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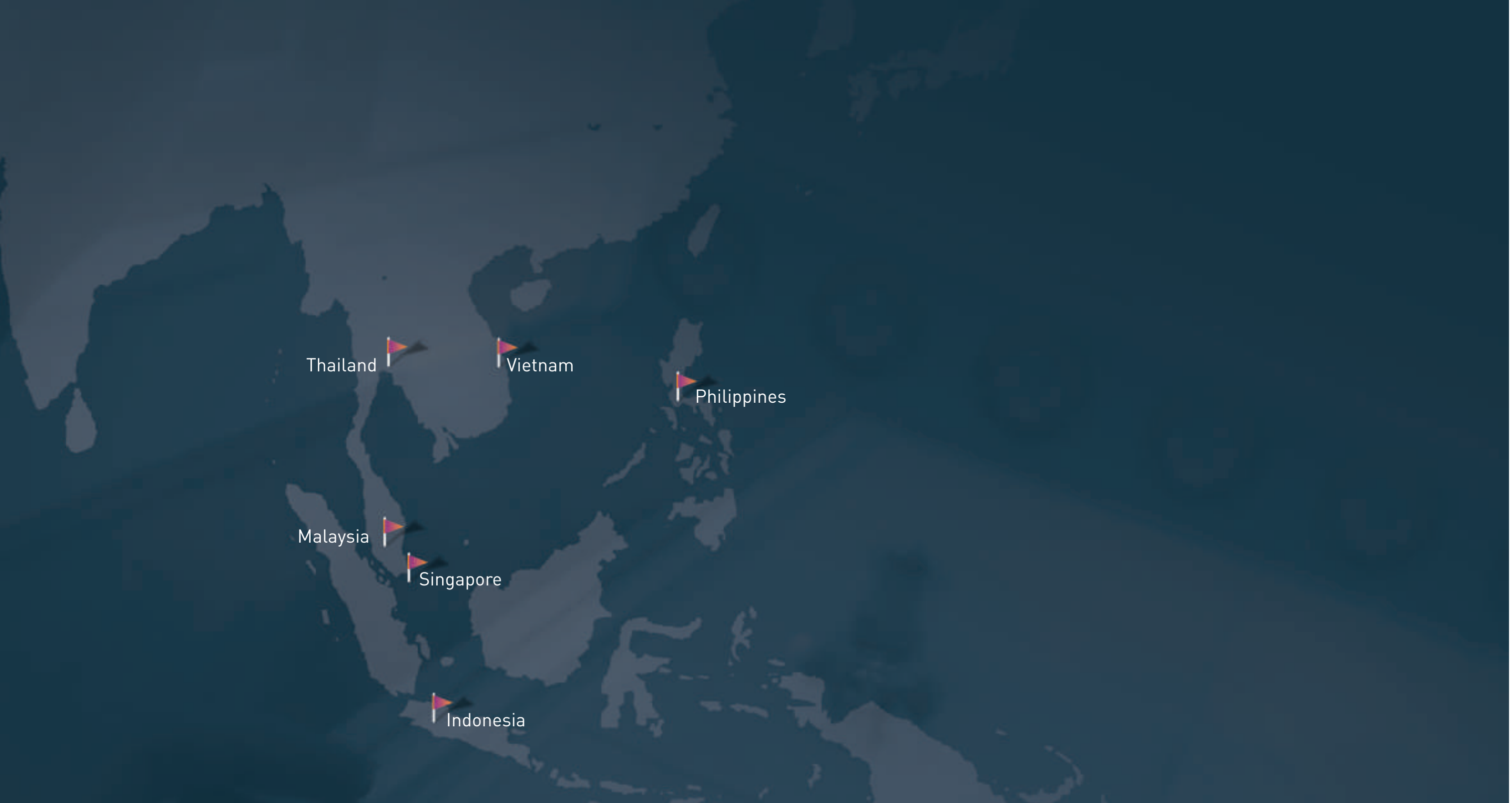

EXECUTIVE SUMMARY

The South East Asia video game industry is relatively young but located in a region that consumes a significant portion of global games, and projected to grow the quickest in the next five years. Based on the industry's characteristic strengths and weaknesses, and comparing against more matured and successful industry locations, strategic recommendations have been formulated to fully capitalise on opportunities and accelerate the industry's growth. These recommendations revolve around the aspects of talent development, eco-system funding, game industry community and global outreach.

FOREWORD BY CEO OF MDeC

DEAR GAMES COMMUNITY MEMBER,

Thank you for picking up a copy of the South East Asia Game Industry Initiative report, brought to you by Malaysia's Multimedia Development Corporation (MDeC.) We hope that this report will be able to provide you unique insights into the production side of the region's game industry.

The South East Asia video games market represents about 4% of global consumption and is expected to grow faster than any other geographical region in the near future. The population of South East Asia is close to 630 million which makes this a great market for game developers. This growth potential presents massive opportunities to the region's industry players. To strategically and effectively capitalise on this potential, it is important for the industry players to have a clear understanding of the characteristics and capabilities of the region's game industry.

In view of this, MDeC initiated the South East Asia Game Industry Initiative study in early 2015. This study distinguishes itself from others as it focuses on the development and production side of the industry as opposed to the consumer side that is extensively covered in studies undertaken by the industry.

A large part of this South East Asia Game Industry Initiative report is based on the results of a regional industry survey conducted by MDeC with the support of other ASEAN counterparts and industry practitioners. This survey provided primary data captured from across the region. The report also relies significantly on insights obtained from a benchmarking exercise of successful game hubs.

It is our hope that the findings and strategic recommendations in this report will translate into gains for the region's industry players and stakeholders, and ultimately strengthen South East Asia's position as a video games producer.

On a more cohesive level, it is MDeC's aspiration that the report recommendations will galvanise greater cooperation amongst nations within the ASEAN games community. Through a united front, the region can realise greater synergy and stake a stronger claim to a piece of the global games market pie.

MDeC wishes to extend our gratitude to our ASEAN partners and game industry players who have contributed towards the making of this inaugural South East Asia Game Industry Initiative report. We look forward to the continued industry support in 2016 and subsequent years ahead.

Thank you and enjoy the read.

DATO' YASMIN MAHMOOD
Chief Executive Officer
Multimedia Development Corporation

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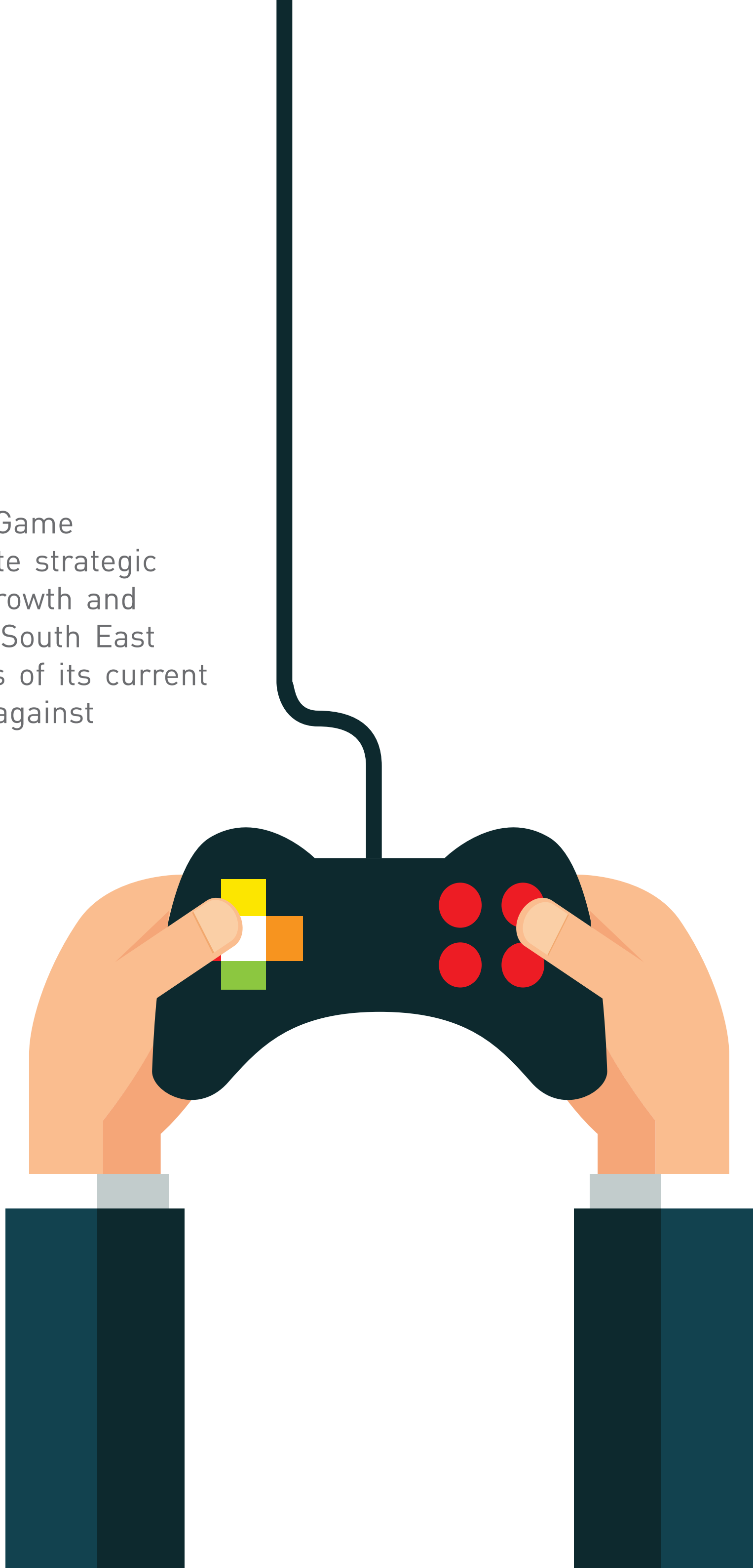
OBJECTIVE

OBJECTIVE

The objective of the South East Asia Game Industry Initiative paper is to formulate strategic recommendations to accelerate the growth and development of the game industry in South East Asia, based on a comparative analysis of its current characteristics and comparing these against successful model hubs.



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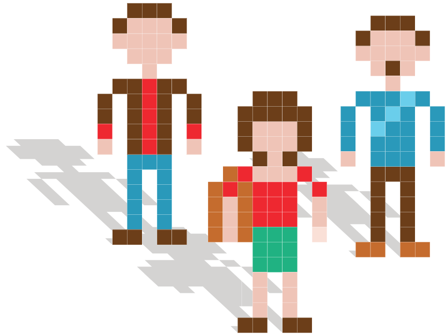
BACKGROUND



BACKGROUND

The South East Asia video games market represents approximately 4% of global consumption. Driven by the rapid rise in internet access and ownership of ICT devices, the region's market is expected to grow at a CAGR of 30% between 2015 and 2018. This is the fastest growth of any geographical region. In comparison, the global growth rate is estimated at 7% for the same period. This tremendous enlargement of the games market in South East Asia provides vast opportunities for the industry to exploit.

In view of the region's growth potential, a clear understanding of the capabilities and shortcomings of the industry's supply side would allow game developers in South East Asia to more effectively strategise and ramp up to meet the growing demands of its consumers. However, despite the wealth of information available pertaining to the consumer side, information on the supply side of the industry is scarce.

To address this knowledge gap, a paper was proposed that would include a survey to obtain primary data from game industry practitioners. The data from the survey, combined with insights and information from other available sources, will be used to establish an understanding of the current industry situation in the various South East Asia nations, and of the region as a whole.

In addition to establishing baseline data for South East Asia's game industry, the paper will also derive the inherent strengths and weaknesses of the region, and seek to formulate strategic recommendations to effectively and collaboratively grow the region's game industry.

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METHODOLOGY

METHODOLOGY

The approach for this paper was based on the following three phases:

PHASE 1:
DETERMINATION OF THE SOUTH EAST ASIA GAME INDUSTRY AS-IS SITUATION

This component of the study sought to obtain relevant industry data and intelligence that would provide a general snapshot of the current state of the industry. This would be the basis to characterise the inherent constituents of the regional game scene with a focus to determine the underlying strengths and gaps that exist. Given scarce information available on the industry supply side, a survey was devised to collect primary data from industry players.

