# A New Framework to Understand Transit Tourism-Related Issues on Pan-European Transport Corridors

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with 6 figures and 3 tables in the text

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## Summary

*Previous research has shown that there is a lack of knowledge about the quality of hospitality services, as well as the identification of potential transit destinations along the pan-European transport corridors. This paper proposes a new framework for understanding these issues and helps to fill research gaps. The analysis uses the case of North Macedonia, which provides a suitable framework for examining these issues. Mixed methods and data are used in the analysis. The findings indicate that the pan-European transport corridors do not have adequate hospitality services and emphasise the gap between the increasing number of foreign transit passengers in the last several years and the quality of hospitality services offered on the transport corridors.*

*From a theoretical point of view, the paper provides a refined understanding of the transit route region and calls for a reassessment of conventional transit route models by*

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demonstrating the potential of transit cities along the transport corridors as transit, secondary and hub destinations, which affect other dynamics in the tourism system. As well, the current paper provides some managerial implications for authorities and destination management organisations.

Keywords:  Foreign transit passengers, transit tourism, hospitality services, pan-European transport corridors, Corridor VIII, Corridor X, transit cities, North Macedonia

## Zusammenfassung

### Ein neuer Ansatz zum Verständnis von Fragen des Transittourismus auf gesamteuropäischen Verkehrskorridoren

Frühere Untersuchungen haben gezeigt, dass es an Wissen über die Qualität der Hospitality-Dienstleistungen sowie die Identifizierung potenzieller Transitziele entlang der gesamteuropäischen Verkehrskorridore mangelt. Diese Studie schlägt einen neuen Ansatz für das Verständnis dieser Probleme vor und hilft, Forschungslücken zu schließen. Die Analyse wird am Beispiel Nordmazedoniens durchgeführt, das einen geeigneten Rahmen für die Untersuchung dieser Fragen bietet. Bei der Analyse werden gemischte Methoden und Daten verwendet. Die Ergebnisse deuten darauf hin, dass gesamteuropäische Verkehrskorridore vielfach nicht über angemessene Dienstleistungen, vor allem im Bereich der Gastronomie, verfügen und unterstreichen die Kluft zwischen der steigenden Zahl ausländischer Transitpassagiere in den letzten Jahren und der Qualität der auf den Verkehrskorridoren angebotenen Bewirtungsdienste.

Aus theoretischer Sicht bietet die vorliegende Studie ein verfeinertes Verständnis der Transitroutenregion und fordert eine Neubewertung konventioneller Transitroutenmodelle, indem das Potenzial von Transitstädten entlang der Verkehrskorridore als Transit-, Sekundär- und Hub-Destinationen, die andere Dynamiken im Tourismussystem beeinflussen, aufgezeigt wird. Darüber hinaus werden in diesem Beitrag auch einige Auswirkungen des Transittourismus in gesamteuropäischen Verkehrskorridoren auf das Management von Behörden und Destinationsmanagement-Organisationen aufgezeigt.

Schlagwörter: Ausländische Transitpassagiere, Transittourismus, Hospitality-Dienstleistungen, Paneuropäische Verkehrskorridore, Korridor VIII, Korridor X, Transitstädte, Nordmazedonien

## 1  Introduction

Transport and tourism are interlinked and widely debated concepts in the relevant international literature. Early studies emphasised the important role of transport in tourism development (Kaul 1985). Later, the relationship between transport and tourism was recognised by other scientists (e.g., Hall 1999; Page 1999). Transport has opened new destinations and tourism forms. On the other hand, tourism is a driving factor, and in some cases a stimulator of changes in transport.

Although the relationship between transport and tourism has been extensively researched (e.g., CHEW 1987; DICKINSON et al. 2009; DUVAL 2007; HALL 1999; KHADAROO and SEETANAH 2007, 2008; LOHMANN and DUVAL 2014; LOHMANN and PEARCE 2012; LUMSDON and PAGE 2004; PAGE 2005; PRIDEAUX 2000; SCHIEFELBUSCH et al. 2007; SHARPLEY 2006; TÓTH and DÁVID 2010; TÓTH et al. 2014; WIE and CHOY 1993), there are still research gaps that deserve attention for future research. Although transit is a characteristic phenomenon for many countries in Central Europe (KINCSES et al. 2016), this issue is still insufficiently discussed in the international literature for the countries of Southeast Europe. Recent research refers to tourism and availability in Hungary (TÓTH and DÁVID 2010), the role of transport in European tourism flows (TÓTH et al. 2014), spatial planning for transit tourism on the highway E–75 through Vojvodina (GARAČA et al. 2015), road accessibility of the Polish-Slovak borderland in terms of tourism development (MICHNIAK et al. 2015; WIĘCKOWSKI et al. 2015), transit tourism in Hungary with a focus on expenditure (KINCSES et al. 2016), and there is no scientific research or analysis dedicated to the service equipment of the pan-European transport corridors and the identification of potential transit destinations as important elements in the tourism system.

