Reconsidering the Silk Road:
Tourism in the context of Regionalism and Trade Patterns

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Abstract

This paper outlines the current empirical literature examining the determinants of demand for tourism; where the lack of analysis around the impact of trade is found to be of particular cause for concern. Yet investigating the trade-tourism link is argued to be only part of the story since trade and tourism may be linked in the absence of Regionalism, while Regionalism also provides an additional set of channels that may be linked to patterns of tourism. This paper finds that the current empirical literature is severely lacking in its investigation of trade-tourism and Regionalism-tourism links. Therefore it is proposed that further research needs to consider testing the causality between not only trade and tourism but also aspects of Regionalism and tourism, where trade-tourism is only one route. Furthermore this paper proposes a re-examination of the empirical methodologies used to model tourism demand.

JEL Classification: L83, F13, F15

Key Words: International Trade, Integration, Service Sector, Tourism, Travel
Introduction

“Today, the business volume of tourism equals or even surpasses that of oil exports, food products or automobiles. Tourism has become one of the major players in international commerce, and represents at the same time one of the main income sources for many developing countries.” United Nations World Tourism Organisation

The importance of tourism in terms of income to both developing and developed countries is without question. Therefore it is unsurprising that the body of literature considering the determinants of demand for tourism is vast. Income, price, exchange rate and transport costs are considered to be of particular significance. However there are challenges in the construction of a number of variables. Problems arise in defining and measuring different types of tourism and marketing effort. This paper outlines key findings from previous research with a specific focus is on the role of trade and Regionalism in demand for tourism.

Since the creation of the Silk Road - a network of trans-continental trade routes, trade and tourism have been inexplicably linked. However there is a limited empirical literature that considers the relationship between tourism and trade. Recent studies have called into question the results from the earlier literature, which either ignores the effect of trade or inappropriately attempts to measure the impact by estimating single equations. Since World War II there has also been a huge expansion of Regionalism, which may impact on tourism through trade as well as a range of other dimensions. However the empirical literature almost completely neglects this factor as a potential driver of tourism. This paper examines channels linking Regionalism, trade and tourism concluding with proposed avenues for future research.

Patterns of Tourism

Patterns of tourism arrivals and receipts vary dramatically across counties. Despite the intuitive link between tourist arrivals and receipts a casual look at the data suggests that the link is weaker than it seems at first thought. For example, whilst tourist expenditure in Germany was the largest in the World in 2007 (Table 1) they only attracted the 5th highest number of arrivals in Europe (UN World Tourism Organisation). By contrast, the UK had the 4th highest number of arrivals in Europe (UN World Tourism Organisation) but fell behind
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Germany in terms of receipts (Table 1). The fact that receipts weakly follow arrivals will prove an interesting when we look at tourism demand modelling.

Table 1: International Tourism Expenditure (Billions)

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<tr>
<td>Germany</td>
<td>60.2</td>
<td>53</td>
<td>64.7</td>
<td>71</td>
<td>74.4</td>
<td>73.9</td>
<td>83.1</td>
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<tr>
<td>United States</td>
<td>44.9</td>
<td>64.7</td>
<td>57.4</td>
<td>65.8</td>
<td>69</td>
<td>72.1</td>
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<tr>
<td>United Kingdom</td>
<td>24.9</td>
<td>38.4</td>
<td>47.9</td>
<td>56.5</td>
<td>59.6</td>
<td>63.1</td>
<td>71.4</td>
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<tr>
<td>France</td>
<td>16.3</td>
<td>17.8</td>
<td>23.4</td>
<td>28.6</td>
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<td>31.2</td>
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<tr>
<td>China</td>
<td>3.7</td>
<td>13.1</td>
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<td>24.3</td>
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<tr>
<td>Italy</td>
<td>14.8</td>
<td>15.7</td>
<td>20.6</td>
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<td>Japan</td>
<td>36.8</td>
<td>31.9</td>
<td>28.8</td>
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<td>Canada</td>
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<td>13.4</td>
<td>15.9</td>
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<tr>
<td>Russian Federation</td>
<td>11.6</td>
<td>8.8</td>
<td>12.9</td>
<td>15.7</td>
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<td>18.2</td>
<td>22.3</td>
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<tr>
<td>Korea, Republic of</td>
<td>6.3</td>
<td>7.1</td>
<td>10.1</td>
<td>12.4</td>
<td>15.4</td>
<td>18.9</td>
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</table>

