

The impact of the COVID-19 pandemic on cross-border shopping tourism: the case of Hungary

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Abstract

By today the smooth functioning of the global economy has been highly dependent on the uninterrupted flow of factors across borders. The free flow of tourists is also inevitable for the proper functioning of the global tourism industry. However, tourism and various forms of cross-border (tourism) activities were put under unprecedented pressure due to the COVID-19 pandemic, since most countries, including Hungary, introduced serious restrictions on mobility to slow down the spread of the virus. This paper focuses on a relatively under-researched topic, cross-border shopping tourism in the context of the COVID-19 pandemic. Before the outbreak of the pandemic, shopping tourism was deemed to be an increasingly important component of the tourism value chain. Several studies have demonstrated that shopping has become one of the most favourable activities among tourists and one of the major categories of tourists' expenditure. Based on the review of the relevant literature, the paper introduces the notion and forms of shopping tourism and discusses the major research topics with special regard to the effects of the pandemic and other types of crisis events. The impact of the pandemic on shopping tourism is observed through the example of Hungary, whereby the effects of restrictions, exchange rate fluctuations, and price-level differences on the number of in- and outbound shopping trips, and the related expenditures, are evaluated. Results show that re-bordering processes due to the pandemic have not only resulted in an unprecedented decline in cross-border shopping tourism, but they also contributed to the spatial restructuring of shopping (tourism) and retailing. The pandemic not only sustained cross-border differentials vital to shopping tourism but sometimes even created new forms of them; these differences, however, could not counter the negative effects of restricted international mobility. The paper aims to contribute to the literature on cross-border tourism by reviewing the effects and consequences of COVID-19 and related restrictions on shopping tourism.

Keywords: shopping tourism, cross-border shopping, COVID-19, pandemic, crisis, Hungary

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Introduction

During the past decades, tourism had to face numerous global and regional crisis events and challenges (HALL, C.M. 2010), such as natural disasters (SHARPLEY, R. 2005), anthropogenic environmental problems (SCOTT, D. *et al.* 2012), economic and financial crises (PAPATHEODOROU, A. *et al.* 2010), political crises, instabilities and terrorist attacks (HANON, W. and WANG, E. 2020), as well as pan-

demics and the spread of diseases (ZENG, B. *et al.* 2005). Many of the crisis events affecting tourism have been an integral part of human history for thousands of years; however, in today's world they are receiving ever greater attention. One of the reasons behind this is the dramatic growth in the scale of human mobility, the other is that due to growing global integration and interconnectedness local crises can spread quickly and cause global disruptions.

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In 2020 global tourism had to face an unprecedented external shock in the shape of the COVID-19 pandemic (HALL, C.M. *et al.* 2020a). Since no vaccines and/or effective medical treatments were available at the beginning of the pandemic, most countries applied non-pharmaceutical interventions (GÖSSLING, S. *et al.* 2020; FOTIADIS, A. *et al.* 2021) such as travel restrictions, lockdowns, closure of non-essential businesses. Restrictions introduced by governments on non-essential mobility had an immediate impact on tourism causing a sudden transformation from overtourism to non-tourism.

The pandemic has resulted, among other things, in a fundamental change in travel behaviour (NEUBURGER, L. and EGGER, R. 2021), and in a disruption of the accommodation sector, including the Airbnb market as well (BOROS, L. *et al.* 2020). The pandemic also fundamentally changed tourism destination communication (PACHUCKI, C. *et al.* 2022), it heavily affected tourist travel risk and management perceptions (RAHMAN, M.K. *et al.* 2021), forced tourism firms to re-evaluate their business models (FOTIADIS, A. *et al.* 2021), and made governments develop strategies for the recovery of tourism (COLLINS-KREINER, N. and RAM, Y. 2020). Besides these changes, several researchers think that the COVID-19 pandemic could also bring a paradigm shift in the tourism industry which could lead to a greener, more resilient, inclusive, equal, and sustainable tourism in the future (HALL, C.M. *et al.* 2020a; IOANNIDES, D. and GYIMÓTHY, S. 2020; RASTEGAR, R. *et al.* 2021; WIĘCKOWSKI, M. 2022).

Shopping is one of the most favoured leisure activities during a holiday, and for more and more tourists it is the primary or even sole motivation for travel (TIMOTHY, D.J. and BUTLER, R.W. 1995; TIMOTHY, D.J. 2005; WTO, 2014). Cross-border shopping is the most common type of borderlands tourism (TIMOTHY, D.J. 1999). Research on shopping tourism has focused on a wide range of topics (CHOI, M.J. *et al.* 2016), such as tourist shoppers' satisfaction (LEE, J.S. and CHOI, M. 2020), behaviour (HOBSON, J.P. and CHRISTENSEN,

M. 2001), motivations (SUNDSTRÖM, M. *et al.* 2011), shopper typologies (JOSIAM, B.M. *et al.* 2005), perception of risks (YÜKSEL, A. and YÜKSEL, F. 2007), service quality (YEUNG, S. *et al.* 2004), the significance of souvenirs (SWANSON, K.K. and TIMOTHY, D.J. 2012), and the role of shopping in tourism development (JANSEN-VERBEKE, M. 1991; GETZ, D. 1993).

