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# Team Seven - DST Assignment

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# Overview

A data analytic project for **Singapore Tourism Board** that help to

- Understand current **situation, problems** of Singapore's tourism industry by generating data driven **KPIs** and insights.
- Suggest potential **solution** with data analysis that can boost Singapore tourism.





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# Business Question

How to BOOST singapore tourism industry?

1

How was the performance of Singapore tourism industry?

2

What are the key problems that we should focus on?

3

What was the possible actions to take?

# Target audience

## Direct audience

- 01 | Management of Singapore Tourism Board (STB)
- 02 | Business development team of STB
- 03 | Marketing department of STB

## Potential audience

- 04 | Singapore Economic Development Board (EDB)
- 05 | Singapore Prime Minister office



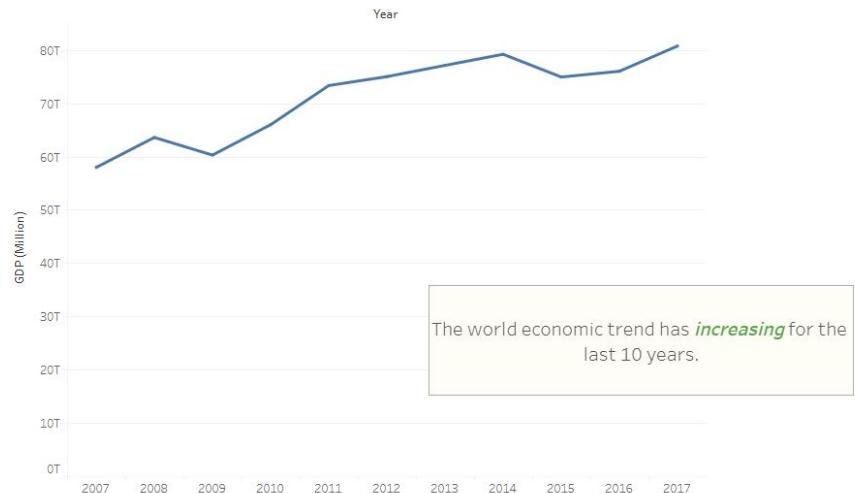
PRIME MINISTER'S OFFICE  
SINGAPORE



# Understanding the Situation

# World Economy

World GDP has keep increasing over the last decades. It's a good time for Singapore to promote itself to the world and develop its tourism industry.

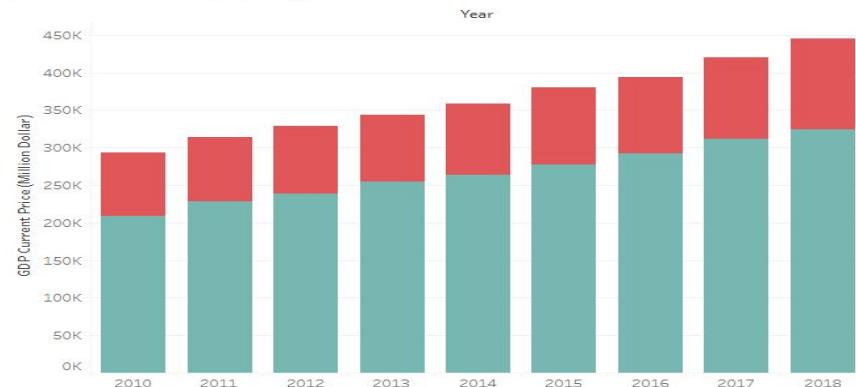


# Singapore Economy

Singapore's GDP is also growing in visible speed.

GDP Types  
■ Goods Producing Industries  
■ Services Producing Industries

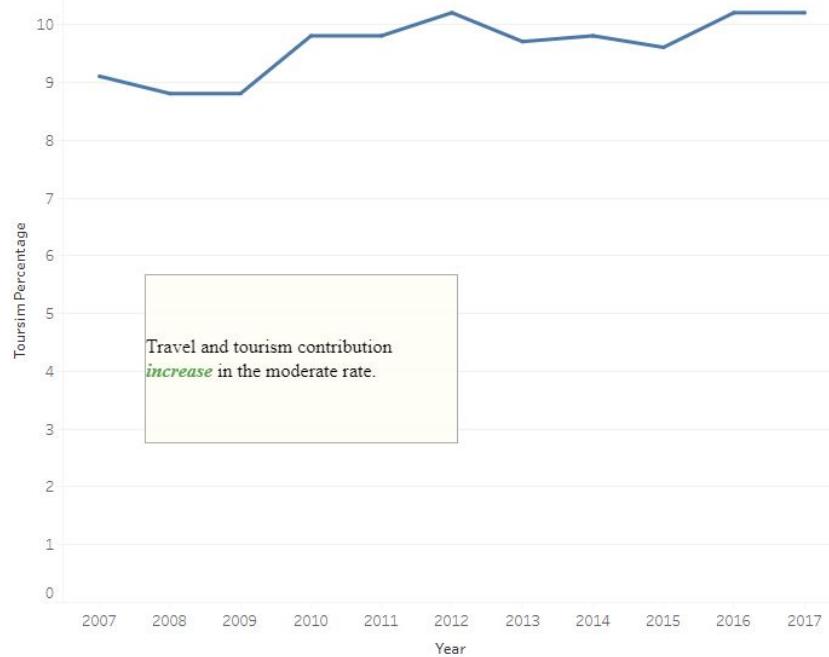
Goods and Services GDP  
(2010 - 2018, Singapore)



