

# ANALYSIS OF THE RELATIONSHIP BETWEEN COVID-19 AND WORKING PERMITS ON INTERNATIONAL STUDENT FLOWS

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Presentation Link: <https://youtu.be/Zd1B5FBz2pE>

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## INTRODUCTION:

### OVERVIEW

Covid's effect on the international student market has continued to be a detriment to Australia's tertiary education and will continue to greatly affect incoming students up until 2023. Australian universities need to readjust and ensure that they appropriately revise their approach to student markets and look to diversify into emerging regions with greater potential. Ensuring that the Australian market sees continued growth and suffers less from future events. With that information, it would be wise to understand what students look for and use that to ensure Australia is everyone's first choice.

### RESEARCH QUESTION

The purpose of this report is to investigate the interaction between work permits and the COVID-19 pandemic on international student inflows. In addition, it aims to provide insight into the strategies that could potentially be used to increase Macquarie International's and more broadly Australia's international student market share in relation to its competitors in other English-speaking countries over the next 3 years.

### PRELIMINARY INTERPRETATION/HYPOTHESES

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#### H1: MOST MAJOR STUDENT GROWTH WOULD OCCUR FROM THE AFRICAN CONTINENT AND FROM COUNTRIES WITH HIGHER LEVELS OF ECONOMIC GROWTH

The African continent has continued to see a large surge in growth well into the 2020's. Whilst their economic growth has been limited their potential to become a centre for student outflows is there. Whereas economic factors play a huge role in creating a middle to upper class able to pay the higher costs of international education.

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#### H2: DEVELOPED COUNTRIES LESS LIKELY TO BE CONCERNED OVER BARRIERS

Developed countries such as China are more likely to be less concerned over barriers to entry due to their higher population of upper-middle-class citizens. Hence, they would be more likely to choose their country of study over factors such as politics, culture, education, etc. due to their higher levels of income.

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#### H3: EXPECTED INCREASE OF INTERNATIONAL STUDENTS AFTER COVID-19

Border closure and travel restrictions have prevented students worldwide from studying in other countries. Due to the current situation, a decline in 2020-2021 on the total number of international students is expected. However, in 2022, once most of the world population is fully vaccinated and international border open, an increase and a return to normality is expected.

## DATA PREPARATION:

### DATA SOURCES

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#### VISA DATA

- USA:
  - [IIE Open Doors \(opendoorsdata.org\)](https://opendoorsdata.org)
  - [Visa Statistics \(state.gov\)](https://state.gov)
- Canada:
  - [Temporary Residents: Study Permit Holders – Monthly IRCC Updates - Open Government Portal \(canada.ca\)](https://open.canada.ca/en/open-government-portal/catalogue/document/150-607-x-71-607-x2020019-eng)
  - <https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2020019-eng.htm>
  - <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3710018202>
- Australia:
  - [Study visa statistics \(homeaffairs.gov.au\)](https://homeaffairs.gov.au)
- UK:
  - [Why do people come to the UK? To study - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

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#### WORK PERMITS FOR EACH COMPETITOR

- USA: [Students and Employment | USCIS](https://uscis.gov)
- Canada: [Work on campus - Canada.ca](https://canada.ca)
- Australia:
  - [Part Time Jobs in Australia: High Paying Work Option for International Students \(shiksha.com\)](https://shiksha.com)
  - [Student Visa Rules | Study in Australia \(internationalstudent.com\)](https://internationalstudent.com)
  - [Your work rights explained \(studyaustralia.gov.au\)](https://studyaustralia.gov.au)
  - [Temporary relaxation of working hours for student visa holders \(homeaffairs.gov.au\)](https://homeaffairs.gov.au)
- UK: [Student visa - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

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## COUNTRY DISTANCES

- International: [Distance Between Countries \(distancefromto.net\)](http://distancefromto.net)

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## STUDENT OUTBOUND FLOWS

- International: <http://data.uis.unesco.org/#>

## STRUCTURE OF DATA

### VISA DATA

#### USA

Purpose of Travel	Visa Category
Business	B-1
Tourism	B-2
Temporary Non-immigrant Travel	B-1, 2
Border Crossing Card	B-1, 2/BCC
Transit Visa	C
Non-immigrant Transit	C-1/D
CNMI-only Transitional Worker	CW
Crewmember	D
Treaty Trader/Treaty Investor	E
Student	F
International Organization Employees	G
Temporary Worker	H
Media, Journalist	I
Physician	J
Non-immigrant Visa for a Fiancé	K
Temporary Intracompany Transferees	L
Vocational Non-academic Training	M
North Atlantic Treaty Organization	NATO
Non-immigrant Visa for Family	N
Individuals with Extraordinary Ability or Achievement	O
Athlete/Entertainer	P
Cultural Exchange	Q
Non-immigrant Religious Worker	R
Certain Special Immigrants	S
Victim of Human Trafficking	T
Victim of Criminal Activity	U
Non-immigrant (V) Visa for Spouse and Children of a Lawful Permanent Resident (LPR)	V
TN NAFTA Professionals	NAFTA

Figure 1: Initial USA data applied to annual non-immigrant for 29 categories across 201 nations in pdf format and was available for the past 20 years. More detailed information can be found at [Directory of Visa Categories \(state.gov\)](https://travel.state.gov/visas/directories/).

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## CANADA

CANADA DATA	
Country of Origin	Location of Origin
Level of study	Degree Typed
Gender	Female / Male / Other
Mode of study	Full time / Part time
Academic Year	Year
Region of residence	University Location within Canada
Number	Sum of students

Figure 2: Attributes of raw Canada data

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## UK

Student Nationality Data

UK data	
4 way domicile	Location of Origin: UK/EU/Non-EU/Unknown
Domicile	Country of Origin
Level of study	Degree Type
Mode of study	Full time / Part time
Academic Year	Year



<b>Region of HE provider</b>	University Location within the U.K
<b>Number</b>	Sum of students

Figure 3: Data was presented by columns in a tabular format. Through a pivot table reduction and further category elimination a comprehensive list of all countries was formed and their associate student outflows. More detail

#### AUSTRALIA

Visa grant data for Australia

Original Columns	Column Type	Interpretation
<b>Sum of Total Applicant Type</b>	Value	Measures the total no of visa applications
<b>Sector</b>	Indicator	Categorized study sectors i.e Higher Education, Non-award, Postgraduate
<b>Financial Year</b>	Time	Granted visa total for each year

Figure 4: Attributes of raw Australia data

#### OUTBOUND STUDENT DATA

Original Columns	Interpretation
<b>NATMON_IND</b>	UIS codes representing specific countries
<b>Indicator</b>	Indicator categorising the outbound flows
<b>LOCATION</b>	Country Initials
<b>Country</b>	Country Name
<b>TIME</b>	Year
<b>Time</b>	Duplicate Year Variable

<b>Value</b>	Student Outflow Amount
<b>Flag Codes</b>	UIS Flag Code
<b>Flags</b>	Indicator categorising certain data as an estimation or ineligible

Figure 5: Attributes of raw Outbound Student data

#### WORK PERMIT CLASSIFICATION

Attribute	USA	Canada	Australia	UK
<b>Visa Length</b>	Full-time study + 60 days	<ul style="list-style-type: none"> <li>– Full-time study + 90 days</li> <li>– Permit if &gt; 6 months</li> </ul>	5 years max	<ul style="list-style-type: none"> <li>– 5 years Max</li> <li>– Full-time study + 4 months</li> </ul>
<b>Visa Cost (AUD)</b>	\$150 - \$200	\$100	\$620	\$637-\$870
<b>Hours work during university</b>	<=20	<=20	<=20	<=20
<b>Work during break</b>	Full Time	Full Time	Full Time	Full Time
<b>Work if part time student</b>	True	False	True	False
<b>Additional cost</b>	None	<ul style="list-style-type: none"> <li>– None</li> <li>– Free healthcare if full-time study for 12 months</li> </ul>	Healthcare insurance – not eligible for free healthcare	Healthcare: £470 p.a
<b>Area of work (on-campus &amp; off campus)</b>	1 <sup>st</sup> year on-campus	<ul style="list-style-type: none"> <li>– Study &gt; 8 months</li> <li>– Permit dependant</li> </ul>	N/A	N/A
<b>Restricted Industry</b>	True	False	False	True <ul style="list-style-type: none"> <li>– professional sportsperson or sports coach</li> <li>– entertainer</li> </ul>
<b>Work start</b>	30 days prior	When course begins	30 days prior	30 days prior

Figure 5.1: Details the work permit restrictions for international students for each respective competitor country.

## DATA TREATMENT

### IMPUTATION

For all datasets, it was identified that performing imputation by using a machine learning model (e.g. knn imputation) or mean/median values to replace null values would be ineffective as each observation/country could be largely different from others. Hence, observations with missing values were instead removed. Generally, missing data was only present in the case for smaller countries with few international student exports such that their exclusion did not significantly affect the measurement of the top few analysed countries.

### DATA MANIPULATION

#### VISA DATA

Initial visa data was inconsistent between competitor countries. Ultimately, the most simplistic metric was replicated across all datasets since it is impossible to produce more detailed metrics from simple ones e.g. quarterly data had to be converted to annual. Similarly, each competitor country had to be reduced to the past 5 years. Most of the visa types for USA were deleted as this study is only concerned with student visas F (see figure). Additionally, some datasets did not necessarily concern visas (e.g. UK dataset) however, it can be assumed that all international students are holders of student visas.

Nation	2015	2016	2017	2018	2019	2020
Afghanistan						
Albania						
Algeria						
...						

*Most visa data was manipulated to ensure uniformity across all gathered sources.*

*Fig. 6 outlines the approach to data tables.*

#### WORK PERMIT CLASSIFICATION

Two categories were dropped “Work during break” and “Hours work during university” since restrictions are the same across all competitors.

#### OUTBOUND STUDENT DATA

Total data was split into several overlapping categories that ballooned the values and removed and commonality between them. Various categories grouped countries by their regional and economic characteristics which were within the same dataset as all the necessary countries.

## METHOD:

### DATA REDUCTION

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#### VISA DATA

No further reductions using techniques such as principal components analysis was required since there were not enough categories to correlate with each other (reduced to single category). Additionally, observations were all individual from one another; wouldn't make sense to determine properties of a single country from multiple other countries.