Researchers on shopping tourism have devoted limited attention to crisis events, papers in this context have focused on the financial crisis of 2007–2008 (MICHALKÓ, G. *et al.* 2014) and the Ukrainian crisis of 2013–2014 (SMĘTKOWSKI, M. *et al.* 2017; STEPANOVA, S.V. and SHLAPEKO, E.A. 2018). Results have shown that financial, economic and/or geopolitical crises may have a significant impact on the exchange rates of national currencies which may result in price differences along international borders that are large enough to support cross-border shopping tourism. However, results also demonstrate that the impact of price-level differences generated by exchange rate fluctuations is usually temporary, volatile, and short-lived (TIMOTHY, D.J. 2005; MICHALKÓ, G. *et al.* 2014).

Despite the widespread interest in COVID-19 related tourism research the effects of the pandemic on shopping tourism have remained relatively under-researched. Therefore, based on the review of the literature and on statistical data analysis this paper aims to identify the changes that the COVID-19 pandemic in 2020–2021 has caused in cross-border shopping tourism with special reference to Hungary and examine what long-term consequences may arise from this crisis. Since the permeability of borders is a crucial factor in cross-border shopping tourism, we argue that re-bordering processes in response to the COVID-19 pandemic resulted in a serious decline in this activity. The study extends the shopping tourism literature by showing the transformations of this tourism product due to the COVID-19 pandemic.

The next section introduces the notion and basic forms of shopping tourism. This is followed by the presentation of the impact of the pandemic on shopping tourism by reviewing

the international literature. After introducing the data and methods used, the results are presented. First the general conditions of shopping tourism to and from Hungary are discussed whereby we evaluate the stringency level of anti-COVID-19 measures in Hungary and its neighbouring countries and examine the changes in the exchange rate of the Hungarian forint (HUF). This is followed by an examination of the number of shopping trips to and from Hungary and the related expenditures during the pandemic based on the analysis of the database of the Hungarian Central Statistical Office (HCSO) on international trips. We conclude this paper by outlining the implications for the future of shopping tourism in the last section.

Notion and forms of shopping tourism

In the broadest sense shopping tourism is an activity involving the purchase of goods and services when visiting various places (CHOI, M.J. *et al.* 2016). The World Tourism Organization (WTO) defines shopping tourism as a contemporary form of tourism fostered by individuals for whom purchasing goods outside of their usual environment is a determining factor in their decision to travel (WTO, 2014).

Shopping can either be the primary (sometimes sole) or the secondary (complementary) motivation behind tourist trips. If a tourist trip is primarily motivated by shopping (TIMOTHY, D.J. 2005), and the traveller's primary tourism activity is shopping, we speak about shopping tourism. On the other hand, when shopping is a secondary or complementary activity during a tourist trip it is termed as tourist shopping (TIMOTHY, D.J. 2005). In this case, shopping primarily serves as an activity which provides pleasure and memorable moments for tourists, and which contributes to higher tourist spending and to the diversification of the tourist experience.

A unique type of shopping tourism is shopping in border areas – also known as cross-border shopping (MICHALKÓ, G. and TIMOTHY, D. 2001), which takes place near international

boundaries usually due to economic, legal, and social differences (SPIERINGS, B. and VAN DER VELDE, M. 2013; SZYTNIIEWSKI, B.B. *et al.* 2017; MICHALKÓ, G. *et al.* 2022). Cross-border shopping tourism is a prominent field of research in border studies. Although borders are usually seen as barriers to tourism, they can still create economic and/or legal contrasts (e.g., tax and price differentials) that provide favourable conditions for cross-border activities such as shopping, gambling or medical tourism (WIĘCKOWSKI, M. and TIMOTHY, D.J. 2021). Cross-border shopping tourism is present virtually all over the world; however, due to the social, economic, and political transformations, as well as the changes in the role and character of borders, it has received particular attention in Central and Eastern Europe (KOLOSOV, V. and WIĘCKOWSKI, M. 2018).

The EU's eastern enlargement and the inclusion of most CEE countries in the Schengen Area resulted in re- and de-bordering processes at the same time. The opening of the internal borders of the EU enabled higher levels of cross-border mobility, including cross-border shopping (SZYTNIIEWSKI, B.B. *et al.* 2017). On the other hand, a significant drop occurred in cross-border shopping tourism at the Belarusian, Russian, and Ukrainian borders as these countries found themselves at the external borders of the enlarged EU and later of the Schengen Area (BAR-KOELIS, D. and WENDT, J.A. 2018). Nevertheless, the local border traffic zone experiment – whereby visa-free traffic was introduced for citizens living in neighbouring Polish and Russian regions between 2012 and 2016 – has proved that there are effective tools to improve cross-border trade and support the economy even at the external borders of the EU (SAGAN, I. *et al.* 2018).

The COVID-19 pandemic in 2020–2021 is another recent example of re-bordering (WIĘCKOWSKI, M. and TIMOTHY, D.J. 2021) since many governments decided to close State borders in response to the spread of the virus which had severe negative impacts on cross-border shopping (MAKKONEN, T. 2022).

