small (BS), meaning that the foreign city is highly populated, while the local city has a low population. 3. Small-Big (SB), meaning that the population size of the foreign city is low, while the local city is highly populated; and 4. Small-Small (SS), meaning that both cities are poorly populated (Charts 1-4).

Of the four possible coupling combinations exhibited above, we believe that equal sizes (BB and SS) between the sister cities should provide the greatest benefits for both cities. If a small local city associates with a large foreign city, it struggles for the big sister's attention, since the big foreign city is probably coupled to many other international cities of similar size. The best chance for a small city to attract attention and needed resources is to engage with a similarly

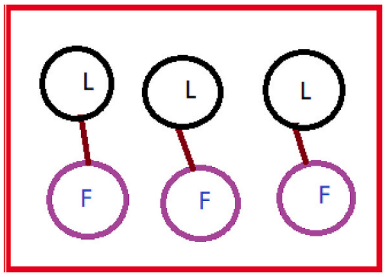


Chart 1. Big-Big, Big foreign and big local sister.

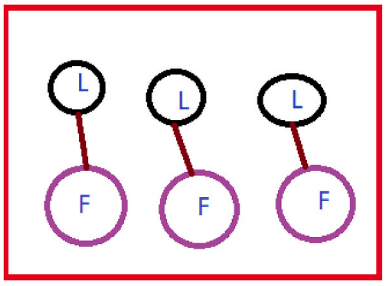


Chart 2. Big-Small, Big foreign and small local sister.

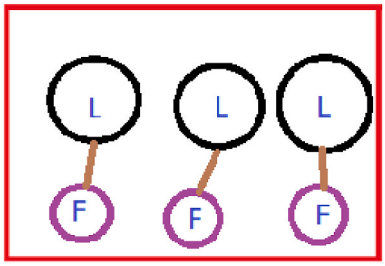


Chart 3. Small-Big, Small foreign and big local sister. Note: F stands for foreign city, and L stands for local city.

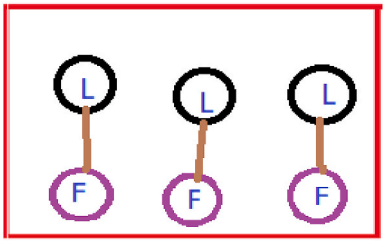
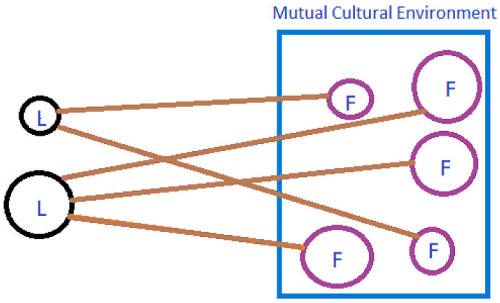


Chart 4. Small-Small, Small foreign and small local sister. Note: F stands for foreign city, and L stands for local city.

sized foreign city. The size of the cities also matters from another perspective. People who live in large cities are used to an enormous variety of cultural and recreational attractions that can be provided only in big cities and will look for similar experiences in their sister city. In that sense, they may feel that small foreign towns are less attractive than big ones. Another interesting question is how many foreign sister cities should be coupled with a local city. The answer to that, in our view, depends on the focus and financial resources that are dedicated to the project. Big cities are better funded than small cities, and they are rich in human resources that can be dedicated to the cultivation of foreign relations, and therefore, they can sign more Sister City agreements than smaller cities. Since it is argued that Sister City selection should be primarily based on mutual ideological and cultural environments (Zelinski, 1991). To increase the odds for a successful engagement process between two cities, a bilateral political support is



Note: F stands for foreign city and L stands for local city.

Chart 5. The Optimal Sister Cities Engaging Process. Note: F stands for foreign city and L stands for local city.

essential. Without the international political support, the chances of the two engaging cities to succeed in the coupling process is very low. Other important supporting factors where suggested by Schiff and Winters (2002). They proclaim that the involvement of international organizations and the existence of regional agreements, may help to advance the process. The process of engaging sister cities should follow Chart 5.

Chart 5 indicates that larger cities should sign more Sister Cities agreements than smaller cities. However, both sizes of local cities should approach similar sized foreign cities with cultural, political, religious, and ideological environments that are as similar as possible. The terms described above determine the compatibility level between the two engaging cities. However, these terms alone without investing essential resources might prove infertile. Chart 6 describes the necessary condition for successful process.

