

## Pandemic and Financialization for Tourism Firms in Asian Emerging Markets

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**Abstract:** *This study examines the intersection of financialization and the pandemic's impact on the tourism sector. When financialization extends beyond unproductive or service-based transactions, it can serve as a strategic response to crisis conditions. This research specifically investigates financialization as a shock absorber for tourism firms in Asia-Pacific emerging markets during the pandemic. Employing a time-varying difference-in-differences approach, the analysis utilizes a panel dataset of 80 tourism firms from five Asian countries within the pandemic period. The findings indicate that financialization provides a mechanism for safer returns amid volatility, transforming geographical spaces into profit-oriented strategies for tourism firms in Asian emerging markets. To the author's knowledge, this is the first study to analyze the time-varying effects of financialization on tourism firms in Asia-Pacific countries during the pandemic.*

**Keywords:** COVID-19; tourism firms; financialization; emerging Asia; time-varying difference-in-differences

**JEL Classification:** G3, G30

### Introduction

The COVID-19 pandemic has been a substantial external shock, severely disrupting international mobility and, consequently, the tourism industry. According to the International Monetary Fund (2020), the economic impact of COVID-19 has surpassed that of previous financial crises, placing unparalleled strain on the global economy. The pandemic's high transmission rate led to strict lockdowns worldwide, directly

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impacting human movement and causing severe repercussions for tourism firms reliant on mobility. While these lockdown policies effectively limited the spread of infection, they also imposed significant costs on the tourism sector, where maintaining human mobility is essential for short-term resilience.

COVID-19's effects on the tourism industry can be assessed through short-term firm dynamics, which reveal the immediate quantitative challenges faced by tourism firms. In this study, short-term dynamics are examined to understand the pandemic's influence on the financialization incentives of tourism firms, as financialization became an apparent coping mechanism during this crisis. Although financialization lacks a universally accepted definition (Epstein, 2005; Orhangazi, 2008), it is viewed here as the short-term, non-operational financial activities of tourism firms. Specifically, this study investigates how these firms sought financialization as a response to pandemic-related disruptions, using working capital as a key channel in Asian emerging markets, including China, Hong Kong, India, Indonesia, Sri Lanka, Taiwan, and Vietnam. This diverse sample provides a broad perspective across markets that implemented lockdowns and other stringent policies, prompting the need to explore alternative financial responses for tourism firms in these countries.

The core focus of this study is financialization, defined here as the growing engagement of non-financial firms in financial transactions, even though a standardized definition remains elusive (Epstein, 2005). This phenomenon is extensively debated in the literature, with some studies indicating that increased financial activities may detract from real-sector operations and capital investment (Davis, 2017). Despite this discussion, research on financialization within emerging markets remains limited (Bonizzi, 2013; Kalinowski & Cho, 2009; Seo et al., 2012; Karwowski, 2012; Akkemik & Özen, 2014; Lee, 2012; Rethel, 2010), and, as far as the author knows, no studies have focused on financialization among tourism firms either before or during the pandemic. Given the pandemic's unique nature as a high-impact global shock (Padhan & Prabheesh, 2021), investigating its effects on the tourism industry's financial responses provides a novel angle on financialization under crisis conditions.

The existing literature typically explores the effects of pandemics or other epidemiologic crises on tourism demand and industry health (Mao et al., 2012; Wen et al., 2005; Tew et al., 2008; Chien & Law, 2003; Henderson, 2003; Henderson & Ng, 2004; Mason et al., 2005; McKercher & Hui, 2004; McKercher & Chon, 2004; Dombey, 2003; Cooper, 2005; 2006; Wen et al., 2005; Lo et al., 2006; Tse et al., 2006; Kim et al., 2005; Dwyer et al., 2005; Kuo et al., 2008; McAleer et al., 2010; Page et al., 2012; Haque & Haque, 2018; Cahyanto et al., 2016; Novelli et al., 2018; Donohoe et al., 2015; Olynk et al., 2017; Pavli et al., 2014; Al-Tawfiq et al., 2014). However, examining the potential of financialization as a short-term liquidity buffer for tourism firms during a high-demand shock, like COVID-19, provides an essential extension to pandemic-related tourism research. Moreover, little research exists on

COVID-19's specific impact on the financialization of tourism firms, especially in the face of a disruption as profound as this pandemic.

This study specifically focuses on tourism firms to explore the intersection of Asian studies, the financialization of tourism, and the pandemic's effects. It aligns with Yrigoy's (2018a) research on the financialization of tourism firms, particularly hotels, during challenging times. Yrigoy emphasizes that Spanish tourism companies, facing a real estate bubble, increased their leverage by utilizing real estate transnationally. The central premise of this study is that financialization during lockdowns represents a critical starting point for tourism firms in the Asia-Pacific region, particularly in emerging markets.

Furthermore, building on Gibson's (2021) insights regarding tourism studies, this research interprets financialization as a transformative factor within a paradigm characterized by extreme uncertainty. Demir (2008) has linked financialization to macroeconomic uncertainty in emerging markets, highlighting a significant challenge: the pandemic presents a sudden crisis for tourism firms. The focus here is on strategies to mitigate short-term vulnerabilities in financial markets to reduce uncertainty. As Dixit and Pindyck (1995) suggest, firms may adopt a "wait and see" approach in the face of uncertainty. This study aims to make a substantial contribution to the literature by employing a novel time-varying analysis. Consequently, a firm-level dataset is utilized to examine the working capital management and financialization challenges faced by tourism firms during the COVID-19 pandemic.

