

# Impact of Coronavirus Disease (COVID-19) towards Hotel Tourism Industry

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**Keywords**—*Coronavirus Disease, COVID-19,  
Hotel Industry, Tourism Industry, Supply  
and Demand.*

**Abstract**— *The coronavirus disease (COVID-19) that spreading over worldwide in year 2019, give significant impact towards global economics. In addition, there movement control gives negative impact towards global economic development. Therefore, this study evaluated the impact of COVID-19 towards hotel tourism industry as the most effected sector due to restriction of movement. This study collected data about two companies that involve in hotel tourism industry, both of the companies show negative movement of share price that indicates the declining profit. In the same time, this study developed supply and demand curve simulation regarding the effect of COVID-19 towards hotel tourism industry. The simulation indicates, the decrement of demands creates decrement of price of hotel according to market equilibrium. When the price is reduced, many hotels shrinking their operation that creates lower supply to balance the changes of price. Therefore, at the market equilibrium during COVID-19 outbreak, the hotel tourism industry suffering lower demand and facing lower price for hotel services. This situation creates the hotel industry is dealing with an unprecedented crisis due to the disruption caused by the global COVID-19 pandemic. This study contributes the advancement of literature of COVID-a9 effect towards global economy. In addition, the findings of this study will help government to provide suitable policy in helping hotel tourism industry to survive in current economic situation. This study also helping hotel industry in planning their financial management to make sure hotel industry can be survive until the post COVID-19 situation.*

## I. INTRODUCTION

The current scenario of COVID-19 outbreak give impact on the growth of hotel tourism industry worldwide. For instance, a hotel industry in Malaysia was experienced in facing a high loss of income during COVID-19 outbreak. The high loss happened in hotel tourism industry was due to the implementation of Movement Control Order (MCO) by Government of Malaysia since 18 March 2020. From January until March 2020, the tourists withdrew 170,084 rooms booking, that give impact on the significant fall of revenue of RM 68,190,364 (Waisul

Karim, 2020). While, in Kuala Lumpur city that is the hub of hotel industry and famous for tourism also face with the significant loss of RM 23,021,301 by cancelling rooms of 55,050 rooms (Zubair and Shamsudin, 2021). Therefore, management team need to plan a good strategy to overcome the loss happened in hotel tourism industry during COVID-19 outbreak. As suggested by Cabral and Marques (2022), innovation in the hotel tourism industry can improve customer satisfaction. In addition, innovation also can improve customer service and loyalty, increase productivity, reduce costs and create opportunities

in the face of challenge (Brooker and Joppe, 2014; Wikhamn, 2019).

Hotel tourism industry have a good potential to develop in Malaysia due to the demand from tourists to visit the natural place in Malaysia (Abu Bakar, et al., 2020a). Tourism industry is the third-largest contributor to Malaysia's Gross Domestic Product (GDP). In year 2019, tourism industry contributed 15.9 per cent to the total GDP in Malaysia (Malaysian Investment Development Authority, 2021). However, the COVID-19 outbreak gives huge impact to the Malaysian tourism industry, which led to the cancellation of the "Visit Truly Asia Malaysia 2020" campaign that planned by government to be launched on year 2020. Various strategy was planned by government to encourage tourists to visit Malaysia. Therefore, government of Malaysia was launched the National Tourism Policy (NTP) 2020-2030 on 23 December 2020, to ensure the continuity of the country's tourism industry and make Malaysia a preferred tourist destination globally. Therefore, this study was developed to investigate the impact of COVID-19 outbreak towards hotel tourism industry as the most effected industry in Malaysia.

## II. LITERATURE REVIEW

Various studies were established to investigate the impact of COVID-19 outbreak toward the economic development (Abu Bakar and Rosbi, 2021a; Nguyen, et al., 2021; Abu Bakar and Rosbi, 2020a). Most of researchers found that COVID-19 outbreak give an impact on the growth of economic development worldwide (Zaheer, et al., 2022; Khan Jaffur, et al., 2022). Researchers also suggested that government need to provide a suitable policy to overcome the impact happened during COVID-19 outbreak (Saif-Alyousfi, 2022; Abu Bakar and Rosbi, 2021b; Abu Bakar and Rosbi, 2020b).