Source: UN World Tourism Organisation

It is also notable from Table 1, detailing the top 10 tourism recipients in 2007, that developed countries dominate this list. It is indisputable that tourism income is critically important for developing countries as it may prove a stimulus for economic development. A preliminary look at the data in Figure 1 suggests broad stagnation in tourist arrivals in the early 2000’s, likely to be in part due to the Iraq War. During this decade, Asia and the Pacific have overtaken the Americas in terms of arrivals. However, there is a dip in tourist arrivals for Asia and the Pacific in 2003 due to SARS. This deepened the already poor performance due to the Iraq War. It is interesting to note from Table 1 that the Asian and Pacific dip appears to be reflected in Japanese expenditure, but not significantly so in the case of Chinese expenditure. In fact China’s performance in terms of tourist arrivals in 2008 dramatically outstrips other Asian and Pacific countries, with Malaysia as its closest competitor only receiving less than half the number of tourist arrivals (UN World Tourism Organisation). It is possible to connect this strong Chinese performance to the opening up of their economy. The Olympic Games, held in Beijing in 2008, also provide an interesting case study. UNWTO World Tourism Barometer (2009) notes that host nations of the games often experience a downturn in arrivals due to the expectation of congestion, high prices and tighter restrictions.
on travel. In addition, the strong performance of Japan in terms of arrivals in 2006-7 (but not translated into receipts) is explained by UNWTO World Tourism Barometer (2009) in terms of the recovery of the value of the Japanese currency. Other factors that affected Asia tourism arrivals include political and civil unrest in Thailand.

**Figure 1: International Tourist Arrivals (Millions)**

Source: UN World Tourism Organisation
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It is worth considering if there is any evidence of a correlation between trade, Regionalism and tourism. An obvious example to consider is Central/Eastern Europe. Several countries within the Central/Eastern European grouping have recently become EU members, while others have signed another form of regional integration agreement. The detailed data on arrivals in 2007 (UN World Tourism Organisation) shows the Ukraine leading the Central/Eastern European region. Nevertheless, it falls behind the Russian Federation, Poland, Hungary and the Czech Republic in terms of receipts. Yet overall Central/Eastern Europe has seen the largest increase in arrivals in the European Region between 2000 and 2008 (UN World Tourism Organisation). This increase in tourism may be explained by the range of Regional Integration Agreements coming into force. This example provides evidence that the impact of Regional Integration Agreements is worthy of further investigation.

Demand for Tourism

In order to investigate the significance of these patterns of tourism there are a number of specifications for modelling demand. Underlying these various models is the utility maximisation problem:

$$\text{Max } U(t, c)$$

$$s.t. \quad P_t \cdot t + P_c \cdot c \leq I$$

Where $U(t, c)$ is the utility function, $t$ stands for quantity of tourism, $c$ the composite of other goods, $P_t$ the price of a unit of tourism, $P_c$ the price of a unit of composite goods and $I$ stands for income.

One of the simplest models of demand is the log-linear demand function. This equation explains quantity of tourism demanded as a function of the price of tourism, of a country and its competitors, as well as income. The attractive feature of this specification is that the estimated coefficients on prices and income represent estimates of income and price elasticity. However, this popular demand function has a number of weaknesses that mean the general restrictions of classical demand theory are not satisfied. In this paper it is not
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necessary to examine this issue in more detail other than to conclude that this has lead to questions as to the theoretical basis of this model.