The results indicate that firm heterogeneity is a significant determinant of short-term dynamics during the pandemic. This study is poised to make a notable contribution to the COVID-19-focused literature, as it is, to the best of the author's knowledge, the first to consider financialization as a short-term shock-preventive factor in this context. For non-academic stakeholders, including C-suite executives, the findings provide valuable insights into how financialization can serve as a strategy to mitigate working capital-related risks in crisis situations or environments impacted by exogenous shocks. Thus, this study offers essential perspectives that are relevant both to current literature and to the practices of industry practitioners, making it of interest to both academic and executive audiences.

The structure of this study is as follows: the second section outlines the hypothesis, dataset, and methodology. The third section presents the findings and accompanying commentary, while the fourth section concludes with a summary of key insights, data limitations, and recommendations for future research.

## **Hypothesis Development: Financialization as savior in times of pandemic**

The relationship between financialization and tourism geography is crucial. In addition to the financialization literature presented in the introduction, research suggests

that excess capital seeks spaces for reinvestment where it can yield returns (see French et al., 2011; Harvey, 2011). It can be posited that during significant crises, such as the pandemic, tourism companies or hotels may leverage the developing financial markets in Asia. In examining the political economy of tourism, Bianchi (2009), Duval (2013), Yrigoy (2018a, 2018b), and Gibson (2021) emphasize that hotel chains have been integrated into conglomerates and global financial portfolios, influenced and overshadowed by Western capitalism.

A closer look at regional approaches highlights the emergence of critical tourism studies in Asia. The necessity of addressing financialized Asian emerging economies is emphasized, particularly through Chang's (2021) analysis, which advocates for critical tourism studies to focus on the Asian context. Prior literature has explored financialization in European tourism through the lens of real estate returns (see Yrigoy, 2016, 2018a, 2018b), noting that financialization can transform geographical space into profit-generating strategies, especially in times of volatility (Büscher & Fletcher, 2017; Chang, 2021; Yrigoy & Canada, 2019, p. 180).

Moreover, while sudden lockdowns and travel bans effectively reduce COVID-19 transmission, they simultaneously create short-term fragilities for tourism firms. Consequently, these policies are expected to generate liquidity challenges for tourism firms during the pandemic. Current literature on working capital management supports the notion that the relationship between working capital and profitability or internal financing is positive (see Deloof, 2003; Falope and Ajilore, 2009; Gill et al., 2010). As emphasized by Doruk and Ergün (2019, p. 5), "...in developing countries, the short term is an essential time dimension for firm-level decisions." Thus, during the COVID-19 pandemic, the importance of this time dimension is amplified. Under external shocks such as COVID-19, the short-term financial health (or liquidity) of tourism firms is critical.

Another dimension of this paper is financialization. In developing or emerging economies, there is a reasonable motivation for the financialization of non-financial firms, as capital markets and financial institutions tend to be relatively weak, with a bank-based financial system dominating (see Das, 2002; Das, 2005). Financialization is often associated with shareholder-value maximization policies (see Krippner, 2005) and viewed as a short-term revenue generation channel for non-financial firms (see Akkemik and Özen, 2014). In the current literature, financialization is categorized into asset-based and liability-based financialization according to Davis (2017). This study assumes that asset-based financialization involves holding financial assets, as discussed by Davis (2017) and Xie et al. (2021). In contrast, the liability-based model assumes that non-financial firms' financial obligations are predictable (Davis, 2017; Xie et al., 2021).

During the pandemic, it is anticipated that tourism firms can alleviate the effects of strict lockdown policies on their short-term working capital issues by employing asset-based financialization as a revenue generation strategy in the emerging Asian

markets (see Our World in Data, 2022). Interestingly, this study hypothesizes that financialization, as a short-term risk reduction strategy, may be particularly relevant for tourism firms struggling under pandemic-induced closures and restrictions. Therefore, it is expected that tourism firms utilizing the financialization channel will exhibit relatively higher working capital compared to those that do not. Effective short-term liquidity management is central to the financial health of enterprises, as managing current assets is vital. In times of external shocks like pandemics, businesses can become highly vulnerable and face rapid bankruptcy. Thus, the hypothesis is formulated as follows:

**H<sub>1</sub>:** The effect of financialization on working capital is positive during the pandemic.

## Methodology

The primary methodology employed in this study is the time-varying difference-in-differences (TVDIFF) approach. The TVDIFF methodology is particularly suitable for analyzing firms that engage with financialization channels at different periods during the pandemic. As Dixit and Pindyck (1995) highlight, some firms may adopt a “wait and see” strategy amid uncertainty during the pandemic. This means that while some firms may utilize financialization at time  $t=0$ , others might do so at later time points, such as  $t+1$  or  $t+n$ .

The TVDIFF methodology represents a novel approach to model all firms using the financialization channel at various points throughout the pandemic. Additionally, it accounts for tourism firms that do not engage with financialization during this period. Consequently, the methodology estimates the relative treatment effect for financialized tourism firms in comparison to their peers that do not utilize the financialization channel during the pandemic. In essence, the relative impact of financialization on working capital is assessed using the TVDIFF methodology.