The impact of the pandemic on shopping tourism

In line with other tourism products, shopping tourism suffered significant decline due to the re-bordering processes during the COVID-19 pandemic in 2020–2021. Shopping was deemed to be a risky activity with respect to the spread of the virus, and therefore many countries restricted the opening hours of shops, set rules for the maximum number of customers on a square metre basis and temporarily closed non-essential retail units. As a result, there was a fundamental shift in the nature of shopping (tourism) during the years of the pandemic. First, there was a decline in leisure-oriented shopping which was coupled with a rise in more utilitarian motivations. Second, international and cross-border shopping tourism lost ground and domestic destinations were preferred instead, since travelling within a country was subject to less stringent regulations. Third, the new circumstances urged customers to turn to alternative channels, such as (cross-border) online shopping. Even in periods when stores were allowed to be open, compulsory face coverings, limitations on the number of customers, and the fear of getting infected made shopping less enjoyable, causing discomfort to tourists (CORNELL, D.A.V. *et al.* 2022) and discouraging them from shopping (at least in-person). In extreme cases, such as in Baarle Hertog (Belgium) and Baarle Nassau (Netherlands), where shops lie astride an international boundary, customers were even prohibited from crossing the borderline at the microscale inside individual shops (WIĘCKOWSKI, M. and TIMOTHY, D.J. 2021).

The first weeks of the pandemic were characterized by panic buying and stockpiling. Through the example of New Zealand, HALL, C.M. *et al.* (2020b) found that, due to increased media coverage and growing public awareness of the crisis, groceries spending increased significantly in mid-March 2020. The housewares, hardware and electrical sectors also experienced a spike in consumer spending as shoppers obtained electrical goods (e.g., bread makers) deemed to be necessary for an extended

lockdown. The demand for medical protective products (such as face masks, alcohol, protective suit, disinfectants, medical gloves and goggles, etc.) also skyrocketed leading to product shortages (ZHANG, J. *et al.* 2021).

Several studies on (cross-border) shopping tourism in the context of the COVID-19 highlight the negative (economic) consequences of the crisis. Retailers and service providers who built their businesses on the demand from cross-border and tourist shoppers have found themselves in a particularly difficult situation. Studying the Polish-German borderland, MALKOWSKI, A. and MAZUR, R. (2020) argue that Polish entrepreneurs suffered significant revenue losses, since the border closure halted the flow of shopping tourists from Germany to Poland. TILAKI, M.J.M. *et al.* (2021) investigated vendors' attitudes and their receptiveness towards international tourists during the COVID-19 pandemic in Malaysia's night markets and found that most of them had to face serious challenges, since they had no income during the lockdown period. In addition, most vendors are involved in the informal economy characterized by low income levels, thus, it is not surprising that most of them supported the reopening of international borders to tourists as soon as possible to gain income from tourist shoppers.

Several studies claim that the pandemic has had an especially devastating effect on luxury shopping tourism. One reason for this is that China, which represented 90 percent of the growth of the global luxury market in 2019 (DEL VALLE, A.S. 2020), implemented serious restrictions on international mobility causing a serious drop in luxury tourism. The other reason behind the decline in luxury sales is that during the pandemic customers were either not able to or were reluctant to visit luxury retail stores (KLAUS, P. and MANTHIOU, A. 2020). These problems were further intensified by the fact that the luxury retail industry relies heavily on visitors and shopping tourism. Based on a qualitative survey, SYED, A. and HAQ, F. (2021) found that the demand by tourists for luxury goods not only decreased because of restricted mobil-

ity but also because consumers started shopping more consciously focusing on their basic needs. Moreover, uncertainties related to the pandemic, declining levels of income (due to working from home), and changes in consumers' priorities (preferring items necessary to survive the pandemic) also had a negative impact on luxury goods buying intentions.

The spatial restructuring of shopping (tourism) and retailing was another consequence of the pandemic. For instance, notable geographical redistributions of alcohol sales and consumption in Europe were detectable during the pandemic. LEIFMAN, H. *et al.* (2022) argue that Europe saw significant changes in alcohol availability due to the closing of bars, restaurants, and international borders resulting in an increase in domestic sales in countries with high cross-border inflow of alcohol. Nevertheless, results also show a general decrease in the total amount of alcohol consumed per capita in inflow countries as not all cross-border purchases were replaced by domestic sales.

By analysing card payments to the retail sector in Switzerland during the COVID-19 crisis KRAENZLIN, S. *et al.* (2020) revealed substantial payment shifts from urban to suburban and rural areas, as well as notable rearrangements among cantons. They argue that one plausible explanation for this shift lies in the fact that urban cantons are more likely to suffer from the absence of tourism and business travel. They also claim that the impossibility of shopping tourism caused an increase in excess retail payments in Switzerland, since residents in the country were 'forced' to spend their money at home due to border closures.

Similar 'positive' effects of the pandemic on domestic retail sales are explored by BAGGS, J. *et al.* (2022) who calculated that, on average, the USA-Canada border closure generated a 1.49 percent offsetting gain in revenues for small Canadian retailers located within 150 kilometres of the border. This was primarily due to the fact that the border policy prohibiting Canadians from crossing the border for non-essential travel shifted some revenue from cross-border purchases

to Canadian retailers. These extra revenues were able to partially counter the losses that retailers experienced during lockdowns.

The drop in cross-border shopping not only had a serious impact on the geographical distribution of spending, but also on the structure and organization of the retail sector, being already under change caused by the dynamically evolving e-commerce. These processes have also generated transformations in urban spaces. Based on a case study in Barcelona, FRAGO, L. (2021) found that the collapse of global tourist/consumer flows (together with the spread of online shopping) accelerated the commercial desertification of the traditional city centre and led to the temporary or permanent closure of retail establishments.