There has been a general move towards complete demand systems which are able to take into account the mutual interdependence of a large number of commodities. Such systems are consistent with utility maximisation. There are four popular systems worthy of mention: the Linear Expenditure System (LES), Rotterdam model, Translog model and Almost Ideal Demand System (AIDS). For a discussion of other models see Pollak and Wales (1992).

The LES is the simplest and first of the theoretically consistent demand systems as specified and estimated by Stone (1954). However the linearity of formulation of demand from which the system is derived means that every good must be a substitute for every other good. Hence no two goods in the system are complements and it does not allow for inferior goods. These assumptions mean that this model can only be applied where the restrictions are viewed as reasonable. In addition, it is not possible to test the classic theoretical restrictions. The Rotterdam model, proposed by Theil (1965) and Barten (1966) can be estimated with and without restrictions which can be tested. This model has been criticised due to the choice of restrictive functional forms to approximate the underlying theory.

Therefore attention has focused on function forms that are considered more flexible as a good approximation to the unknown actual function. One attempt at this is the Translog model (Christensen et. al., 1975). Yet this form is criticised for not actually being particularly flexible (Deaton and Muellbauer, 1980a). A widely accepted more successful attempt was the AIDS system, which is derived from the standard theoretical framework and uses a general utility function meaning it can approximate almost any form (Deaton and Muellbauer, 1980b). However in comparison to the log-linear form, it requires more calculation to estimate elasticities from the AIDS system. Lastly it is worth noting that the gravity model which could be used to predict flows of tourism between two countries based on variables such as economic size, population and distance between the countries. Recent research has established the theoretical basis of the gravity modelling and its explanatory power (Deardorff, 1988).
Before turning to the empirical literature, we consider issues in the definition of variables used in modelling tourism demand. Tourism could be viewed as a commodity; for example, the arrival of a tourist at a destination. Alternatively, tourism may be considered as a composite of all the goods that are purchased whilst a tourist; for example travel, food and accommodation. It is also very pertinent to establish the type of tourism being modelled, whether it is recreational, business orientated, a mixture of the two or perhaps a more specific categorisation such as cultural tourism. It is expected that each of these types of tourism will be explained by a unique set of variables. For further discussion of the issue of how utility is derived see Lancaster (1971) and Becker (1965).

Tourism is deeply imbued with risk. There are safeguards in place in case a travel company goes bankrupt, as well as legal recourse if a holiday does not meet the expectations indicated in the travel brochure. In addition travellers may receive compensation if a delay occurs due to flights being overbooked. However, there is clearly a higher risk associated with the purchase of a holiday/flight/hotel stay than durable goods such as a new washing machine.

Price elasticity for tourism can also be compared to that of a durable good in that short-run demand is likely to be more elastic than long-run demand. For example, a consumer may delay their holiday to a particular destination if the price were to increase significantly. In other words the short-run elasticity will depend on whether consumers travelling to a destination have the ability to wait until it is off-season. It may be that some consumers have a level of income such that they can choose to go on holiday to a place on a particular date regardless of moderate price changes. This discussion implies that dynamic models may need to be employed.

While tourism may be considered a ‘treat’ the impact of changes in income on demand is somewhat more complex. A straightforward expectation would be that increases in income would tend to result in an aggregate increase in tourism. Yet it may be that an individual experiences no increase in the number of days of leave when their income rises and in addition some tourists may be very familiar and thus comfortable with a particular destination. This is an illustration of inflexibilities in the work-leisure bargain. An income increase will not encourage these individuals to purchase a more expensive, or longer,
holiday. Alternatively, some destinations may have a ‘status symbol’ attached to them so that they convey Veblenian conspicuous consumption. For example the government of Mauritius has placed a ban on charter flights landing on the island and therefore tourists who can afford the high prices are attracted to this up-market rarely visited destination. Eco-tourism may, in some cases, illustrate an inverse status acquisition as individuals demonstrate their superiority by purchasing more environmentally friendly holidays than those taken by package tourists.