# Singapore Tourism

Tourism is playing an even more important part in Singapore's economy at a moderate increasing speed.

Singapore - Contribution of Travel and Tourism to GDP  
(2007 - 2017)





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# Situation Summary

1

World economy is increasing, making it a good time for Singapore to develop tourism industry.

2

Singapore's tourism industry is performing well and becoming even more important in Singapore economy.

3

Although Singapore tourism industry is doing well, there are still much potential for even better performance. We should get prepared for the future.



# Knowing the Problem

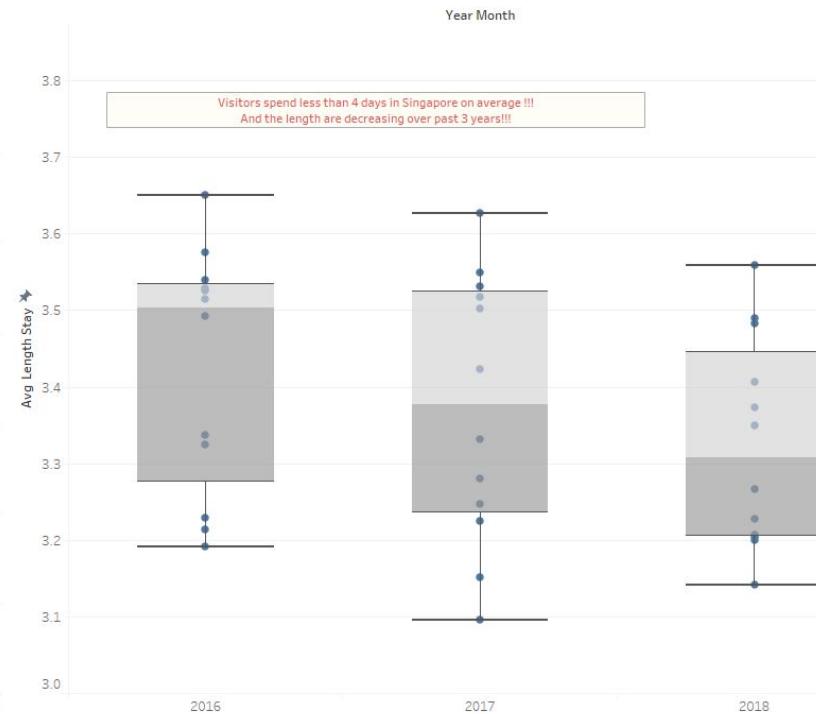
# Visitor Stay

The average stay of visitors to Singapore is short, at a median/mean both less than 4 days.

And this number was even decreasing for past 3 years, which is a bad signal.

This problem give Singapore great potential to further develop its tourism industry. imagine what would be the tourism contribution be if Singapore could attract tourists to stay for 6 days at average!

Monthly Average Length of Stay (2016 - 2018)