The main econometric model based on the TVDIFF can be defined as follows:

$$WC/A_{i,t} = \beta_0 + \beta_n \sum_{i=1}^n \pi F_{i,t-n} + \beta_n \sum_{i=1}^n \pi F_{i,t+n} + \beta' X_n + \epsilon_{i,t} \quad (1)$$

where  $\beta_0$  is the constant term of the model,  $\beta_n \sum_{i=1}^n \pi F_{i,t-n}$  defines the pre-financialization periods' coefficients, and  $\beta_n \sum_{i=1}^n \pi F_{i,t+n}$  denotes the post-financialization coefficients, and  $X$  denotes the matrix of control variables.  $X = \{AGE_{i,t}, SIZE_{i,t}\}$  and in the robustness checks,  $X = \{CF/A_{i,t}, LEV_{i,t}, SIZE_{i,t}, AGE_{i,t}\}$ , where  $LEV$  denotes the leverage,  $CF$  is the cash flow-assets ratio, and  $SIZE$  denotes the firm size in the econometric model.  $WC$  denotes the working capital of tourism firms. All variables are scaled by total assets to control the firm size effect, the standard method in the existing literature. As a robustness check, the short-term exposure variable

is constructed as Current liabilities as total assets (STEXP/A). Following Liang et al.(2016), this variable also shows the working capital level. It is chosen since it shows the short-run financial fragility and short-run exposure of tourism firms during the pandemic in the sample.

Thus, the main coefficients tested in this study examine the comparative impact of financialization on working capital of firms during the COVID-19 period. In this framework,  $\pi F_{i,t+n}$  (the coefficient with any  $t+$  from  $t=0$  (including  $t=0$ ) to any  $t+n$ ) is expected to be greater than 0. It can be interpreted that this coefficient testing directly serves to test the main hypothesis of the study.

## Dataset

The dataset utilized in this study is sourced from the Thomson Reuters Refinitiv database, which is part of Thomson Reuters and provides comprehensive and reliable financial statements for publicly held firms worldwide. The Refinitiv database contains accounting information derived from the annual reports and corporate filings of publicly traded companies.

This study focuses on tourism firms across emerging Asian markets to examine the main hypothesis. The dataset encompasses eight quarters, specifically from 2020Q1 to 2021Q4. Table 1 summarizes the countries included in the sample and their respective frequencies. The sample was constructed based on the availability of financial statements for firms during the pandemic, ensuring that only firms with accessible information during these periods were included. A total of 80 firms are represented in the sample, with an average time span of 6.6 quarters—covering nearly the entire pandemic period—resulting in a total of 528 observations.

The variables used in the present study are given in Table 2. Following the prior literature on working capital management, the explanatory variables are determined as the cash flow-to-assets ratio, firm leverage, and demand shock or sales variable.  $\frac{\pi F}{A_{i,t}}$  is the financialization-to-assets ratio, measured as the non-operational interest income, and financial income (in the robustness check section). Thanks to the Refinitiv database, the present study uses this unique variable in the present study. This variable denotes the short-term non-operational quick income channel for tourism firms under the travel bans and mobility restrictions during the pandemic.

The terms **firm size** and **firm age** are key variables in this study. **Firm size (SIZE)** is used to control for the effect of financing constraints on working capital. As indicated by Whited (1992) and Banos-Caballero et al. (2010), smaller firms may encounter difficulties in obtaining financing. Consequently, the cost of funds necessary to increase working capital can be higher for smaller firms during the pandemic.

Another control variable, **firm age**, accounts for the impact of a firm's age on its working capital management during the pandemic. Firm age serves as a proxy for

reputation, quality, and the duration over which a firm may have established relationships with its customers, as emphasized by Petersen and Rajan (1997), Banos-Caballero et al. (2010), and Cunat (2007). It is expected that the relationship between a firm's age and working capital is positive during the pandemic; that is, tourism firms may leverage their reputation and creditworthiness to swiftly increase their working capital.

Descriptive statistics are provided in Table 3. The average working capital-to-assets ratio is approximately -0.10, indicating that, on average, tourism firms have a negative working capital position reliant on debt. The average age of firms in the sample is nearly 31 years, and the average financialization-to-assets ratio is about 0.35, suggesting that tourism firms are inclined to utilize the financialization channel. The average size of the firms is approximately 18.30. The sample comprises highly heterogeneous firms, as reflected in the standard deviation of the tourism firms. To mitigate the influence of outliers, all variables are trimmed at the 99th percentile and the 1st percentile.

Table 1: Frequency of Observations

| Country of Exchange | Freq. | Percent |
|---------------------|-------|---------|
| China               | 85    | 16.10   |
| Indonesia           | 68    | 12.88   |
| Sri Lanka           | 172   | 32.58   |
| Taiwan              | 153   | 28.98   |
| Vietnam             | 50    | 9.47    |
| Total               | 528   | 100.00  |

Table 2. Variables in the models and their calculation method

| Variable        | Calculation Method                                                                                                                                                                                                                                                   |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $Wcap/A_{i,t}$  | WC: Working capital is measured by subtracting current liabilities from current assets.<br>A: Total Assets                                                                                                                                                           |
| $CF/A_{i,t}$    | CF: Cash flow which is the sum of operating income plus depreciation and amortization.<br>A: Total Assets                                                                                                                                                            |
| $Lev_{i,t}$     | Total liabilities, scaled by total assets.                                                                                                                                                                                                                           |
| $Age_{i,t}$     | Firm's age. The firm's age is measured as the sample's date minus the firm's founding date.                                                                                                                                                                          |
| $Size_{i,t}$    | The logarithm of total assets.                                                                                                                                                                                                                                       |
| $STEXP/A_{i,t}$ | Current liabilities/Total assets                                                                                                                                                                                                                                     |
| $\pi^F$         | Financialized tourism firms dummy: In the first model, if a firm prefers to get the non-operating interest income, it takes 1; otherwise, it takes 0.<br>In the second model, if a firm prefers to get the non-operating investment income, it takes 1; otherwise 0. |