According to Le and Nguyen (2022), COVID-19 outbreak gives negative impact on the business continuity, where the industry is unable to maintain during or after COVID-19 outbreak. Furthermore, COVID-19 outbreak also led to the impacts on the socio-economic (Nicola, et al., 2020). Le and Nguyen (2022) also mention that, socio-economic life has been disrupted and businesses are struggling with the risk of closing down or discontinuing their operations. The performance of stock market also important in determine a growth of economic. Therefore, study that investigate the impact of COVID-19 outbreak on the performance of stock market also revealed that COVID-19 outbreak has significant negative impact on stock returns (Ofori-Boateng, et al., 2021). Besides that, study from Mushafiq (2021) regarding Pakistan Stock Exchange found that commercial banks, insurance

industry, real estate industry and textile industry were also badly affected by the COVID-19 outbreak. While, Rakshit and Neog (2021) study the impact of COVID-19 on the exchange rate volatility in Brazil, Chile, India, Mexico and Russia. They found that negative and significant effect of COVID-19 on the market return with parallel with others study.

Currently, most of the tourism literature focuses on the influencing factors of tourism industry (Khan Jaffu, et al., 2022; Abu Bakar, et al., 2020b) and discusses the impact of COVID-19 outbreak (Seker, 2022; Abu Bakar and Rosbi, 2020c). Studies that are focusing on the tourism industry found that COVID-19 outbreak has a bad impact on the socio-economic (Abdel Maksoud, et al., 2022; Aduhene and Osei-Assibey, 2021; Ozili, 2020). This is due to the MCO implement by most of country worldwide. As a result, countries all around the world established stringent travel restrictions and closed their borders, effectively halting international travel (Jafari, et al., 2021; Mao et al., 2021; Peterson et al., 2021). Parvin, et al., (2021) found that COVID-19 outbreak has a huge negative impact on the tourism industries in terms of earnings reduction.

Tourism industry is the most effected industry due to the spread of COVID-19 virus. Compared to other industries, lockdown and social distancing policies implemented by most of country worldwide directly caused steep declines in tourism industry (He, et al., 2021). Study by Skare, et al., (2021) regarding the impact of the COVID-19 outbreak on the tourism industry worldwide. They suggested that private and public policy support must be coordinated to assure capacity building and operational sustainability of the travel tourism. Moreover, tourism managers must carefully assess the effects of epidemics on business and develop new risk management methods to deal with the COVID-19 crisis. Peterson et al., (2021) reveal that among the health pandemic and economic effect due to COVID-19 outbreak, tourism and hospitality industries are one of the hardest struck due to several interrelated factors, including travel restrictions, national lockdowns, business closures and the subsequent impact on lives and livelihoods. Therefore, Wen, et al., (2021) suggested the new forms of tourism such as slow tourism and smart tourism may also drive future tourism activities. Tourism industry need to reconsider their service designs and distribution channels in order to attract tourism to visit their country.

### III. IMPACT OF COVID-19 TOWARDS SHARE PRICE FOR HOTEL TOURISM INDUSTRY

The COVID-19 has affected every sector across the globe, and the hotel tourism industry is among the hardest hit. This study evaluated the effect of COVID-19 outbreak towards movement of share price among company of hotel tourism in Malaysia. Two companies selected from Kuala Lumpur Stock Exchange in detecting the impact of COVID-19 towards stock market especially in hotel tourism industry.

Company A operates hotels and resorts that focusing on tourism industry. Figure 1 shows the dynamic behavior of share price starting from January 2020 until October 2021. These monthly observation periods are selected because in this period Movement Control Order (MCO) are declared by government in preventing the spreading of Coronavirus disease.

The number of observations is 22 months. The first observation in January 2020, shows the value of share price is MYR 4.908. This value is the average share price value for particular month.