The impossibility of (cross-border) shopping tourism during the pandemic undoubtedly increased the role of online shopping. E-commerce had been on the rise well before the outbreak of the pandemic; however, this external shock has accelerated the already ongoing transformation process of the retail sector (BECKERS, J. *et al.* 2021). Nevertheless, according to HALL, C.M. *et al.* (2020b) online purchases during the pandemic primarily targeted domestic e-tailers instead of international ones, as COVID-19 resulted in diminishing confidence in the reliability of international shipping and postal services.

The geographical disparities in the distribution of and access to COVID-19 vaccines also resulted in the emergence of a unique phenomenon: vaccine tourism, which can be regarded as a special form and combination of medical and shopping tourism. The essence of this phenomenon is that vaccine tourists travel to locations where they can access vaccines ahead of others or get the type of vaccine unavailable in their home countries (KAEWKITIPONG, L. *et al.* 2021). A significant proportion of vaccine tourists originated from the Global South and targeted the Global North; however, due to temporary shortages, vaccine tourism also occurred among countries with similar level of development or even among states in the USA (KORSTANJE, M.E. 2022).

Data and methods

First the general conditions of Hungary's shopping tourism were examined, whereby we evaluated the stringency level of anti-COVID-19 measures in Hungary and its neighbouring countries and analysed the changes in the exchange rate of the HUF. The assessment of the stringency of anti-COVID-19 measures was based on the stringency index calculated by the Oxford Coronavirus Government Response Tracker (OxCGRT) project³. This index (using nine metrics⁴) records the strictness of government policies on a scale from 0 to 100, where 0 means the least stringent and 100 represents the most stringent response level (HALE, T. *et al.* 2021). In this study the average yearly and quarterly stringency index values were calculated for Hungary and its seven neighbouring countries for 2020 and 2021.

The changes in the exchange rates of the HUF were assessed by using the database of the Hungarian National Bank. First the mean exchange rates of the currencies of the neighbouring countries expressed in HUF were calculated for 2019, 2020 and 2021. Then base indices (2019 = 100%) were calculated for 2020 and 2021.

The selection of these indicators is justified by the evidence presented in the literature review section of this paper where we have shown that both policy responses to COVID-19 and exchange rate fluctuations may have a strong impact on cross-border shopping tourism.

The rest of the results section presents the analysis of the changes in the number and share of shopping trips to and from Hungary and the related expenditures in 2020 and 2021 compared to 2019 data. The analysis is

based on the database of the HCSO on international travels⁵. The HCSO collects data on in- and outbound trips through questionnaire surveys in the form of personal interviews which are conducted at land and air border crossing points (in the case of Schengen borders interviews are conducted nearby the former border checkpoints) with the help of trained interviewers⁶. As the HCSO publishes data according to the main travel motivations as well, it is possible to analyse the characteristics of shopping trips, which can provide an overall picture of Hungary's in- and outbound shopping tourism⁷. Data are processed through descriptive statistics, through time series, base indices calculation, and part-to-whole ratios.

Stringency of anti-COVID-19 measures in Hungary and its neighbours

Most countries in the region started introducing anti-COVID-19 measures at the end of January 2020, however, stringency indices started increasing rapidly only in March as the first cases were detected. As a result, the first quarter of 2020 was characterized by relatively low levels of restrictions. The most stringent measures were in force in April 2020, which was followed by the gradual easing of restrictions in May. During the summer of 2020 less stringent regulations were in force, thus, the third quarter of the year saw a significant drop in stringency indices. However, as the second wave of COVID-19

³ Data available at: <https://github.com/OxCGRT/covid-policy-tracker/tree/master/data>

⁴ School closures; workplace closures; cancellation of public events; restrictions on public gatherings; closures of public transport; stay-at-home requirements; public information campaigns; restrictions on internal movements; and international travel controls.

⁵ Data available at: https://www.ksh.hu/stadat_eng?lang=en&theme=tur

⁶ The detailed methodology of data production is available at: https://www.ksh.hu/apps/meta.objektum?p_lang=EN&p_menu_id=110&p_almenu_id=104&p_ot_id=100&p_obj_id=BDGD

⁷ Since the target populations of the HCSO surveys are Hungarian travellers leaving Hungary and foreign travellers entering Hungary we use the terms 'Hungarians' and 'foreigners' instead of 'residents' and 'non-residents' throughout this paper.

arrived, countries started tightening measures again; this was accompanied by a rise in stringency indices, although the severity of measures (on average) did not exceed the level of the second quarter of the year. Due to the third wave of COVID-19 most countries introduced additional restrictions resulting in increasing stringency indices during the first quarter of 2021. The Hungarian government followed an especially strict policy at that time, which is represented by the fact that the country's stringency index was higher in the first quarter of 2021 than in the second quarter of 2020 and Hungary had the second highest value in the region. With the rising level of vaccinations and decreasing cases, governments started to ease restrictions from May causing a drop in stringency indices in the third quarter of 2021. Due to rising cases the last quarter of 2021 saw a modest increase in stringency levels again (Figure 1).

A detailed look at anti-COVID-19 measures in Hungary (Figure 2) shows that the government introduced restrictions, such as the closure of borders and certain shops, as well as limiting the opening hours and capacity of non-essential businesses, that were similar to other countries and caused serious disruptions to shopping tourism.