The survey involved game industry players from six nations and consisted of some 50 questions, which were broadly grouped to address the following aspects of the industry:

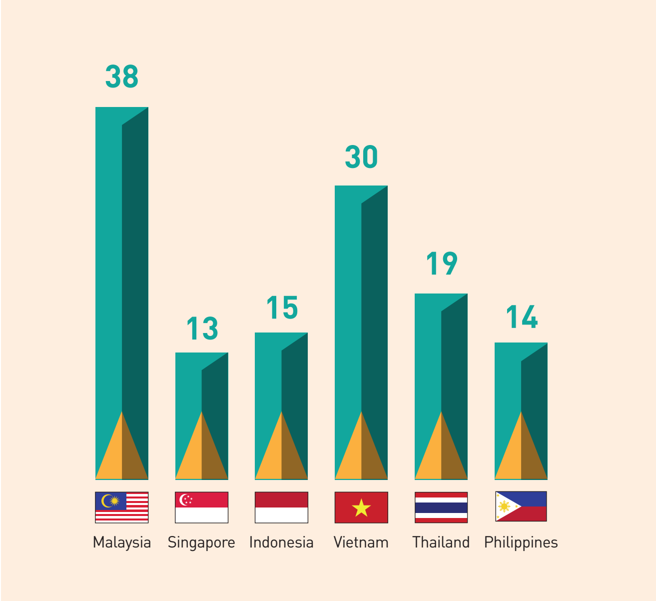
- Nature of Business
- Game Production
- Human Capital and Talent Development
- Products, Distribution and Monetisation
- Game Industry Community
- Funding
- Regional Outlook

The results from the survey formed the basis for a game industry indexing exercise which combined various relevant parameters to measure each nation's capability relative to each other.

A SWOT analysis was also undertaken subsequently to identify the various strengths, weaknesses, opportunities and threats associated with each nation.

A sample size of 129 game industry players participated in the survey, and the breakdown of the participants' countries is shown below.

NUMBER OF RESPONDENTS



PHASE 2: BENCHMARKING OF A SUCCESSFUL GAME INDUSTRY HUB

This component of the study sought to obtain in-depth understanding, as well as specific industry data of a successful game industry hub. The underlying purpose of the benchmarking exercise was to provide an understanding of the critical success factors associated with said hub. This will provide a basis to compare against South East Asia.

Canada was chosen a the model hub for benchmarking based on its stellar track record in the video games scene over the past twenty years. It currently has the third largest video games development industry in the world, and the largest industry per capita, based on employment. Apart from the size of the industry, Canada is acknowledged as a world leader for quality of talent and resources.

CANADA'S VIDEO GAME INDUSTRY WAS ESTIMATED TO HAVE GROWN AT AN AVERAGE OF 17% PER ANNUM OVER THE PAST TWO YEARS, WITH 40% OF COMPANIES PROJECTING AT LEAST A 25% GROWTH IN THE NEXT TWO YEARS.

Source: Wigu Games Studio, Malaysia

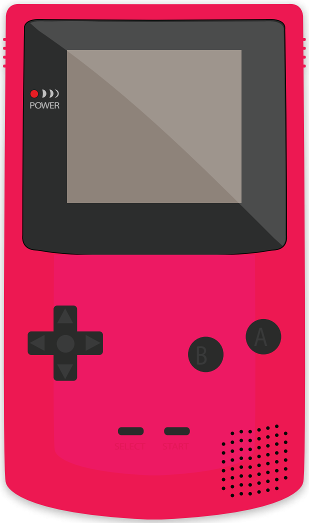
The strength of Canada's game industry is reflected in its position as the world's leading location for games FDI. Canada's video game industry was estimated to have grown at an average of 17% per annum over the past two years, with 40% of companies projecting at least a 25% growth in the next two years.

Specifically, Montreal in Quebec and Vancouver in British Columbia were chosen for the benchmarking exercise. A total of eleven organisations, ranging from AAA and independent studios, accelerators, colleges, games associations and investment agencies, were consulted during the visit to Canada.

PHASE 3:
ANALYSIS AND SYNTHESIS OF SURVEY AND BENCHMARKING FINDINGS

This phase of the study involved analysing the data and information obtained from the preceding two phases to formulate relevant recommendations to strengthen the South East Asia game industry ecosystem and exploit its strengths.

Relevant findings were first derived from the survey portion and the benchmarking portion independently to ensure objectivity in identifying the critical aspects of each portion. Subsequently, the two were studied in tandem to ultimately yield strategic recommendations for the regional game industry.



Source: Mediasoft, Malaysia

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FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

A total of 129 game companies from Malaysia, Singapore, Thailand, Indonesia, Philippines and Vietnam participated in the survey. Key findings from the survey are discussed below.

CHARACTERISTICS OF THE GAME INDUSTRY IN SOUTH EAST ASIA

a. NATURE OF BUSINESS

The majority of game companies in South East Asia are involved in as developers. Some 83% of the companies surveyed were involved in this segment of the business as shown in **Figure 1**. The rest of the companies are involved in game publishing and a small percentage of the companies are involved in other game activities such as user acquisition, advertising in games, digital marketing, mobile game application marketing, mobile networking and others.

A significant portion of the companies surveyed are small studios having between two and ten employees which indicates many start-ups in the ecosystem. Companies with more than 100 employees were also involved and these consist of established names in the global games scene. The mix of companies is shown in **Figure 2**.

The majority of companies (62%) are younger than three years old. This correlates closely to the company sizes indicating a majority are startups. **(Figure 3)**

The age distribution of employees across the region is fairly consistent. However, Vietnam and Indonesia show an apparent higher concentration of young developers (below 25 years old) indicative of positive interest among school leavers to get involved in the game industry. The 26 to 35 year old segment represents the majority of workers in the region and reflects a healthy bridge between the fresh employees and more experienced ones. This will contribute to the supply of experienced developers in the next five years. **(Figure 4)**

Source: Appxplore, Malaysia

FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

FIGURE 1 BUSINESS ACTIVITIES

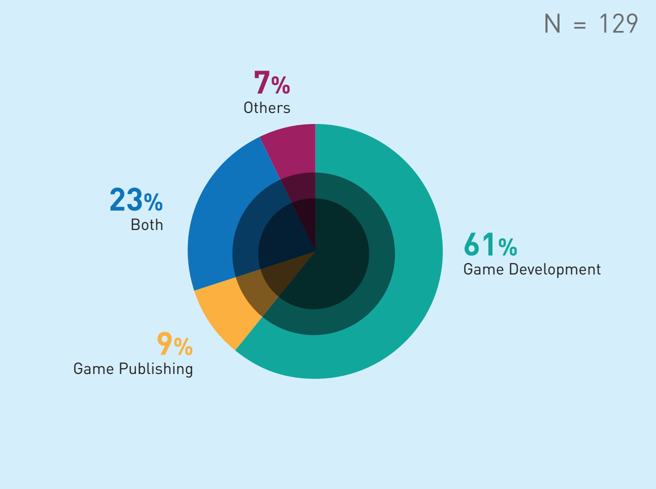


FIGURE 2 SIZE OF COMPANY'S WORKFORCE

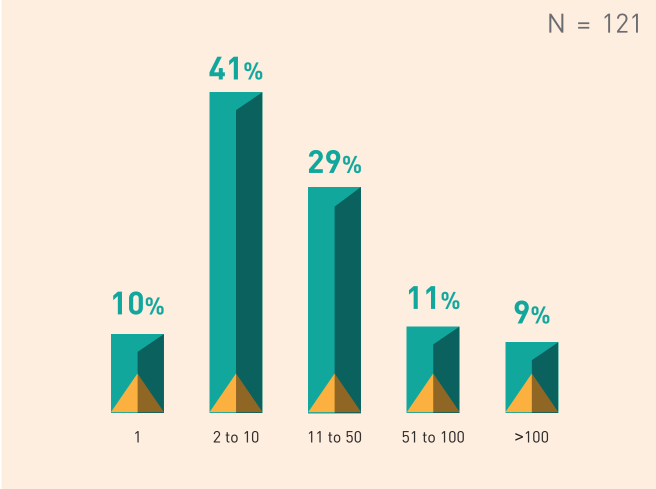


FIGURE 3 AGE OF COMPANY

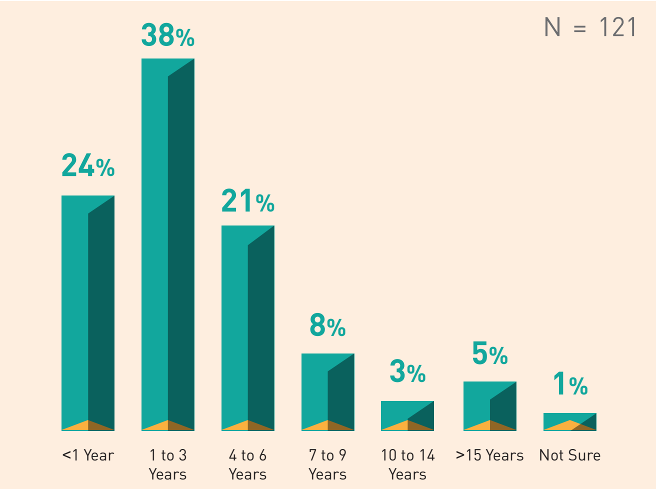
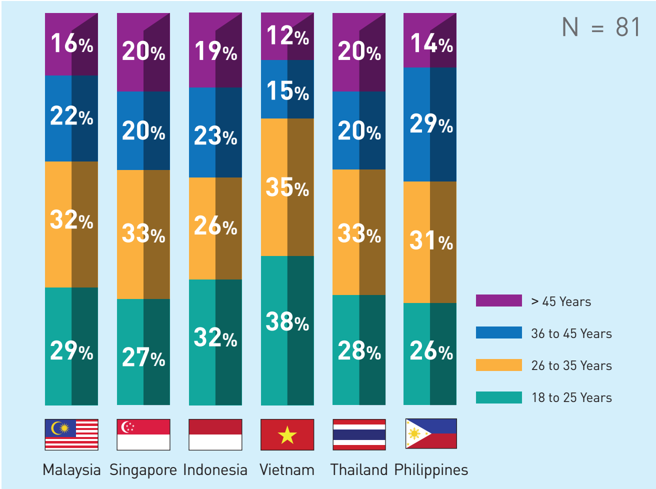


FIGURE 4 EMPLOYEE AGE GROUP



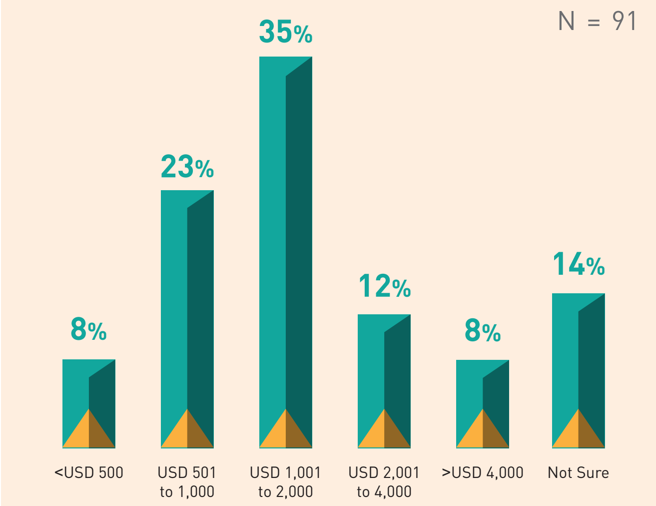
FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

Average salary of a game industry professional with five years experience in South East Asia region varies from one country to another. **(Figure 5)**

There are a few factors that contribute to this disparity of income including:

1. Different countries have different policy for minimum wage, leading to different wage packages in the six countries.
2. Apart from Singapore, the other five countries do not have favourable exchange rates to the USD.
3. Most of the game companies are small and medium firms (employing ten people or fewer) and a majority of companies generate annual revenue of less than USD 10,000. This group of game companies may not be able to pay more than USD 500 per month to employees.

FIGURE 5 **AVERAGE MONTHLY SALARY FOR FIVE YEARS' EXPERIENCE EMPLOYEE**



Source: Altitude Games, Philippines

b. GAME PRODUCTION

Game production turnaround times **(Figure 6)** indicate that most game companies in South East Asia are focused on mobile games development, especially casual games which can be completed in three to six months. Mobile casual games usually do not require large teams and allow companies to generate revenue faster.