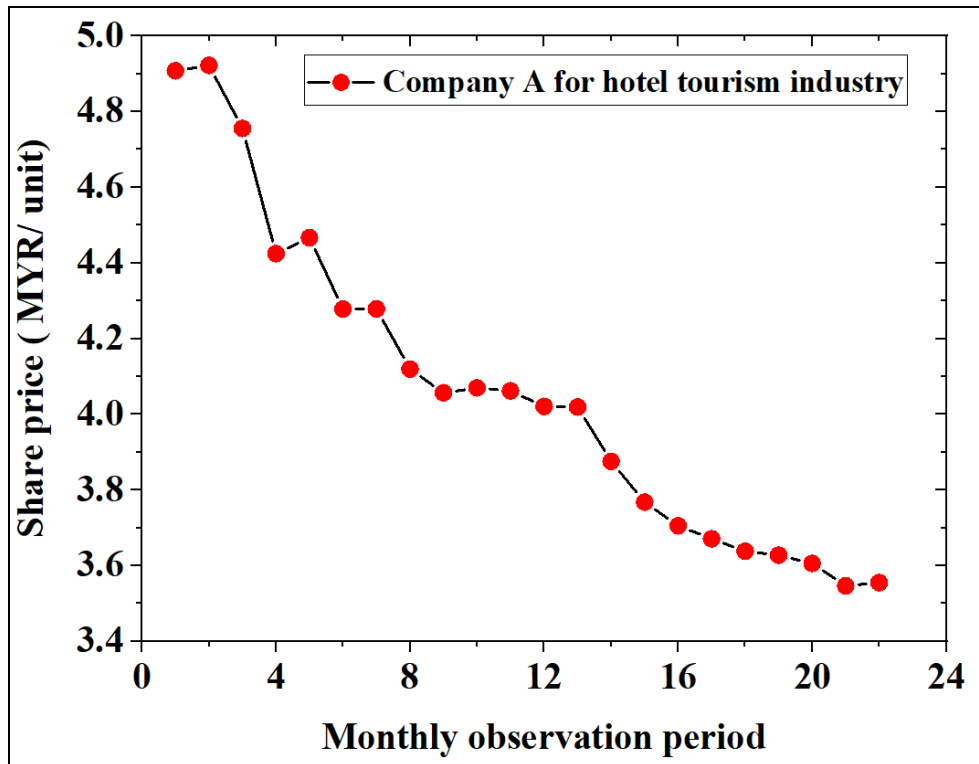


Fig. 1: Share price for company A of hotel tourism industry

The last observation is on the October 2021 with the value of share price is MYR 3.555. The percentage of changes calculated using Equation (1).

$$\begin{aligned}
 \% \text{ Changes} &= \frac{P_{last} - P_{first}}{P_{first}} \times 100\% \dots\dots\dots (1) \\
 &= \frac{3.555 - 4.908}{4.908} \times 100\% \\
 &= -27.76\%
 \end{aligned}$$

The decrement of share price indicating the financial asset is suffering loss. In this situation, -27.76% occurs for share price that indicating hotel tourism company was suffering financially during COVID-19 outbreak.

From the financial perspective, this company need some remedy in adjusting their financial management to make sure this company can survive until the economy situation is stable. This company can employ linear programming model in managing their operation that focusing re-checking the staff allocation and fund optimization.

Next, this study performed share price analysis for another company to evaluate the effect of COVID-19 outbreak towards hotel tourism industry. The company B is listed on Kuala Lumpur Stock Exchange in Malaysia. This company B is providing the leading award-winning business class hotel with 5-star services in Kuala Lumpur, Malaysia.

The analysis involving 22 monthly observations starting from January 2020 until October 2021. Figure 2 shows the movement of share price for company B that involved in hotel tourism industry. The first observation in January 2020 shows the value of share price is MYR 0.228. This value declined until reaching the minimum value of MYR 0.052 at 19th observation which is on July

2021. The last observation indicates the value of share price is MYR 0.081 on October 2021.

Figure 2 shows the movement of data of share price for company B that involved in hotel tourism industry. The trend of the movement shows significant decrement trend during COVID-19 outbreak.