As Chart 6 describes, the first and most important needed resources are human. The personal relations between people from both countries can gap language and cultural differences and move the process forward more smoothly. Second influential factor is time. Every relationship personal or non-personal needs time for trust building and tradition creation. Last, money must be invested in the process for the initiation and maintenance of the mutual cultural activities. To ensure a long-term successful coupling process collaborate marketing strategy must be adopted. That strategy, that was widely discussed earlier in this paper,[5] should be based on the cultural differences understanding and joint motivation to cooperate and solve problems. It should involve mangers and customers (potential tourists) from the participating countries designing together the components of the marketing mix.

To validate our theoretical model, we designed an econometric model that attempts to estimate the percentage of tourists that arrived in Israel from each foreign country out of the yearly number of tourists that arrived in Israel, organized by the four categories of coupling: BB,[6] BS, SB and SS. We also consider other characteristics of the foreign country, including: 1. The country size.[7] 2: The percentage of a specific religion (e.g., Christianity, Judaism, Islam, and Evangelism) practiced in each country out of the total population. Religion is introduced to our model because it has long been an integral motive for undertaking journeys, it occupies an important segment of international tourism and it should continue to grow into the foreseeable future (Jackowski, 2000; Olsen, 2016). Another reason we included religion in the model is because Israel is mainly a Jewish state that attracts Jews from around the world, as well as people that believe in other religions and support Israel, like Evangelistic Christians. 3: The foreign country regional origin (eastern Europe, western Europe, north and south America and Africa). The model is presented in Equation (1):

$$Pi = \alpha + \beta_1 BB_i + \beta_2 BS_i + \beta_3 SB_i + \beta_4 SS_i + \beta_{5-6} CSize_{1-2i} + \beta_{7-10} Relig_{1-4i} + \beta_{11-16} Loca_{1-6i} \quad (1)$$

where: P_i = the percentage of tourists from a country $i$that visited Israel in a specific year (2007–2017). BB_i = the number of highly populated foreign sister cities from country i that are coupled with highly populated Israeli cities, BS_i=the number of highly populated foreign sister cities from country i that are coupled with low populated Israeli cities. SB_i = the number of low populated foreign sister cities from country i that are coupled with highly populated Israeli cities. SS_i = the number of low populated foreign sister cities from country i that are coupled with low populated Israeli cities $CSize_{1i}$=A relatively highly populated country (more than 30 million people. $CSize_{2i}$=A relatively low populated country (less than 30 million people). $Relig_{1-4i}$ = the percentage of the people that believe in the various religions out of the total population in country i; 1 = Christianity, 2 = Judaism, 3 = Islam, 4 = Evangelism $Loca_{1-6i}$ = the foreign country location dummy variable; 1 = east Europe, 2 = west Europe, 3 = Asia, 4 = North America, 5 = South America, 6 = Africa.

A time series regression models are often used in tourism studies. Zhike and Ting (2017) adopted the quantile regression model to provide a broad description of the relationship between tourism demand across the demand distribution. They find a significant positive relationship between income and tourism demand across various quantiles. Nurkhodzha and Gulnar (2020) used paired regression model to analyze the impact of income from international tourism on the foreign trade balance. Based on the statistical analysis of the country's data for 1995–2018, they showed that there is a correlation of exports of goods from revenues of international tourism. Yi-Bin and Lung (2016) applied a regression model and considers three tourism specialization indices as the threshold variables in order to explore the nonlinear relation among tourism growth, economic growth, and other macroeconomic variables for a cross-sectional data set of 84 countries. Their empirical results show strong evidence of a nonlinear relation between tourism growth and economic growth, suggesting that it is not continuous and constant. Cheung and Law (2001) applied annual time series regression techniques to identify the determinants and functional forms of tourism hotel expenditure in Hong Kong. Empirical results showed that the hotel expenditure in Hong Kong could be explained by four of the seven exogenous variables.

Another important aspect of tourism is the length of time tourists spend abroad. Every day spent is translated to a dollar value that the average tourists spends in the foreign country, and therefore, long stays are encouraged by the state and municipal tourists' authorities. To examine to what extent Equation (1) explanatory variables can explain the number of nights a tourist spends in Israel, we constructed a second model, which is expressed in Equation (2).

$$NNi = \alpha + \beta_1 BB_i + \beta_2 BS_i + \beta_3 SB_i + \beta_4 SS_i + \beta_{5-6} CSize_{1-2i} + \beta_{7-10} Relig_{1-4i} + \beta_{11-16} Loca_{1-6i} \quad (2)$$

where NNi_i = the number of nights of tourists from a country $i$spend in Israel in a specific year (2007–2017). The other explanatory variables are like Equation (1).