Game companies that take six to twelve months to develop game projects are mostly focused on PC and mobile action games. Game companies need longer periods to develop games on multiple platforms.

Big game studios normally take more than twelve months to develop a game project based on original IP, which will be able to generate higher revenue.

In general, creating a game using an original IP will take some six to nine months with a manpower strength of fewer than 50 people. Given this, half of the game companies in South East Asia are able to create and own one to two original IP games per year because they employ 50 people or fewer. Companies with greater manpower are able to create and own more than three original IP per year. **(Figure 7)**

Bigger game companies with greater manpower will naturally be able to develop and publish more game titles than the smaller companies. However, size is not the only factor to explain the production disparity. The other cause is that some of the game companies in South East Asia work on work-for-hire (WFH) jobs, partial productions with foreign game companies and WFH projects, all for third party IP. **(Figure 8)**

Source: Gameview, Malaysia

In South East Asia, game companies are generally involved in a few types of game activities, namely:

- Game companies working on original IP creation.
- Game companies involved in WFH of game production.
- Game companies licensed to develop third party IP as a stream of operation to generate revenue.
- Game companies involved in WFH of porting, localisation and culturalisation projects.

Even though game companies aspire towards original IP creation, they conduct WFH to ensure consistent cash flow for business operations and finance original IP creation. Original IP is still considered the ultimate target for game companies, but before an original IP becomes a hit, companies need to undertake WFH activities to ensure survival.

IN GENERAL, CREATING A GAME USING AN ORIGINAL IP WILL TAKE SOME SIX TO NINE MONTHS WITH A MANPOWER STRENGTH OF FEWER THAN 50 PEOPLE.

FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

FIGURE 6 DURATION OF A GAME PRODUCTION

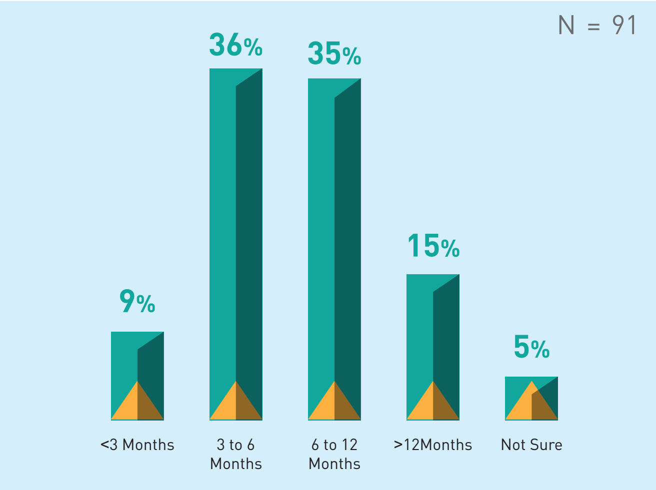


FIGURE 7 ORIGINAL IP CREATED IN A YEAR

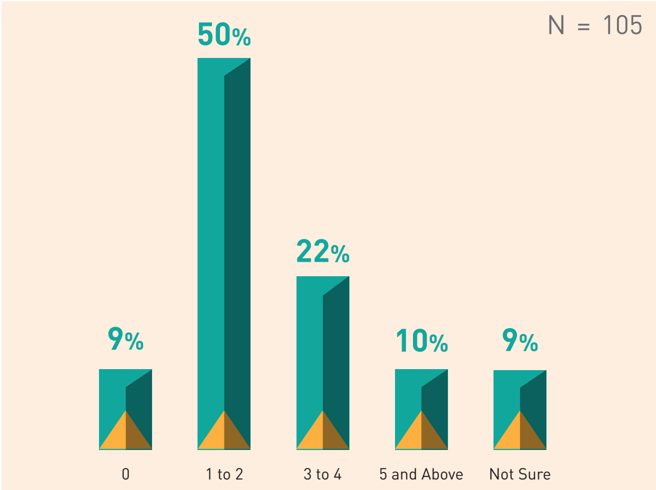
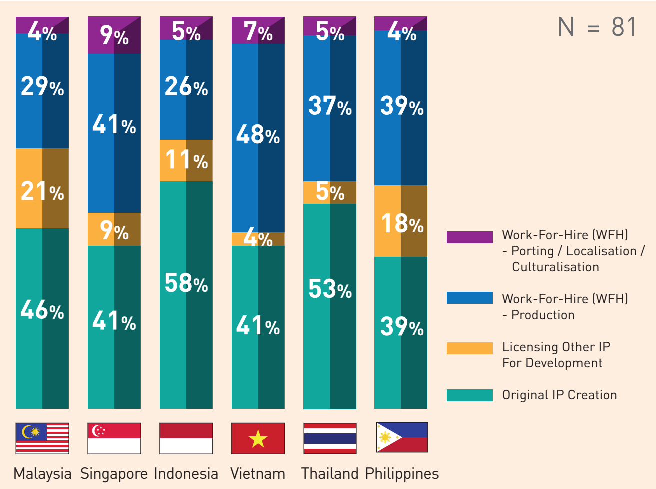


FIGURE 8 GAME COMPANY PROJECTS



Source: Gamonster, Malaysia

c. HUMAN CAPITAL AND TALENT DEVELOPMENT

Most of the game companies in South East Asia are aware of game development courses provided by local institutions of higher learning.

The following is a list of institutions of higher learning in South East Asia which provide game development courses:

1. DigiPen Institute of Technology - Singapore
2. National University of Singapore - Singapore
3. Nanyang Technological University - Singapore
4. Nanyang Polytechnic – Singapore
5. Ngee Ann Polytechnic – Singapore
6. Ateneo de Manila University - Philippines
7. Top Peg Institute of Animation and Design - Philippines
8. De La Salle-College of Saint Benilde - Philippines
9. University of the Philippines - Philippines
10. Malaysia Multimedia University, MMU – Malaysia
11. KDU University College – Malaysia
12. Limkokwing University of Creative Technology – Malaysia
13. The One Academy of Communication Design – Malaysia
14. Universitas Multimedia Nusantara – Indonesia
15. Bina Nusantara University (Binus University) – Indonesia
16. Mahidol University – Thailand
17. Silpakorn University – Thailand
18. Assumption University – Thailand
19. Chiang Mai University (CMU) – Thailand
20. King Mongkut's University of Technology Thonburi (KMUTT) – Thailand
21. King Mongkut's University of Technology North Bangkok (KMUTNB) - Thailand
22. Sripatum University (SPU) – Thailand
23. Hanoi University of Science and Technology (HUST) – Vietnam
24. Genetic Computer School – Vietnam
25. Hanoi University – Vietnam
26. Polytechnic University HCM City – Vietnam
27. Ho Chi Minh City University of Technology - Vietnam
28. University of Science, member of Vietnam National University – Ho Chi Minh City (VNUHCM) – Vietnam
29. RMIT University Vietnam – Vietnam

The establishment of game development courses in local institutions of higher learning shows that local game industries require domestic talent supply. Sufficient supply of game talent will ensure consistent growth of the game industry. Foreign game companies will consider supply of game talent before investing in a country. The supply of game industry professionals is a crucial factor to determine the growth of the game industry. **(Figure 9)**

The quality of institution of higher learning (IHL) courses in game development, and the corresponding quality of graduates, will have a profound effect in determining the success of the region to attract foreign games investors.

Given the relatively lower operational cost in the region (versus the traditional global game hubs that are relatively more developed and hence more costly) South East Asia has tremendous potential to be a preferred location for investment, provided it, and its IHLs, can supply talent on par with the established hubs.

Some 48% of employees in the game industry possess a degree or higher which indicates game companies can provide opportunities to graduates to pursue a career in game development locally. At the same time, more than half of the workforce possess a diploma or lower, indicating that the industry is open to portfolio evaluation in its hiring process. **(Figure 10)**

Internship programmes are important as a channel to look for future talent for game companies. Game companies able to provide four to six months of internship programmes are usually companies with more than 50 employees. This group of companies is able to take bigger projects for WFH which provide longer, specialised internship programmes for undergraduates. **(Figures 11 and 12)**

FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

FIGURE 9 GAME DEVELOPMENT COURSES OFFERED BY LOCAL IHLS

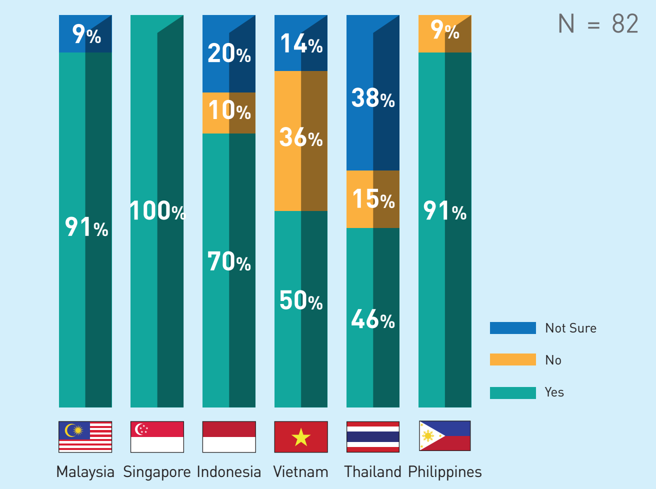


FIGURE 10 MAXIMUM QUALIFICATION OF EMPLOYEES IN GAME COMPANIES

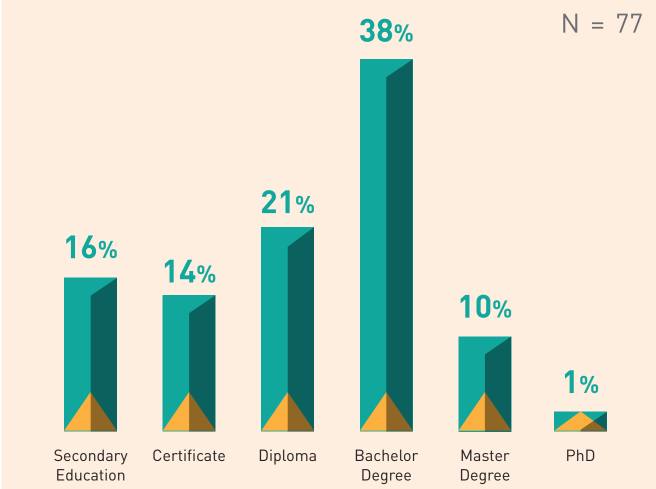


FIGURE 11 AVAILABILITY OF INTERNSHIP PROGRAMMES

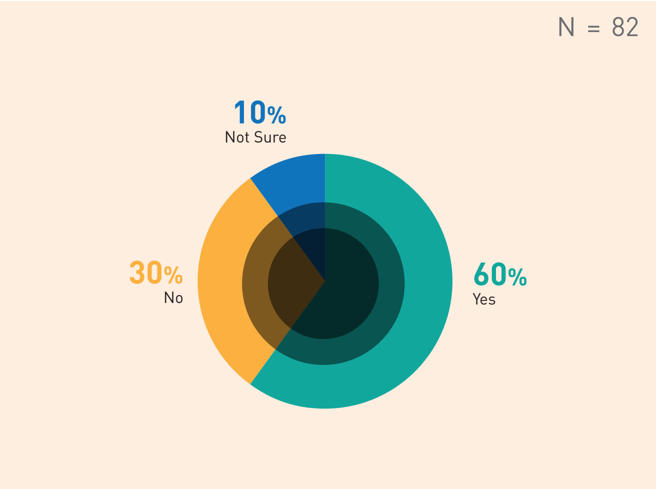
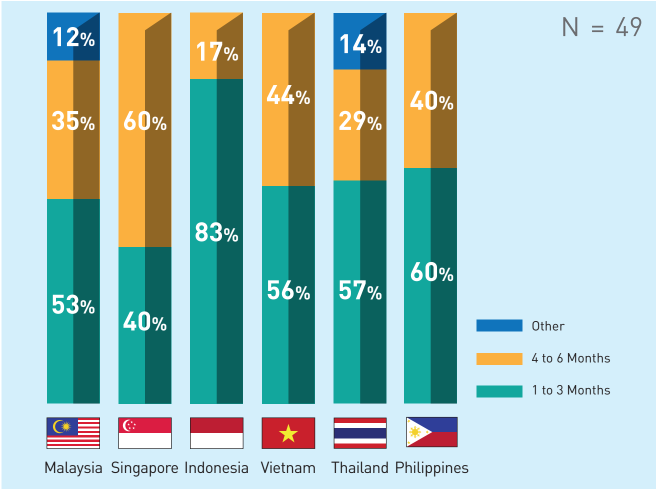


FIGURE 12 DURATION OF INTERNSHIP PROGRAMMES



d. PRODUCTS, DISTRIBUTION AND MONETISATION

Most game companies in South East Asia produce casual games which can be published on multiple platforms. The experience of playing casual games on mobile phone, tablet and PC is similar, unlike role-play games such as MMORPG which need to be played on big screens (PC/console.) The portability of the casual game experience contributes to capturing game players on multiple screens hence reaching more players. Coupled with the genre's relatively smaller production cost and lower barrier to entry, these factors contribute to the popularity of producing casual games. **(Figure 13)**

There are fifteen distribution methods that are widely used by game companies in the region and the top three platforms are Google Play, Apple iOS and Windows Mobile.