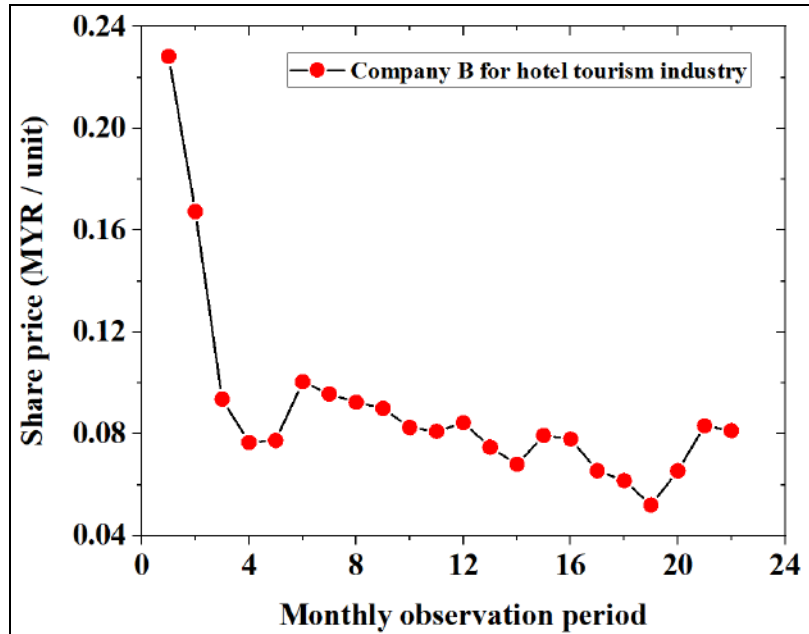


Fig. 2: Share price for company B of hotel tourism industry

The calculation of percentage of changes indicates in Equation (2).

$$\begin{aligned}
 \% \text{Changes} &= \frac{P_{last} - P_{start}}{P_{start}} \times 100\% \dots\dots\dots (2) \\
 &= \frac{0.082 - 0.228}{0.228} \times 100\% \\
 &= -64.04\%
 \end{aligned}$$

In Equation (2), the variables are described as follows:

$P_{last}$  : Value of share price for last monthly observation.

$P_{start}$  : Value of share price for first monthly observation.

Figure 1 shows the percentage of changes is -64.04 percentages. This value indicates there is significant drop in share price for company B. Therefore, company B need to perform some remedy in improving financial status including marketing. The company B needs to develop new business strategy to survive in current situation.

#### IV. IMPACT OF COVID -19 TOWARDS DEMAND AND SUPPLY IN HOTEL TOURISM INDUSTRY

The theory of supply and demand is a relationship that explains the interaction between the sellers of a product or service, and the buyers for that product or service. The theory of demand says that at higher prices, buyers will demand less of a product or service. In addition, the theory of supply explains that at higher prices, sellers will supply more of a product or service.

In microeconomics, the supply-demand law is an economic model of price determination in a market for a product or service. It explains that, holding all else equal, in a competitive market, the unit price for a particular good, or assets, will vary until it settles at a point where the quantity demanded (at the current price) will equal the quantity supplied (at the current price), resulting in an economic equilibrium for price and quantity transacted. It forms the theoretical basis of modern economics. This theory is applicable in analyzing the relationship between supply and demand for hotel tourism industry.

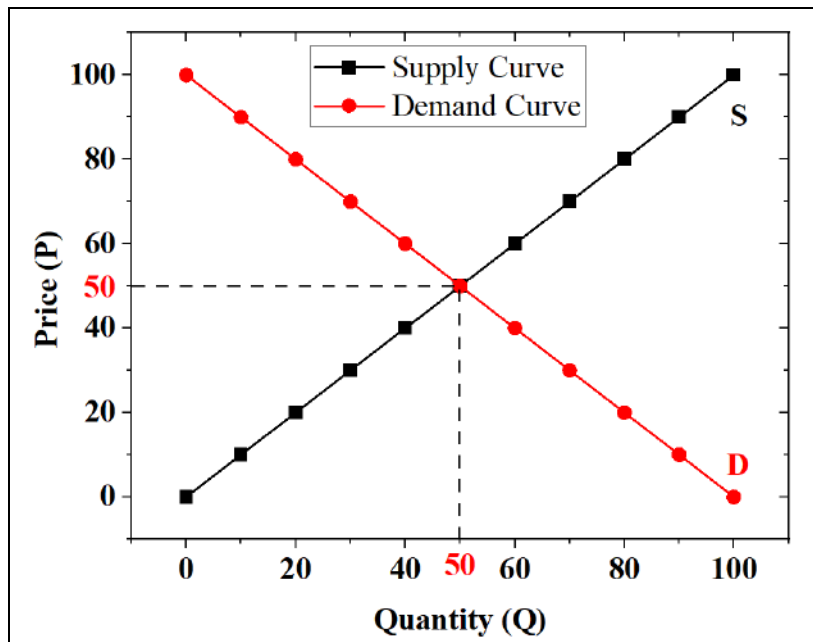


Fig .3: Supply and demand curve for hotel tourism industry

Figure 3 shows the demand and supply curve for hotel tourism industry. The market equilibrium achieved at when the Price (P) at 50% and the Quantity (Q) at 50%. The tendency to move toward the equilibrium price is known as the market mechanism, and the resulting balance between supply and demand is called a market equilibrium.