## PRELIMINARY ANALYSIS

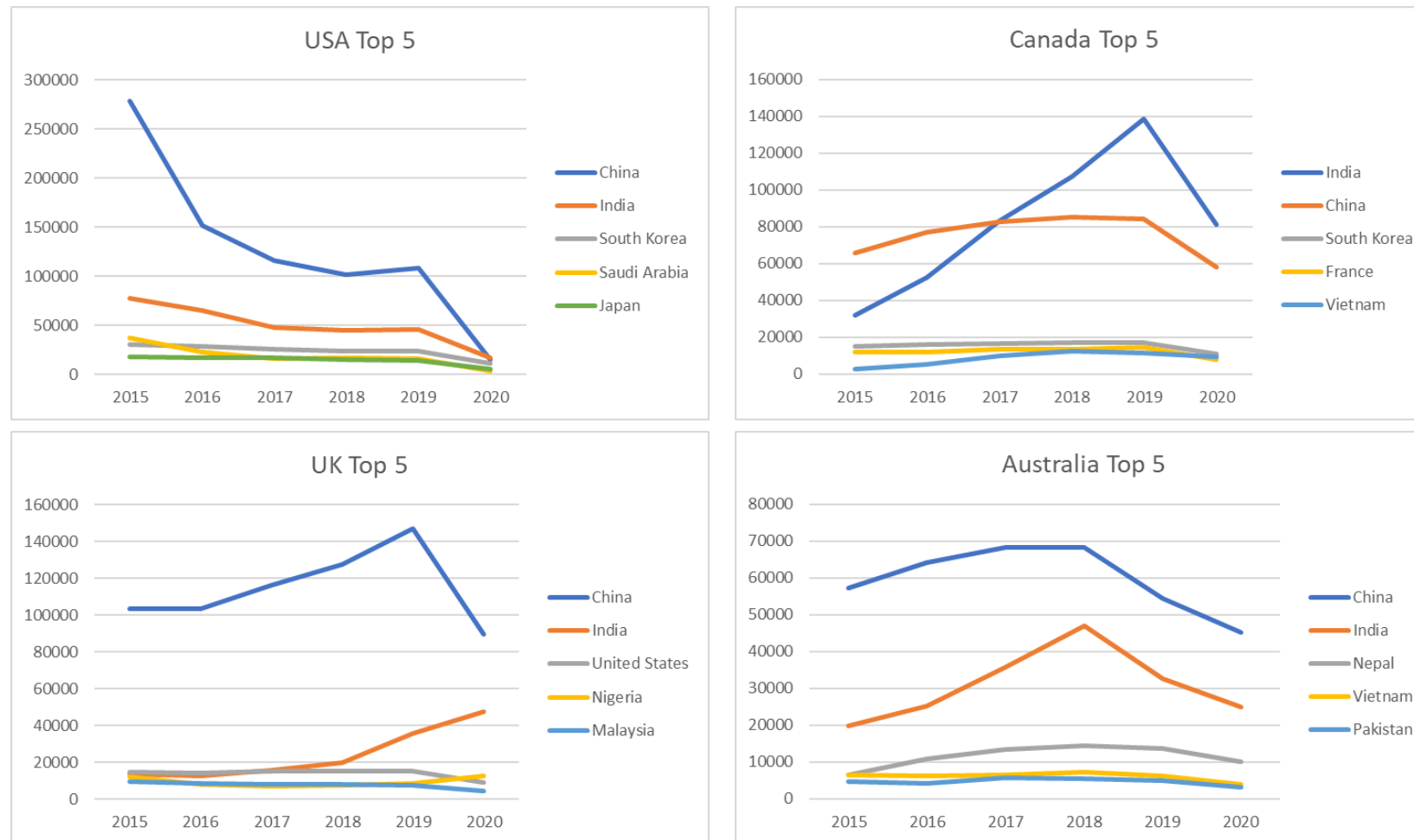


Figure 7: Linear plots of top 5 incoming international students annually. China and India can be observed to be the two highest exporters of international students. A downward trend can be viewed for these two primary countries for the USA since 2015, and a decrease in international imports for Australia from 2018 to 2019. Most countries experienced a downward spike in international imports in 2020 likely due to the COVID-19 pandemic. International students continued to increase for the UK.

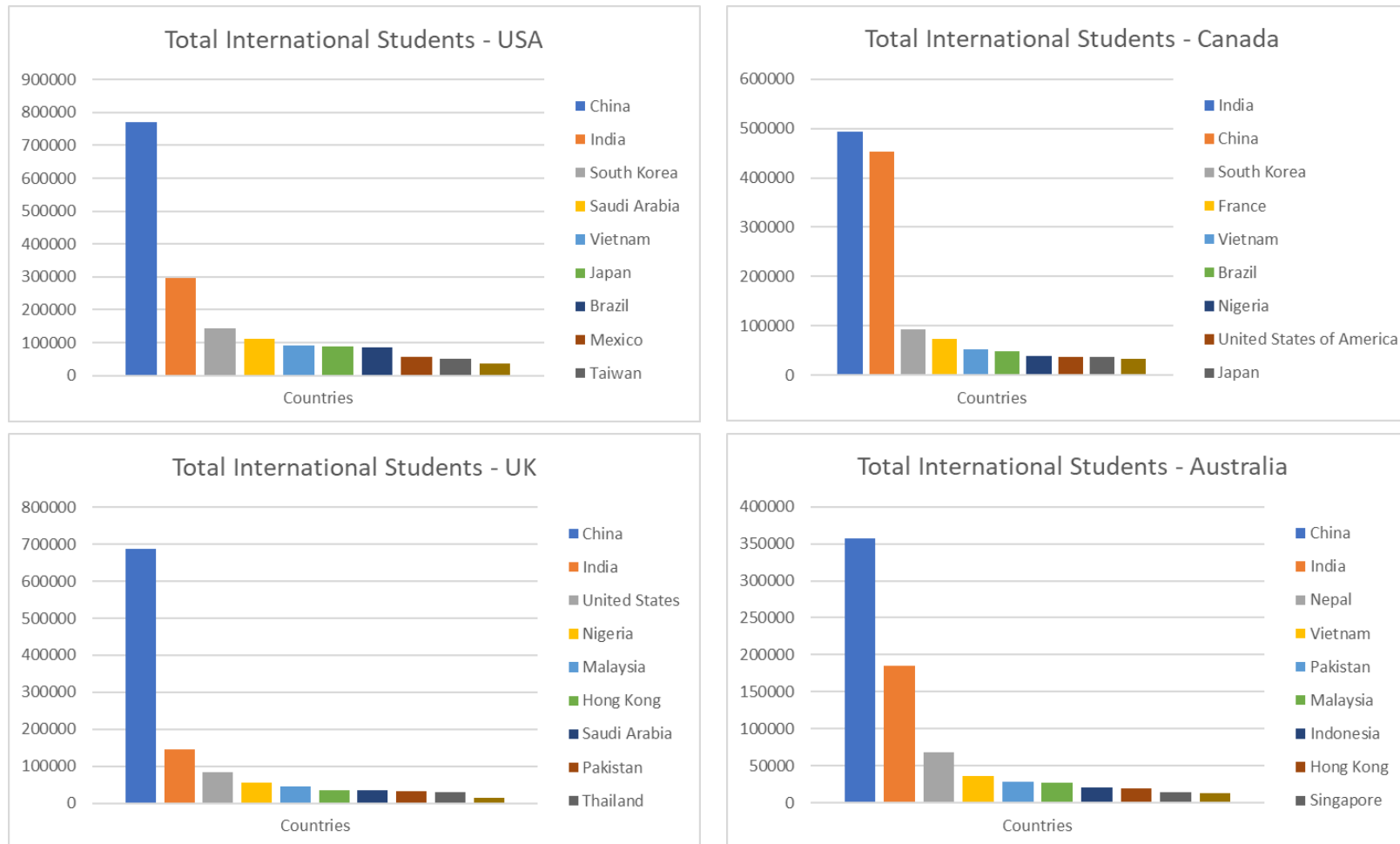
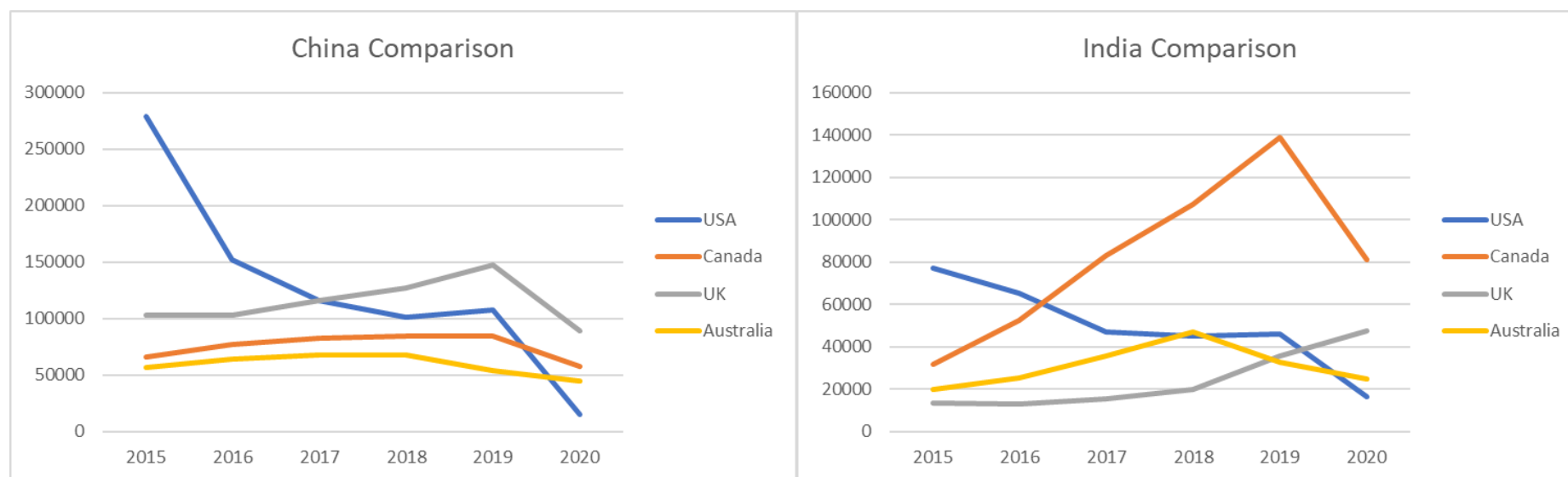


Figure 8: Shows total international student imports for each competitor country over the past 5 years. The distributions shows that China holds the most international student exports for all countries except for Canada, where India and China both hold a large proportion of international student population.



*Figure 9: Closer look at the two largest markets for international student exports. Prior to 2019, Australia had the lowest share of Chinese international students compared to its competitors. However, it beat out the UK for Indian international students consistently up until 2019.*

## Australia's market diversity Struggles

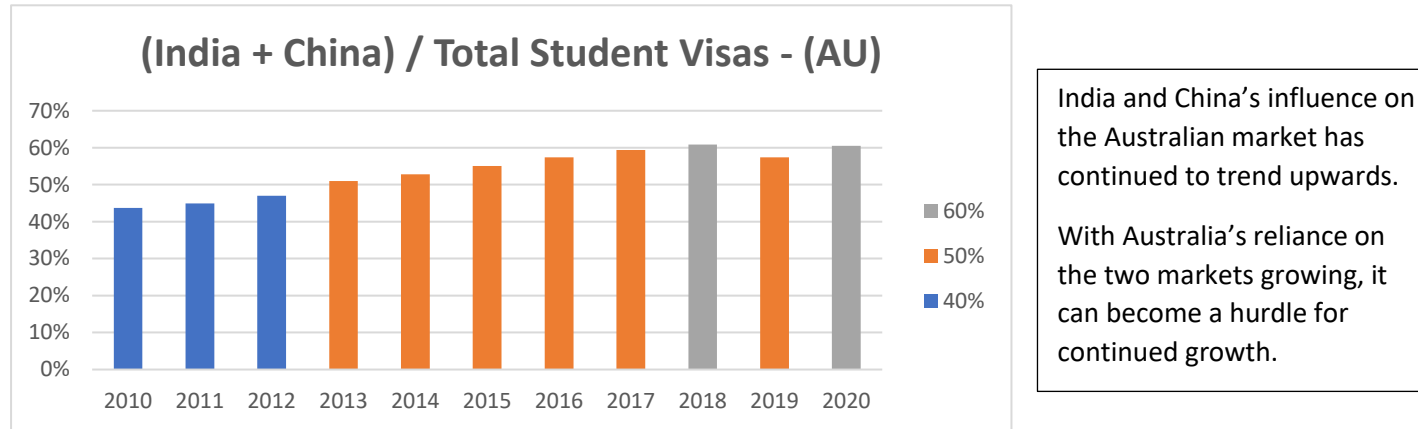


Figure 10: India And China's total market share of all International Students within Australia.

The overreliance on the two markets can be a detriment in policy making for universities and governments as they become too influenced and dependent on external providers.