Table 3: Descriptive Statistics

| Variable                                                      | Mean      | Std. dev. | Min       | Max      | Observations |
|---------------------------------------------------------------|-----------|-----------|-----------|----------|--------------|
| Wcap/A                                                        | -.1088695 | .5515942  | -2.975434 | 1.175623 | N = 528      |
|                                                               |           |           |           |          | n = 80       |
|                                                               |           |           |           |          | T-bar = 6.6  |
| Age                                                           | 30.97348  | 17.44287  | 5         | 129      | N = 528      |
|                                                               |           |           |           |          | n = 80       |
|                                                               |           |           |           |          | T-bar = 6.6  |
| SIZE                                                          | 18.30465  | 1.470439  | 14.77371  | 22.09025 | N = 528      |
|                                                               |           |           |           |          | n = 80       |
|                                                               |           |           |           |          | T-bar = 6.6  |
| $\pi^F$                                                       | .3560606  | .4792875  | 0         | 1        | N = 528      |
|                                                               |           |           |           |          | n = 80       |
|                                                               |           |           |           |          | T-bar = 6.6  |
| STEXP/A <sub>it</sub><br>(in robustness checks)               | .6500333  | 1.051515  | .0000571  | 4.896996 | N = 462      |
|                                                               |           |           |           |          | n = 103      |
|                                                               |           |           |           |          | T-bar = 4.48 |
| $\pi^F$<br>(capital market based)<br>in the robustness checks | .2164502  | .412271   | 0         | 1        | N = 528      |
|                                                               |           |           |           |          | n = 80       |
|                                                               |           |           |           |          | T-bar = 6.6  |
| CF/A <sub>it</sub><br>(in the robustness checks)              | .0042762  | .022171   | -.0470641 | .0945282 | N = 528      |
|                                                               |           |           |           |          | n = 80       |
|                                                               |           |           |           |          | T-bar = 6.6  |
| LEV <sub>it</sub><br>(in the robustness checks)               | .4794581  | .2457297  | .0027747  | .9749633 | N = 528      |
|                                                               |           |           |           |          | n = 80       |
|                                                               |           |           |           |          | T-bar = 6.6  |

Table 4: Correlation Matrix

| Variable | Wcap/A  | $\pi^F$ | Age     | SIZE   |
|----------|---------|---------|---------|--------|
| Wcap/A   | 1.0000  |         |         |        |
| $\pi^F$  | 0.0938  | 1.0000  |         |        |
| Age      | -0.1025 | -0.0298 | 1.0000  |        |
| SIZE     | 0.3372  | 0.1190  | -0.0033 | 1.0000 |

The correlation matrix across the variables is presented in Table 4, which indicates that there is no multicollinearity among the independent variables.

## Findings

The estimation results for the main model are presented in Table 5 under Model 1. The findings indicate that financialization, based on short-run interest income on working capital, has a positive and statistically significant effect at the 5% level in the



current term. This positive effect of financialization on working capital for tourism firms persists for three quarters; however, it is not significant in the first quarter for Model 1. Additionally, firm size exhibits a positive and statistically significant effect on the working capital of tourism firms at the same significance level.

In the pre-COVID-19 period (indicated in the t-1 column of Table 5), the effect of financialization on working capital is positive but not statistically significant. Although firm age also positively influences working capital, this effect is not statistically significant. Furthermore, the results reveal that the financialization motive of tourism firms negatively affects their short-term exposure in Model 2, which uses short-term exposure as the dependent variable. Contrary to the findings in Model 1, financialization appears to reduce the short-term exposure of tourism firms during the pandemic. Firm size negatively affects the short-term exposure, while firm age has a negative but insignificant effect. In summary, financialization is shown to decrease the short-run exposure of tourism firms during the pandemic.

Figures 2 and 3 provide a graphical representation of the findings for Models 1 and 2, respectively.

Table 5: The Obtained Findings from the Main Model

|                           | (1)<br>Wcap/A <sub>it</sub> | (2)<br>STEXP/A <sub>it</sub> |
|---------------------------|-----------------------------|------------------------------|
| $\pi_{i,t-1}^F$           | 0.0118<br>(1.22)            | 0.139<br>(0.99)              |
| $\pi_{i,t}^F$             | 0.0816**<br>(3.01)          | -0.120***<br>(-4.84)         |
| $\pi_{i,t+1}^F$           | 0.0357<br>(1.28)            | -0.0970<br>(-1.42)           |
| $\pi_{i,t+2}^F$           | 0.142***<br>(10.37)         | 0.0288<br>(0.23)             |
| $\pi_{i,t+3}^F$           | 0.0667***<br>(5.50)         | 0.0347<br>(0.28)             |
| Age <sub>it</sub>         | 0.00244<br>(0.16)           | -0.0217<br>(-0.94)           |
| SIZE <sub>it</sub>        | 0.550**<br>(2.76)           | -0.802**<br>(-3.01)          |
| $\beta_0$                 | -10.34**<br>(-2.70)         | 15.81**<br>(3.24)            |
| N                         | 316                         | 373                          |
| No. of firms              | 80                          | 100                          |
| R <sup>2</sup> within     | 0.13                        | 0.18                         |
| F stat., p val.           | 0.00                        | 0.00                         |
| Parallel Trend Assumption | Passed                      | Passed                       |
|                           | F stat p val.=0.22          | F stat p val.=0.27           |