Most of the game companies in the region are producing mobile games. As such, Google Play and Apple iOS are the most popular distribution methods in this region. These two platforms can reach more players compared to other platforms and allow worldwide access without age restrictions. **(Figure 14)**

In terms of target markets, The United States of America and Europe are both highly developed, with higher consumer spending power, more internet and mobile users and better IT literacy compared to other regions. These factors contribute to why they are the most important markets for game titles produced by South East Asia's developers.

Moreover, more game players from the United States of America and European countries play console and PC games. These two platforms provide higher profit margins compared to other platforms. As such, game companies are exporting more to these two regions.

South East Asia is also an important region for export. Cultural and language familiarities, are key factors that make the people from South East Asia want to play games produced by game companies from within the region.

Japan is another important export market as it is a mature game market with a big pool of players who have spending power for a variety of games. China is a growing market for export as more Chinese are now willing to spend money for localised games.

South Korea is moderately important for export possibly because the Koreans prefer to play local games as opposed to foreign games due to language and cultural differences. **(Figure 15)**

Similar to the target regions for export, game companies in South East Asia prefer to source WFH projects from regions with matured game industry including United States of America, Europe and Japan, and from South East Asia which could relate to corporations using games as a marketing tool. **(Figure 16)**

The following are the factors that contribute to this trend:

1. AAA game studios from both the United States of America and Europe tend to spend more on game production compared to other regions. These AAA game studios constantly look for game production companies globally that can offer cheaper WFH costs with the same high quality for their overall game production.
2. A few of large AAA game studios have set up local offices in South East Asia for easier offshoring. Examples include Ubisoft and Codemasters.
3. Japanese game companies have been offshoring their game production work to companies in South East Asia for some time, and some of the big game companies with local offices in South East Asia include Gloops, DeNA, GungHo, KLab, Bandai Namco Games and Sega.

FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

FIGURE 13
GENRE OF GAME PRODUCED BY COMPANY

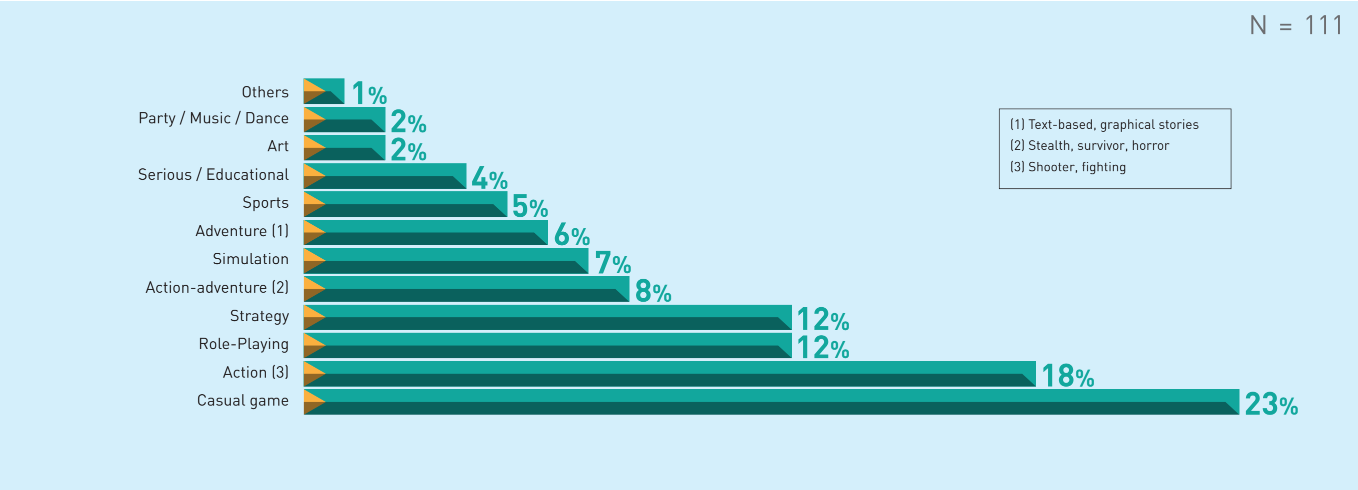
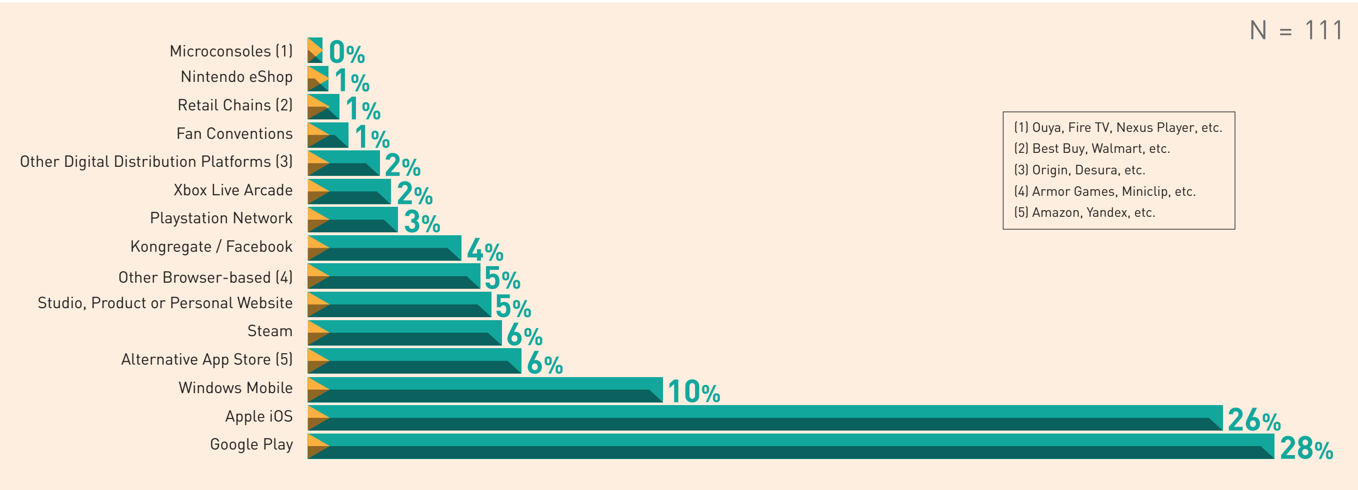


FIGURE 14
DISTRIBUTION METHODS



FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

FIGURE 15 IMPORTANCE OF TARGET MARKETS

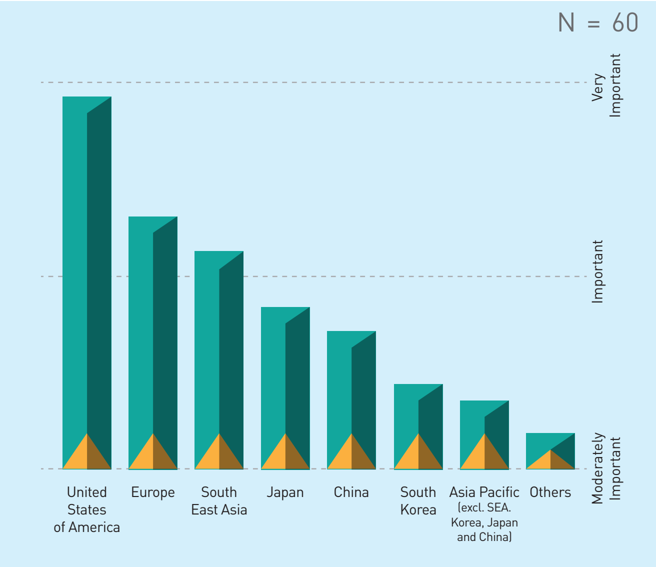
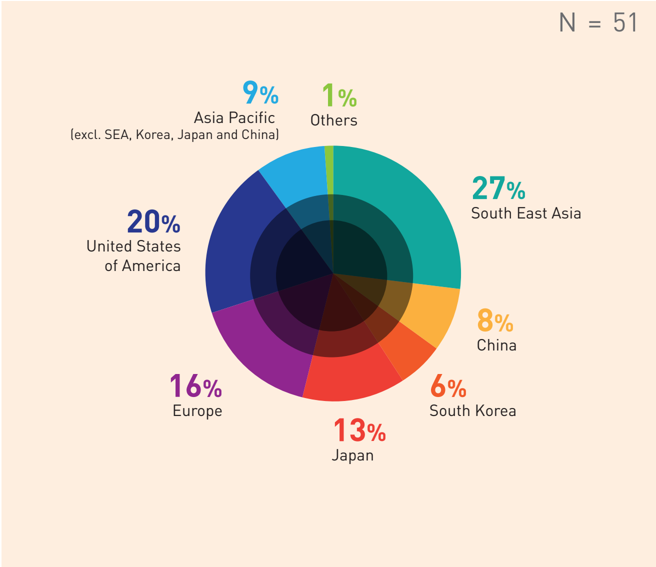


FIGURE 16 PREFERRED TARGETS FOR WFH



Source: Appxplore, Malaysia

Source: Firebeast Studio, Indonesia

e. GAME INDUSTRY COMMUNITY

At the time of the survey, not every country in South East Asia has a local games association. However, the International Game Developers Association (IGDA) has chapters in the six countries in South East Asia that were surveyed. The IGDA chapters conduct different levels of activities for the countries in the region. For instance, IGDA Malaysia is not a formally registered association in Malaysia but it plays a role to connect game companies and conduct activities for networking and sharing of information. IGDA Vietnam conducts regular meetings with members on a quarterly basis. Companies' involvement in associations is shown in **Figure 17.**

A list of games associations in the South East Asia region is given below:

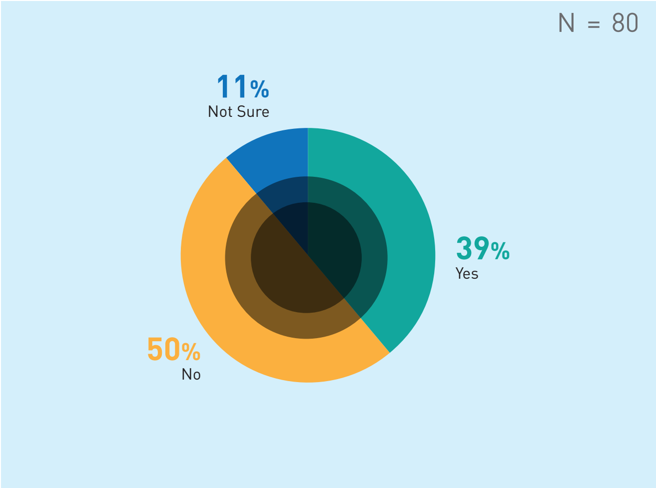
1. IGDA Malaysia – Malaysia
2. IGDA Vietnam - Vietnam
3. IGDA Singapore – Singapore
4. IGDA Indonesia – Indonesia
5. IGDA Thailand – Thailand
6. Vietnam Game Developers Network – Vietnam
7. Game Exchange Alliance – Singapore
8. Game Solution Centre – Singapore
9. MyGameDev 2020 – Malaysia
10. Philippine Game Developers Community – Philippines
11. Game Developers Association of Philippines (GDAP) – Philippines
12. Asosiasi Game Indonesia – Indonesia
13. Game Dev Indonesia – Indonesia
14. Thai Game Software Industry Association (TGA) – Thailand
15. Thailand Computer Graphic and Animation Association – Thailand
16. Siggraph Thailand – Thailand
17. Thai Game Developers Corner (Online) – Thailand

Not all games associations are officially registered with the local government. A few of the associations are formed through voluntary effort from local game developers to build up the game developer community. Many believe the games associations can play an important role to grow the game industry.