In sum, especially in the first period of the pandemic, government responses in the region showed similarities, nevertheless some spatial and temporal differences could also be detected. These differences created new aspects of cross-border asymmetries that are

vital to the existence of cross-border activities, such as shopping tourism. Nevertheless, severe and often quickly changing restrictions on the international mobility of tourists largely hindered the exploitation of cross-border differences. Responses introduced by the Hungarian government and their timing were roughly in line with the measures taken by the governments of neighbouring countries until mid-2021. However, from the third quarter of 2021 the Hungarian government focused on vaccinations instead of restrictions, thus, a gradual abolition of anti-COVID-19 measures started, and the country's stringency index became the lowest in the region (see Figure 1, A).

Changes in the exchange rates of the HUF

Except for the Ukrainian hryvnia (UAH), the HUF significantly declined against the currencies of the neighbouring countries (Figure 3) during the examined period. The largest devaluation (more than 10%) was detectable against the EUR and the Serbian dinar (RSD), but substantial weakening took place against the Croatian kuna (HRK) (almost 9%) and the Romanian leu (ROL) (app. 6%) too. The UAH to HUF exchange rate was subject to larger fluctuations; the first half of 2020 was characterized by the strengthening of the UAH, then the HUF became slightly stronger.

In sum, foreigners visiting Hungary during the pandemic could buy more products and

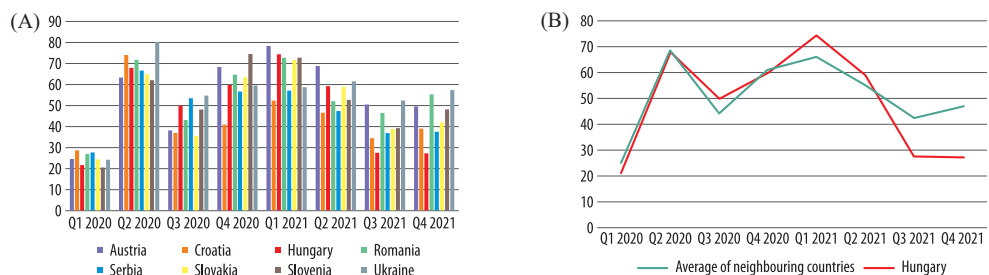


Fig. 1. Quarterly averages of stringency indices in Hungary and its neighbouring countries (A), and Hungary's stringency index in comparison to the average of neighbouring countries (B). Source: Edited by the authors based on data from OxCGRT.

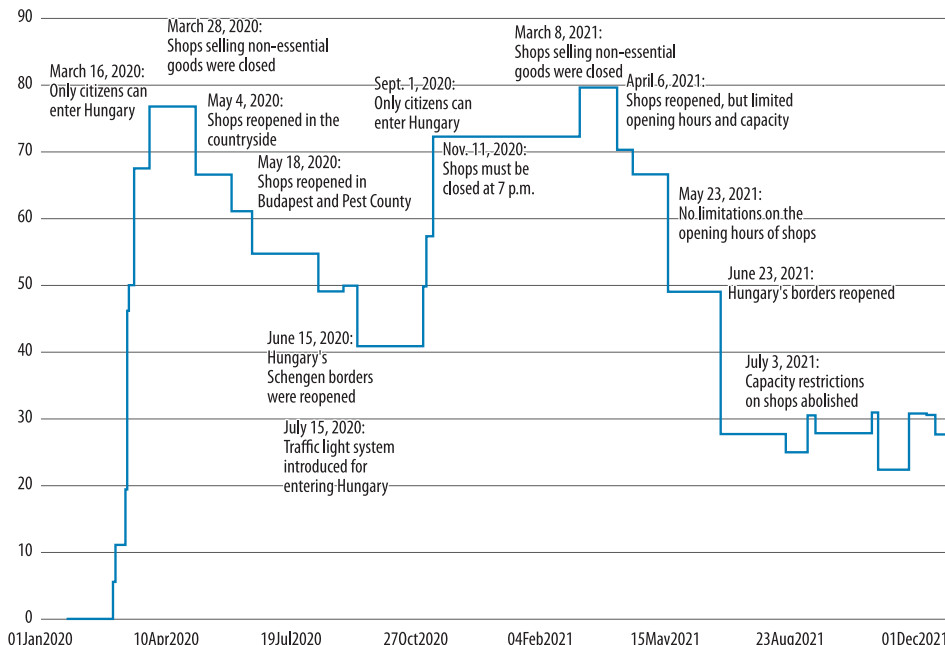


Fig. 2. COVID-19 stringency index in Hungary and selected restrictions related to shopping tourism (2020–2021). *Source:* Edited by the authors based on data from OxCGRT.

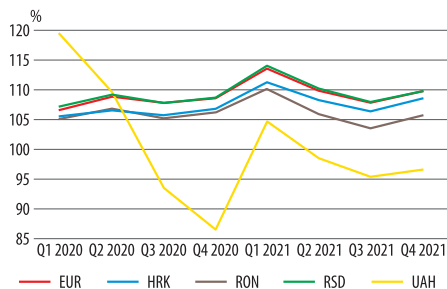


Fig. 3. Base indices of the mean exchange rates of the currencies of the neighbouring countries expressed in Hungarian forint (HUF) (the same quarter of 2019 = 100%). *Source:* Edited by the authors based on data from the Hungarian National Bank.

services for the same amount of money, while Hungarians travelling abroad had to face increasing prices. Thus, changes in the exchange rates of the HUF favoured shopping tourism to Hungary and created less favourable conditions for outbound shopping tourism.