Hence, the research questions arise: Whether the pan-European transport corridors have an adequate transport infrastructure and a quality hospitality service that satisfies the needs of transit tourists (refers to North Macedonia); and can they be considered as axes for tourism development? Are there potential transit destinations along the pan-European transport corridors that could affect the development of tourism and the dynamics of the tourism system? This paper aims to fill these gaps in the literature by proposing a new analytical framework for researching these issues. North Macedonia represents a suitable area for exploring these issues, as the pan-European transport corridors VIII and X pass through its territory. On the one hand, it allows generalisations because North Macedonia 'resembles' some other countries in Europe with pan-European transport corridors and belongs to the group of transit countries. On the other hand, North Macedonia was chosen as the focus of this paper because no academic studies on this topic have been published so far in domestic and international literature.

This paper consists of five sections. The second section provides an overview of the literature and a critical debate on the main concepts used in the research. The third section presents the research methodology and the design of the analytical framework. The fourth section gives the results of the research. The fifth section discusses the theoretical and managerial implications, emphasises the conclusions and research limitations, and provides new directions for future research.

## 2  Literature review

### 2.1  Transport, tourism, and transit route region

Early academic studies stress the influence of the transport and transport infrastructure on tourism development (HALL 1999; KAUL 1985; PAGE 1999; WIE and CHOY 1993). These studies have provided useful approaches in studying the relationship between

tourism and transport, but this complex relationship has not been thoroughly explored or, as noted by KHADAROO and SEETANAH (2008), empirical studies are lacking. Recent studies have explored tourism and destination accessibility. TÓTH and DÁVID (2010, p. 669) noted that "[…] accessibility has a primary role in selecting potential destinations". A recent study by TÓTH et al. (2014) examined the link between transport and tourism at the European regional level (NUTS-2) and found that transport impacts tourism productivity and that accessibility is an important factor for many countries. On the other hand, good accessibility is not the only factor that leads to tourism development. MICHNIAK et al. (2015) consider that other factors also influence, such as the commodity of transport, price, mode, and the symbolic value of the tourism centre or region. In addition to the mentioned factors, a key factor that affects the size of the tourist flows is also the tourist attractiveness of the site/place. Tourist attractiveness has been widely researched in the literature (see LEIPER 1990; LEW 1987).

Early studies identified the importance of transport as a factor in destination development (see for example PRIDEAUX 2000). In later studies, the research focus has shifted to other topics related to transit tourism such as spatial planning of transit tourism (GARAČA et al. 2015), transit tourism and expenditure (KINCSES et al. 2016), problems and perspectives in foreign transit tourism (ILIEV 2019). However, there is little knowledge about hospitality services and the tourism product intended for tourists travelling through transit routes, especially through the pan-European transport corridors. Therefore, the current paper puts a stronger emphasis on this issue.

LEIPER (1979) proposed a model that indicates that transit routes are a vital element in the tourism system (Figure 1). "Transit routes are paths linking tourist generating regions with tourist destination regions, along with tourists travel. They include stopover points which might be used for convenience or because of the existence of attractions. […] Their efficiency and characteristics influence the quality of access to particular destinations and accordingly they influence the size and direction of tourist flows" (LEIPER 1979, p. 397). His conventional model forms the basis of the tourism system, but it must be upgraded and refined to better understand the dynamics of the contemporary tourism system.
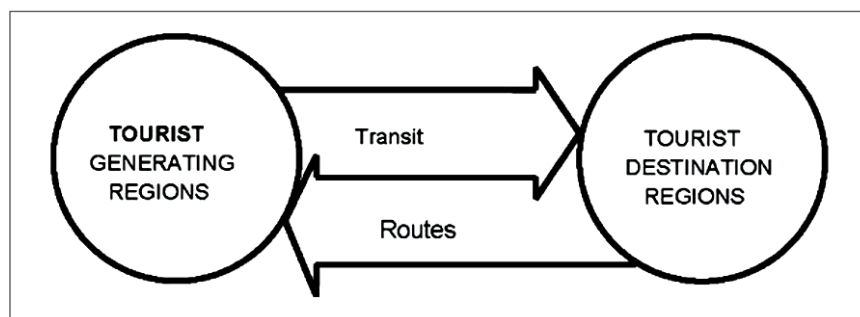