Most of the games associations have the following functions:

1. Networking – both local and international
2. Market access – both local and international
3. Representative voice of game companies (to lobby for government support, event sponsorships, etcetera)
4. B2B matchmaking and buyer fly-in
5. Access to talent pool
6. Information sharing session through closed-door events
7. Trade delegations and missions
8. Feature in local game industry's prospectus / brochure

FIGURE 17 MEMBER OF GAMES ASSOCIATION



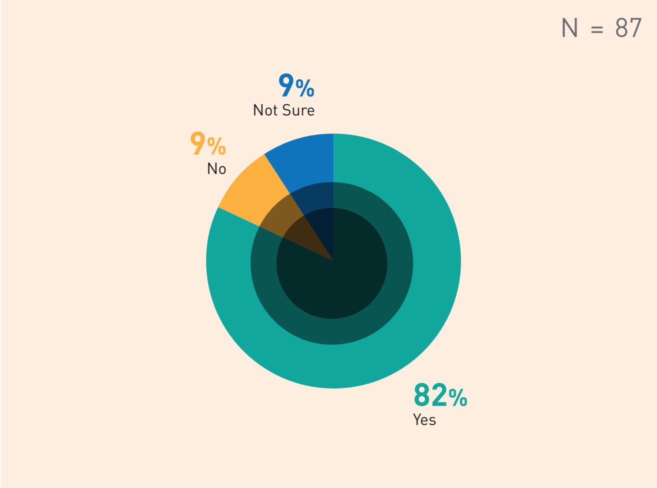
FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

Game industry events are very important for game companies. They need the platform to network, meet buyers and provide brand promotion. In addition to this, companies are able to access the latest global industry trends through international game events, and gauge local industry performance through local events. **(Figure 18)**

Some of the key game industry events attended by the survey participants, listed in order of response popularity, include:

1. Casual Connect Singapore
2. Tokyo Game Show
3. Game Developers Conference (GDC)
4. China Joy, China
5. Game Developer Gathering Jakarta, Indonesia
6. Global Mobile Game Congress (GMGC)
7. Mobile Games Forum, Hong Kong
8. E3
9. Thailand Game Show
10. Unite by Unity
11. External Development Summit (XDS), Canada
12. GamesCom, Germany
13. GDAP Philippines Game Development Festival, Philippines
14. Good Game Show, South Korea
15. Indonesia Game Show, Indonesia
16. Bangkok Content Festival, Thailand
17. G-Star
18. Game Start Asia
19. Indie Pitch Arena, Bangkok
20. KL Converge, Malaysia
21. Mobile World Congress Barcelona, Spain
22. Taipei Game Show, Taiwan
23. Tech in Asia Jakarta, Indonesia

FIGURE 18 PARTICIPATION IN GAME INDUSTRY EVENTS



Source: Altitude Games, Philippines

f. FUNDING

Most game companies in South East Asia regard international venture capital, local venture capital, venture debt and government funding as forms of funding which are quite difficult to obtain, as compared to angel investment and bank loan.

Government funding can be difficult to obtain as some governments do not provide such support for the industry. At the moment, governments of Malaysia and Singapore provide some form of funding support for the game industry. Governments of Thailand, Indonesia and the Philippines provide some supports for marketing and commercialisation for game industry. **(Figure 19)**

Apart from government funding, the other types of funding are somewhat difficult to obtain in the region due to the following reasons:

1. Limitation of legal framework in the business environment
2. Financial institutions in the region do not have strong confidence in the game industry compared to other traditional businesses. In general, the game industry is deemed as not being able to provide lucrative returns compared to traditional business.

In South East Asia, most of the game companies have the view that commercialisation and production are the key stages that require most funding and incentive from government. There is a need amongst companies for market access funds to bring the games to the global market after production is completed.

Most of the game companies spend a lot of money in the production and post production stages, and end up with insufficient funds for the subsequent commercialisation and marketing phases.

Source: Joy Entertainment, Vietnam

In addition, most game companies do not conduct proper budget planning in a game development project. Budgets are normally skewed towards the pre-production, production and post-production stages while treating the commercialisation stage with less emphasis. This is symptomatic of smaller, independent studios that lack proper budgeting skills and business acumen.

Most of the startups and independent game companies require both incentives and funding in the production and commercialisation stages. Options from angel investors, venture capitals, bank loans and venture debts in this region are extremely limited. As such, game companies will require the incentives and funding from government, as they cannot find assistance from the private sector. **(Figure 20)**

FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

FIGURE 19 EASE TO OBTAIN FUNDING / FINANCING

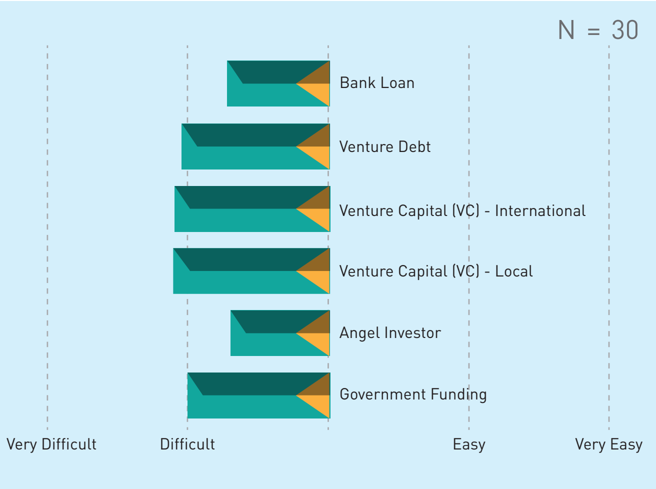
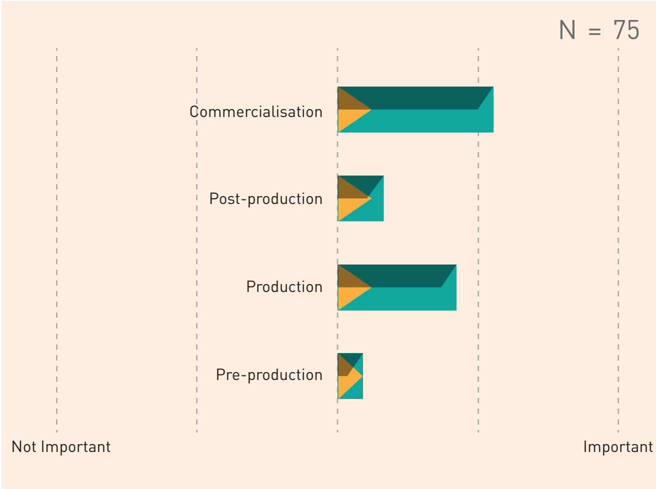


FIGURE 20 STAGE OF DEVELOPMENT REQUIRING INCENTIVE / FUNDING



Source: Gamevil, Malaysia

g. REGIONAL OUTLOOK

In South East Asia, Vietnam is the only country boasting game companies able to generate more than USD10,000,000 revenue per year. Malaysia, Thailand and Vietnam have game companies that are able to generate between USD 5,000,000 and USD 10,000,000 revenue per year. **(Figure 21)**

There are several factors that contribute to the above:

1. According to Newzoo, the game industry in Vietnam generated USD 164.7 million in 2014, on the back of a games market that is growing drastically. Vietnam's mobile game market generated a revenue of USD 83 million for the country, the highest in South East Asia.
2. Most game companies generate less than USD 10,000 annual revenue due to limited capacity (having fewer than 50 employees) and lack of global market access.
3. Game companies from Malaysia, Singapore and Vietnam are able to generate USD 1 million to USD 5 million revenue annually, on account of many WFH projects awarded to game companies in these countries.

Newzoo reports that South East Asia will be the region recording the highest growth rate in the next five years. Game companies in the region also share this positive view, and believe that the industry will grow in tandem in the next few years. **(Figure 22)**

FIGURE 21 AVERAGE ANNUAL REVENUE FOR PAST TWO YEARS

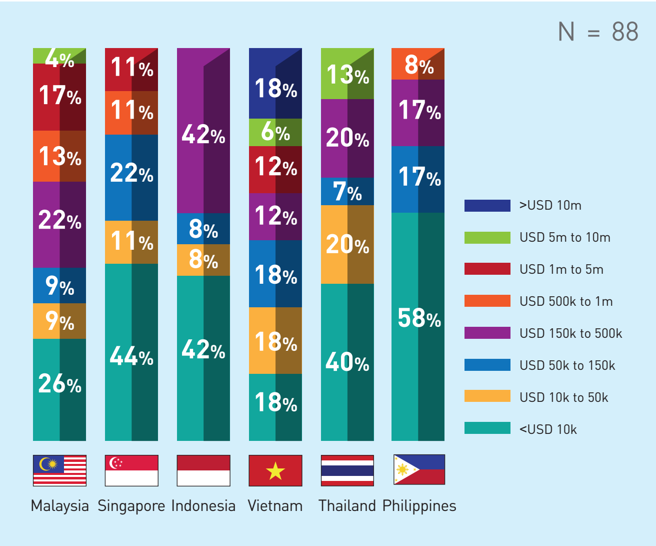
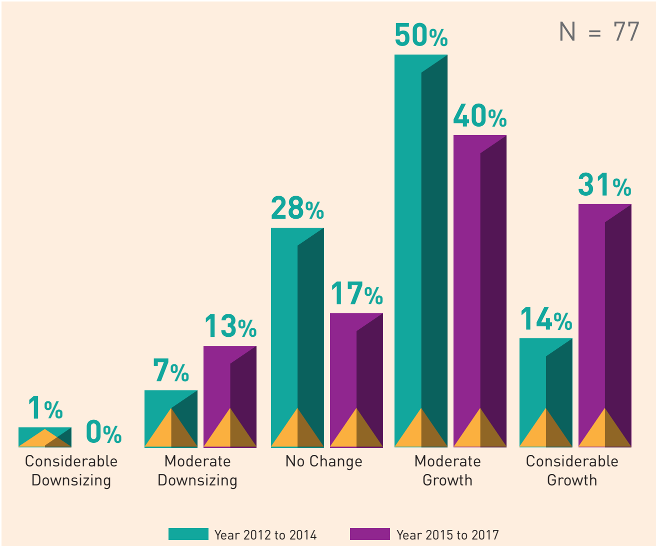


FIGURE 22 COMPANY'S HISTORICAL AND PROJECTED GROWTH



GAME INDUSTRY INDEX

A rudimentary index of the game industry in each nation was desired to allow relative comparisons be made between the nations. Based on the survey findings and other data references, scores for various relevant parameters that make up the game industry in each nation were derived. These scores provide relative measures of the strength of each parameter amongst the nations.

A numerical score of between 0 and 5 is estimated and assigned to each parameter for each nation, based on the best interpretation of the data available. These parameters were grouped into six categories. A breakdown of parameters and categories is shown in the table.

The score for parameters marked with asterisks (*) have been derived from the survey, while the rest have been derived from other openly available external data. A list of these external references is given in the References section at the end of this report.

Two charts are shown for each of the categories. The first chart plots the scores for each of the parameters for all nations.

The second chart arranges the weighted scores of the parameters according to nation. The weightage is based on estimation of the impact that each parameter contributes to its respective category. These weighted scores are then stacked together according to nation, and provide relative comparison between nations in each category.

The scores and relative rankings of each of the categories are discussed in the following corresponding sub-sections.