Note: t statistics in parentheses. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Figure 2: The time-varying relative financialization effect on the working capital for tourism firms during the pandemic and in the pre-pandemic period

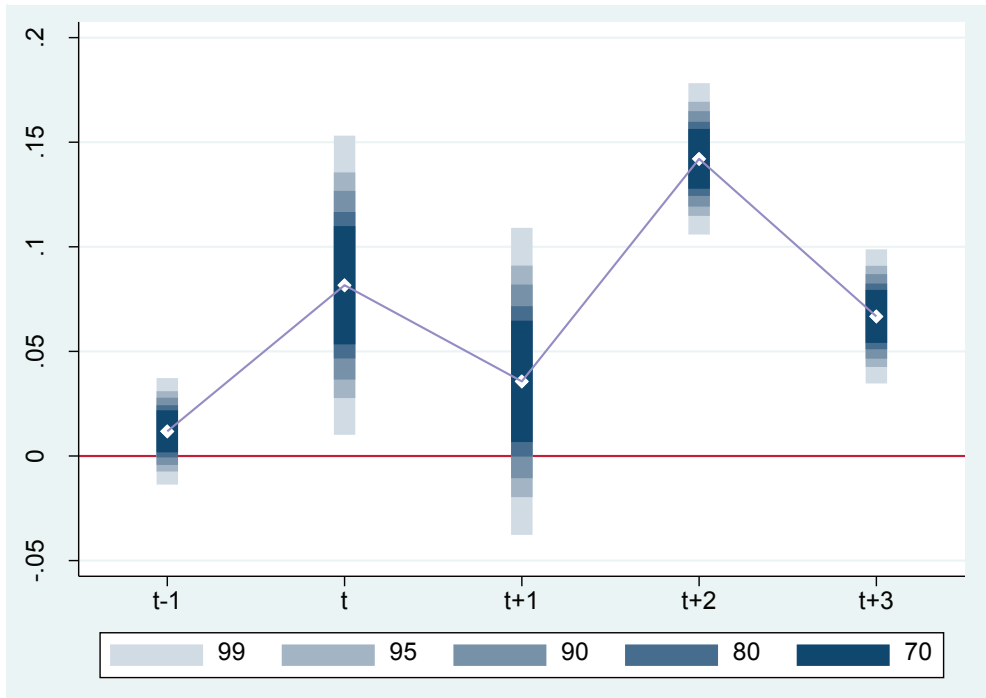


Figure 2 illustrates the relative financialization effect on the working capital of tourism firms during the pandemic. Notably, the relative financialization of working capital is positive at t+1, t+2, and t+3. However, as depicted in Figure 2, the effect at t+1 is not statistically significant.

Figure 3: The time-varying relative financialization effect on the short-term exposure of tourism firms during the pandemic and in the pre-pandemic period

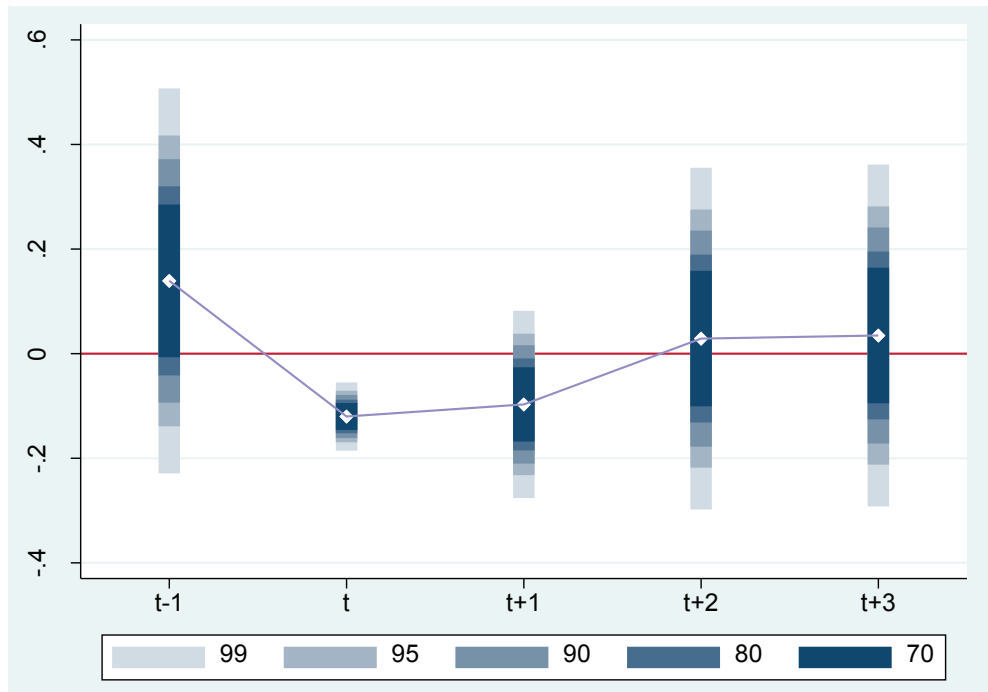


Figure 3 depicts the time-varying relative financialization effect on the short-term exposure of tourism firms during the pandemic. The financialization motivation is shown to have a negative impact on short-run exposure (or financial fragility), indicating that this motivation alleviates the short-run exposure of tourism firms.