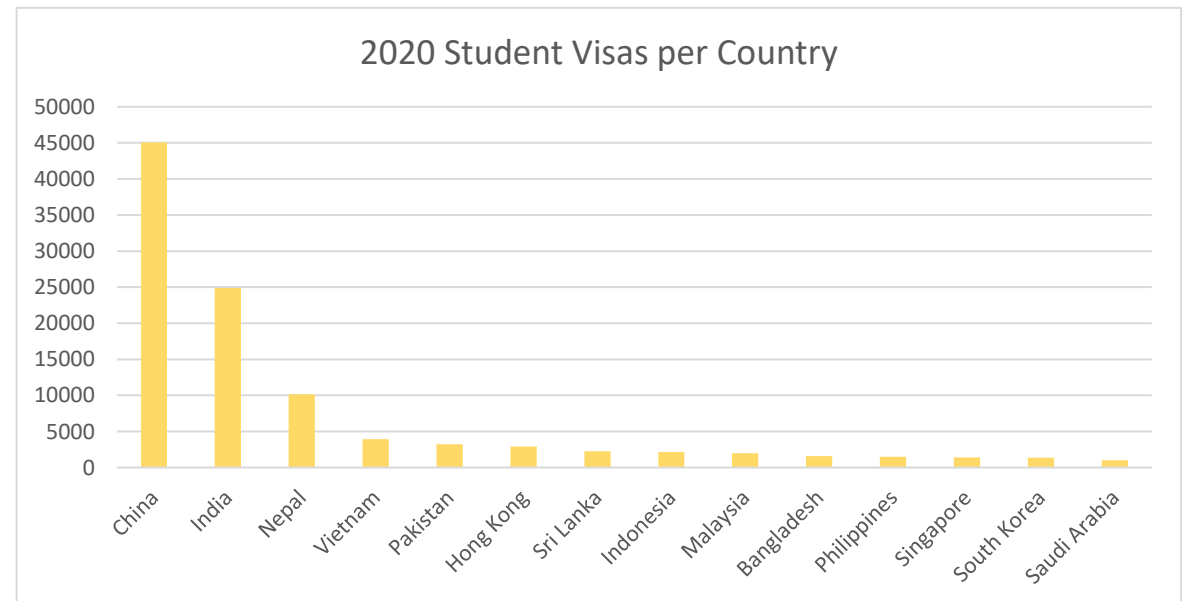


Figure 11: Total Student Visa given from Australia ranked by Country in 2018



## A Broader look at our competitors

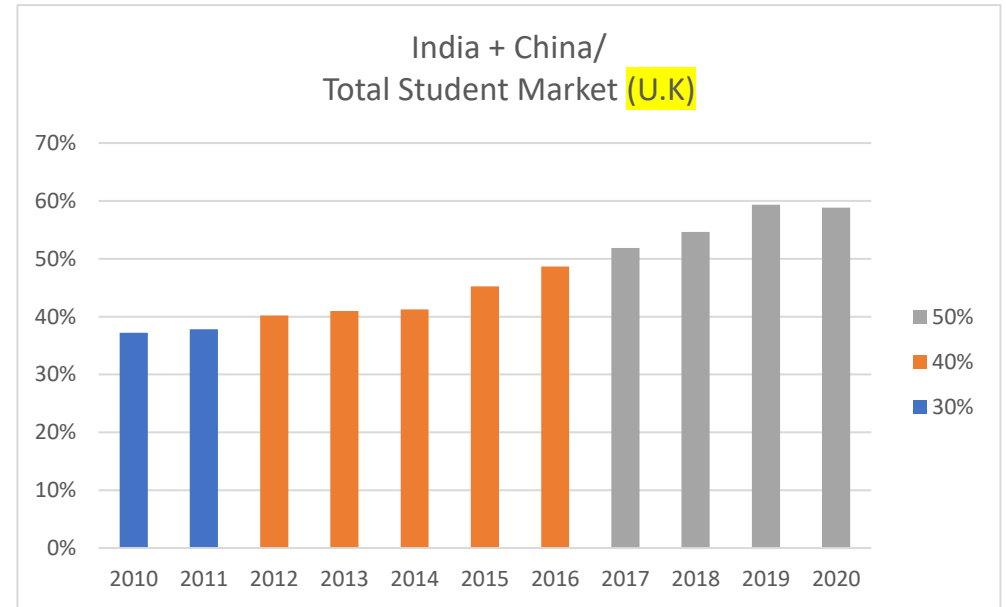
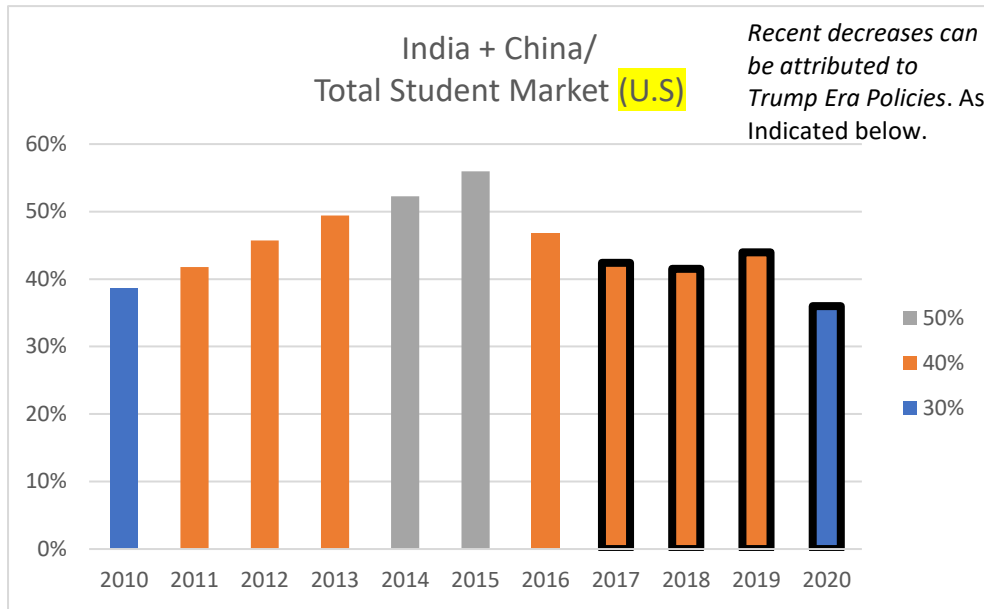
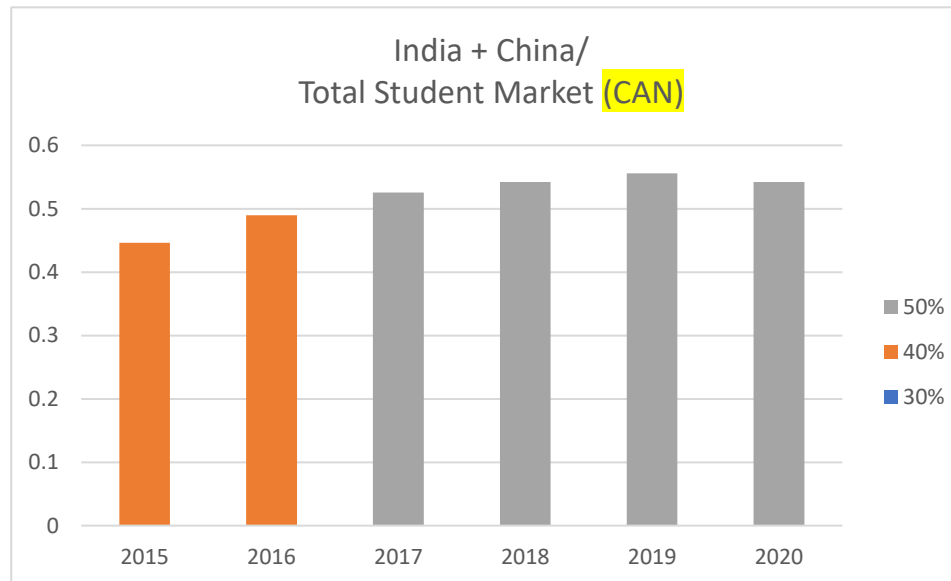


Figure 12, 13 and 14: Total market share within each major competitor of Indian and Chinese students.

There has been a global reliance on the Chinese and Indian Market which in recent years has grown rapidly.

However, this assumed continuous growth can only lead to future setbacks.

Diversifying Australia's market can give them the push to get ahead of their competitors.



Specifically, the political relationship between Australia and China has grown tense throughout the pandemic.

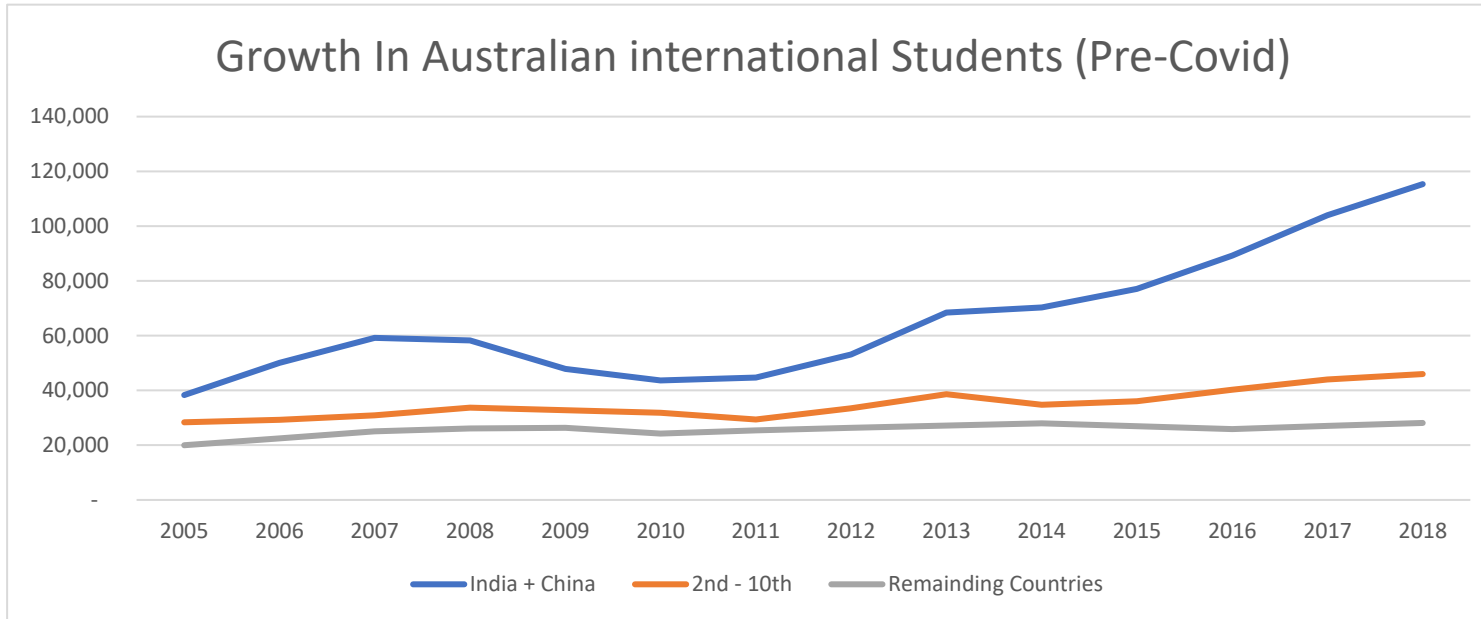
China has previously retaliated in trade and may do so again.

America's current situation is representative of what may occur.

## Australia's efforts in diversifying

Growth in China and India has rapidly outpaced Australia's other markets.