Source:     LEIPER 1979, p. 397
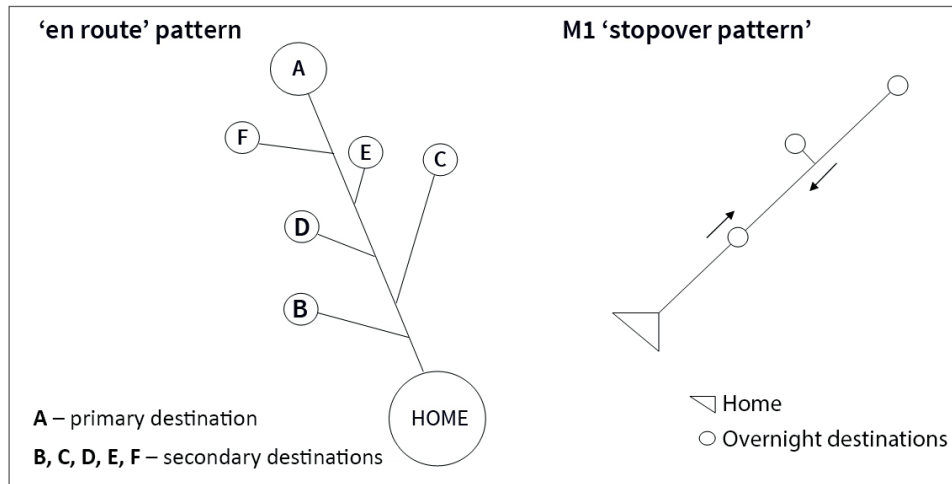
Figure 1: LEIPER's model

A recent study by Tang et al. (2017) showed that service facilities and values in the transit route region are now being sold as tourist attractions. However, this research is in the field of air transport studies and does not provide new knowledge and evidence on the impact of road transport infrastructure on tourism in the transit route region. Therefore, the current paper explores the relationship between road transport infrastructure and tourism and seeks to expand the knowledge of the transit route region by proposing new innovative components that affect the dynamics of the tourism system.

## 2.2  Transit tourists, models of travelling patterns, and hub destinations

The international literature uses the terms transit tourism (McKercher and Tang 2004; Min Poon and McKercher 2016), unobserved tourism (De Cantis et al. 2015), etc. There has been concern over the limited literature existing on transit tourists (Min Poon and McKercher 2016). In the studies of relevant literature (see Lew and McKercher 2002; Lohmann et al. 2009; McKercher and Tang 2004; Min Poon and McKercher 2016; Pike et al. 2018; Tang et al. 2017), there is rarely a debate and differentiation of transit tourists who transit through the road transport infrastructure. The reasons for the neglect of this topic by scholars are due to the nature of transit, whose form of mobility is difficult to observe (Kincses et al. 2016). To qualify a 'stop' as a 'visit', transit tourists must spend some time in the transit destination. 'Stopover visitors' (or 'stopovers') are defined as "travellers who stop in a location in transit to another destination" (Weaver and Lawton 2010, p. 31; quoted in Tang et al. 2017). Some scholars consider that there is no accepted definition of the term 'stopover' in the tourism literature (Pike et al. 2018).

There are several different models and theories of travel and spatial mobility (Flogn-feldt 2005; Lue et al. 1993; Oppermann 1995). Spatial patterns such as 'single destination', 'en route', 'base camp', 'regional tour', and 'trip-chaining' were identified by Lue et al. (1993). The current paper focuses on the *'en route' pattern* that is conceptualised as a route through which tourists travel to the primary destination, but on the way to it there are other secondary destinations that tourists can visit and consume (Lue et al. 1993). Later, Oppermann (1995) identified two main travel patterns such as 'single destination patterns' and 'multiple destination patterns' with multiple subtypes. Of the proposed subtypes, M1 'stopover pattern' is of particular interest for the current paper. Since M1 is based on overland travel from home, it has not been processed in Oppermann's study, which focuses on air travellers. Both 'en route' pattern and M1 'stopover pattern' are used in the current paper as a basis for developing a theoretical model (Figure 2).

The terms such as origins, destinations, gateways, hubs, and stopovers were conceptualised by Lohmann and Pearce (2010). Origins and destinations are widely used and already well-known terms in the literature (Lohmann and Pearce 2010; Pearce 2001). "Gateways in a general sense are seen as major entry/exit points for travellers into or out of a national or regional system" (Pearce 1995; quoted in Pearce 2001, p. 30). The concept of stopovers refers to "[…] places which serve as way points between destinations or function as secondary destinations on longer circuits" (Pearce 1981; Pearce and Elliott 1983; quoted in Lohmann and Pearce 2010, p. 267). The term 'hub' is defined

‘en route’ pattern                                M1 ‘stopover pattern’

A – primary destination
B, C, D, E, F – secondary destinations

Home
Overnight destinations

Source:     Own design based on Lue et al. (1993) and Oppermann (1995)

Figure 2: Graphic representation of ‘en route’ pattern and M1 ‘stopover pattern’

in different ways in the literature. O'Kelly and Miller (1994, p. 32) defined a hub as "[…] a major sorting or switching centre in a many-to-many distribution system […] the key idea is that the flow between a set of origin and destination cities passes through one or more hubs, *en route* to the final destination".