CATEGORY	PARAMETER
Cost and Ease of Business	Developer Cost*
	Ease of Doing Business
	Ease of Starting a Business
	Office Space Cost
	Infrastructure and Digital Content
	Broadband Competitiveness
	Corporate Tax
Human Capital	IHL Rating
	Human Capital Index 2015
	Tertiary-educated Population
	Quality of the Educational System
	Quality of Math and Science Education
Innovation and Commercialisation	R&D Expenditure per GDP
	Global Innovation Index
	New Game IP per Year*
	New Game Titles per Year*
Games Eco-System	Budget per Project*
	Game Companies Experience*
	Games associations Rating*
	Gamer Population
	Gamer Spending
	Networked Readiness Index
	International Internet bandwidth
	Intellectual Property Protection
Funding and Incentives	Government Funding*
	Angel Investor*
	Venture Capital*
	Bank Loan*
Internationalisation	English Proficiency
	Immigration Processing*
	Games WFH Capability*

a. COST AND EASE OF BUSINESS

This category seeks to measure the relative cost of operation, including salaries, office space and telecommunications, and the ease of running and starting a business in the respective nations. Higher scores reflect positively on the nation.

FIGURE 23 COST AND EASE OF BUSINESS

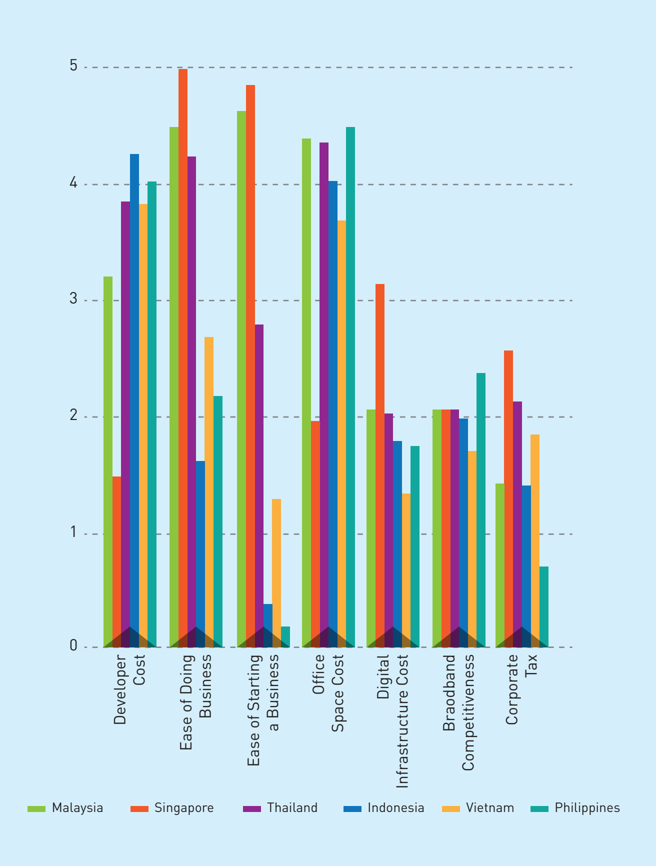
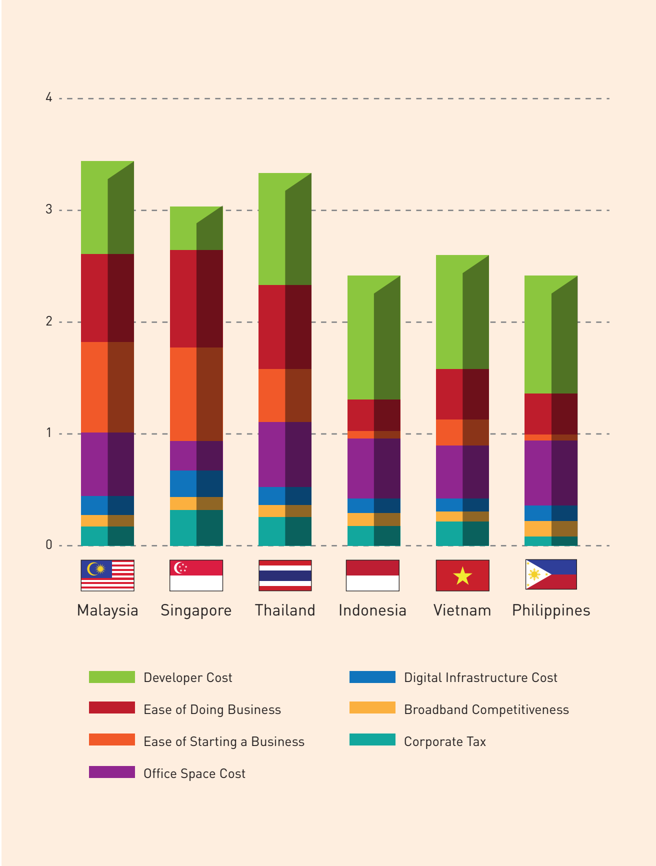


FIGURE 24 WEIGHTED COST AND EASE OF BUSINESS



b. HUMAN CAPITAL

This category measures the quality of available talent in the nation by taking account of the academic quality based on international rankings on IHLs, proportion of tertiary educated workforce and standardised test scores. On the quantity aspect, the available labour pool is taken as a proxy for available manpower.

FIGURE 25
HUMAN CAPITAL

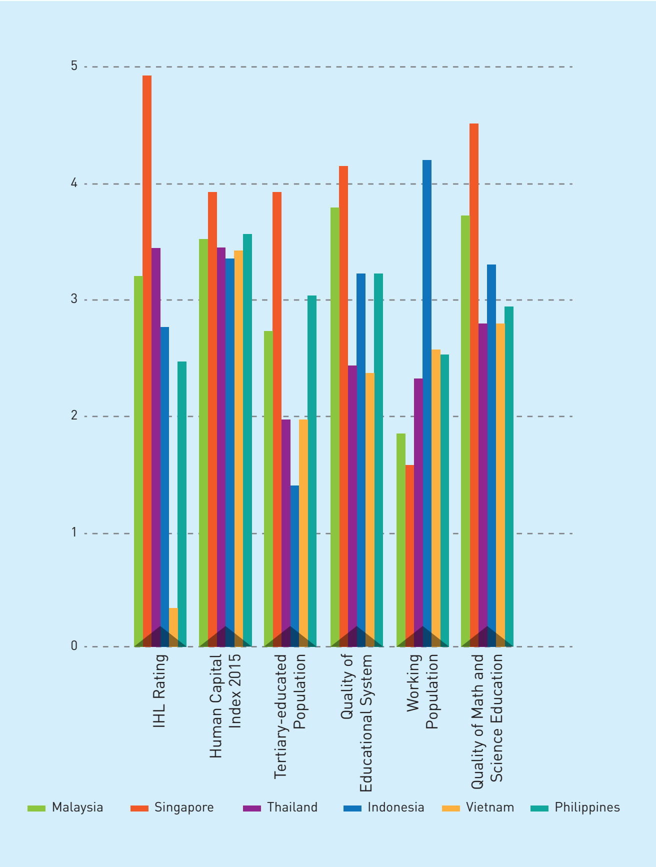
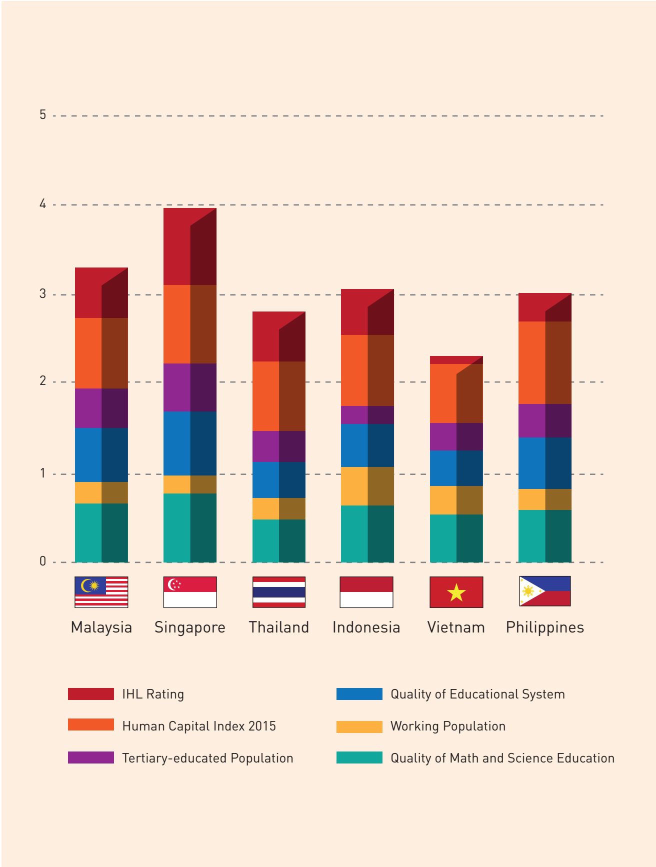


FIGURE 26
WEIGHTED HUMAN CAPITAL



c. INNOVATION AND COMMERCIALISATION

This category seeks to gauge a nation's capacity for innovation and subsequent commercialisation by looking at the inclination for research and development and indicators relating to production of IP and game titles. Indicators for a nation's general creativity and inclination for research and development are derived from external sources. Indicators for games specific prolificacy are based on survey results.

FIGURE 27 INNOVATION AND COMMERCIALISATION

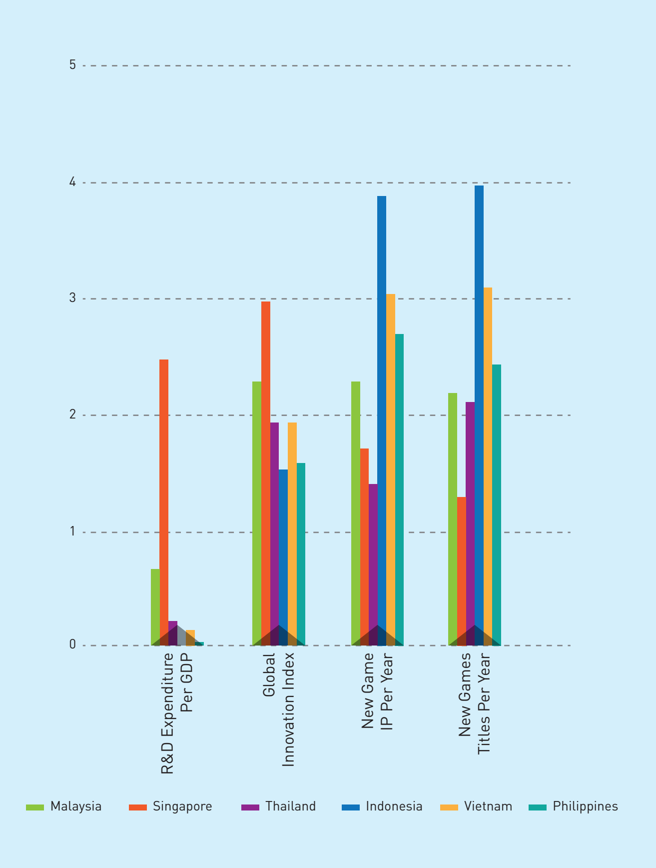
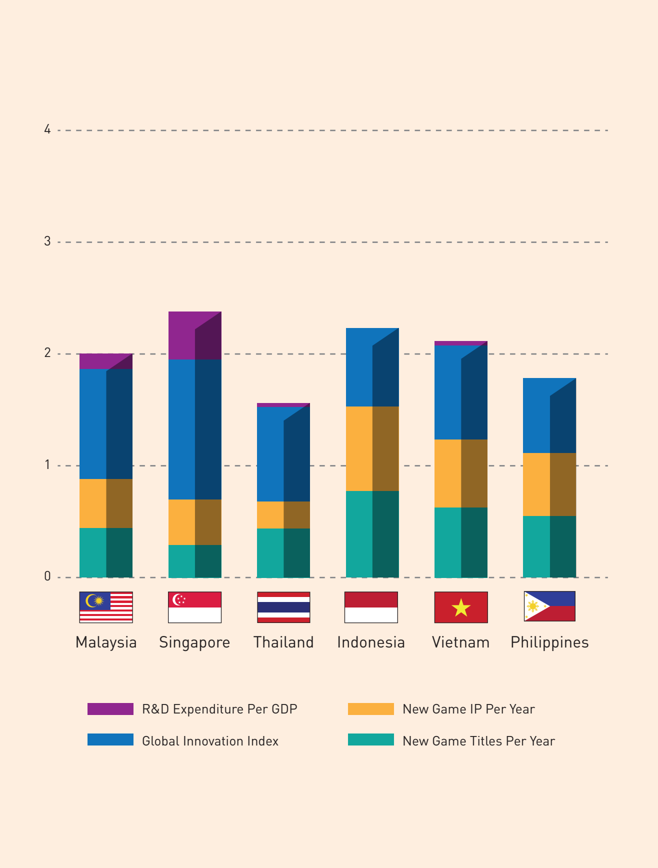


FIGURE 28 WEIGHTED INNOVATION AND COMMERCIALISATION



d. GAMES ECO-SYSTEM

This category focuses on the prevalent environment in each nation and how conducive it is to support game development as an industry. This category looks at parameters including existing industry, gamer community, digital readiness, industry maturity and IP protection.