### Robustness Checks and Extensions

A series of robustness checks were conducted to verify the validity of the main model results under various conditions. First, additional control variables were introduced to the main model. These control variables include financial leverage and the cash flow-to-assets ratio (CF/A).

**Financial leverage (LEV)** is associated with increased risk during the pandemic; that is, leverage is linked with a risk premium. As noted by Chiou et al. (2006) and Banos-Caballero et al. (2010), the risk premium on working capital is negative since higher leverage can decrease working capital via the increasing risk premium channel.

The **cash flow-to-assets ratio (CF/A)** represents the internal finance generated by firms. This internal finance can serve as a buffer against rising risk premiums

during the pandemic. Previous studies by Fazzari and Petersen (1993) and Chiou et al. (2006) indicate that cash flow has a positive effect on working capital for firms in the U.S. and Taiwan. Furthermore, cash flow is associated with mitigating the effects of capital market imperfections on access to finance (see Myers, 1977; Myers, 1984). During the pandemic, creditors may demand higher risk premiums, and the capacity to generate internal finance can enhance working capital. Consequently, cash flow was included as a control variable in the econometric model.

The results from Model 1 in Table 6 demonstrate that the relationship between financialization and working capital remains unchanged when cash flow and leverage are added as control variables. Among these control variables, cash flow shows a positive and statistically significant effect on working capital during the pandemic at the 5% level, while leverage has a positive effect that is statistically insignificant.

The robustness check results in Model II, presented in Table 6, show that financialization is examined not only in relation to working capital but also concerning short-term exposure, using the same control variables. Cash flow and leverage again yield positive effects, particularly for cash flow, although these effects are not statistically significant. At this juncture, financialization emerges as an important, albeit lagged, pandemic strategy that reduces relative short-term exposure.

Table 6: The Robustness Check Results

|                           | (1)<br>Wcap/A <sub>it</sub> | (2)<br>STEXP/A <sub>it</sub> |
|---------------------------|-----------------------------|------------------------------|
| $\pi_{i,t-1}^F$           | 0.00765<br>(0.67)           | 0.0198<br>(0.59)             |
| $\pi_{i,t}^F$             | 0.0752*<br>(2.47)           | -0.0439<br>(-1.16)           |
| $\pi_{i,t+1}^F$           | 0.0225<br>(0.71)            | -0.0293*<br>(-2.21)          |
| $\pi_{i,t+2}^F$           | 0.137***<br>(4.92)          | -                            |
| $\pi_{i,t+3}^F$           | 0.0169<br>(0.57)            | -                            |
| Age <sub>it</sub>         | 0.0122<br>(0.71)            | -0.00931<br>(-0.52)          |
| CF/A <sub>it</sub>        | 0.909*<br>(2.24)            | 0.299<br>(0.40)              |
| LEV <sub>it</sub>         | 0.0400<br>(0.17)            | 0.203<br>(0.91)              |
| SIZE <sub>it</sub>        | 0.585*<br>(2.52)            | -0.434*<br>(-2.32)           |
| $\beta_0$                 | -11.26*<br>(-2.52)          | 8.711*<br>(2.56)             |
| N                         | 274                         | 386                          |
| No. of firms              | 71                          | 87                           |
| R <sup>2</sup> within     | 0.120                       | 0.053                        |
| Parallel Trend Assumption | Passed                      | Passed                       |

Note: Both models are significant at a 5% statistical significance level.

### Another Financialization Channel: Capital Investments

Table 7 shows that short-term financial investment in capital markets has a negative and statistically significant effect on the working capital of tourism firms at a 10% level of statistical significance. The results indicate that the financial investment channel seems ineffective for increasing the working capital of tourism firms in the sample. There is no significant relationship between the financialization motive, through which capital investments are channeled, and the short-term exposure of tourism firms in Asia-Pacific emerging markets. Figures 4 and 5 depict a graphical representation of the findings from Table 7. The results in Table 7 show that financialization in the context of emerging markets differs, especially during periods of uncertainty. In this framework, it is found that interest-bearing non-operational income or revenue-generating activities are preferred by tourism firms over capital market investments during periods of uncertainty, such as pandemics. These results are quite consistent with the literature, except for the pandemic period, since interest-bearing revenue generation is more preferred in emerging markets, which have relatively lower financial deepening compared to developed economies (see Akkemik and Özen, 2014; Demir, 2009a, b, c), during periods of uncertainty. Therefore, the non-operational interest income channel in Table 5 is identified as a short-term revenue generating and more efficient channel of financialization for tourism firms during the pandemic and is highly preferred for short-term working capital financing during this period.