4. Results

To get initial understanding about the impact of the Sister Cities program on tourism we analyze two U.S. states in which the program is the most popular: California and Florida.

4.1. California and Florida

California's travel industry is a vital and growing part of the local economy, providing benefits at the state and local levels. Tourism related spending supports a wide swath of California businesses,

[5] In the literature review, Section 2.
[6] A big city in our model is a city with more than 200,000 people.
[7] A country is considered big if it has more than 30 million citizens.

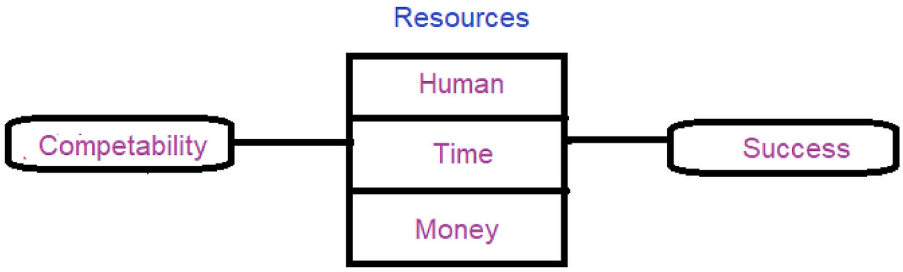


Chart 6. The required conditions for successful engagement.

including lodging establishments, attractions, restaurants, retail stores and other businesses that sell products and services to travelers. The tourism industry in California experience nearly a decade long trend of growth. Based on statistics from California travel and tourism commission, approximately 42 million visitors arrived in California in 2018 and spent $140.6 billion. In 2018, tourism supported 1.15 million jobs directly and another 795 thousand jobs via secondary spending. The GDP of the travel industry rose to $79 billion, representing about 2.5% of California's GDP. California holds the U.S. record regarding to the number of international sister cities. It's sister cities agreements are spread around the globe. Of the 621 international agreements, 82 are with Japanese cities (13.2%).

Florida set a new tourism record in 2018 according to Visit Florida, the state's official tourism organization. A record of 111.8 million domestic visitors traveled to Florida in 2018, 10.8 million overseas visitors and 3.5 million travelers from Canada visited Florida in 2018. Florida's 18 airports were up 7.6 percent year over year in 2018, for a record 93.9 million passengers. Additionally, the state's average daily room rate (ADR) was up 3 percent. Florida tourism industry brings in more than $6 billion in state taxes, and more than $5 billion in local taxes which in turn helps fund schools, improve healthcare, and support other government services. One of the greatest benefits of Florida's competitive advantage is that jobs in the tourism industry is among the biggest training grounds for the skills that employers are looking for. Moreover, visitors become long-term residents after learning of Florida's welcoming and competitive business climate, and no personal income tax. In that sense, tourism is helping diversify Florida's economy by increasing international exposure. Florida has the second highest amount of international Sister Cities agreements in the U.S.A. Of the 290-total number of agreements, only 9 are with Japanese counterparts (3.1%). On average, 3671 thousand of Japanese tourists have visited the U.S.A yearly.[8] Fig. 1 summarizes the growth rates of Japanese tourists to California, Florida, and U.S.A during 2013 until 2018.[9]

Fig. 1 show that on average tourism from Japan to the U.S.A has decreased from 2013 to 2018. However, California that signed 82 sister cities agreements with Japanese cities has experienced a positive 4% average growth of Japanese tourists during the same period. Florida on the other hand, that signed only 9 sister cities agreements with Japanese cities, has experience a more drastic decline of Japanese tourism than the U.S.A average. On average 1032 thousand of Italian have visited the U.S.A yearly between 2012 and 2017. As can be observed in Fig. 2, the total number of Italian visitors has grown by 5% a year on average during those years. California that has only 11 sister cities agreements with Italian cities (1.77% of its total number of agreements) has experience a relatively slower growth of Italian tourists of only 2% yearly average. On the other hands Florida that signed 14 sister cities agreements with Italian cities (4.8% of its total number of agreements) has experience a much higher growth of Italian tourist visitors (7% yearly average).

[8] From 2013 to 2018.