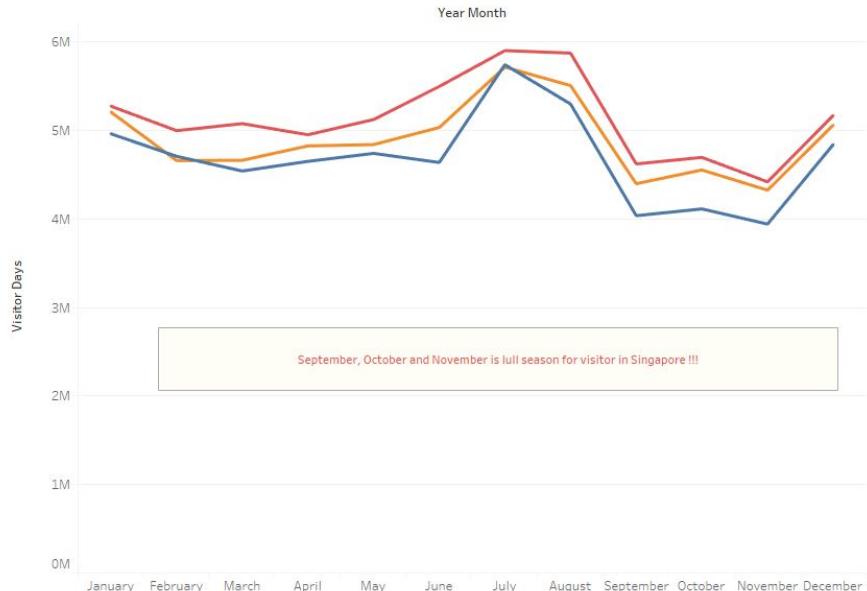
# Monthly Visit

There presents lull seasons in Singapore tourism industry, at month September, October and November.

Potential improvement can be done to attract more tourists for these lull seasons.

Year of Year Month  
2016  
2017  
2018

Peak month for visitor is on July/August (2016 - 2018)





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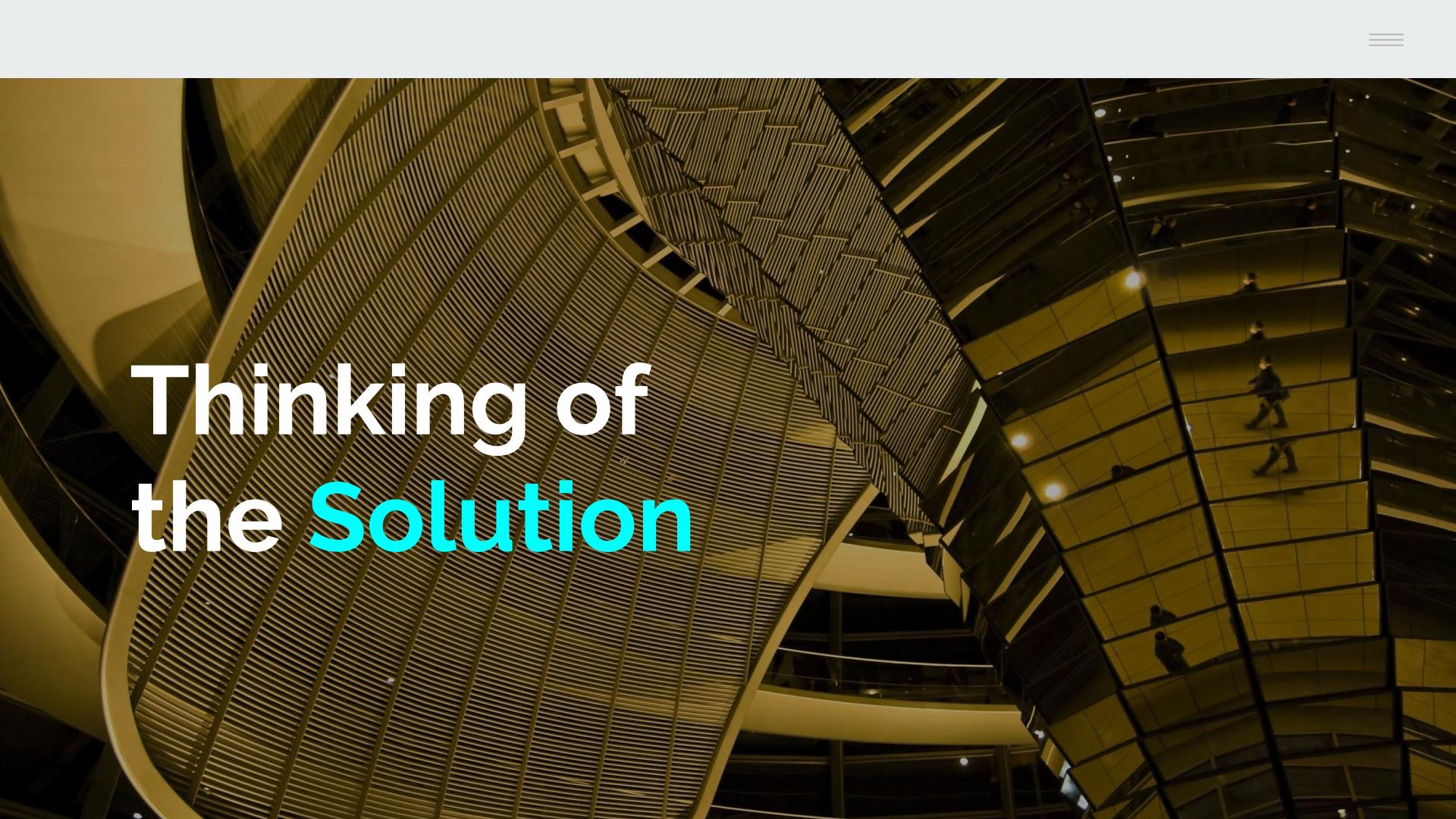
# Problems Summary

1

Given Singapore is such a small nation, how can we increase visitor stay?