Changes in the number of (shopping) trips to and from Hungary and in the related expenditures during the pandemic (2020–2021)

The number of inbound trips to Hungary in 2020 was down by 48 percent compared to the previous year, and the decline was roughly the same in the case of shopping trips as well, thus, the share of shopping trips within the total number of inbound trips hardly changed. The following year (2021) saw some recovery, as inbound trips increased by 16 percent from the previous year; nevertheless, this figure was still almost 40 percent below the pre-pandemic level. On the other hand, inbound shopping trips were down by more than 20 percent compared to 2020 and by 60 percent to 2019, thus, shopping trips only accounted for 12 percent of all inbound trips in 2021 (Figure 4, A).

Outbound trips by Hungarians were also characterized by a significant (almost 50%) decline in 2020 from the previous year and an even more severe decline was detectable

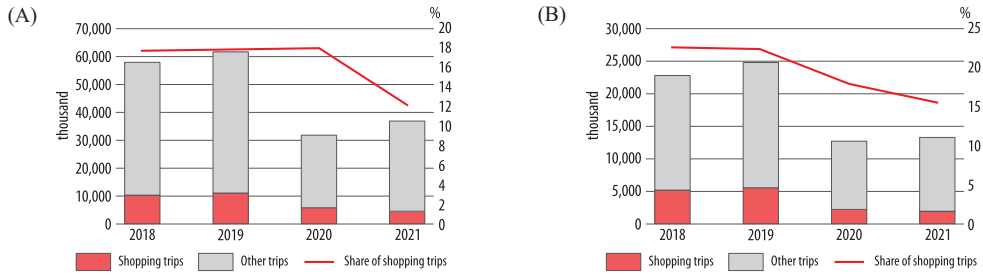


Fig. 4. Number and share of inbound shopping trips to Hungary (A), and outbound shopping trips by Hungarians (B), 2018–2021. *Source:* Edited by the authors based on HCSO data.

in the case of outbound shopping trips being almost 60 percent down compared to 2019. Thus, the share of shopping trips fell to 18 percent of all outbound trips in 2020. The next year saw a gradual recovery as outbound trips were up by 4 percent compared to 2020, but still almost 50 percent down compared to 2019. On the other hand, outbound shopping trips in 2021 dropped by 9 percent from the previous year, and they were down by more than 60 percent compared to 2019. Thus, the share of shopping trips fell to 15.6 percent of all outbound trips in 2021 (Figure 4, B).

Expenditures (at current prices) related to inbound trips in 2020 were down by 54 percent compared to 2019, meanwhile expenditures related to inbound shopping trips dropped by 45 percent. As spending related to shopping trips decreased to a lesser extent than the total spending, the share of expenditures related to shopping trips increased by almost 2 percentage points to 11.4 percent from the previous year. Although expenditures related to inbound trips in 2021 increased by 28 percent from the previous year, but they were still 42 percent down compared to 2019. Meanwhile, the spending of shopping tourists to Hungary in 2021 fell by 6 percent from the previous year and it was down by 48 percent compared to 2019. Thus, expenditures related to inbound shopping trips accounted for 8.4 percent of the total spending in 2021 (Figure 5, A).

Expenditures related to outbound trips by Hungarians in 2020 were down by 58 percent compared to 2019, while Hungarian shop-

ping tourists' spending fell by 50 percent. Thus, the share of expenditures related to outbound shopping trips rose to 19 percent. In 2021 expenditures related to outbound trips by Hungarians increased by 27 percent from 2020, however, they were still 47 percent down compared to 2019. Meanwhile, Hungarian shopping tourists' spending fell by 8 percent from 2020 and it was down by 54 percent compared to 2019. Thus, expenditures related to outbound shopping trips by Hungarians accounted for 14 percent of the total spending in 2021 (Figure 5, B).

Regarding the structure of spending related to international trips it is detectable that during the pandemic (2020–2021) the relative share of food and beverages as well as fuel increased within the total expenditure.

Quarterly changes in the number of in- and outbound (shopping) trips (Figure 6, A), and in the related expenditures (Figure 6, B) clearly reflect the impact of anti-COVID-19 measures introduced by national governments. The first quarter of 2020 was characterized by the least decline both in terms of the number of trips and the related expenditures since governments started introducing serious restrictions only from March. The second quarter saw a drastic drop in the number of international trips and the related expenditures with the introduction of severe anti-COVID-19 measures. A temporary improvement occurred in the third quarter of 2020 since during the summer less severe restrictions were in force in most countries.

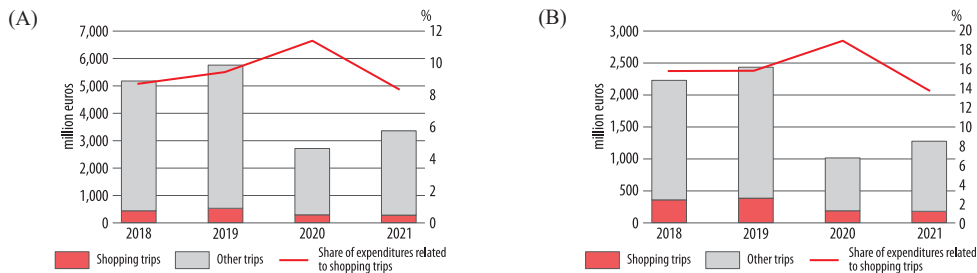


Fig. 5. Sum and share of expenditures related to inbound shopping trips to Hungary (A), and to outbound shopping trips by Hungarians (B), 2018–2021. Source: Edited by the authors based on HCSO data.