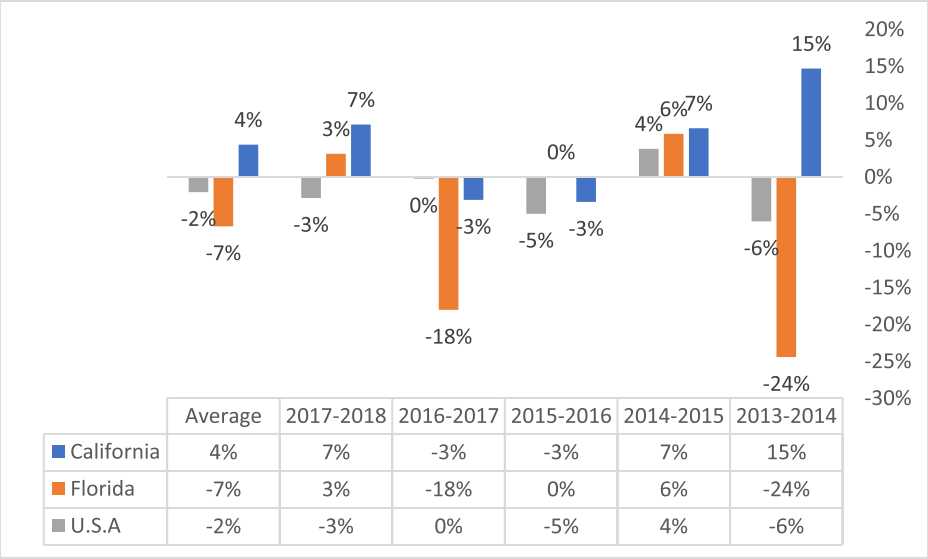
[9] The Data was provided by U.S.A National Travel and Tourism Office's (NTTO).

The data described here from U.S.A insinuate on a link between the Sister Cities and tourism. However, other interventional factors might influence that observed link.

4.2. Israel

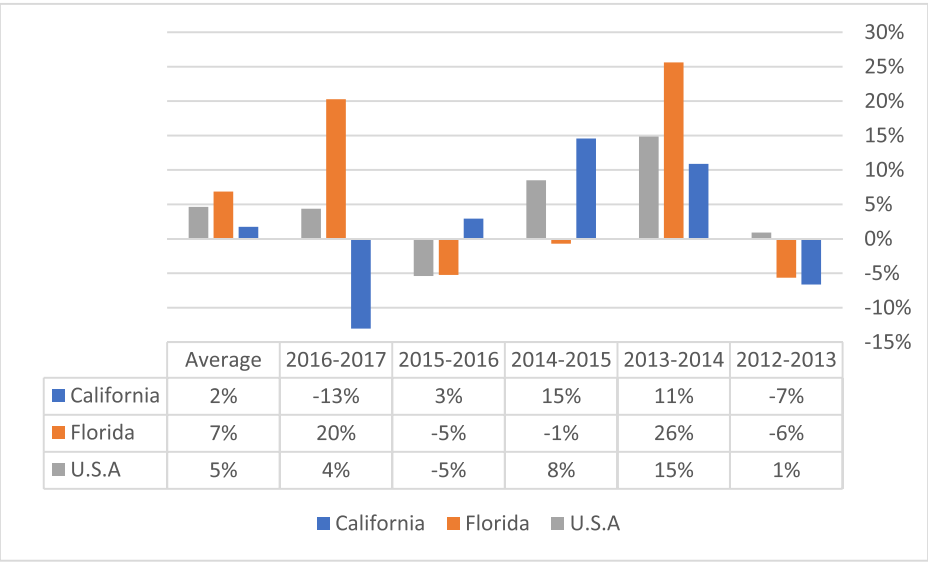
Tourism in Israel is one of Israel's major sources of income, with a record 3.6 million tourist arrivals in 2017, and contributed NIS 20 billion to the Israeli economy. Israel offers a plethora of historical and religious sites, beach resorts, natural sites, archaeological tourism, heritage tourism, adventure tourism, and ecotourism. The most visited city is Jerusalem and the most visited site was the Western Wall. The largest percentage of tourists come from the United States accounting for 19% of all tourists, followed by Russia, France, Germany, the United Kingdom, China, Italy, Poland, and Canada. The country's wealth and diversity of culture, history and nature in a small geographical area position it as a unique and attractive travel destination. Incoming tourism to Israel has experienced many ups and downs, mostly as the result of geopolitical developments in the region (Mansfeld, 1996). According to Tucker and Sundberg (1988), tourism is one of the activities that are particularly sensitive to political frontiers and their associated formalities and problems. Israel's tourist potential has been dormant for many years as people have felt reluctant to travel to a country rife with insecurity and instability. Peace agreements were established first in the late 1970s between Israel and Egypt and, later, during the 1990s, between Israel and Jordan. According to Mashiach (2005) The demand for sport tourism in Israel has risen in recent years due to an increase in leisure time, income and education levels, number of cars as well as a general upsurge in preferences towards recreation and sport activities. The supply of these activities has undergone changes, especially in the rural sectors, in response to the increased demand of the growing population in the country. According to Reichel et al. (2000) rural tourism industry in Israel is experiencing a major upturn. They argued that entrepreneurs will decide on the level of service to be offered and this should be directly and precisely transmitted to potential clients. This act will ensure greater customer satisfaction which will in turn, ensure rural tourism as a viable tourist option well into the future. The Sister Cities program in Israel is declared a national interest and it is therefore encouraged by Israeli diplomacy. The assumption behind this policy is that ties between cities strengthen international relationships and promotes tourism. Due to this policy, the total number of Sister Cities has risen from 451 to 534 along with a dramatic rise of the number of tourists that visited Israel from 2.63 million in 2007 to 3.61 million in 2017 (Fig. 3). Table 1 summarizes the origin of the major foreign Sister Cities and their local counterparts for 2017.