Figure 3 indicates the slope of Supply (S) is assumed at value of 1 which is unitary elastic. In the same time, the slope of Demand (D) is assumed at -1 that indicates negative slope.

The equation for price elasticity is shown in Equation (3) and (4).

$$elasticity_{demand} = \frac{\% \Delta Q_{demand}}{\% \Delta P} \dots\dots\dots (3)$$

$$elasticity_{supply} = \frac{\% \Delta Q_{supply}}{\% \Delta P} \dots\dots\dots (4)$$

In Equation (3) and (4), the parameter of Q is quantity and P is price.

Next, this study evaluated the movement of market equilibrium because of COVID-19 outbreak. In this calculation, this study considered Price (P) is in percentage. In addition, the Quantity (Q) also is considered in percentage.

Figure 4 shows the supply and demand curve for hotel tourism industry during COVID-19 outbreak. Figure 4 show the function of demand shift to new location and labelled as D2. This condition occurs because the

decrement of demand during COVID-19 outbreak including restriction of movement. The movement control order contributed to decrement of sales for hotel tourism industry because visitors were not allowed to travel further away from their residential areas. Therefore, lower quantity was demanded by customers during the COVID-19 outbreak. This situation contributes lower demand that shifted the demand function to lower value.

Market equilibrium drop to value of 30 percentage of Price (p) and 30 percentage of Quantity (Q). Next, this study calculated the changes in price using Equation (5).

$$\begin{aligned} \Delta P &= \frac{P_{t+1} - P_t}{P_t} \times 100\% \dots\dots\dots(5) \\ &= \frac{30 - 50}{50} \times 100\% = \frac{-20}{50} \times 100\% = -40\% \end{aligned}$$

The drop of price is 40% from the initial market equilibrium.

A market is in equilibrium if at the market price the quantity demanded is equal to the quantity supplied. Equilibrium is the state in which market supply and demand balance each other, and as a result prices become stable.

In this situation, the company need to introduce marketing strategies including digital marketing approach using social media. The government also need to support the hotel tourism industry with incentive and policy to encourage visitors to travel and using hotel services.



Therefore, the collaboration between industry and government is crucial to achieve good economic situation.

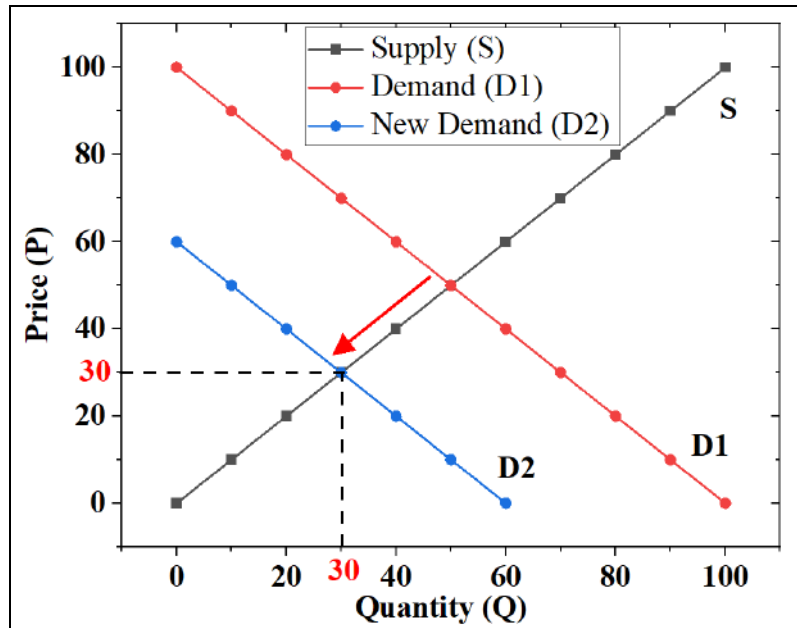


Fig .4: Supply and demand curve for hotel tourism industry during COVID-19 outbreak

**V. CONCLUSION**

The objective of this research is to evaluate the impact of COVID-19 outbreak towards hotel tourism industry. This study evaluated the share price movement during COVID-19 outbreak. In addition, this study analyzed the impact of COVID-19 outbreak towards hotel tourism industry using demand and supply curve.