This has clearly been a net positive for the tertiary education market but this current approach will require variance.



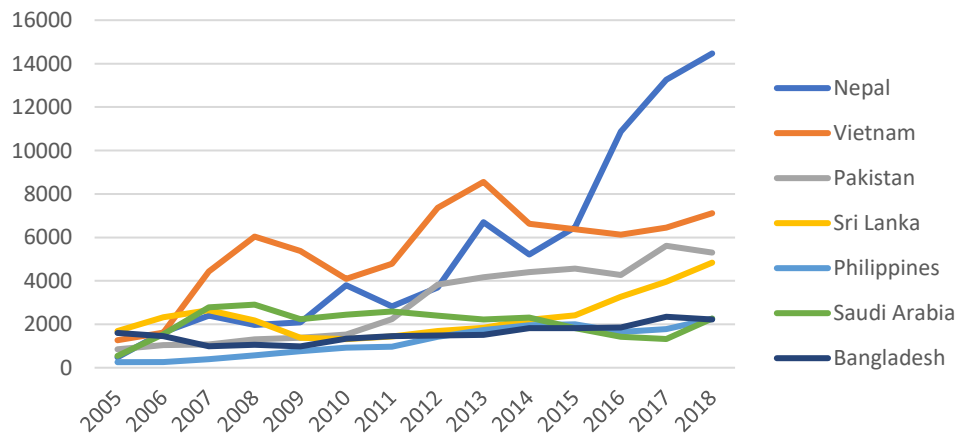
It would benefit the Australian education industry, to understand the key markets it has, and whether it is capitalizing on them.

Overall, Australia's largest markets have seen a mix of growth and decline.

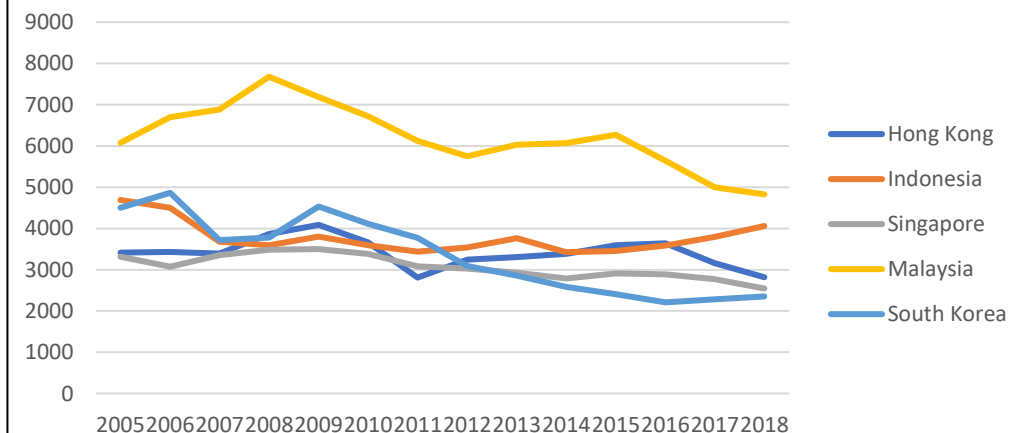
Yet is this due to Australia's negligence or external trends?

Figure 15 and 16: Countries that make up =>1% of Australia's Market share, split up by their associated trends

### Positive trends



### Negative Trends



## Trend Analysis – Does it paint a true picture of Australia’s Student Market?

Negative trends - Proportional Change

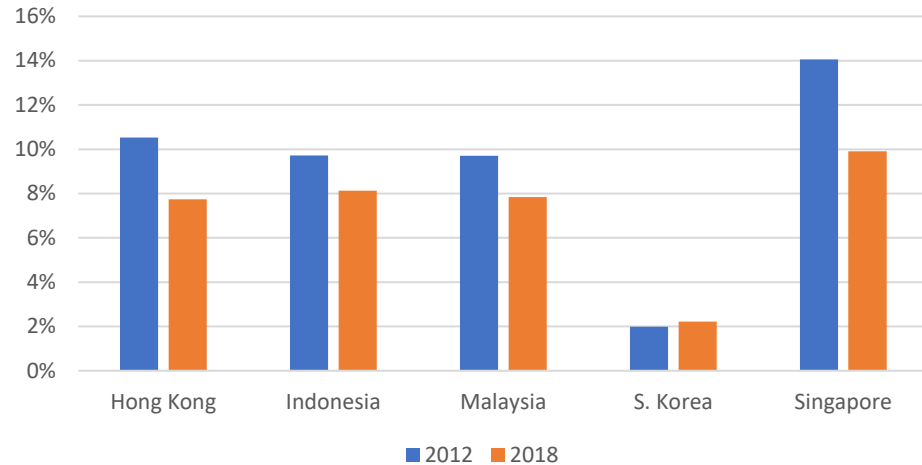


Fig 17 and 18:

Only 3 countries have grown in proportion.

1. S. Korea
2. Nepal
3. Sri Lanka

Markets are growing, though Australia is lagging behind the rest of the world proportionally.

Positive Trends - Proportional Change

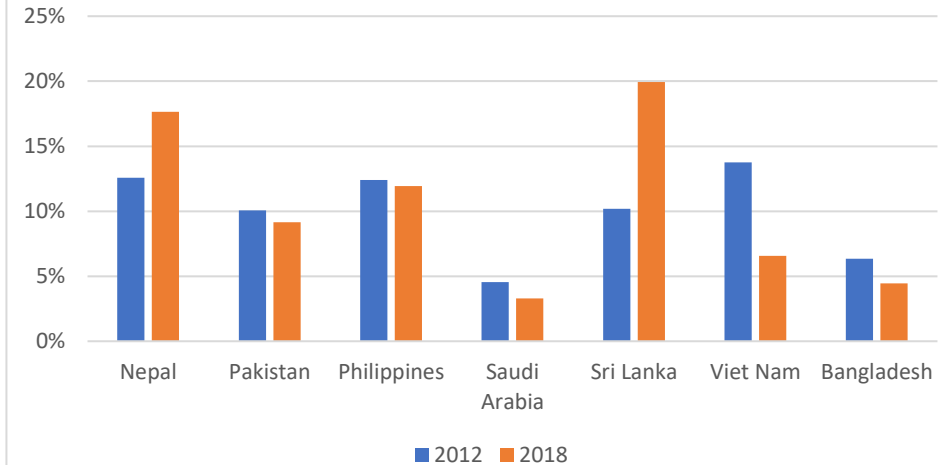
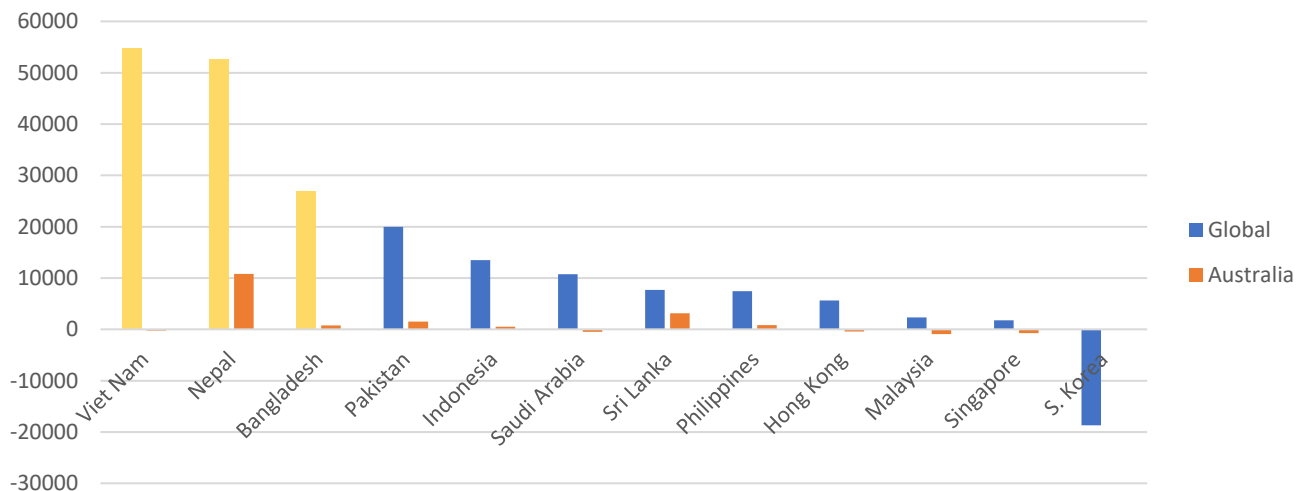


Figure 19: Total Outbound Student growth compared to the growth of such students within Australia, showing a stark difference.

Compared growth has shown Australia's inability to capitalize on its existing markets.

Several markets have grown considerably in the past years with which its competitors have utilized.

Total Difference in International Students (2012 - 2018)



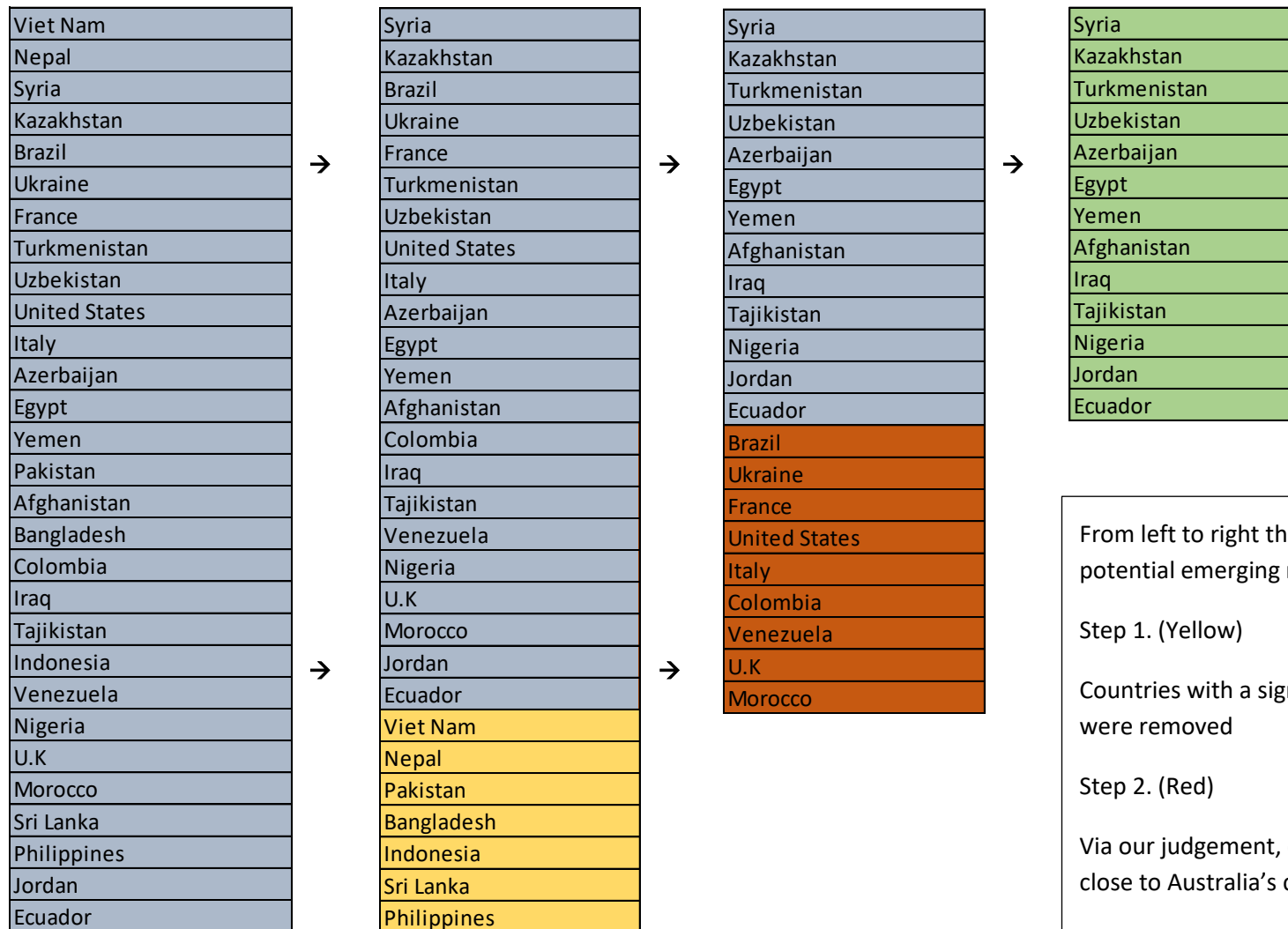
3 Countries that have far outpaced growth within Australia:

1. Vietnam
2. Nepal
3. Bangladesh

Consequently, Australia should adjust their approach and utilise its strengths to gain back lost market share.