FIGURE 29
GAMES ECO-SYSTEM

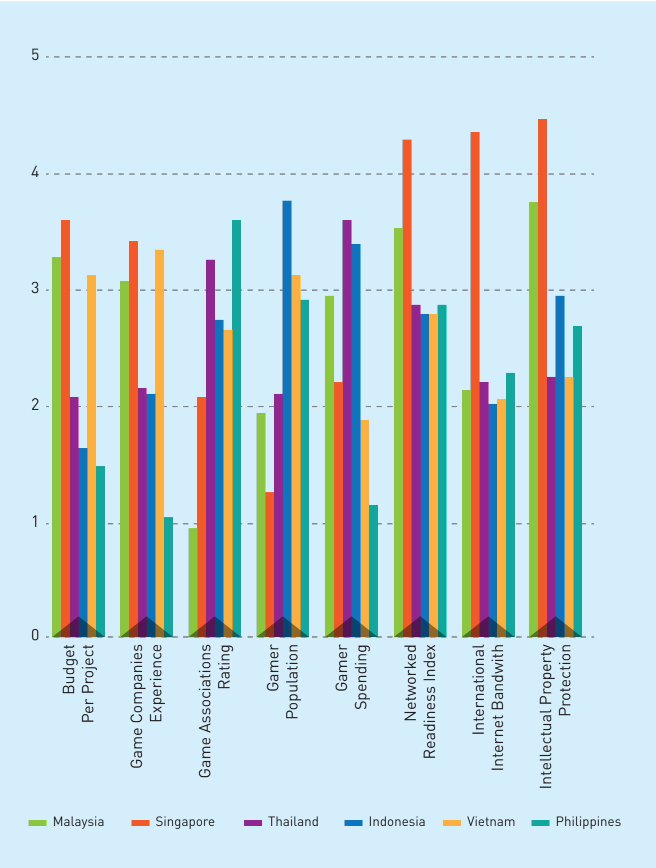
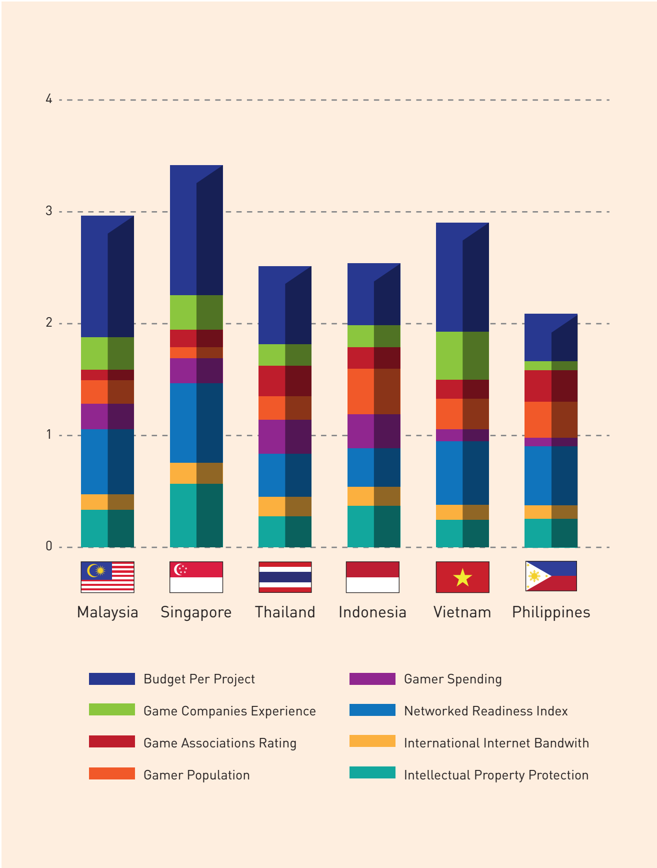


FIGURE 30
WEIGHTED GAMES ECO-SYSTEM



e. FUNDING AND INCENTIVES

This category seeks to measure the availability of financial support and incentives in a nation to support the game industry.

FIGURE 31
FUNDING SUPPORT

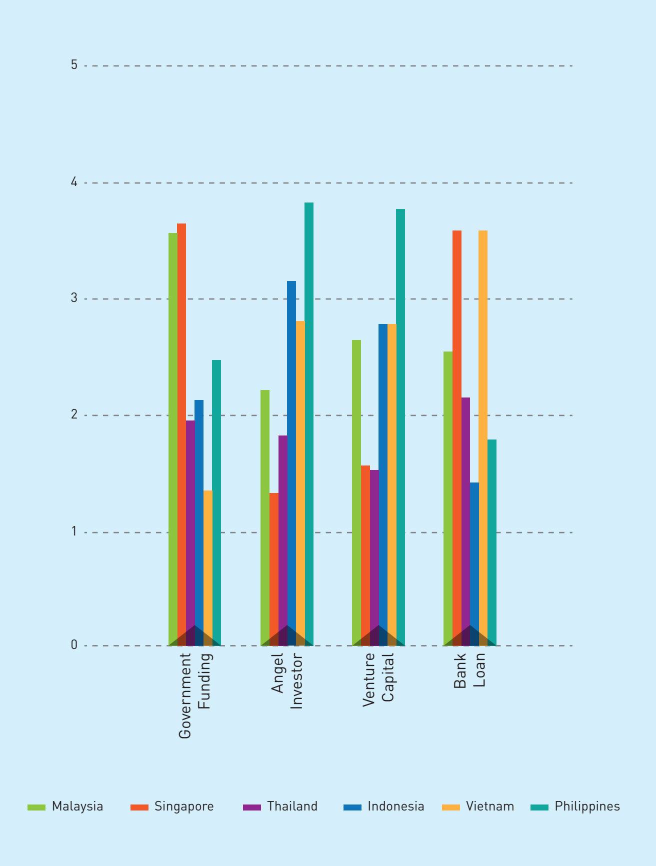
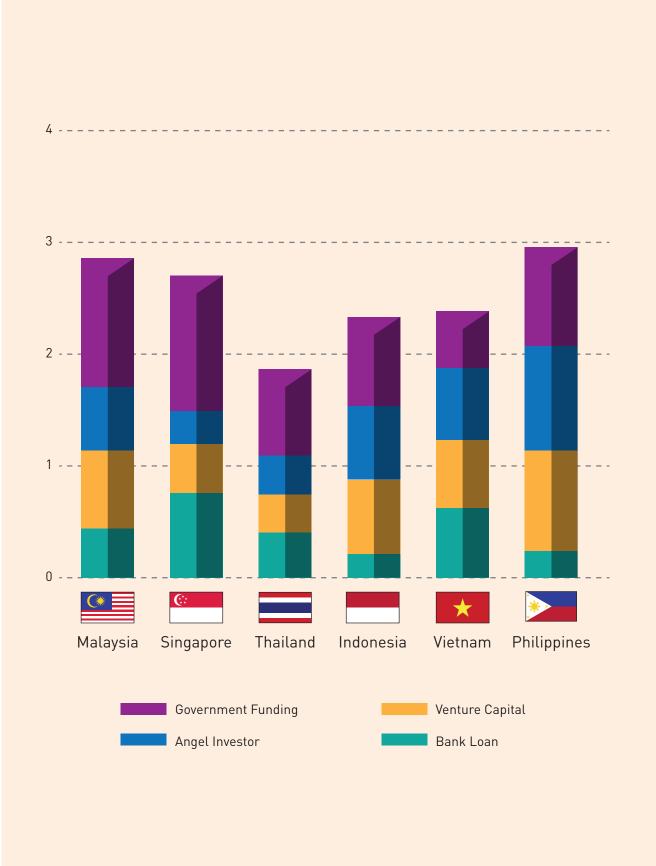


FIGURE 32
WEIGHTED FUNDING SUPPORT



f. INTERNATIONALISATION

This category seeks to determine the readiness and capacity of a nation to undertake international projects. The parameters measure the capability of the nations in undertaking international type jobs, as well as the prevailing bureaucracy in facilitating foreign employment.

FIGURE 33
INTERNATIONALISATION

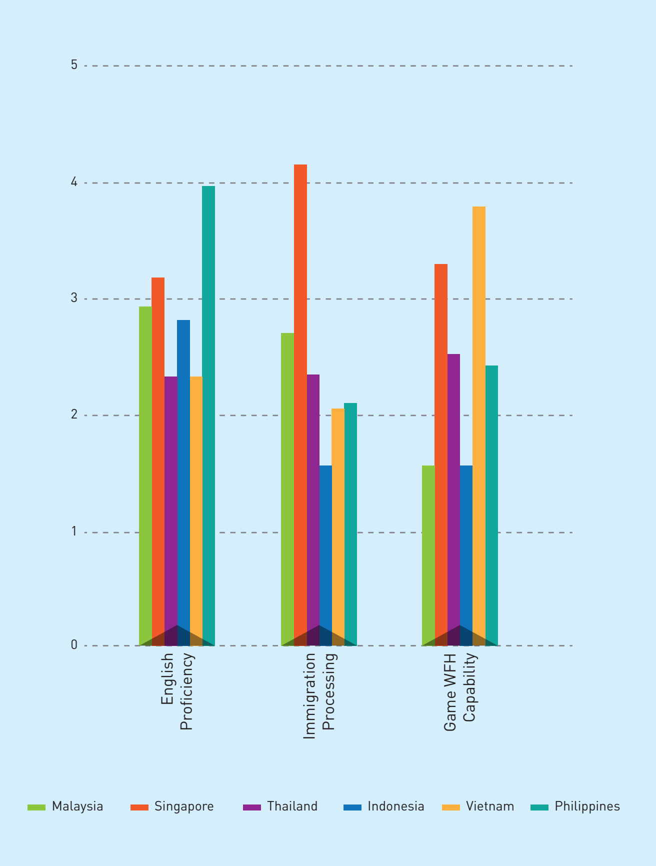
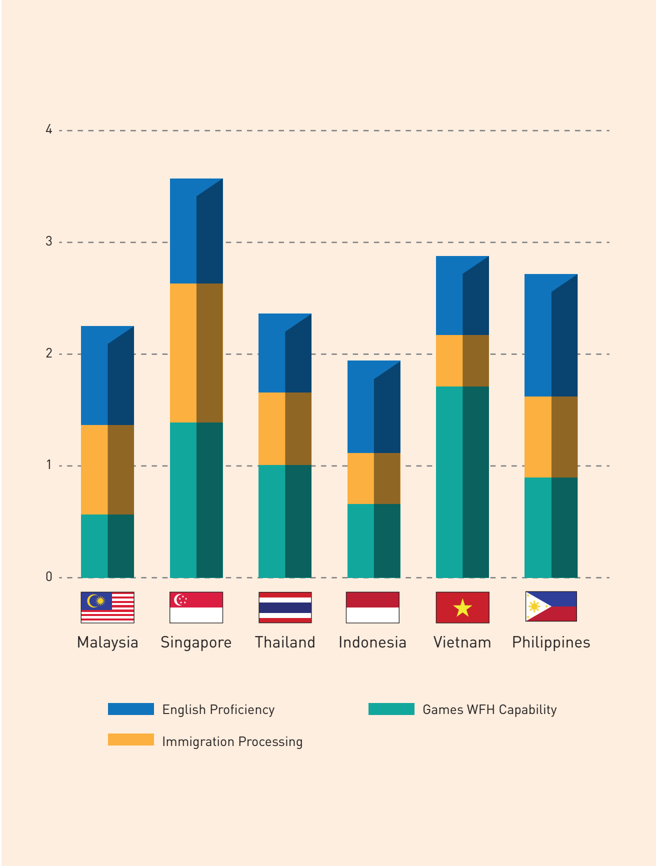


FIGURE 34
WEIGHTED INTERNATIONALISATION



FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

g. COMBINED INDEX SCORES

Based on the scores for the various categories, a combined score, which aggregates all the parameters, for each nation is calculated to compare against other nations.