The main findings of this study are described as follows:

- (1) There is significant drop of share price for two companies that involved in hotel tourism industry. The company A experienced -28 % and company B shows -64 % of share price decrement. Both of this company is mainly focus on hotel business.
- (2) The decrements of share price were contributed by movement control order that limit the tourist to stay in the hotel. In addition, the COVID-19 spreading creates uncomfortable feeling for tourists to travel during the COVID-19 outbreak situation.
- (3) Next, this study performed simulation of supply and demand curve for hotel tourism industry. In normal situation, the market equilibrium achieved when the value of Price (P) is at 50 % and value of Quantity (Q) is 50%). Equilibrium is the state in which market supply and demand balance each other, and as a result prices become stable.
- (4) However, the COVID-19 outbreak had changed the landscape of economic worldwide. The

demand curve for hotel tourism industry dropped significantly. This is contributed by the tourists were unable to moving far away from their locality and residential. The simulation of calculation shows the price change to negative 40 percentages. This value gives negative impact towards hotel tourism industry during COVID-19 outbreak. Both of companies were struggled in surviving financially during the COVID-19 outbreak.

As the solution to this situation, a few recommendations are suggested to industry players and government body. The companies should increase their promotion and marketing using digital social platforms. In the same time, the companies should look at their operational cost to optimize financial management. In the same time, government could provide incentives and policy that encourages the tourists to travel and using hotel tourism facilities and services.