Table 1 shows that as of 2017, countries that are involved with Israel in this program extensively are Germany, France, the U.S.A and China. The leading Israeli partner sister cities are Haifa and Tel Aviv, which are the third and second most populated cities in Israel, respectively. Out of the 534 sister city agreements between Israeli cities and foreign cities, 182 involve big Israeli cities (34%) and 352 involve smaller cities and regional municipalities (66%). Table 1 also shows



	Average	2017-2018	2016-2017	2015-2016	2014-2015	2013-2014
California	4%	7%	-3%	-3%	7%	15%
Florida	-7%	3%	-18%	0%	6%	-24%
U.S.A	-2%	-3%	0%	-5%	4%	-6%

Fig. 1. Japanese tourists visiting California, Florida. And the entire U.S.A during 2013–2018.



	Average	2016-2017	2015-2016	2014-2015	2013-2014	2012-2013
California	2%	-13%	3%	15%	11%	-7%
Florida	7%	20%	-5%	-1%	26%	-6%
U.S.A	5%	4%	-5%	8%	15%	1%

Fig. 2. Italian tourists visiting California, Florida. And the entire U.S.A during 2012–2017.

that the big cities in Israel, such as Haifa, Tel Aviv and Beer Sheva, prefer to sign sister city agreements with foreign cities of similar size.[10] Except for Herzliya, small cities, such as Eilat and Ashkelon, prefer a similar size foreign Sister City. In Section 2, we discussed four coupling categories. Fig. 4 show the number of sister city agreements between foreign and Israeli cities by those four categories during the examined years.

The Figure shows that the highest number of sister city agreements was between small Israeli cities and small foreign cities (SS). Moreover, the number of those agreements is stable over the years. The second largest amount of agreements is between big Israeli cities and big foreign cities (BB). A sharp rise in the number of agreements in this category occurred in 2012 and remained constant since. The third highest number of agreements is between big foreign cities with small local cities (BS), which is stable over the years. The smallest number of agreements is between small foreign cities and big local cities (SB), although the number of such agreements has risen over the years. We now apply Equation (1) to our data and receive the regression model presented in Table 2.

The results of the regression model show that all four coupling size categories defined in Section 2 have significant impacts on the percentage of tourists that visited Israel from different countries out of the total number of tourists. However, while the numbers of Sister City agreements that belong to the BB and SS categories are positively related to the explained variable, the number of BS and SB agreements are negatively related to it. These results support our hypothesis that local cities should be coupled with cities of the same size. Furthermore, since the coupling of different sized cities has a negative impact on the number of tourists that arrive from the foreign country, it should not be encouraged by state and municipal policy makers. As expected, the size[11] of the foreign country affects tourism. The more populated the foreign country, the more tourists from that country visit Israel. In

[10] Netanya is exceptional however its population is only 205,000 people.

[11] The size is measured by the number of the population, where large country has more than 30 million citizens and small country had less than 30 million citizens.