2

There can be multiple factors causing lull seasons for tourism, including seasons, holidays and etc. Is there a way to improve on these lull seasons?



Thinking of  
the **Solution**

# Tourism Spending

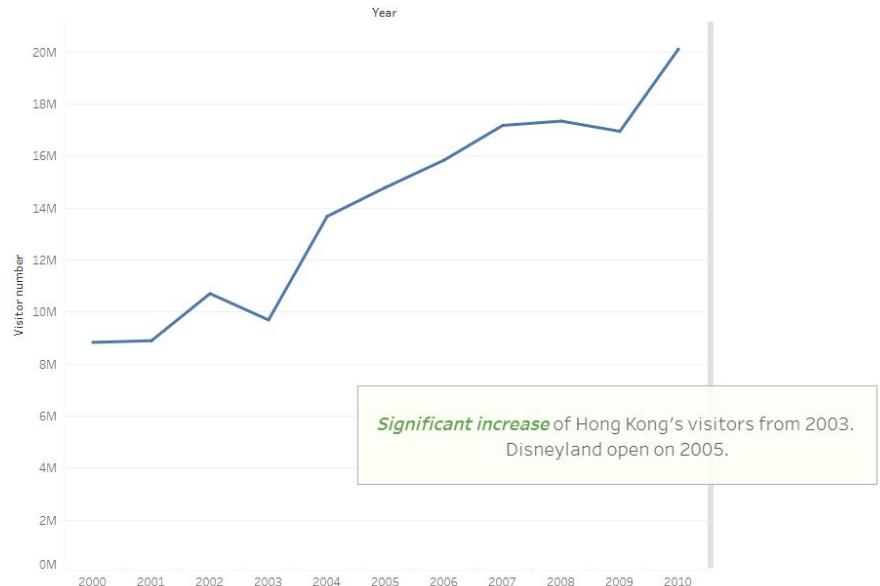
We have seen a drastic improvement on tourism spending from 2009 to 2010, same period for the opening of Marina Bay Sands Casino and Sentosa World Casino.

Despite of contributing to the tourism spending, more attractions also means more places for the tourists to spend time on, and thus finally **increase the length of visitor stay**.



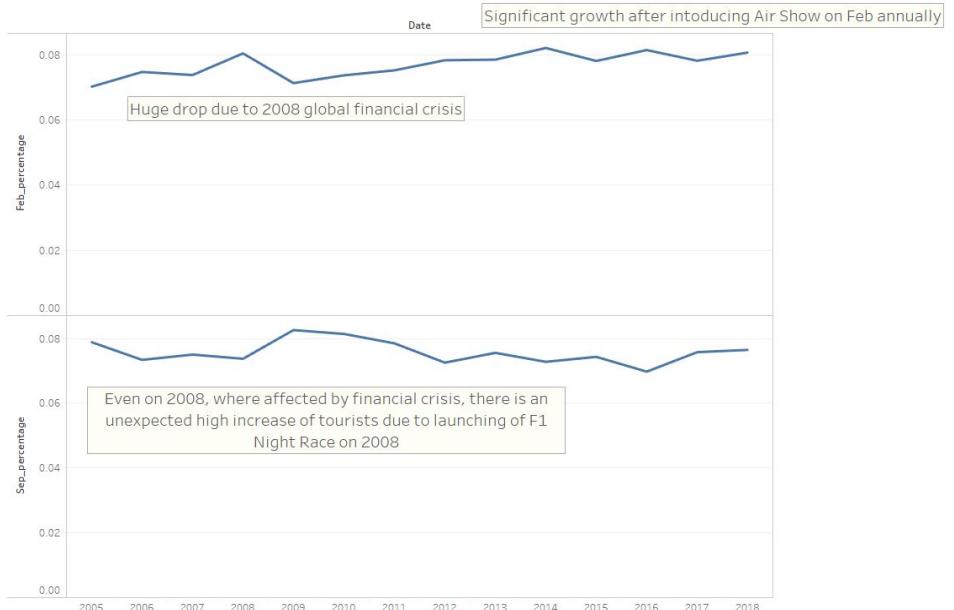
# Hong Kong Disneyland

Lesson can be learnt from Hong Kong, which gains significant growth in tourism with opening of Disneyland.