Later, Lew and McKercher (2002, p. 613) noted that "the hub concept is well defined in the transportation industry as a transit point that allows economic efficiencies through concentrations of service and economies of scale […] any place that is visited more than once in a multiple destination itinerary can be considered a Hub Destination". On the other hand, some scholars have noted that little is known about "[…] the transit hub, despite its indispensable role in connecting origin regions with destinations. In part this is because it does not generate or receive substantial revenue and is usually regarded by tourists as a necessary inconvenience" (Weaver and Lawton 2014; quoted in Tang et al. 2017, p. 54).

## 3   Research methodology

The study is substantially based on a qualitative and quantitative research method and includes observations, interviews (semi-structured interviews which often led to open-ended questions and discussion with the interviewees) and secondary data sources.

### 3.1   Theoretical model as an analytical framework

Based on the previous review of the relevant international literature, a theoretical model has been proposed. The model is constructed in Figure 3. This model is conceptualised

as a transit route region through which transit tourists travel from the origin region to the destination region (Leiper 1979), but on the way to the primary destination they can stop, visit and spend money and time in other secondary destinations (Lue et al. 1993; Oppermann 1995). The two fundamental components of the model are the pan-European transport corridors as transport infrastructure and the transit cities along the transport corridors as transit, secondary and hub destinations. The transit cities along the transport corridors have a specific position in the transit route region that allows them to receive long-term benefits and new tourism customers.
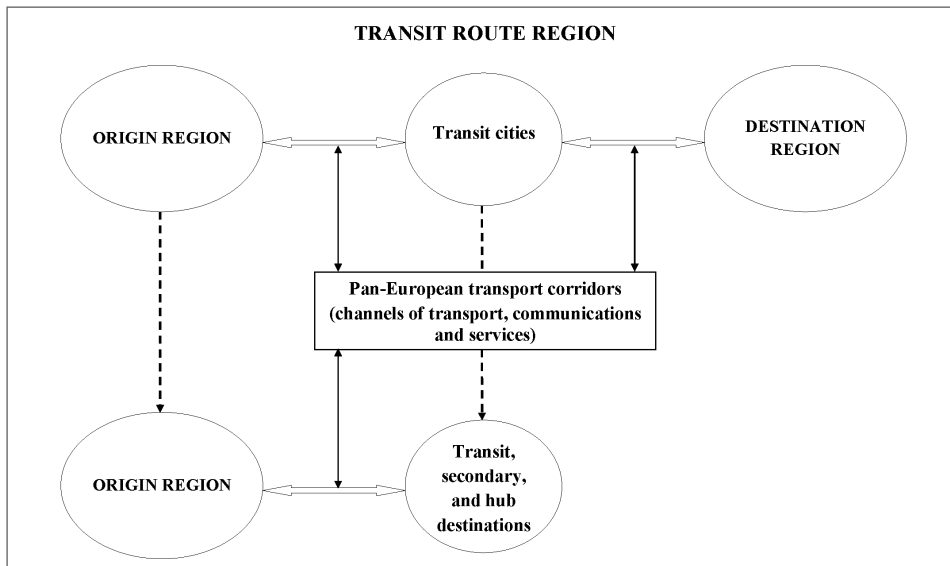


Source:     Own elaboration

Figure 3: Theoretical model as an analytic framework

The theoretical model is an analytical framework with the logical flow of factors and allows the theoretical scheme to be developed and tested in practice. Consequently, this framework will be applied to North Macedonia in order to provide answers to the research questions that were defined in the introduction of the paper. Mixed data and methods are used to obtain the results and evaluate the proposed model.

## 3.2    Data collection

### *Field research*

The fieldwork included multiple visits and direct observations of the state of transport infrastructure, as well as insight into the availability of hospitality and other services along the two main transport corridors in North Macedonia. Field research was conducted

Source:     Adopted from *https://www.un.org/geospatial/content/north-macedonia-0*, including mod-
            ifications by the author

Figure 4: Transit cities along the transport corridors in North Macedonia

during April, May, June, September and October 2018. The author used a private car to
travel and observe along the pan-European transport corridors VIII and X.

   During the research process, the author undertook interviews with managers and em-
ployees in hospitality and other services facilities along the transport corridors. The pur-
pose of the study was explained in detail to the interview respondents. The questions of the
interviews focused on the main problems and lack in hospitality and other services, as well
as on the challenges in transit tourism development along the transport corridors. Because
the interviewees asked to remain anonymous, they were given the assurance that their an-
swers would be used exclusively for academic aims and that their personally identifiable
information would be kept confidential.