Further Analysis will provide details on the most appropriate ways.

## Where else to put Australia's Focus: Throwing a wider net at all emerging markets



From left to right the data was reduced to obtain a more concise list of potential emerging markets.

### Step 1. (Yellow)

Countries with a significant student population already within Australia were removed

### Step 2. (Red)

Via our judgement, countries that were deemed too far away, and too close to Australia's competitors were removed.

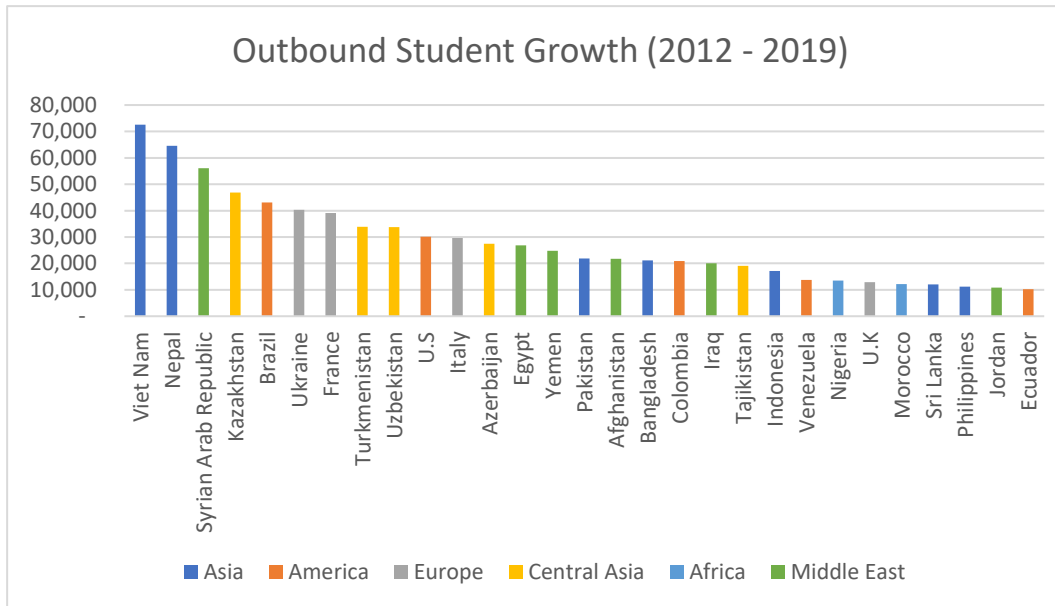
### Step 3. (Green)

The remaining countries were deemed feasible and would be used for further reduction.

Figure 20: Roughly the top 40 countries were chosen for their student outbound growth through a minimum cut off, of 10,000 students in growth. The lists are all ordered from largest to smallest in growth.

## Data Reduction Outcome

Figure 21: Student outbound growth ranked by country.



The countries were subsequently reduced, and a total of 11 countries remained.

### Central Asia

- Kazakhstan
- Turkmenistan
- Uzbekistan
- Azerbaijan
- Tajikistan

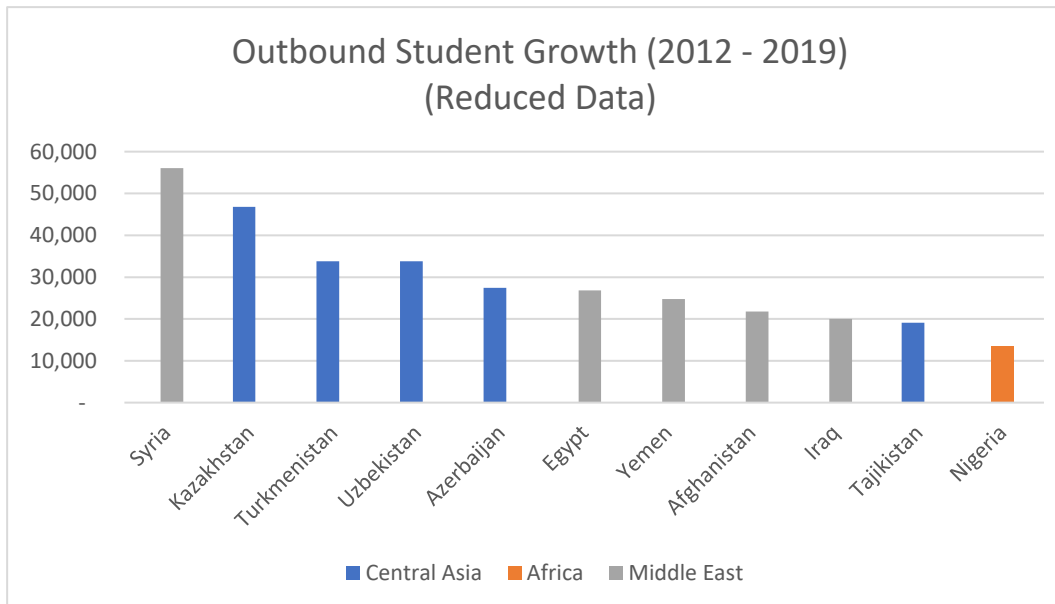
### Middle East

- Syria
- Egypt
- Yemen
- Afghanistan
- Iraq

### Africa

- Nigeria

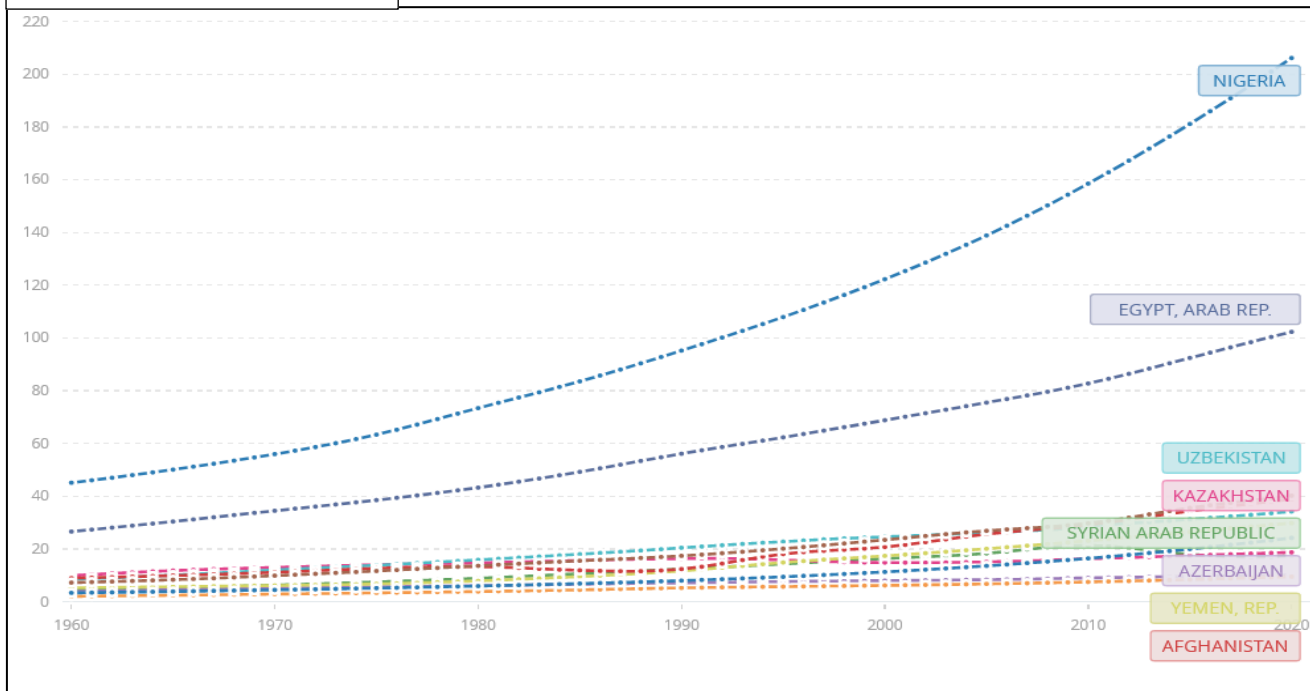
Figure 22: Reduced set of countries ranked by student outbound growth.



## Cont. Searching for emerging markets

Figure 23

### Population over time



#### #Requirement 1

Both Nigeria and Egypt have large populations which continue to grow.

Large populations, in tandem with economic growth can allow for a well defined middle to upper class that should be made use of.

#### #Requirement 2

Reasonable English penetration ensures that a sizeable population will be well adapted and marketable to the Australian education sector.

Although, as a country reaches a critical population sum it becomes less important.

Taking into account the factors:

1. The reduced list of countries
2. Total penetration of the English language
3. Total Population

Two countries that seem most suitable to focus on are:

### *Nigeria and Egypt*

	% English Speakers (First or Second)
Syria	-
Kazakhstan	15.40%
Turkmenistan	-
Uzbekistan	-
Azerbaijan	0.80%
Egypt	35%
Yemen	9%
Afghanistan	6%
Iraq	35%
Tajikistan	5%
Nigeria	86.42%
Jordan	45%
Ecuador	5%

## The Case for Indonesia alongside Egypt and Nigeria

Total Difference in International Students (2012 - 2018)

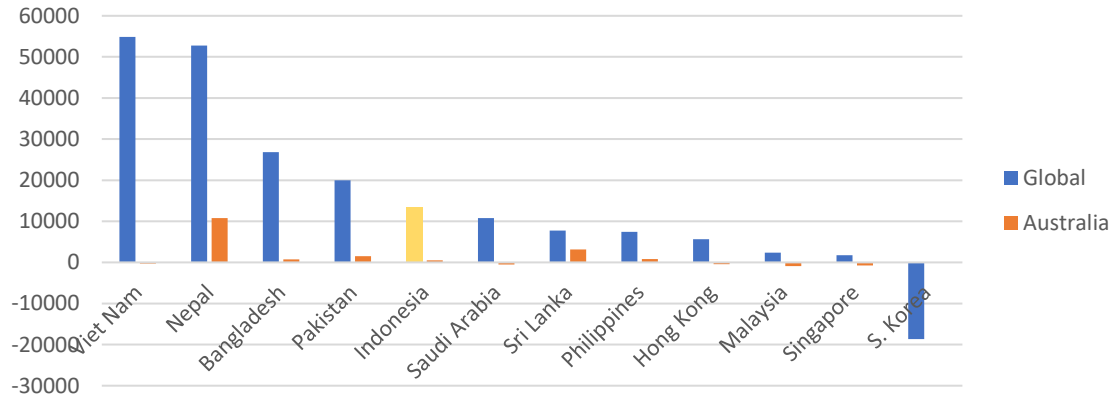


Figure 24

Currently Australia has a semi - significant proportion of Indonesian Students as previously shown.