# Attractive events

- Since the launch of **Singapore Airshow** on February annually, the percentage of visitors on Feb has been increasing in the past decades.
- September has always been the lull season. But on 2008, when financial crisis crash tourism among all over the world, the No. of visitors to Singapore increased significantly, due to the first launch of **F1 Night Race**.





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# Solutions Summary

1

Build more tourists attractions like DisneyLand to increase length of visitor stay.

2

Host more regular attractive events to improve on lull seasons.



Proceeding  
the Next Step

# Transportation

To enhance our solutions, we can also advertise on transportation promotion against country with **higher growth rate** and **higher visitor amount**.

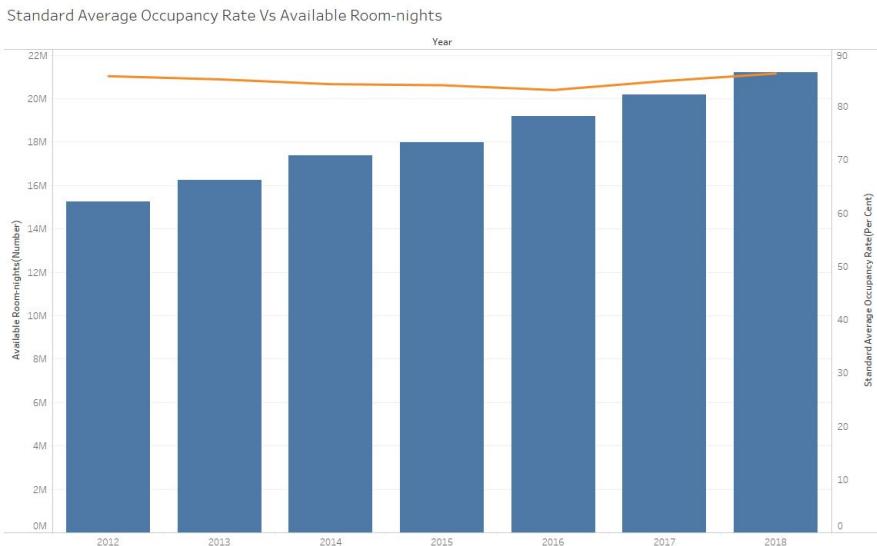


# Accommodation

With expected visitor growth from the solution, we should consider to increase the hotel amount accordingly.

Currently the occupation rate was stable on around **86%** percent, regardless the growth of visitors, which is a very good behavior.

Should keep perform as we have done in managing accommodation for visitors.





# KPI Tracking

After working on the solution, following are the metrics need to be monitored to evaluate the performance of the given solution.

- Growth of visitors annually after having new attractions
- Growth of visitor monthly percentage after having new regular events
- Tourism expenditure
- Length of visitor stay
- Percentage of tourism contribution to GDP



# References



# Data source

Singapore Airshow occurs at every 2 year in Feb starting from Feb 2008

[https://en.wikipedia.org/wiki/Singapore\\_Airshow](https://en.wikipedia.org/wiki/Singapore_Airshow)

Singapore F1 Race occurs at every Sep each year starting from Sep 2008

[https://en.wikipedia.org/wiki/Singapore\\_Grand\\_Prix](https://en.wikipedia.org/wiki/Singapore_Grand_Prix)

2016-2018 visitor stay data

<https://www.stb.gov.sg/statistics-and-market-insights/Pages/statistics-visitor-arrivals.aspx>

HK visitor number

<https://data.worldbank.org/indicator/ST.INT.ARVL?locations=HK&view=chart>

Singapore Tourism data:

<https://www.stb.gov.sg/statistics-and-market-insights/Pages/statistics-Visitor-Arrivals.aspx>

<https://www.stb.gov.sg/statistics-and-market-insights/marketstatistics/stb%20q3%202018%20final.pdf>

<https://www.singstat.gov.sg/find-data/search-by-theme/industry/tourism/latest-data>

<https://www.tablebuilder.singstat.gov.sg/publicfacing/createDataTable.action?refId=15278>

<https://www.tablebuilder.singstat.gov.sg/publicfacing/createDataTable.action?refId=12360>



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# Storyboard Link

<https://public.tableau.com/profile/ng.soo.kuan1733#/vizhome/HowtoBoostSingaporeTourismIndustry/Story?publish=yes>



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Thank you.