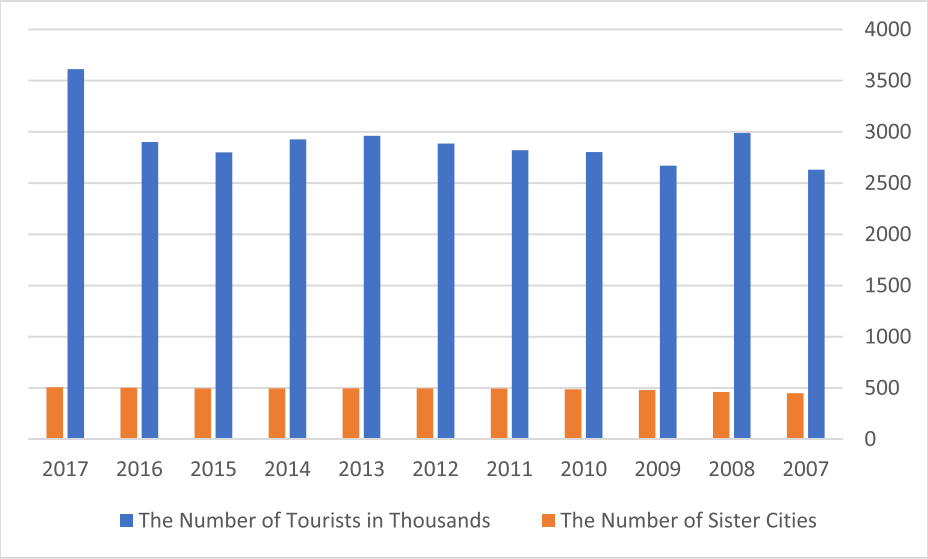


Fig. 3. The number of tourists that visited Israel and the number of sister cities 2007–2017.

Table 1
The foreign origin of israeli sister cities and their local counterparts for 2017.

Foreign	Germany	France	U·S. A	China	Italy	Total
Total	116	77	55	38	24	
Foreign	Poland	Hungary	Romania	Canada	Others	
Total	22	21	13	10	158	534
Local	Haifa*	Tel Aviv*	Ashkelon	Peta Tikva*	Rishon* Lesion	Total
Big	24	22	7	11	10	
Small	5	1	9	5	3	
Total	29	23	16	16	13	
Local	Eilat	Netanya*	Herzliya	Beer* Sheva	Other	
Big	5	5	6	8	84	182
Small	8	6	5	3	307	352
Total	13	11	11	11	391	534

Notes: Big = the number of big foreign sisters (more than 200,000 people), Small = the number of small foreign sisters' cities (less than 200,000 people). * Big Israeli city (more than 200,000 people).

respect to religion, the model detected a significantly positive influence of Judaism and Evangelism and a negative influence of Christianity and Islam on local tourism. The positive impact of Judaism and Evangelism that is found is explained by the fact that most Israelis are Jews and by the fact that the Evangelists are Christians that support Israel. The observed relationship between the foreign beliefs and the tendency to travel to Israel can be viewed as a result of mutual culture and ideologies supporting the discussed mutual cultural environment supporting the sister cities phenomena. Finally, the model indicates that the location of the foreign country is also important. Tourists tend to visit closer countries rather than distant countries. In our model, closer countries are in eastern and western Europe, and distant countries are in South America and Asia.

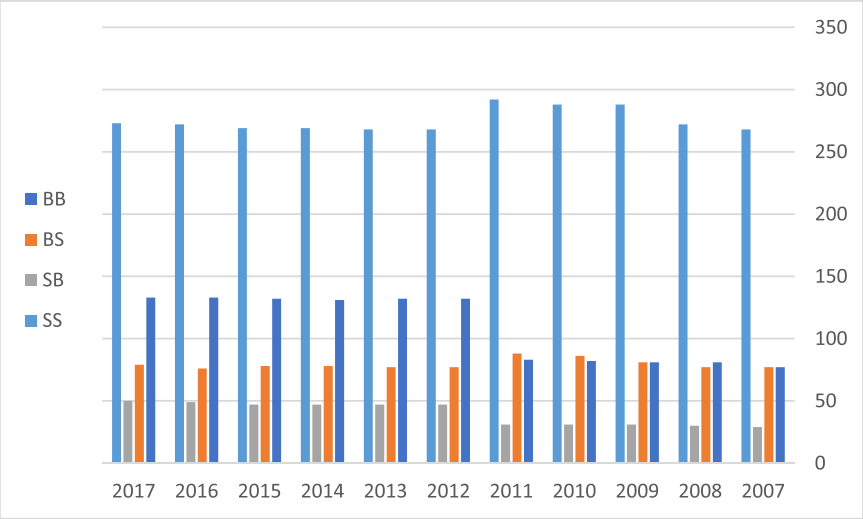
The number of tourists that enter a foreign country is important. However, it is equally important that he or she spend as many days and nights there as possible. More nights mean more hotel rooms occupied and more money to other recreational activities, such as restaurants and attractions. In 2017, the average tourist spent 7.28 nights in Israel. We now test the second model, which attempts to evaluate the impact of the same explanatory variables used in equation (1) on the tourist's length of stay in Israel, measured by the number of nights they spent there.[12] The second regression model follows equation (2), and the results are summarized in Table 3.