   A total of 34 interviews were conducted. The interviews were held in the Macedo-
nian language and varied in length from 10 to 15 minutes. The interviews which were

taken in-person (face-to-face), were recorded (except six respondents who asked not to be recorded and detailed notes were taken during these six interviews), and subsequently transcribed, analysed and compared to highlight the excerpts related to key issues in hospitality (and other) services and the development of transit tourism. Namely, qualitative content analysis has been used to find common themes.

### *Secondary sources*

In this research stage, several series of statistical data were collected. More precisely, there are three series of statistical data for the period 2009–2016. The first series of data represents the number of foreign transit passengers travelling through the country. This data series was taken from the Ministry of Internal Affairs of North Macedonia. The second series of data represents the overnight stays of foreign tourists in the cities along the transport corridors: Kriva Palanka, Kumanovo, Skopje, Tetovo, Gostivar, Kičevo, Struga, Veles, Negotino and Gevgelija (Figure 4). This data series was collected from the State Statistical Office. The third series of data represents the number of foreign tourists in the mentioned cities. This data series was also taken from the State Statistical Office. The main reason for choosing these indicators was their availability and compatibility for the years of the analysed period.

The analysis of these data aims to present the dynamics of foreign transit passengers in the country, the possible relationship between the number of transit passengers and overnight stays of foreign tourists in the cities along the transport corridors, as well as the average length of stay of foreign tourists in these cities.

### 3.3    Pearson's correlation

Due to the lack of data on overnight stays of foreign transit tourists in the cities along the transport corridors, the current study attempts to estimate the possible relationship between the number of foreign transit passengers and overnight stays of foreign tourists in these cities, using Pearson's correlation. The main indicator of a possible correlation between these two data sets is the correlation coefficient (r). The correlation coefficient will be calculated for the analysed period (2009–2016). The following scale will be used to interpret the value of the correlation coefficient:

| Correlation coefficient value | Indication |
|---|---|
| $0.0 < r \leq 0.19$ | Negligible correlation |
| $0.2 \leq r \leq 0.39$ | Low correlation |
| $0.4 \leq r \leq 0.59$ | Moderate correlation |
| $0.6 \leq r \leq 0.79$ | Moderately high correlation |
| $0.8 \leq r \leq 1.00$ | High correlation |

Table 1:   Scale of Pearson's correlation coefficient

## 4  Results

The graph below shows the dynamics of foreign transit passengers in the country during the analysed period.
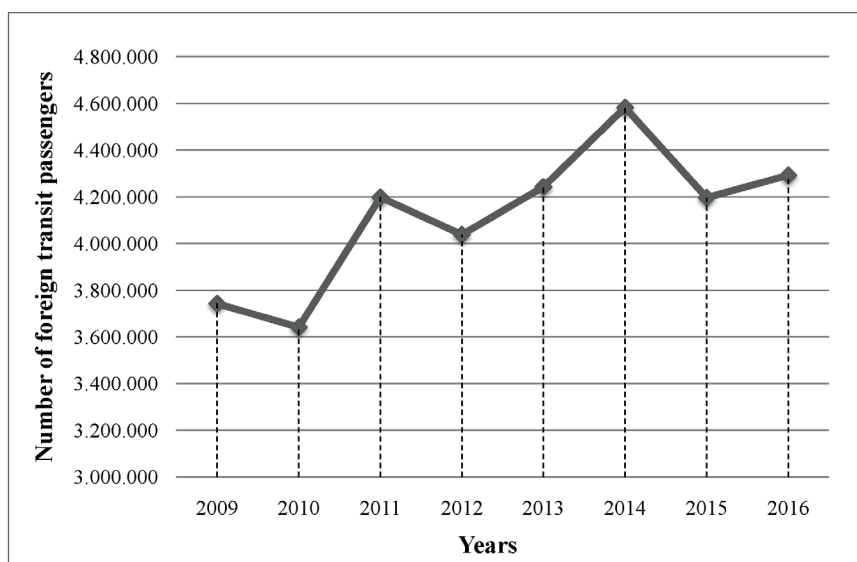


Source:    Own design based on data from the Ministry of Internal Affairs

Figure 5: Foreign transit passengers in North Macedonia (2009–2016)

In 2016, approximately 4.3 million foreign passengers transited through North Macedonia. From 2009 to 2016, the number of foreign transit passengers increased by 14.7 percent, so the trend is positive (Figure 5).

### 4.1    Results of the fieldwork

From the field observation, it was noticed that the pan-European transport corridors VIII and X have a relatively good road infrastructure, with the exception of some sections where it is necessary to reconstruct the road infrastructure and install modern traffic signs. Also, in some sections it is necessary to complete the construction of Corridor VIII with a modern highway. Namely, quality roads are the first condition that should be met for the development of transit tourism.