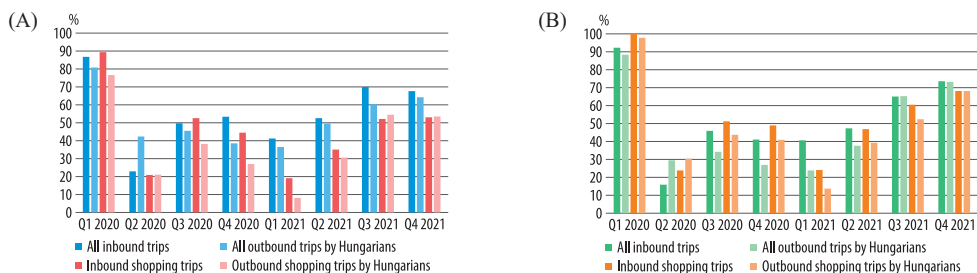


Fig. 6. Quarterly changes in the number of (A), and in the expenditures related to (B) in- and outbound trips and shopping trips (the same quarter of 2019 = 100%) Source: Edited by the authors based on HCSO data.

However, as governments started tightening measures with the arrival of the second wave of COVID-19 trips and expenditures started declining again. Except for the number of total inbound trips, the first quarter of 2021 saw the worst figures, which was particularly true for shopping trips.

The reason for this lies in the fact that several countries, including Hungary, introduced the most serious restrictions in this quarter (Hungary ranked second after Austria in the average stringency index of Q1 2021). Due to the gradual easing of restrictions, a relatively dynamic recovery in the number of trips and expenditures could be detected during the second and third quarters of 2021, nevertheless, the number of all in- and outbound trips and the related expenditures were still 30 or 40 percent lower in Q3 2021 than in the same quarter of 2019. In addition, the recovery in the number of in-

and outbound shopping trips and the related expenditures was even slower. The dynamic increase in the number of trips halted in the fourth quarter of 2021 (except for outbound trips by Hungarians) as some countries tightened COVID-19 measures again. Meanwhile the rising trend in expenditures continued, however, this was predominantly due to inflation and the weakening of the HUF.

Finally, we examined the effects of the level of COVID-19 stringency indices and the EUR/HUF exchange rate⁸ on the volume of shopping tourism to and from Hungary (Table 1). The analysis was based on quarterly data from 2020 and 2021, however, the first quarter of 2020 was disregarded, since the first two months of 2020 were virtually unaffected by COVID-19 related restrictions.

⁸ Exchange rates of other currencies were disregarded because they showed similar tendencies to the EUR/HUF exchange rate except for the UAH (see Figure 3).

Table 1. Pearson correlation matrix among the volume of shopping tourism, COVID-19 stringency indices and EUR/HUF exchange rate*

Indicators	Var1	Var2	Var3	Var4	Var5	Var6
Var1	1.00	–	–	–	–	–
Var2	0.90	1.00	–	–	–	–
Var3	0.96	0.93	1.00	–	–	–
Var4	0.93	0.97	0.96	1.00	–	–
Var5	-0.93	-0.95	-0.93	-0.92	1.00	–
Var6	0.06	-0.04	0.23	0.07	-0.01	1.00

*Var1 = Number of inbound shopping trips to Hungary; Var2 = Number of outbound shopping trips by Hungarians; Var3 = Expenditures related to inbound shopping trips to Hungary; Var4 = Expenditures related to outbound shopping trips by Hungarians; Var5 = Average stringency index in Hungary and its neighbours, Var6 = EUR/HUF exchange rate. *Source:* Calculated by the authors based on data from the HCSO, HNB and OxCGR.T.

Results show that there is a very strong negative correlation among stringency levels (Var5) and the number of in- and outbound shopping trips (Var1, 2), as well as the related expenditures (Var3, 4). This means that the volume of cross-border shopping tourism significantly declined when governments introduced stricter measures against COVID-19. On the other hand, only weak or very weak correlation can be detected between the EUR/HUF exchange rate (Var6) and the volume of shopping tourism (Var1,2,3,4). These results imply that the dynamics of cross-border shopping tourism between Hungary and its neighbours were primarily determined by the stringency of anti-COVID-19 measures (i.e., the permeability of borders, rules on shopping, etc.), and exchange rate fluctuations could not counterbalance this tendency.

Discussion and conclusions

In this study, we examined the impact of the COVID-19 pandemic on cross-border shopping tourism with special reference to Hungary. Our results show that the pandemic caused an unprecedented decline in international travels, including cross-border shopping, which are consistent with the main findings of the literature (GÖSSLING, S. *et al.* 2020; MALKOWSKI, A. and MAZUR, R. 2020; FOTIADIS, A. *et al.* 2021). The restrictions applied by the Hungarian government were roughly in line with inter-

national standards (HALE, T. *et al.* 2021) and these measures had a decisive impact on the evolution of the number of in- and outbound (shopping) trips (cf. *Figure 1.* and *Figure 6.*)

Although MICHALKÓ, G. *et al.* (2014) found that the weakening of the HUF during the financial crisis of 2007–2008 intensified shopping tourism to Hungary, our results show that the weak HUF during the pandemic could not counter the decline caused by restrictions. Nevertheless, before the pandemic the number of outbound shopping trips accounted for app. 50 percent of inbound shopping trips, while in 2020 and 2021 they accounted for only 40 and 47 percent, respectively, showing that inbound shopping trips declined to a lesser extent than outbound ones, justifying the impact of the exchange rate.