Our model shows a positive impact of same size sister cities and the number of nights tourists spend in Israel. On the other hand, the SB category was found to have a negative effect on the explained variable. This result strengthens the finding we presented above that the sizes of the sisters do matter. People who live in big cities want to exploit as much as they can in terms of the cultural and recreational activities that another big city abroad can offer. A small town, on the other hand, offers foreigners a more intimate relationship between individuals than a bigger town. The SB coupling category has a negative impact on the length of time tourists spend in Israel in addition to its negative influence on the number of tourists that arrive. The only religion that was found to have a positive impact on the length of time tourists spend in Israel was Judaism, emphasizing that the same religion and culture influences not only the number of tourists but also the length of time they spend in the country.

5. Summary and discussion

This research uses an official tourism data from two U.S.A states: California and Florida and from Israel to substantiate theoretical model that was designed to form a successful international Sister Cities program. Past researchers have concerning the Sister Cities coupling process have argued that the coupling process is based on historical connections and shared cultural, economic, recreational, and ideological concerns. They do not frame an orderly model that can help strategic planners to design successful Sister City program that will ensure sustainability and long run economic benefits for of both parties. In this paper we offer a model that state the conditions and terms that should enable such success. In our view, the primary conditions for a successful engagement process are the size of the engaging cities, the number of cities that are engaged at the same time, the necessary resources that must be invested in the process and the supported environment that must be formed. Moreover, we offer here tourism planners and practitioners a step by step model that can help them choose the right foreign partner, sign the most beneficial cooperative agreement and the means needed to cultivate the newborn agreement. The theoretical

[12] Day visitors were excluded from our sample.



Notes: BB=big-big cities, BS=big foreign city with small local city, SB=small foreign city with a big local city, SS=small foreign city with small local city.

Fig. 4. The Number of Sister Cities Agreements Between Foreign and Israeli Cities by Size Categories from 2007 until 2017.
Notes: BB = big-big cities, BS = big foreign city with small local city, SB = small foreign city with a big local city, SS = small foreign city with small local city.

model presented here argues that for both countries to benefit from the Sister Cities program, the coupling cities size must be compatible. The econometric models have proven that the most beneficial coupling method in terms of the number of tourists and the length of time they spend in Israel was the same size method (BB and SS), with an emphasis on BB. The worst coupling method is SB, meaning that the combination between a small foreign city and a big local city has a significantly negative impact on both the number of tourists that arrive and the length of time they spend in Israel and should, therefore, be avoided. Compatibility requirements does not stop at the cities size but also requires mutual cultural environment that includes political, religious, and ideological agenda. Compatibility alone is not enough for successful engagement between two foreign cities. Investing various resources will smooth the engagement process and enrich the participating partners for years to come. We claim that the first and most important needed resources is human. The personal relations between people from both countries can gap language and cultural differences and move the process forward more smoothly. Second influential factor is time. Every relationship personal or non-personal needs time for trust and tradition to be build. Last, money must be invested in the process for the initiation and maintenance of the mutual cultural activities. To ensure a long-term successful coupling process collaborate marketing strategy must be adopted. That strategy should be based on the cultural differences understanding and joint motivation to cooperate and solve problems. It should involve managers and customers (potential tourists) from the participating countries designing together the components of the marketing mix. The U.S.A data from California and Florida suggests a linkage between the Sister Cities program and the number of Japanese and Italian tourists visiting those states. That possible link must be further investigated to reveal other interventional factors. The data from Israel show a dramatic rise in the number of tourists that visited the country during the examined years, along with a rise in the number of foreign Sister Cities agreements. The theoretical model and the empirical results presented here, can help tourism authorities around the globe to increase the chances that the Sister Cities program will be fertile in terms of the number of tourists that visits and the time they spend in the country. Such conduct will lead to a better economic efficiency of the time and money spent in that process. Since results have suggested that the best coupling method is BB, policy makers should concentrate first on such coupling and invest the necessary resources in a few potential agreements of that kind before moving on to other formation of coupling. Tourism planners should also match the number

Table 2
Regression model that predict the percentage of tourists from various countries that visited Israel, by sister cites categories, religion and location.