From a tourism perspective, what is most lacking are rest areas, accommodation and other service facilities that can attract transit tourists to take a short break or spend the night. This evidence emerged from the responses of all interviewees, which is supported by the following characteristic statements:

*"There is a lack of rest areas along the highway where transit tourists can rest, eat, spend the night and so on."*

*"It is unacceptable that transport corridors of international importance do not have modern hospitality and other service facilities adapted to the needs of transit tourists."*

Travelling through the transit corridors, it was noticed that the petrol stations that offer some basic services such as shops and cafes are currently the most numerous facilities along the transport corridors. However, all interviewees replied that petrol stations are not enough to meet the needs of transit tourists and additional facilities are needed along the transport corridors. This evidence is supported by a sample of characteristic statements made by the interviewees:

*"There are plenty of petrol stations along the highway, but they only offer some basic services. Therefore, facilities with specialised services such as motels, recreation facilities, shops, ATMs and car repair shops are needed."*

*"Petrol stations are insufficient for successful transit tourism. Other services and commercial facilities are needed, such as: motels along the highway, self-service restaurants, banks, exchange offices, shopping malls and mega markets with various products."*

The offer of the existing service facilities along the transport corridors is relatively modest and mainly consists of the sale of gasoline, food and beverages at the petrol stations, a few accommodation facilities and so on. Almost 90 percent of the interviewees consider that the offer of products and services should be more diverse, high-quality and tailored to the needs of customers. They also state that the tourist offer (in addition to hospitality services) should include natural and cultural attractions along the transport corridors. In general, more diverse and high-quality products and services can increase the positive perception of transit tourists about the pan-European transport corridors and the country.

Indeed, the challenges in the development of transit tourism along the transport corridors are great. Investments in hospitality services and other tourism infrastructure are needed. The construction of new and additional tourist infrastructure along the transport corridors can have multiple economic benefits for the local population, as well as for the regions and the country. All interviewees collectively replied that transit tourism can have significant impacts on regional and national economy. In this context, some of the interviewees stated:

*"Currently, the economic impacts of transit tourism are small due to the multitude of unresolved issues. But if things go well, in many cases transit tourism will have a positive impact on regional and national economy."*

*"Transit tourism can generate large revenues and improve the economic situation, increase investment, employment and so on."*

Finally, the results of the fieldwork are in line with the national strategies for tourism development, which emphasised that transit tourism is an underdeveloped segment of the tourism industry and that the country's potentials are large but untapped (Government of the Republic of Macedonia 2009; Kohl & Partner 2016).

## 4.2 Results of Pearson's correlation

The results of Pearson's correlation between the number of foreign transit passengers in the country and the overnight stays of foreign tourists in the cities along the transport corridors show different levels of correlation coefficient values (Table 2).

| Cities along the Corridor VIII | Correlation coefficient value | Correlation strength |
|---|---|---|
| Kriva Palanka | n/a | n/a |
| Skopje | 0.6446 | Moderately high correlation |
| Tetovo | 0.0801 | Negligible correlation |
| Gostivar | 0.1025 | Negligible correlation |
| Kičevo | 0.1342 | Negligible correlation |
| Struga | 0.7549 | Moderately high correlation |
| Cities along the Corridor X | Correlation coefficient value | Correlation strength |
| Kumanovo | 0.2899 | Low correlation |
| Veles | 0.6206 | Moderately high correlation |
| Negotino | 0.7797 | Moderately high correlation |
| Gevgelija | 0.8742 | High correlation |

Source:    Own calculations based on data from the Ministry of Internal Affairs and the State Statistical Office

Table 2:   Results of Pearson's correlation for the analysed period (2009–2016)

Due to lack of data for the period 2009–2016, the value of the correlation coefficient is not calculated for the City of Kriva Palanka.

## 4.3 Average length of stay of foreign tourists in the cities along the transport corridors

The calculated results for the average length of stay of foreign tourists show that foreign tourists generally have a short stay in the cities along the transport corridors (Table 3).