**Determinants of Demand for Tourism**

There is an extensive body of literature examining tourism demand as well as a significant number of reviews of this literature (Crouch, 1994; Witt and Witt, 1995; Johnson and Ashworth, 1990; Lim, 1997 and Lim, 1999). Crouch (1994), Lim (1997) and Lim (1999) all consider a substantial number of studies and focus on identifying the key determinants of the demand for tourism. Crouch (1994) examines 85 studies published between 1961 and 1992, whereas Lim (1997) considers 100 studies from 1961 until 1994. However Lim (1999) goes beyond simply reviewing the literature and carries out a meta-analytic review, which involves a regression analysis of the statistical results found in 70 out of the 100 studies identified in Lim (1997). The review by Johnson and Ashworth (1990) is on a much smaller scale and only considers 7 studies from 1980 and 1985, examining tourism flows to and from the UK. There is also a body of literature that focuses on forecasting tourism demand. Witt and Witt (1995) carried out a review of 40 such studies published between 1966 and 1992. However this paper will focus on the determinants of demand for tourism rather than the validity of forecasting attempts although it follows that good demand models should make good forecasting models.

The vast majority of studies are quantitative using classical regression methods. A range of data types have been used, but limited sample sizes have raised concerns over the reliability of results using annual data. Lim (1997) highlights that, of the 100 publications reviewed, 56 used annual data. In terms of model specification, Lim (1997) found that the majority of studies reviewed estimate single equation models. Log-linear single equations are preferred in 56 of the 100 studies. Lim found only 10 studies that estimated any form of demand system. Although there is also a more recent study by Divisekera (2003) that utilises the Almost Ideal Demand System when modelling international tourism.
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Turning to the variables used in these modelling exercises. Firstly the range of dependent variables will be outlined. Given that some studies considered by Lim (1997) used more than one dependent variable, the total number of estimated equations examined was 119. Of the 119, it was found that 51 studies used tourist arrivals and/or departure as a dependent variable, where 49 used tourist expenditures and/or receipts. Yet Johnson and Ashworth (1990) find tourist arrivals and/or departure to be more commonly used, although their review is considerably narrower than Lim (1997). Nevertheless Johnson and Ashworth (1990) suggest that policy makers are likely to be more interested in expenditure rather than number of visits. This view is reinforced by the earlier finding in this paper of a potentially weak link between arrivals and receipts. Yet Divisekera (2003) also notes the difficulties in obtaining data on aggregate quantities of goods and services consumed by tourists by destination; therefore the author derives a proxy through using tourist numbers and nights. In addition there are other less used dependent variables such as travel exports and/or imports and length of stay. Some studies also differentiate between modes of travel, purpose of travel and type of travel arrangements (Johnson and Ashworth, 1990).

The explanatory variables used include both economic and sociological variables (Crouch, 1994 and Lim, 1997). Crouch (1994) and Lim (1997) agree that income is the most popular of these variables judged by the frequency of inclusion in the 100 studies reviewed.

Ideally this variable would measure the income remaining after spending on necessities, but there are obvious measurement issues. Hence, other measures are utilised such as nominal or real per capita personal disposable or national income as well as GNP or GDP (Lim, 1997). Lim (1997) suggests real per capita consumption to be less commonly used, whilst Johnson and Ashworth (1990) mention that the article by Little (1980) uses real per capita consumption without explanation. It is also possible to consider the dynamic effect though the inclusion of both income and lagged income (Lim, 1997). In carrying out a meta-analysis of 70 studies Lim (1999) finds support for the positive relationship between tourism demand and income. Witt and Witt (1995) provide an interesting discussion regarding the magnitudes of income elasticity estimates. They find variability in the estimates, but most exceed unity suggesting tourism is a luxury good. The estimates that are below unity concern tourism between neighbouring countries such as Canada/US and Germany/Austria. There are
exceptions when the neighbouring country has a high cost of living, such as in the case of Switzerland.