The increasing share of food, beverages, and fuel in the expenditures related to international trips shows that utilitarian shopping motivations gained ground over leisure motives during the pandemic, which is in line with the findings of SYED, A. and HAQ, F. (2021).

The geographical differences in the nature and level of restrictions, as well as in the pace of introducing and lifting these measures created new forms of cross-border asymmetries. For instance, in December 2021, shopping tourism from Slovakia to Hungary intensified since shops were closed due to COVID-19 restrictions on the Slovak side of the border.

The growing level of governmental interference in the economy to mitigate the negative

social impacts of the pandemic also created new factors affecting shopping tourism. For instance, the Hungarian government imposed a fuel price cap in November 2021 to curb price rises, inducing a massive wave of fuel tourism to Hungary from neighbouring countries.

However, it is an unexpected result that while a gradual recovery began in Hungary's tourism in 2021, this was not detectable in shopping trips. A plausible explanation for this fact is that rising fuel prices made shopping tourism less profitable; moreover, some customers probably got used to regular (cross-border) online shopping as some researchers predicted (BECKERS, J. *et al.* 2021; FRAGO, L. 2021).

The COVID-19 pandemic also raises questions regarding the future of shopping tourism. New pandemics in the future, political conflicts (such as the Russia-Ukraine war), the spread of technology and cross-border e-commerce, changing consumer habits and lifestyles, disruptions in global supply chains, as well as government responses to crises (e.g., sanctions, restrictions) and their economic consequences (e.g., inflation, shortage of goods) carry significant risks and uncertainties for the future of shopping tourism.

Although some researchers think that once the pandemic is over shopping tourism is going to return its 'normal' pre-pandemic state (BUNGHEZ, C.L. 2021), most scholars argue that due to fundamental social and economic changes triggered by the pandemic shopping tourism will not be the same after the end of the pandemic, rather it is going to get to a new normal state.

It is very likely that a group of customers will get used to regular online shopping and would also like to enjoy the benefits of e-commerce once the pandemic is over (BECKERS, J. *et al.* 2021), thus, offline shopping (tourism) has to face a new challenge from cyberspace.

As the COVID-19 pandemic has significantly transformed consumption habits, consumers have become more reliant on electronic devices and applications to meet their consumption needs. In light of the higher technology usage LOH, E.G. and STEPHENSON,

M.L. (2021) argue that it is vital for tourism retailers to embed e-commerce advancements into their selling and marketing initiatives to attract tourist shoppers in the post-pandemic era, as well as to stay competitive and ensure business sustainability.

GARCÍA-MILON, A. *et al.* (2021) argue that due to the pandemic tourists have increased their intention to use smartphones, especially to make payments for purchases, because during the pandemic electronic payment systems were recommended, even mandatory. They also claim that the application of modern technology (such as smartphones, mobile applications, contact-free payments) may help to recover from the crisis caused by the pandemic and encourage tourists' shopping. These findings imply that destinations and retailers should pay more attention to digitalisation in the future as tourists will be more willing to use mobile applications to obtain information about shopping opportunities, compare products and prices, as well as to make secure and contactless payments.

However, the growing level of digitalisation in the retail sector may have a profound effect on traditional, offline retailing, and, thus, on retail spaces in city centres and high streets. BECKERS, J. *et al.* (2021) claim that there is a risk that small retailers will lose ground in e-commerce in favour of larger ones if they do not continue to develop their online channels in the post-pandemic era. This would result in revenue losses and may lead to shop closures. FRAGO, L. (2021) also expresses a rather pessimistic view on the future of retail activities linked to tourism as he anticipates that the growing role of online channels will result in the continuation of shop closures in the streets.

Economic, social, legal differences on opposite sides of international borders are the major driving forces behind cross-border shopping tourism. In our opinion, the differences in national responses to various hypothetical future crisis events may sustain cross-country differences that enable shopping tourism in the future too; however, due to the extremely rapidly changing conditions, very hectic fluctuating

tuations may occur in the volume and directions of shopping tourism.

Destinations and retailers relying on tourism should follow a diversified strategy to mitigate future risks. Destinations should reduce their reliance on a single tourism product, like shopping tourism, and try to enrich their offer by developing new attractions. Retailers should target a wider range of customers, for instance, by following an omnichannel strategy and placing larger emphasis on (cross-border) e-commerce and digitalisation as suggested by GARCÍA-MILON, A. *et al.* (2021) and by LOH, E.G. and STEPHENSON, M.L. (2021). Finally, we believe that the pandemic is an excellent opportunity to rethink the future of shopping tourism and transform it in a way to minimize its negative environmental, social, and economic effects for a better and sustainable future.

An important limitation of the study is that we only examined the number of (shopping) trips to and from Hungary and the related expenditures; therefore, more comprehensive studies in the future should use more parameters and examine shopping tourism in the context of the retail sector as well. In addition, future research could focus on how shopping tourism can contribute to improving the quality of life while avoiding negative environmental processes and preventing crises.

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