| Transport Corridors | Cities | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|
| Corridor VIII | Kriva Palanka | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| | Skopje | 2.0 | 1.9 | 1.9 | 1.8 | 1.8 | 1.7 | 1.7 | 1.7 |
| | Tetovo | 1.9 | 1.8 | 1.9 | 1.8 | 2.4 | 1.8 | 2.3 | 2.6 |
| | Gostivar | 1.2 | 1.5 | 1.5 | 1.2 | 1.2 | 1.1 | 1.9 | 2.2 |
| | Kičevo | 5.2 | 2.0 | 2.6 | 4.1 | 3.1 | 3.0 | 2.1 | 2.8 |
| | Struga | 2.8 | 2.8 | 3.8 | 3.8 | 2.9 | 2.9 | 3.5 | 3.2 |
| Corridor X | Kumanovo | 1.7 | 2.1 | 1.9 | 2.0 | 1.4 | 1.3 | 2.2 | 1.7 |
| | Veles | 1.6 | n/a | 2.4 | 1.5 | 1.2 | 1.3 | 1.7 | 1.6 |
| | Negotino | n/a | n/a | n/a | 1.8 | 2.3 | 1.9 | 1.6 | 1.2 |
| | Gevgelija | 1.6 | 1.5 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 |

Source:    Own calculations based on data from the State Statistical Office

Table 3:   Average length of stay (in days) of foreign tourists in the cities along the transport corridors

The average length of stay of foreign tourists in the cities along the transport corridors for the analysed period 2009–2016 is: Skopje (1.8 days), Tetovo (2.1), Gostivar (1.5), Kičevo (3.1), Struga (3.2), Kumanovo (1.8), Veles (1.6), Negotino (1.8), and Gevgelija (1.6).

# 5   Discussion, implications, and conclusions

## 5.1   Theoretical implications

The present paper examined and improved the current understanding of transit tourism through pan-European transport corridors in North Macedonia. Studies in the literature show that there is no single model of travel (FLOGNFELDT 2005; LEIPER 1979; LUE et al. 1993; OPPERMANN 1995). Travel patterns depend on the geographical context, type of transport and spatial mobility. The current paper proposed a theoretical model as an analytical framework. It provides a basis for defining the transit route region. The transit route region is defined as a geographical area with specific focal points, tourist functions and locations that attract tourists to stay temporarily. The transit route region is distinguished by structures that relate to a common activity such as transport corridors, accommodation establishments, hospitality services, entertainment and recreational facilities, transit cities or destinations. The two main elements in the model are the transport corridors and the transit cities along the transport corridors.

The current paper suggests that pan-European transport corridors are fundamental to the development of transit tourism. Transport corridors are internal and external factors

that have a direct and indirect impact on tourism development. Pan-European transport corridors are the main transport infrastructure connected by secondary roads leading to various tourist destinations. Service equipment, i.e., logistics infrastructure is one of the most important factors in the development of transit tourism. Therefore, the present paper suggests that the pan-European transport corridors should not be perceived as basic transport infrastructure, but as axes of tourism development. Previous research has shown that the behaviour and expenditure of participants in transit tourism are largely determined by numerous factors among which are transport infrastructure and accommodation facilities along the transit routes (Kincses et al. 2016).

The second important component in the theoretical model is the transit cities along the transport corridors. The findings of the study showed that foreign tourists have a short stay in cities along the transport corridors. This indicates that almost all cities have a transit tourist function and, in some way represent potential transit tourism destinations, especially cities such as Skopje, Veles, Negotino and Gevgelija which showed moderately high correlation as well as high correlation between the analysed variables. It must be emphasised here that Skopje and Struga cannot be identified only as 'cities along the corridor' in the context of tourism, because they can primarily be identified as target tourism destinations. Namely, Skopje is the capital of North Macedonia and a destination for urban, cultural, business and other forms of tourism (Iliev 2021). The city has 120 various accommodation establishments (State Statistical Office of the Republic of Macedonia 2017) such as hotel brands, hostels, apartments, etc. On the other hand, Struga is a popular summer holiday destination in North Macedonia. The city has 25 accommodation facilities (State Statistical Office of the Republic of Macedonia 2017), which are primarily intended for tourists in the summer tourism season.

Transit cities along the transport corridors as potential transit destinations may affect other dynamics in the tourism system. Therefore, their conceptualisation is needed. They can play the role of secondary destinations within the transit route region (e.g., Lue et al. 1993). They are linked to the surrounding areas by road communication. Transit cities are conglomerations of many different services located in a single area and exist to provide services to visitors. Visitors and activities will flow towards and away from the transit cities at various times of the day. For instance, tourists from Western or Central Europe who travel to Greece as a target destination can make a stop and spend a short period in North Macedonia, i.e., in the transit cities which in the study model are defined as secondary destinations within the transit route region (e.g., Veles, Gevgelija, etc.). Quality services and attractions can influence transit travellers to increase their re-visit interest as stay-over visitors, which can provide additional financial benefits to cities as well as the development of foreign tourism in the country.

The transit route region can be subdivided into smaller regions with sub-region centres. For instance, Skopje is a node of the Skopje Region (Iliev 2018). In essence, transit cities can be nodes of sub-regions, but they are also part of a larger transit route region that includes the entire multi-destination trip. The transit city can take advantage of the presence of other transit centres in the transit route region and with its competitive advantage to attract the attention of visitors. Indeed, the development of transport and tourism can lead to more intense competition between regions.