According to Lim (1997), the second most frequently used variable is relative prices. In terms of data availability, a relative consumer price index (CPI) is the easiest to collect to measure of the costs of goods and services that tourists are likely to pay for. The CPI ratio is often multiplied by the exchange rate, which then excludes use of the exchange rate as a separate variable in the estimating equation. Martin and Witt (1987) find this CPI ratio (whether or not the exchange rate is taken into account) as a reasonable proxy for relative price of tourism. Yet Lim (1997) suggests that the spending patterns of a tourist could well be different to that of an average household. Therefore, rather than use the CPI ratio (and in the absence of a tourist price index) some researchers have used price indices for products that tourists are likely to consume. Crouch (1994) also cites evidence regarding unreliable estimates when the variable proxying relative price does not consider price competition from other countries. Additional considerations are the opportunity cost of travel time as well as representing the higher risk associated with travelling to some destinations (Crouch, 1994). The meta-analysis carried out by Lim (1999) finds support for a negative relationship between tourism demand and relative prices. Witt and Witt (1995) find the median estimated value in the studies they consider to suggest inelastic demand whether travel cost or destination cost is used. However Crouch (1994) suggests that price elasticities may be underestimated if other destinations are not considered, and that responsiveness will increase over time as increased competition forces down prices. There is evidence in the more recent study of Pritchard (2003) of a higher sensitivity to price when there are substantial price changes in ferry transport from the Canadian mainland. However there is not a clear picture emerging from the recent literature (Asian, Kula and Kaplan, 2009). Generally it seems that increases in responsiveness to price changes are expected, but this is not yet clearly illustrated by the empirical findings. It is likely that consumers will be less likely to pay a high mark-up for services such as a better flight time as competition increases.

Also the subject of some debate is the responsiveness of tourists to changes in exchange rates, compared to inflation. There is a significant body of literature (Lin and Sung, 1983; Little, 1980; Tremblay, 1989; Truett and Truett, 1987; Artus, 1970 and Gray, 1966) suggesting that tourists tend to be better informed about changes in the exchange rate
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compared to the rate of inflation. However this has been shown by Edwards (1987) to only matter in the short run, whereas changes in exchange rates and inflation have a similar impact in the long run. Therefore a significant number of studies include exchange rate as a separate variable. However it is questionable to include both an exchange rate and relative price variables due to multicollinearity (Lim, 1997). Therefore it is reasonable to either include a relative price variable multiplied by exchange rate, relative price variable or an exchange rate variable. The choice made may depend on a variety of reasons; for example if the study only considers business travel it may be that volatility in exchange rates is less significant in explaining tourism demand (Crouch, 1994). It is noteworthy that where the exchange rate is included as a separate variable in the studies considered by Witt and Witt (1995), it is found to have a median value of 1.8 suggesting a substantial reaction of demand to exchange rate changes, whilst such a strong reaction was not found when considering price elasticity estimates.

Lim (1997) finds that 55% of the studies reviewed include a transport cost variable. This would seem surprisingly few since - as Krause, Jud and Joseph (1973) state - the cost of transportation is the first consideration in a decision on tourist destination. However several studies reviewed by Crouch (1994) find multicollinearity between rising real income and falling real transportation costs; where other studies fail to find significant results for the variable representing transport costs. Lim (1999) also notes that the meta-analysis does not entirely support a negative relationship between transport costs and tourism demand. Thus the studies that fail to include transport costs use this evidence to explain their decision. For those studies that include a transport cost variable, Lim (1997) reports that this is normally measured by the price of air travel. There are a range of issues surrounding this measure such as the mode, type and class of travel; one issue of particular interest is incorporating travel costs to competing destinations as attempted in the study by Little (1980).

In addition to these key variables there are other factors such as length of stay, tastes of individuals and dummy variables as well as qualitative factors such as gender, age, culture and history. Incorporating dummy variables is considered to be important in tourism demand modelling since the industry is seasonal. In addition, marketing expenditure is clearly relevant, but only considered in 7 out of 100 studies reviewed by Lim (1997) due to data
issues in constructing the variable. Crouch (1994) also discusses the inclusion of a time trend to account for the changing trends and fashions for various tourist destinations.