However, Indonesia's outbound student growth has been high, sitting slightly behind Bangladesh

Combined with the fact that their overall population is 3<sup>rd</sup> in the world by size, the country has a large potential to become a major student exporter.

Australian Student Visas by Country (2018)

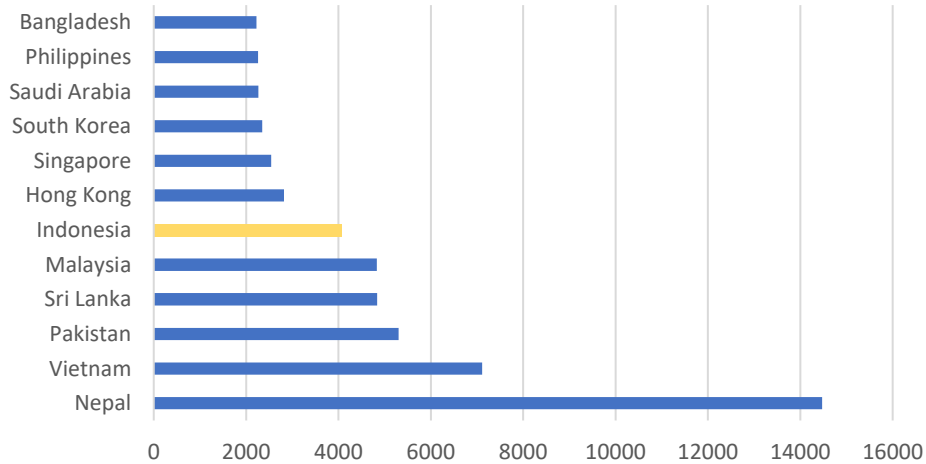


Figure 25

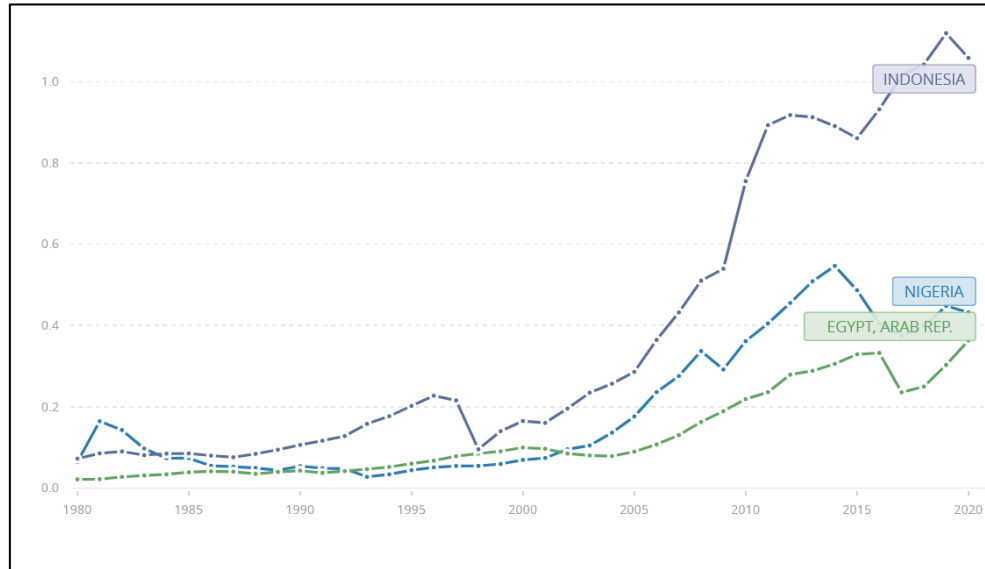
Moreover, the performance of a conjoint analysis, has shown that Indonesian students value travel distance to their overseas universities:

- As Indonesia is situated next to Australia, this bodes well with for it's potential in Australia's ability to market to the Indonesian market

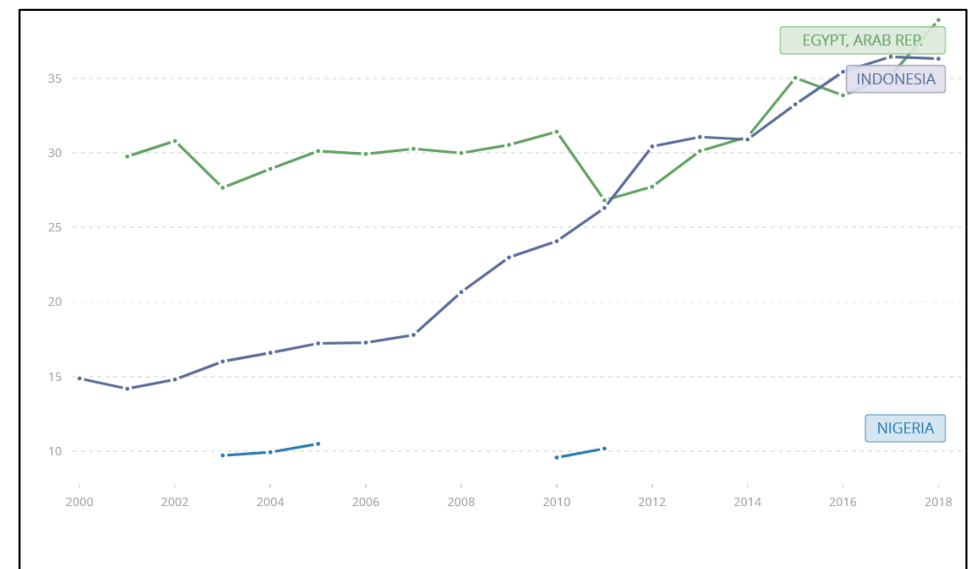
## A Snapshot of Nigeria, Egypt, and Indonesia

*Fig. 26: Tertiary Enrolment by Country, Nigeria Data is not as robust as other countries, though other sources indicate has continued to remain at around 10%.*

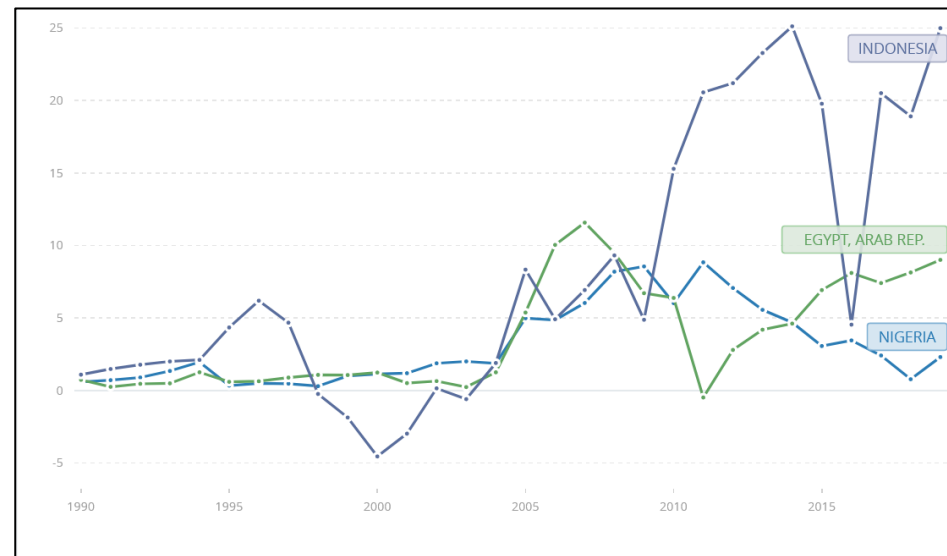
**Total GDP (Trillions)**



**Tertiary Enrolment (%)**



**Foreign Direct Investment(Net Inflows)**



Key variables were obtained to better understand each country's economic trend.

Nigeria and Egypt both have limited growth in GDP and investment.

Comparatively Indonesia has seen immense growth.

Tertiary enrolment has been well documented for Indonesia and Egypt. Their growth bodes incredibly well for their growth in student flows.

Nigeria, however, is lacking in any significant growth and has remained flat.

However, large populations are capable of making up for any unfavorable trends in tertiary enrolment.



## CONJOINT ANALYSIS

### FURTHER SIMPLIFYING CLASSES

Identified similarities between work permit classes and reduced them to three generalized categories.

Simplified Class	Original Class
Visa Length	Visa Length
Cost	Visa Cost
	Additional Cost
Work Restrictions	Work if Part Time
	Restricted Industry
	Work Start

*Figure 27: Shows the manipulation of work permit classes into simplified attributes. The cost attribute encapsulates additional costs such as public health insurance. Negative values may indicate higher value towards insurance benefits.*

Variation between offerings for each competitor allow for the categorization into dummy variables where; longer visa length, higher cost, and work restrictions were coded as 1, 0, and 1 dummies respectively. Dummy attributes were then combined to produce a weighted average for how much each country 'should' theoretically value for each class (Conjoint Analysis: Top 10 Details @github).

### COUNTRY VARIABLE

The 'Country' variable measures the value of a competitor's proximity to each respective country, where a lower standard deviation means that the distance is less important. If students from a certain country are found to highly favour a competitor despite its distance, it could indicate deeper unexplained factors e.g. politics, education, culture, etc. that were not captured in the simplified attributes.

---

## FINAL CLASSES

Attribute	1	0
Country	Close	Far
Visa Length	Length of Study	Max 5 Years
Cost	Low Cost	High Cost
Work Restrictions	None	Restricted work

*Figure 25: Numeric details were generalized*

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## STANDARDIZATION & NORMALIZATION

Z-scores were produced for each class as they were all on different scales.

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## FULL FACTORIAL DESIGN

Dummy variables were produced using a full factorial design since the total amount of factors would equate to:

$$Full\ Factor = 2 \times 2 \times 2 \times 2$$

Hence, the analysis of 16 different profiles was deemed as manageable.

---

## PRODUCING SCORES

Scores were produced by passing through a regression formula and normalizing the results on a 0-100 range.

$$Std.Score = Country_{dum} \times Country_z + Visa\ Length_{dum} \times Visa\ Length_z + Cost_{dum} \times Cost_z + Work\ Restrictions_{dum} \times Work\ Restrictions_z$$

## PRODUCING REGRESSIONS

NOTE: Conjoint analysis stopped after producing regressions as generalizing into a single product profile would equate all countries as being of the same value.