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## REFERENCES

- [1] AbdelMaksoud, K.M., Hathout, H.M.R. and Albagoury, S.H. (2022). The Socio-Economic Impact of COVID-19 On The Petroleum Sector in Egypt: A Descriptive Analysis. *International Journal of Social Economics*, 49(1), 21-33.
- [2] Abu Bakar, N. and Rosbi, S. (2020a). Impact of Coronavirus Disease 2019 (COVID-19) to Equity Market and Currency Exchange Rate. *IOSR Journal of Economics and Finance*, 11(2), 17-26.
- [3] Abu Bakar, N. and Rosbi, S. (2020b). Effectiveness of Lockdown Policy to Control Spreading of Coronavirus Disease 2019 (COVID-19). *IOSR Journal of Business and Management (IOSR-JBM)*, 22(8), 34-41.
- [4] Abu Bakar, N. and Rosbi, S. (2020c). Effect of Coronavirus Disease (COVID-19) to Tourism Industry. *International Journal of Advanced Engineering Research and Science*, 7(4), 189-193.
- [5] Abu Bakar, N. and Rosbi, S. (2021a). Effect of COVID-19 Outbreak Towards Banking and Finance Industry. *International Journal of Advanced Engineering, Management and Science*, 7(3), 1-5.
- [6] Abu Bakar, N. and Rosbi, S. (2021b). Impact of Coronavirus Disease (COVID-19) towards Economy and Vaccine Industry. *International Journal of Advanced Engineering Research and Science*, 8(2), 68-72.
- [7] Abu Bakar, N., Rosbi, S. and Uzaki, K. (2020a). Determinant Factors for Destination Selection of Halal Eco-Tourism Using Confirmatory Factor Analysis. *European Journal of Molecular & Clinical Medicine*, 7(8), 391-412.
- [8] Abu Bakar, N., Rosbi, S. and Uzaki, K. (2020b). Evaluation of Customer Intention to Visit Destination of Halal Eco-Tourism using Structural Equation Modelling. *International Journal of Advance Science and Technology*, 29(10S), 1215-1233.
- [9] Aduhene, D.T. and Osei-Assibey, E. (2021). Socio-economic Impact of COVID-19 on Ghana's Economy: challenges and prospects. *International Journal of Social Economics*, 48(4), 543-556.
- [10] Brooker, E. and Joppe, M. (2014). Developing a Tourism Innovation Typology: Leveraging Liminal Insights. *Journal of Travel Research*, 53(4), 500-508.
- [11] Cabral, A.M. and Marques, J.P.C. (2022). How Innovation Can Influence Customer Satisfaction – Case Study of the Saccharum Hotel in Madeira. *International Journal of Innovation Science*, 1-14.
- [12] He, J., Mao, Y., Morrison, A.M. and Coca-Stefaniak, J.A. (2021). On Being Warm and Friendly: The Effect of Socially Responsible Human Resource Management on Employee Fears of the Threats of COVID-19. *International Journal of Contemporary Hospitality Management*, 33(1), 346-366.
- [13] Jafari, K., Ozduran, A. and Saydam, M.B. (2021). Hospitality and Tourism Industry Amid COVID-19 Pandemic: Voices from Small Mediterranean Town. *International Hospitality Review*, 1-22.
- [14] Khan Jaffur, Z., Seetanah, B., Tandrayen-Ragoobur, V., Fauzel, S., Teeroovengadam, V. and Ramsahok, S. (2022). The Impact of COVID-19 Outbreak on the Mauritian Export Trade: A Disaggregated Analysis. *International Trade, Politics and Development*, 1-31.
- [15] Le, T.T. and Nguyen, V.K. (2022). Effects of Quick Response to COVID-19 With Change in Corporate Governance Principles On SMEs' Business Continuity: Evidence in Vietnam. *Corporate Governance*, 1-21.
- [16] Malaysian Investment Development Authority (2021). <https://www.mida.gov.my/smart-tourism-future-of-tourism-in-malaysia/>. Retrieved on 7 February 2022.
- [17] Mao, Y., He, J., Morrison, A.M. and Andres Coca-Stefaniak, J. (2021). Effects of Tourism CSR on Employee Psychological Capital in the COVID-19 Crisis: From the Perspective of Conservation of Resources Theory. *Current Issues in Tourism*, 24(19), 2716-2734.
- [18] Mushafiq, M. (2021). Industry-level Analysis of COVID-19's Impact in Emerging Markets – Evidence from Pakistan. *International Journal of Emerging Markets*, 1-25.
- [19] Nguyen, Q.T.T., Anh, D.L.T. and Gan, C. (2021). Epidemics and Chinese Firms' Stock Returns: Is COVID-19 Different?. *China Finance Review International*, 11(3), 302-321.
- [20] Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., Agha, M. and Agha, R. (2020). The Socio-Economic Implications of the Coronavirus Pandemic (COVID-19): A Review. *International Journal of Surgery*, 78, 185-193.
- [21] Ofori-Boateng, K., Ohemeng, W., Agyapong, E.K. and Bribinti, B.J. (2021). The Impact of COVID-19 on Stock Returns of Listed Firms on the Stock Market: Ghana's Experience. *African Journal of Economic and Management Studies*, 1-11.
- [22] Ozili, P. (2020). COVID-19 in Africa: Socio-economic Impact, Policy Response and Opportunities. *International Journal of Sociology and Social Policy*, 1-24.
- [23] Parvin, M., Tavakolinia, J., Mosammam, H.M. and Razavian, M. (2021). The Economic Impacts of COVID-19 on the City Tourism-related Services; The Case of Tehran. *International Journal of Tourism Cities*, 1-17.
- [24] Peterson, R.R. and DiPietro, R.B. (2021). Exploring the Impact of the COVID-19 Pandemic on the Perceptions and Sentiments of Tourism Employees: Evidence from a Small Island Tourism Economy in the Caribbean. *International Hospitality Review*, 35(2), 156-170.
- [25] Rakshit, B. and Neog, Y. (2021). Effects of the COVID-19 Pandemic on Stock Market Returns and Volatilities: Evidence from Selected Emerging Economies. *Studies in Economics and Finance*. 1-23.
- [26] Saif-Alyousfi, A. Y.H. (2022). The Impact of COVID-19 and the Stringency of Government Policy Responses on Stock Market Returns Worldwide. *Journal of Chinese Economic and Foreign Trade Studies*, 15(1), 87-105.
- [27] Skare, M., Soriano, D.R. and Porada-Rochon, M. (2021). Impact of COVID-19 on the Travel and Tourism Industry. *Technology Forecasting & Social Change*, 163, 1-14.
- [28] Wen, J., Kozak, M., Yang, S. and Liu, F. (2021). COVID-19: Potential Effects On Chinese Citizens' Lifestyle and Travel. *Tourism Review*, 76(1), 74-87.

- [29] Wikhamn, W. (2019). Innovation, sustainable HRM and customer satisfaction. *International Journal of Hospitality Management*, 76, 102-110.
- [30] Zaheer, K., Aslam, F., Tariq Mohmand, Y. and Ferreira, P. (2022). Temporal changes in global stock markets during COVID-19: an analysis of dynamic networks. *China Finance Review International*, 1-23.
- [31] Zubair, F. and Shamsudin, M.F. (2021). Impact of Covid-19 on Tourism and Hospitality Industry of Malaysia, *Journal of Postgraduate Current Business Research*, 6(1), 1-6.