	α	*BB*	*BS*	*SB*	*SS*	*BiG*	*Small*	*Crist*	*Juda*
Coefficient (t Stat)	2.13* (4.07)	0.23* (7.01)	−0.05* (−3.00)	−0.37* (−4.33)	0.05* (6.80)	0.60* (2.05)	−1.42* (−4.69)	−0.01* (−4.29)	2.75* (6.95)

	Isla	*Evan*	*EastE*	*WestE*	*Asia*	*NorthA*	*SouthA*	*Africa*
Coefficient (t Stat)	−0.01* (−4.08)	0.35* (13.0)	0.76* (2.51)	1.14* (3.70)	−1.01* (−3.20)	−0.69 (−1.36)	−1.62* (−4.55)	−0.46 (−1.21)

F = 133.3, R^2 = 0.76, *N* = 660

Where: *BB* = the number of highly populated foreign sister cities coupled with highly populated Israeli cities, *BS* = the number of highly populated foreign sister cities coupled with low populated Israeli cities.
SB = the number of low populated foreign sister cities that are coupled with highly populated Israeli cities. *SS* = the number of low populated foreign sister cities that are coupled with low populated Israeli cities.*BiG* = A country with more than 30 million people, *Small*=A country with less than 30 million people. *Crist* = Christianity, *Juda* = Judaism, *Isla* = Islam, *Evan* = Evangelism. *EastE* = East Europe.
WestE = West Europe, *NorthA* = North America, *SouthA* = South America. * = statistically significant.

Table 3
Regression model that predicts the number of nights spent in Israel by tourists from various countries, by sister cites categories, religions and locations.

	α	*BB*	*BS*	*SB*	*SS*	*BiG*	*Small*	*Crist*	*Juda*
Coefficient (t Stat)	5.03* (6.32)	0.15* (4.75)	0.00 (0.02)	−0.39* (−4.50)	0.02* (3.92)	2.62* (5.59)	2.84* (5.77)	−0.008 (−1.96)	1.10* (2.19)

	Isla	*Evan*	*EastE*	*WestE*	*Asia*	*NorthA*	*SouthA*	*Africa*
Coefficient (t Stat)	−0.01* (−3.10)	−0.08* (−2.61)	−0.86* (−2.42)	0.18 (0.57)	−1.75* (−4.08)	0.76 (1.31)	1.67* (3.70)	1.13* (2.68)

F = 21.62, R^2 = 0.55, *N* = 299

Where: *BB* = the number of highly populated foreign sister cities coupled with highly populated Israeli cities, *BS* = the number of highly populated foreign sister cities coupled with low populated Israeli cities.
SB = the number of low populated foreign sister cities that are coupled with highly populated Israeli cities. *SS* = the number of low populated foreign sister cities that are coupled with low populated Israeli cities.*BiG* = A country with more than 30 million people, *Small*=A country with less than 30 million people. *Crist* = Christianity, *Juda* = Judaism, *Isla* = Islam, *Evan* = Evangelism. *EastE* = East Europe.
WestE = West Europe, *NorthA* = North America, *SouthA* = South America. * = statistically significant.

of Sister Cities agreements signed at the same time to the resources that are available to the program. They should remember that if the discussed compatibility requirement in terms of size and cultural aspects are not met, success will demand much more resources investment and time. Strategic tourism planners should also consider other goals than direct tourism increase that will affect the engaging parties in the long run, such as economic, political, or cultural cooperation. The current research has tried to isolate the impact of the Sister Cities from other factors that might influence mutual tourism using a macro perspective. However, further research is needed and we suggest a micro perspective case studies that follows two sister cities partnership over time using questionnaires that may reveal directly to what extent the program has influenced the people involved in the process from both countries in terms of cultural and ideological change, better understanding of each other and the willingness to cooperate in the future.

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