**Figure 2: Key Determinants of Demand for Tourism**

![Diagram showing key determinants of tourism demand](image)

Source: Author

The discussion so far is not intended as a complete review of the literature as many others have already attempted this. However, the aim is to shed light on the key determinants of the demand for tourism namely income, relative prices, exchange rates and transport costs as well as to indicate the range of other factors considered. The factors highlighted in the literature, alongside those discussed in the earlier section analysing tourism trends, have been summarised in Figure 2. It has been found that the complexities and debate around the variables used to proxy the various determinants are in no small part due to data limitations. It is important to note that the literature considered so far has little or no mention of the role
of trade, and to an even lesser extent regional trade agreements. The small number of recent studies considering this dimension will be examined in the next section.

The Role of Trade in the Demand for Tourism

The literature discussed so far pays very little attention to international trade as a determinant of tourism demand. The link between trade and tourism could be bi-directional in that international travel may encourage trade, particularly considering business travel that may include other people joining the business traveller for the purpose of holiday travel. The development of trade links may also lead to an increased awareness of a particular country and therefore travel to it. In addition, holiday travel may lead individuals to identify possible business opportunities.

Kulendran and Wilson (2000) published the first study investigating the link between international trade and tourism for pairs of countries. Their study is pivotal since it calls into question the vast body of earlier literature. The authors aim to establish whether the traditional body of literature, examined in the previous section, either incorrectly omitted a trade variable in their estimating equation, or despite the inclusion of a trade variable, failed to take appropriate account of the trade-tourism link in selecting their methodology.

Causality testing was carried out to explore if trade leads to tourism, tourism leads to trade or the relationship is bi-directional. Yet before causality testing can actually take place, the order of integration of the various time series needs to be established. If the order of integration of two time series is found to be the same this means that the two series move together over time, in other words the two series are cointegrated. If the series are cointegrated then causality, as established by Granger (1988), must be present in at least one direction. Therefore it is essential to check that the series move together before causality can be tested.

Kulendran and Wilson (2000) considered data for Australia and four of its travel and trading partners: USA, the UK, New Zealand and Japan. They found that total travel and real exports, as well as total travel and real total trade, between Australia and the USA, New Zealand and Japan were cointegrated. These results also held when holiday travel or business
travel was used instead of total travel. However, only for the UK did they find evidence of cointegration between real imports and total/business/holiday travel. Now considering Granger causality, it was found for the USA that two-way causality exists between total travel and real total trade, but only one-way causality from real exports to holiday travel. For the UK there is one-way causality from real total trade to total/business travel. Then for the USA and Japan there is evidence of one-way causality from total travel to real exports, and for Japan this result holds when total trade replaces real exports. In addition results for the USA suggest causality from business travel to real total trade, whereas for the UK causality appears to exist from business travel to real imports. Finally, for Japan there is evidence of one-way causality form holiday travel to real exports and real total trade. The authors suggest these range of results are to be expected since these partners were chosen due to their various trading relationships; for example the Closer Economic Relationship between Australia and New Zealand as well as the Asia Pacific Economic Cooperation Forum of which Australia, Japan, New Zealand and the USA are all members.

Shan and Wilson (2001) examine data for China and four countries that are major origins of tourists: USA, Japan Australia and the UK. All series are found to be integrated of order one. Evidence of two-way Granger causality was found between total trade and total tourists for China and the USA, Australia and Japan.

Al-Qudair (2005) considers data on Islamic countries. There is evidence of cointegration between total tourists and exports, imports and total trade for Benin, Egypt, Jordan, Syria and Tunisia. The results from the Granger causality tests are once again more mixed. There is evidence of one-way causality from total tourists to imports for Egypt, Syria and Malaysia. In addition there is evidence of one-way causality between total tourists to total trade for Egypt and Syria. For Jordan there is one-way causality between imports and total tourism as well as total trade and total tourists. Lastly the author finds evidence for Malaysia of one-way causality from exports to total tourists.