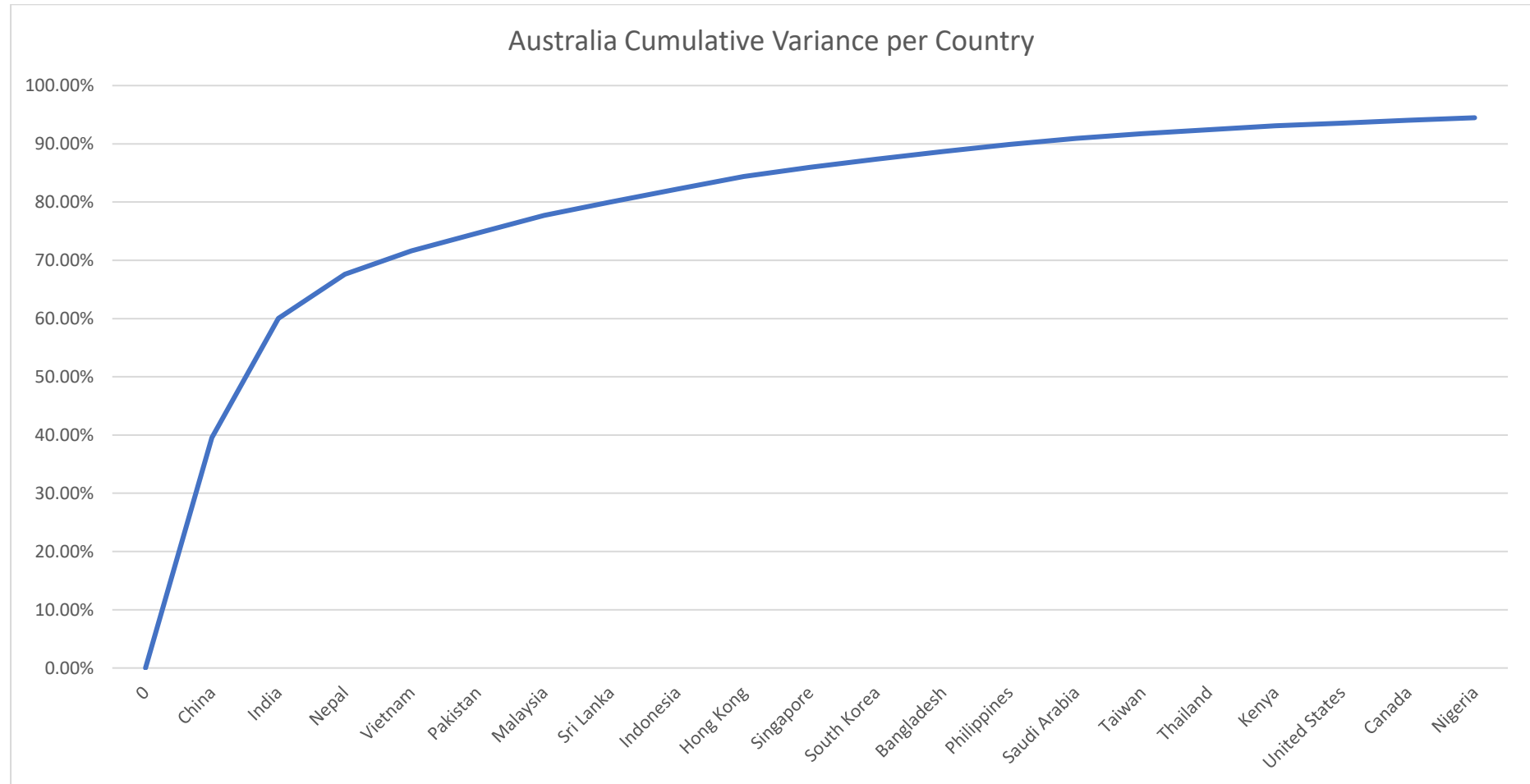


Figure 28: Cumulative variance plot of international student market share for Australia shows that there is no clear cut off in variance. Countries up to Singapore account for 86% of Australia's international student population. Hence, it was decided that this analysis would investigate only the top 10 countries for Australia.



Figure 29: Comparison of perceptions of each attribute among Australia's top 10 international student shareholders. For the two largest countries India and China, it can be observed that neither country is concerned over travel distance and are more likely influenced by some other political, cultural, educational, etc. factors. They are more likely to value low overall costs and flexibility in visa length over having fewer work restrictions. In contrast, countries like Indonesia value distance and work more.



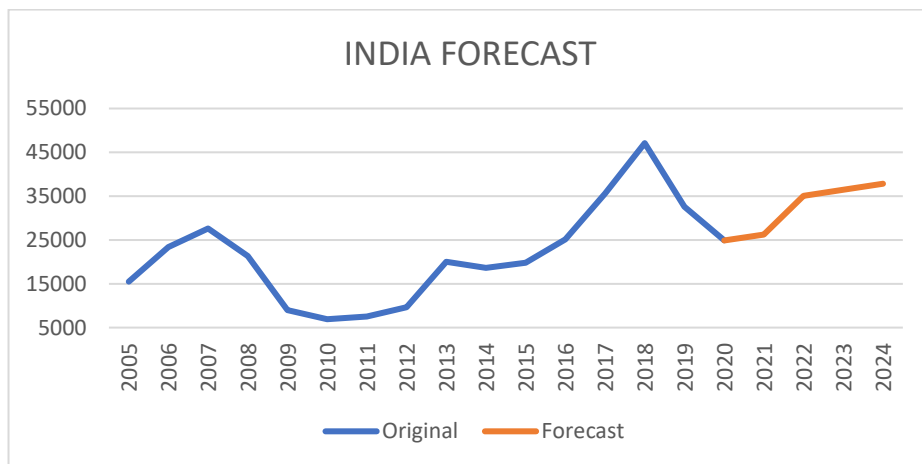
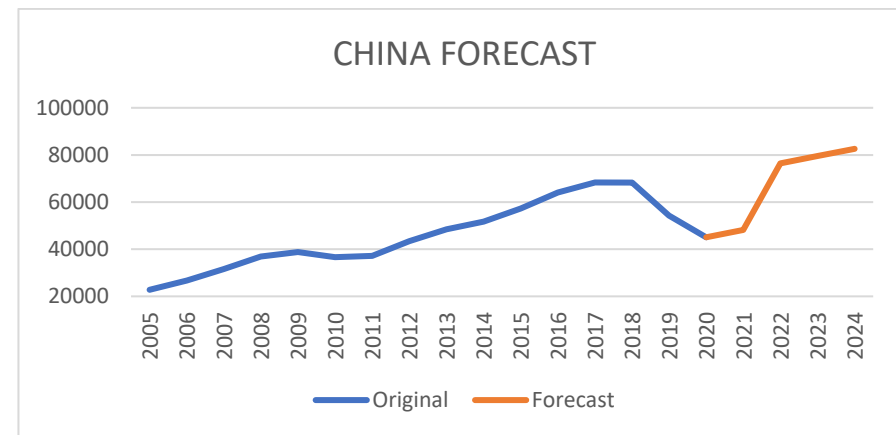
Figure 30: Comparison of perceptions of each attribute among potential markets for Australia detailed in the 'Analysis of Potential Markets' section. The potential markets in Nigeria and Egypt are shown to value their proximity and visa length duration over cost and work restrictions factors.

## REGRESSION ANALYSIS – FORECASTING

The presence of COVID-19 around the world has been used as the variable in the regression analysis to predict the future intake of Australia's international students. Time series for Australia's top ten countries for international students is presented below, showing the growth for each year. Despite the previous growth, Australia, due to closure of borders and travel restrictions, has seen a downfall on the number of international students from all the top ten countries due to the pandemic. The regression analysis conducted has helped identify the future growth and the markets Australian universities and government should focus on in the future to attract more international students around the world.

*FIGURE 31: CHINA FORECASTING intake of international students*

The Chinese population cover the largest percentage of international students of Australia. Through COVID, due to the origin of the virus, the level of Chinese students has dropped the most compared to other nationalities. However, through our forecast, an increase is expected to happen, and number of students will reach even higher level by 2024.

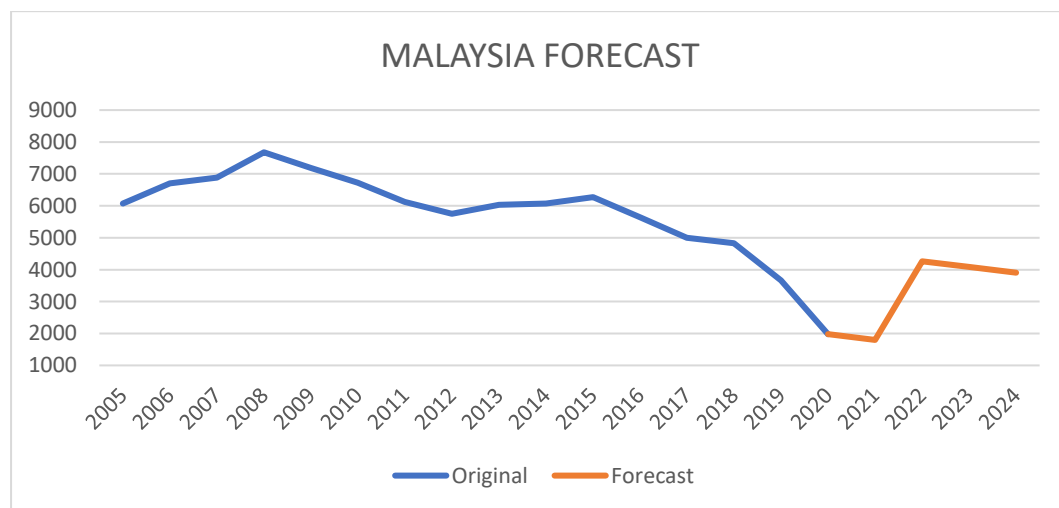
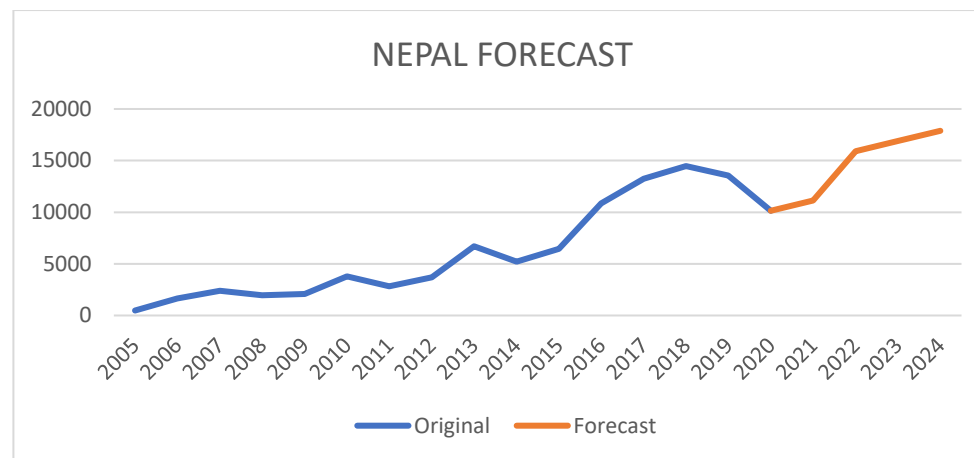


*FIGURE 32: INDIA FORECASTING intake of international students*

The Indian population has been the second largest percentage of international students for Australia. Australia has had a peak of Indian international students in 2018, and a decrease in 2020 with the spread of COVID. International students coming into Australia are expected to pick up in the coming years, however due to the large number of positive COVID cases, numbers as high as 2018 are not expected to be seen anytime soon.

**FIGURE 33: NEPAL FORECASTING intake of international students**

Nepal has been identified as an emerging market and a country Australia should focus on for international students. The regression analysis has verified this concept and proved the level of international students from Nepal into Australia is expected to increase to higher levels than before the pandemic.