Table 7: Capital Investments and Working Capital Relationship in the pre-and post-COVID-19 periods

|                     | (1)<br>Wcap/A <sub>it</sub>     | (2)<br>STEXP/A <sub>it</sub>     |
|---------------------|---------------------------------|----------------------------------|
| $\pi_{i,t-1}^F$     | -0.0397<br>(-1.40)              | 0.0184<br>(0.52)                 |
| $\pi_{i,t}^F$       | -0.0263<br>(-1.79) <sup>+</sup> | 0.0128<br>(0.46)                 |
| $\pi_{i,t+1}^F$     | -0.0440<br>(-1.35)              | 0.0207<br>(1.41)                 |
| $\pi_{i,t+2}^F$     | -0.0431 <sup>*</sup><br>(-2.02) | 0.0321<br>(1.04)                 |
| $\pi_{i,t+3}^F$     | -0.0231<br>(-1.10)              |                                  |
| Age <sub>i,t</sub>  | 0.00303<br>(0.22)               | -0.00908<br>(-0.43)              |
| SIZE <sub>i,t</sub> | 0.562 <sup>**</sup><br>(2.83)   | -0.595 <sup>***</sup><br>(-3.54) |
| $\beta_0$           | -10.44 <sup>**</sup><br>(-2.75) | 11.66 <sup>***</sup><br>(3.71)   |

|                           | (1)<br>$Wcap/A_{it}$ | (2)<br>$STEXP/A_{it}$ |
|---------------------------|----------------------|-----------------------|
| $N$                       | 316                  | 462                   |
| $R^2$ within              | 0.14                 | 0.14                  |
| No. of firms              | 80                   | 103                   |
| Parallel Trend Assumption | Passed               | Passed                |

Note:  $t$  statistics in parentheses. \*  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . The lag length is selected as 2 for the Model 2 since the model with 3 lags does not pass the parallel trend test. Model 1 is significant at a 10% statistical significance level whereas Model 2 is significant at a 5% statistical significance level.

Figure 4: The time-varying relative financialization effect on the working capital of tourism firms during the pandemic and in the pre pandemic period: Capital Investments Channel

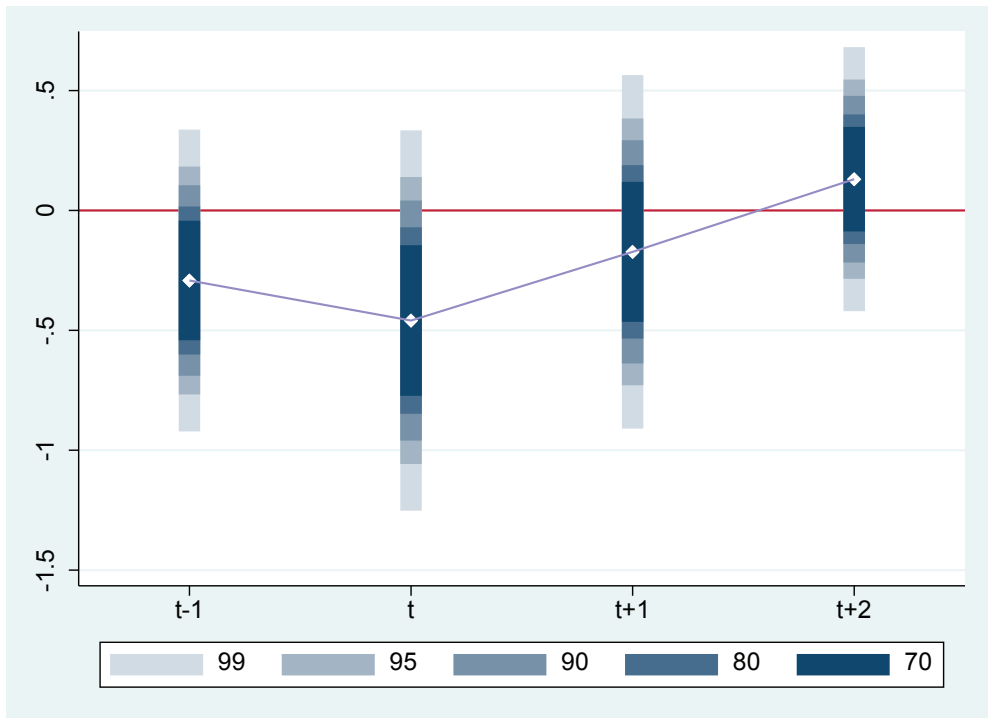
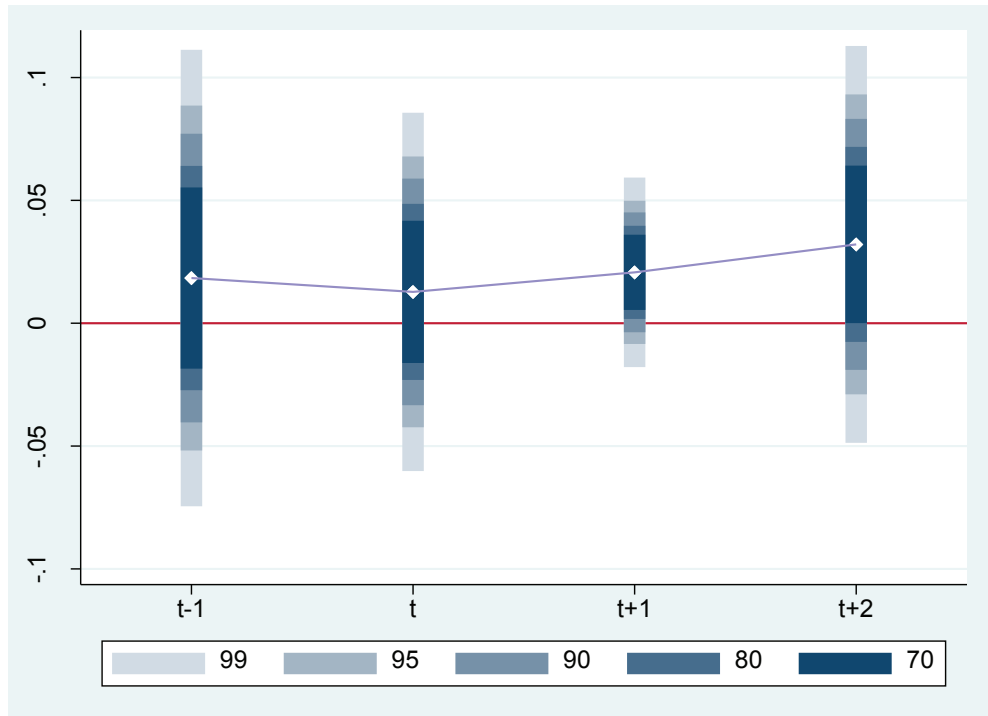