Kulendran and Wilson (2000), Shan and Wilson (2001) and Al-Qudair (2005) all find evidence of a long-term relationship between international trade and travel flows. Hence these studies highlight a potential endogeneity issue. Shan and Wilson (2001) discuss the failure of previous studies to address this simultaneity bias due to a reliance on estimating
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single equations. They suggest that the validity of previous results is questionable due to either simultaneity bias or the omission of a trade variable altogether. It is important to note that Kulendran and Wilson (2000) and Al-Qudair (2005) do present a mixed set of results of the Granger causality test. Yet the role of trade is worthy of further research given these recent studies and the fairly obvious intuitive link between trade and tourism. Thus far studies have utilised causality testing but there is a need to take the next research step, in that once this testing has taken place trade variables should be incorporate while applying an appropriate methodology.

The Impact of Regional Integration Agreements

Surveying the empirical literature, it is evident that little attention has been paid to the impact of Regional Integration on the demand for tourism. Kulendran and Wilson (2000) consider a range of Australia’s trading partners, with whom Australia have various Regional Integration Agreements. The authors attempt to explain the results of the causality testing with reference to these agreements. The empirical literature does not use causality testing to actually investigate the Regionalism-tourism link. Furthermore studies modelling the demand for tourism do not consider Regionalism as a possible determinant.

Regional Integration Agreements involve a variety of policy changes. These changes, and their potential link to tourism, are illustrated in Figure 3. The trade-tourism link is highlighted to indicate that this may exist independently of any Regional Integration Agreement. In addition, Regionalism results in the lowering of barriers to trade in goods and therefore the trade-tourism link needs to be reconsidered where the driver is a Regional Integration Agreement.

There are also a range of other possible features of a Regional Integration Agreement that may be linked to tourism indicated in Figure 3. In addition, it is proposed that there may be a channel from tourism to the deepening of a Regional Integration Agreement. In other words it is feasible that an agreement that solely focussed on the removal of barriers to trade in goods impacts on tourism; subsequently these changes in tourism encourage the members to deepening their agreement, beyond barriers to trade in goods.
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It is proposed that, depending on the particular case study, the relevant channels indicated in Figure 3 are to subject to causality testing. Based on the results of these tests there needs to the appropriate methodology applied to model the demand for tourism.

**Figure 3: Regionalism-Trade-Tourism Flows**

![Source: Author](source)

Conclusions

This paper has outlined the current empirical literature examining the determinants of tourism; where the lack of analysis around the impact of trade is a particular cause for concern. By ignoring the importance of trade this calls into question the majority of the previous literature. The small number of studies that have considered the link between trade and tourism test causality. While this empirical testing is important there is a failure to take the next step in modelling tourism taking into account the impact of trade.

Yet investigating the trade-tourism link is only part of the story. Trade and tourism may be linked in the absence of Regionalism; nevertheless Regionalism also provides an additional set of channels that may be linked to patterns of tourism. One of these channels is the impact of Regionalism on barriers to trade in goods, which in turn may be linked to
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tourism. However there a number of features of deeper integration, apart from barriers to trade in goods, that may also link to tourism.

The current empirical literature is severely lacking in its investigation of trade-tourism and Regionalism-tourism links. Therefore further research needs to consider testing the causality between not only trade and tourism but also aspects of Regionalism and tourism, where trade-tourism is only one route. This research is critically important given the fact that almost every country in the world is a member of at least one Regional Integration Agreement. In addition, empirical methodologies to model tourism demand need to be reconsidered. Currently there is an absence of gravity modelling and this avenue would be worth exploring given the good explanatory power of this modelling approach.

This further research is very important given the potential for economic development of developing countries through the expansion of tourism. This is a somewhat neglected route of potential welfare gain for developing countries considering embarking on North-South regional integration. This is particularly pertinent since the welfare gains for the south are often found to be limited.

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1 The data for Australia is missing and therefore may impact on findings.