As well, transit cities along the transport corridors can be defined as 'Hub Destinations', which is in accordance with the existing literature, i.e., the definition of 'Hub Destinations' (Lew and McKercher 2002). Recognising transit cities as hub destinations will change the conventional understandings of the tourism system linked to the transit route region. As a result of this study, transit cities along the transport corridor will attract the attention of scientists.
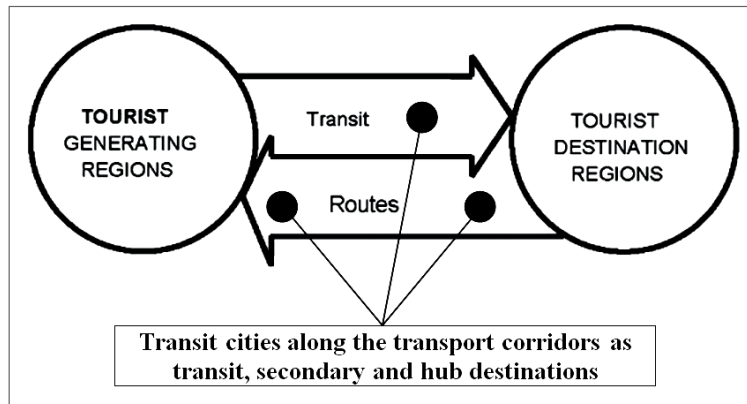


Source:     Own design based on Leiper (1979)

Figure 6: Multiple locations of the transit cities in the transit route region

The present paper contributes to the literature in several ways. First, the paper proposed a conceptual model that was theoretically rooted in one of the most popular theoretical models, i.e., Leiper's model, which explains the transit tourist routes in the tourism system. The study model also extends the knowledge and understanding of the 'en route' pattern (Lue et al. 1993) and the M1 'stopover pattern' (Oppermann 1995). Second, the theoretical model 'decodes' the spatial pattern of multi-destination travel itinerary. Third, the paper calls for a reassessment of conventional transit route models by demonstrating the potential of transit cities along the transport corridors as transit, secondary and hub destinations that influence other dynamics in the tourism system. At last, the paper suggests that transit cities along the transport corridors as transit, secondary and hub destinations should be integrated into Leiper's model to emphasise their significant transit tourist function (Figure 6).

## 5.2    Managerial implications

The findings showed that the pan-European transport corridors in North Macedonia do not have quality hospitality services. Respectively, the paper emphasises the gap between the increasing number of foreign transit passengers in the last several years and the quality of hospitality services offered on the transport corridors. The pan-European transport

corridors have always been important, and it is evident through the role and treatment that governments have played with them. However, it seems that the authorities are only interested in the quality of road infrastructure, and distance themselves from the responsibility of stimulating some major projects related to the quality of hospitality and other services along the transport corridors. The authorities need concrete measures that will encourage investment in hospitality facilities along the transport corridors, expand the range of quality and modern services for foreign transit tourists (mentioned in the results), initiate strategies and plans for transit tourism, etc.

The proposed theoretical model provides an opportunity for destination management organisations to better understand the importance of transit cities along the transport corridors as potential transit, secondary and hub destinations. Destination management organisations need to focus on developing strategic plans, developing tourism products, marketing campaigns and activities that will increase the attractiveness of these cities.

### 5.3 Limitations and future research

The research was limited by several factors that could serve as initial offers for future research. The 'stopover visitors' or 'stopovers' (Weaver and Lawton 2010), as well as the arrivals, overnight stays and consumption of foreign transit tourists are not registered in the State Statistical Office, so it is very difficult to determine their absolute impact on cities along the transport corridors. Therefore, the authorities must find a way and methodology to register transit tourists and publish them as official statistics.

Apart from Pearson's correlation, other methods should be considered in future research. It is recommended to analyse the number of guest nights per transit passengers in the examined cities with the help of shift-share analysis. This would make it possible to distinguish between the national tendency and the different local effects. In addition, future studies should examine the effect of foreign transit passengers on overnight stays by using the city-level data. It is recommended to develop a panel model at city-level. The model should include other important determinants of an overnight stay (e.g., local amenities, local hotel prices). Then, scholars can apply panel fixed-effect or panel GMM or panel 2SLS estimators to find out the effect of transit on an overnight stay.

Finally, the present paper proposed and applied a theoretical model to North Macedonia. Now the question arises: What is the amount of the model's generalised value? Although the current study includes only one country for analysis, this model can be adapted to other countries or regions that have transport corridors and transit cities along the transport corridors and can be used as an analytical framework for future empirical research.

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