Figure 5: The time-varying relative financialization effect on the short-term exposure of tourism firms during the pandemic and in the pre pandemic period: Capital Investments Channel



## Discussion

The findings obtained in this study show that financialization in Asian emerging market economies provides a relative advantage for hotels and tourism firms. In this framework, it can be stated that financialization has significant implications in the context of tourism geography and Asian studies. The findings obtained advance the arguments of Yrigoy (2018a) with a novel approach for emerging markets during the pandemic period. At the same time, this study makes an original contribution to the field of critical tourism studies addressed by Gibson (2021). Moreover, it is expected to contribute significantly to the field of Asian tourism studies highlighted by Chang (2021) based on the relationship between financialization and tourism firms during the pandemic.

This study aims to make an important contribution to this literature by addressing financialization in Asian emerging markets during a period such as the pandemic, which is more challenging than the financial crisis and has forced closures

and policies. Additionally, the critical reviews of tourism during volatile periods by Chang (2021) and Gibson (2021) are significant in understanding the financialization of tourism in this study. Among these studies, Gibson (2021) refers to the importance of benefiting from the blessings of the capitalist (or more broadly, neoliberal) era rather than returning to pre-capitalist periods.

This is precisely where this study comes into play, as the uncertainty and inconsistency in pandemic policies during periods of pandemic-induced economic and geopolitical political instability, which lockdowns are indeed mandatory (see Figure 1 that clearly outlines these lockdowns and stringency conditions), can push tourism firms to use financialization to navigate these challenges. Relatively speaking, financialization, at a point where it is not unproductive or service-based, can be seen as a mitigation strategy or a savior based solely on financial markets or financial transactions. In this framework, the hypothesis of this study, which posits that financialization serves as a savior during the pandemic and relatively benefits tourism firms, is accepted. It is at this juncture that this study plans to make a significant contribution to the existing literature.

## Conclusion

COVID-19 has been declared a pandemic disease and represents a significant and sudden external shock for tourism firms. To reduce the contamination rate of COVID-19, human mobility needs to be limited. Consequently, governments have implemented travel bans and strict lockdowns, which generate short-run fragilities and sudden demand shocks for tourism firms. Therefore, working capital management serves as an essential strategic tool for tourism firms to mitigate the negative effects of COVID-19 on their financial structures.

This study examines financialization, defined as the short-term non-operational financial investment channel, as a temporary alternative for working capital management among emerging tourism firms in the Asia-Pacific region. To achieve this, a novel time-varying difference-in-differences model is utilized. Additionally, short-run financial fragility or exposure, measured as the ratio of current liabilities to total assets, is used as a dependent variable in an alternative econometric model. The results can be considered novel, as they are not applicable in the pre-pandemic era. The findings indicate that financialization based on non-operational interest income can enhance working capital during the pandemic. In contrast, the financialization motive based on non-operational capital investments does not contribute to increasing working capital stability or reducing the short-run exposure of tourism firms during this period.

Policies and managerial implications for tourism firms can be derived from these findings. First, fiscal stimulus packages should be designed to decrease short-term



fragility and minimize the financialization motive of tourism firms during the pandemic, as financial investments can detract from operational activities if tourism firms adopt this behavior. Government support packages could include cash transfers or tax exemptions to bolster internal funds in the short term and mitigate the sudden impacts of COVID-19 on the financial health of tourism firms. Furthermore, the volatile and uncertain financial markets during the pandemic may adversely affect tourism businesses. Consequently, this study offers new insights into the relationship between short-term non-operational financial activities and the working capital management of tourism firms during the COVID-19 pandemic in Asia-Pacific emerging markets.

The findings of this study have some limitations. First, the quarterly balance sheet information for tourism firms is limited, as the coverage of the variables is constrained and the sample size is small. This limitation may be due to some tourism firms not reporting their financial statements or deferring their disclosures in response to regulatory changes during the pandemic. Future studies could expand the sample size by utilizing deferred financial statements and may incorporate case studies for a more in-depth analysis of the impact of financialization on working capital management in tourism firms.

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### *Conflicts of interest/Competing interests*

There is no conflict of interest/Competing interests.

### *Availability of data and material*

The data that support the findings of this study are restricted by Thomson Reuters/LSEG.

### *Code Availability*

The computer program results are shared through the tables in the manuscript.

### *Authors' Contributions*

Not applicable.

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