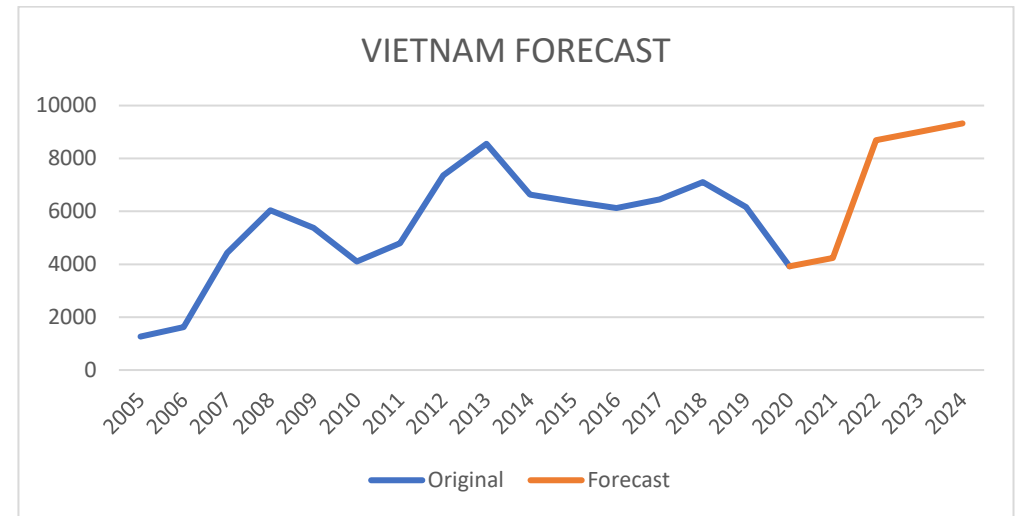


**FIGURE 34: MALYSIA FORECASTING intake of international students**

The number of Malaysian students coming into Australia seemed to be decreasing over the years. Less interest from Malaysian student to come into Australia to study has presented itself through a large downfall in 2020 and even larger in 2021. However, students coming from Malaysia are expected to reach level as before and possibly another downfall after 2024.

**FIGURE 35: VIETNAM FORECASTING** intake of international students

The Vietnamese market for international students has been fluctuant over the past years, however it is expected to be a growing market which Australia should focus on. Similar to Nepal, Vietnam is expected to reach higher number than seen before, and Australia must accommodate this growing market.



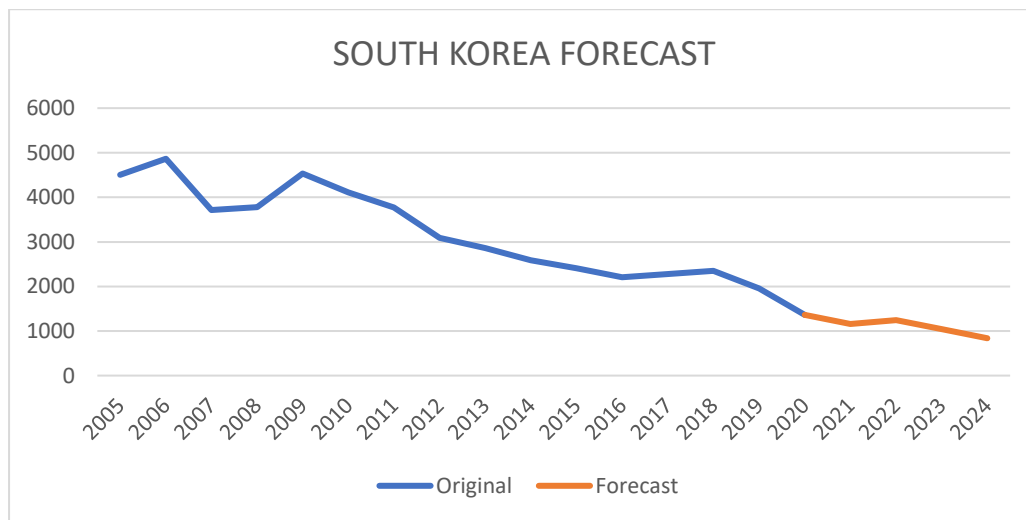
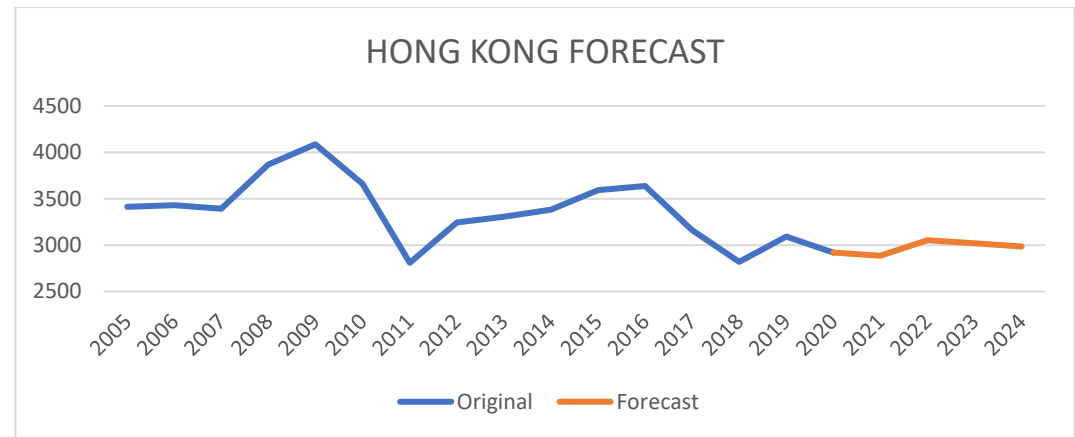
**FIGURE 36: INDONESIA FORECASTING** intake of international students

The Indonesia population for international students has been a growing market over the past years. This growth unfortunately reduced from 2019-2021 due to the pandemic. Despite the drop of international students, the Indonesian population is growing presenting itself as a potential strong market for Australian university and economy.



**FIGURE 37: HONG KONG FORECASTING** *intake of international students*

The number of international students arriving from Hong Kong peaked in 2009, which rapidly declined after. In 2012 students from Hong Kong began entering Australia to study, and even throughout the pandemic many stayed to study. The number of international students for Hong Kong in the coming year is expected to slowly grow.

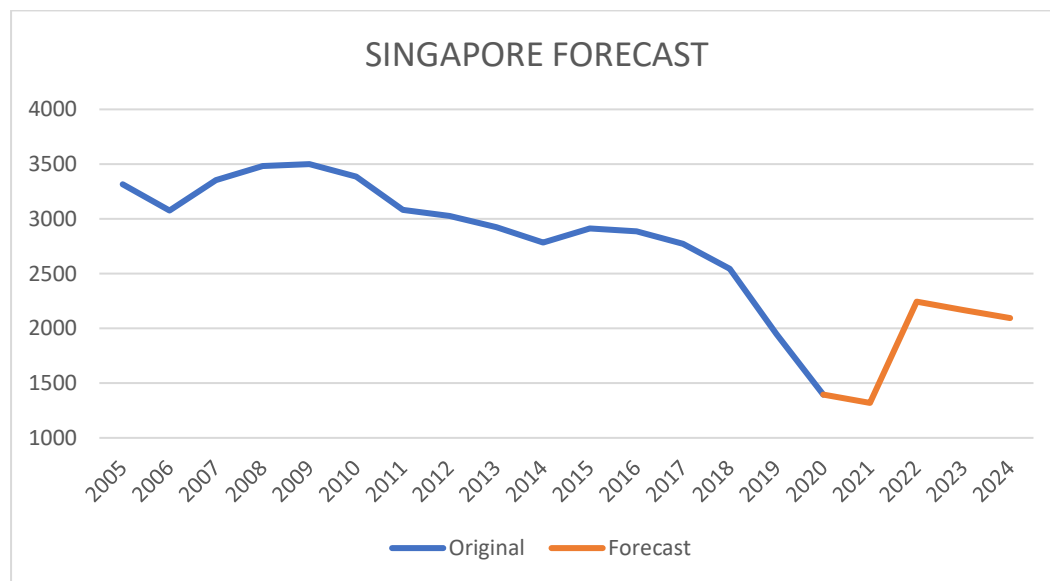
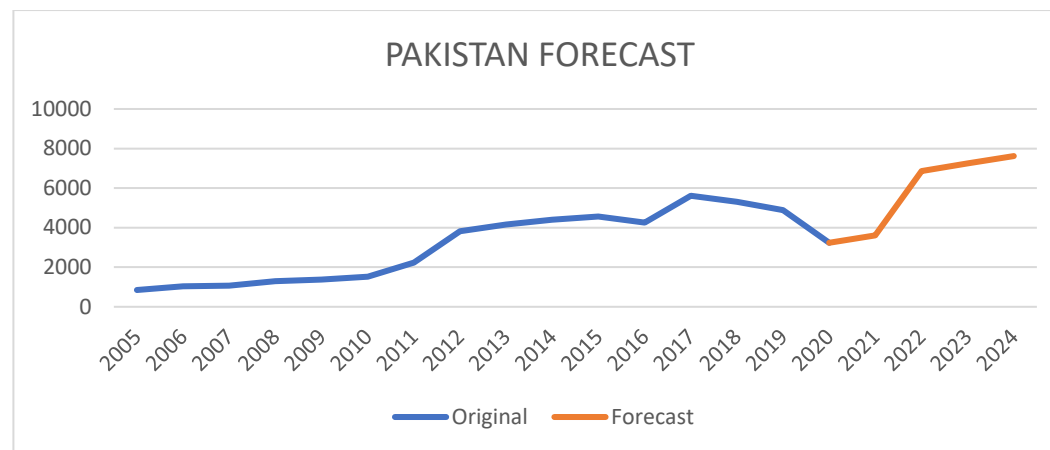


**FIGURE 38: SOUTH KOREA FORECASTING** *intake of international students*

The number of international students for South Korean can be seen declining over the past 10 years. South Korea is experiencing a decline and aging in their population possibly explain why results are low. Despite having a high vaccination percentage for total population, the number of international students from South Korea coming to Australia is not expected to increase in the future.

**FIGURE 39: PAKISTAN FORECASTING** *intake of international students*

Pakistan is another country that has been identified as a potential market of international students for Australia. Before the pandemic, Pakistani coming into Australia has been steadily growing, unfortunately during COVID a decline is evident. In the coming year, the number of students is expected to grow higher than ever before.



**FIGURE 40: SINGAPORE FORECASTING** *intake of international students*

Australia's intake of international students from Singapore has been volatile over the past ten year but hit a great downfall in 2018. Students from Singapore have not been coming into Australia for their higher education. However, despite the downfall in the previous years, international students are expected to increase in the coming years.

## CONCLUSION:

### RESULTS & FINDINGS

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#### ANALYSIS OF POTENTIAL MARKETS

The countries that were decided based on their current merit and Australia's ongoing significant influence are:

1. Vietnam
2. Nepal
3. Bangladesh

Otherwise, the emerging markets that have been selected based on their trends and potential are:

1. Nigeria
2. Egypt

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#### CONJOINT ANALYSIS

Results from the conjoint analysis revealed that the consistent front runners for each class were from Asian to south-east Asian origin. Hence, it can be determined that to increase market share for south-east Asia, competitors would need to set all barriers as low as possible. In contrast, the central and east Asian market were more concerned with alternative factors that were not captured in this report e.g., politics, education, culture, etc. as opposed to distance.

Ultimately, the countries that are most appealing to Australia are those that value few working restrictions and have little attachment to their duration of stay and cost.

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#### REGRESSION ANALYSIS - FORECASTING

The results from the regression analysis showed the expected level of international students coming into Australia for the next three year. Australia suffered a great loss on the number of international students through 2020 and 2021 due to closure of borders and travel restrictions. However, in the coming year it is expected to see an increase of students coming in, particularly from Nepal and Pakistan. Contrastingly, the number of international students from South Korea is predicted to keep declining even after the pandemic.

## CRITIQUE

Even though the regression model considers all the important variables, it's still soon to say if it will be quite functional essentially. To start off, most of the connotations made so far are merely based on speculations instead of actual data. Furthermore, the uncertainty that comes with the nature of this virus and the outbreaks of different variants affect the model immensely. Other factors like the economic prospects of emerging markets, vaccination rates of different countries and other effects of covid needs to be taken in account as well.

## IMPLICATIONS

Based on the lack of relevant data and very limited resources, it is safe to say that this model is not completely reliable. More analyses need to be done in order to come to a more concrete solution to the problem.