To arrive at the combined score, the individual score for each category is normalised to a maximum of 10. The score for the nation with maximum points per category is scaled to 10, and the rest of the nations' scores are adjusted proportionately.

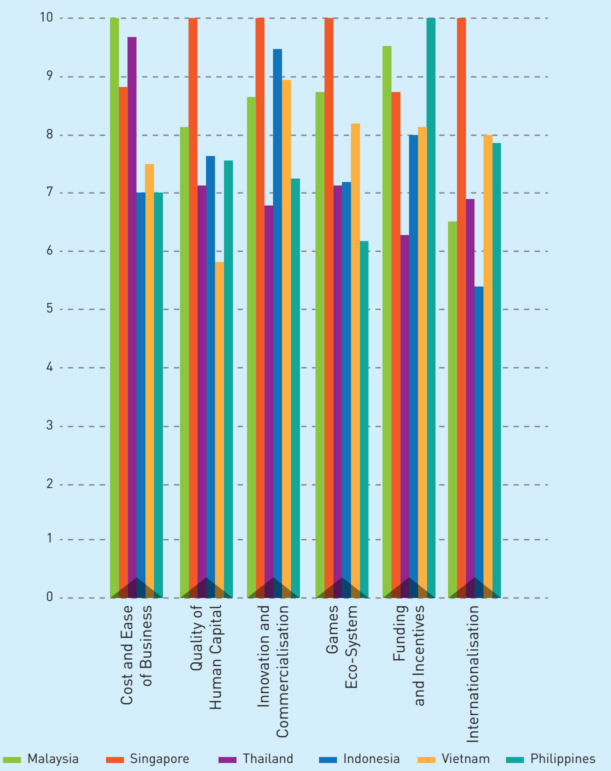
Thereafter, a weightage is assigned to each category, per the table below. The weightage is based on general trends observed within the ICT industry, relating to the priority of the category in an overall eco-system.

CATEGORY	WEIGHTAGE
Cost and Ease of Business	15%
Quality of Human Capital	19%
Innovation and Commercialisation	19%
Games Eco-System	27%
Funding and Incentives	15%
Internationalisation	5%

The weighted category scores for each nation are then tallied to arrive at combined weighted scores for all nations. These provide an overall measure of each nation's current game industry capability relative to each other.

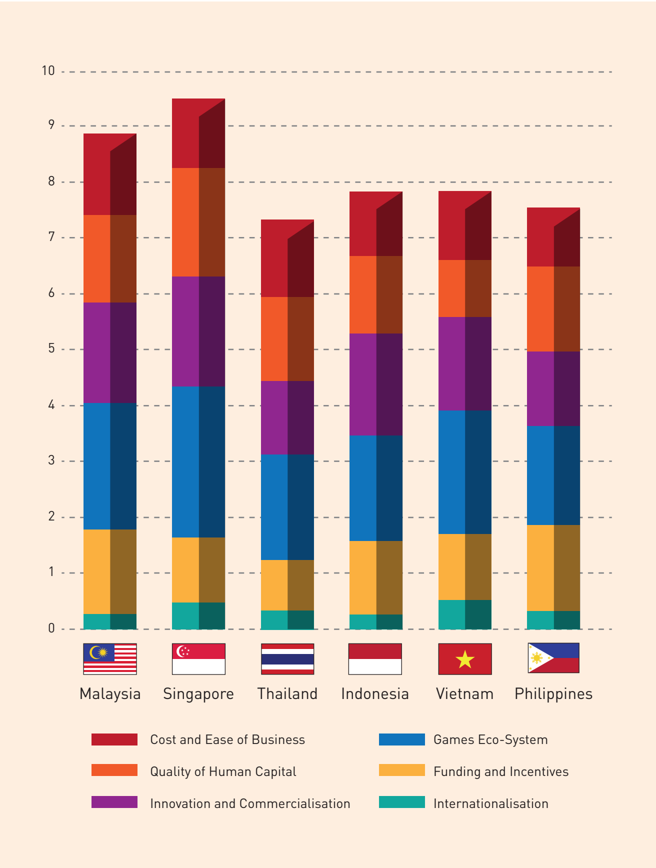
The normalised category scores and the combined weighted scores are given in Figures 35 and 36.

FIGURE 35
NORMALISED SCORE



FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

FIGURE 36
COMBINED WEIGHTED SCORES



Source: *Firebeast Studio, Indonesia*

Source: *Gamevil, Malaysia*

SWOT ANALYSIS

Based on the survey results, subsequent analysis, external references and general observation of the games climate in the region, key strengths, weaknesses, opportunities and threats, pertaining to the South East Asia game industry, are listed below:

MALAYSIA	
STRENGTHS	**OPPORTUNITIES**
• Government provides support to game industry in terms of funding and market access • High English proficiency level • Ranked top 20 in ease of doing business worldwide • High literacy of ICT and internet users in the country	• Able to get more WFH activities from anchor companies internationally • Business friendly policies encourage more investors to venture into game industry • Multiple screens per user in Malaysia enlarge demand for games. This trend is growing and will subsequently increase the demand for more games content
WEAKNESSES	**THREATS**
• Imbalanced game talent pool: many game artists but lack game programmers • Lack of business acumen subjects in the game development courses in local IHL • Lack of market access to international game markets • Monetisation problem even though usage of credit card is quite high. Most of the game players use mobile phones with prepaid option. Game companies find it difficult to monetise from this group. • Lack of support by an official games association that can be a representative voice for the local industry	• Rising cost of doing business due to inflation and other factors such as fluctuation of currency • Game players prefer to play western titles to local game titles • Lack of distribution channels to publish games both locally and internationally: lack of publishers • Funding support reduction from government in future

FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

SINGAPORE	
STRENGTHS	**OPPORTUNITIES**
• Strong government support for game industry. For instance, office set up incentive for large game studios, startup fund for local indies, Block 71 for startups. • Game Solution Centre (GSC) established to be a one-stop-centre for game industry. It is a game hub to connect game industry and government as well as institutions of higher learning. • Business friendly policy for large game studios to set up office in the nation	• Game talent with high level of English proficiency able to produce games in English and work on WFH projects from English speaking countries • High efficiency in game production and hiring foreign game talent make the country a good choice for foreign game talent and anchor game companies to relocate • Highest annual spending per player in South East Asia and the trend will continue to grow
WEAKNESSES	**THREATS**
• Cost of doing business is higher than the other countries in South East Asia • Low population compared to other countries in South East Asia; limited number of local game players	• Restriction of Immigration Department to issue work permit for foreign talent will slow down the growth of the industry even though the process of hiring could be fast and efficient • Aging population and slow birth rate in the country will pose a threat to future talent supply

FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

THAILAND	
STRENGTHS	**OPPORTUNITIES**
• Local game companies can generate high revenue from local market because the games are published in Thai and foreign titles have been localised. Game revenue of Thailand is the highest in South East Asia in 2014. • Quality of game development at par with international standards and able to attract international game companies to set up office in Thailand. For instance BeeLine and LINE from Japan. • Active games association acts as a representative voice to lobby government support, create market access, and connect game companies.	• Growing spenders on mobile screens will create more revenue for game companies • Opportunities of localisation will generate more revenue for game companies by localising foreign game titles • Internet Café is popular, game companies can earn more profit from PC games in Thailand • Game companies starting to venture into licensing and merchandising of games characters to create new stream of revenue • Growing support from government for marketing and promotional activities
WEAKNESSES	**THREATS**
• Monetisation problem due to low use of credit cards and low use of mobile carrier billing • Imbalanced game talent types in the industry • Moderate English proficiency level reduces opportunities to accept WFH game activities from English speaking countries	• Rising cost of doing business due to inflation and other factors such as fluctuation of currency • Piracy issue affects the income of game companies • Instability of politics in Thailand deters foreign investors

FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

INDONESIA

STRENGTHS	OPPORTUNITIES
• Largest population in South East Asia. Game companies are able to sustain by monetising in local market • Carrier billing options for game players with prepaid mobile phones help game companies to monetise. This is limited to the games published through Android platform. • Active games association acts as a trade association and connects the local game companies	• High rate of game downloads in the country will raise the brand awareness of the game studios among players • Indonesia's large population, growing middle class and mobile internet penetration contribute to high demand of games • Government starting to provide support to grow the creative content industry including games. Creative Economic Agency provides guidance for foreign game studios to set up office in Indonesia and helps local startups to set up game companies
WEAKNESSES	**THREATS**
• Moderate English proficiency hampers production of games in English • Insufficient talent and other resources to develop various types of games. Most of the game developers are developing casual games, action games and strategy games. • Monetisation problem in local market due to low spending power, low usage of credit cards, low retention rate of game players. • Imbalance of infrastructure in various islands of Indonesia limits growth of game industry	• Rising cost of doing business due to inflation and other factors such as fluctuation of currency • Piracy issue affects the revenue of game companies • Limited game talent to take in more WFH game activities from other regions

VIETNAM

STRENGTHS	OPPORTUNITIES
• Huge game talent pool. Current game talent is more than 10,000. • Lower cost of doing business in Vietnam compared to other countries	• Vietnam has a strong Internet Café culture amongst the young population, and the use of Internet is increasing especially through mobile devices. This creates a huge PC game market and growing mobile game market for game companies • Localisation of foreign game titles creates a new source of revenue for game companies. For instance, localisation of China games.
WEAKNESSES	**THREATS**
• Low speed of Internet restricts genre of games • Monetisation problem due to low use of credit cards and low use of mobile carrier billing • Moderate English proficiency level reduces opportunities to accept WFH game activities from English speaking countries	• Piracy affects the income of game companies.

FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

PHILIPPINES	
STRENGTHS	**OPPORTUNITIES**
• High English proficiency and low cost of doing business prompt more western game companies to outsource production activities to the Philippines • Active games association acts as a trade association for game industry to gain market access including B2B matchmaking and networking.	• Growing penetration of Internet in the islands of Philippines and rising computer literacy in society increase games consumption • Carrier billing options for mobile users have created a new source of revenue for game companies
WEAKNESSES	**THREATS**
• Monetisation problem due to low use of credit cards • Lack of experience to undertake WFH jobs for AAA game studios • Lack of protection by intellectual property law in the country	• Rising cost of doing business due to inflation and other factors such as fluctuation of currency • Piracy issues affect the income of game companies

FINDINGS FROM THE SOUTH EAST ASIA GAME INDUSTRY SURVEY

SOUTH EAST ASIA	
STRENGTHS	**OPPORTUNITIES**
• Large number of game downloads in the region, comparable to downloads in Europe • Sufficient talent pool to develop casual games • Quality of game development of international standard attracting attention of international AAA game companies as outsource and WFH location • Huge population of young employees in game industry to meet future demand	• Growing need for more games in the region through growing internet penetration and use of multiple screens • Cost competitiveness in the region able to attract large international game studios to invest. • Game as a service (GAAS) to improve players' retention and promote companies' sustainability by generating consistent revenue • Localisation of western titles provides huge opportunity in South East Asia
WEAKNESSES	**THREATS**
• Lack of business skills among startups and independent game companies • Insufficient talent and other resources to develop various types of games • Limited experience and business knowledge in developing games as a business • Moderate English proficiency level in certain nations a barrier in producing international games • Monetisation problems due to low spending power, low use of credit cards, low retention rate • Piracy issue in Vietnam, Indonesia and Philippines affects the income of game companies	• Lack of intellectual property protection in the region a hindrance for investors to invest in industry • Imbalance of game talent types in the region: game artists versus game programmers • Language barrier and cultural differences make it difficult for local games to reach global game players • Game industry in South East Asia is projected to grow drastically in the next five years but the game companies in the region may not be able to capture potential opportunities due to insufficient game talent and funding support

05

FINDINGS FROM THE CANADIAN BENCHMARKING EXERCISE

FINDINGS FROM THE CANADIAN BENCHMARKING EXERCISE

The benchmarking exercise in Canada involved meetings with organisations that represented various capacities in the overall game industry value chain as follows:

- AAA Studios
- Independent Studio
- Game Industry Associations
- Institutions of Higher Learning
- Investment Agencies

The interactions with the parties above sought to uncover the key ingredients that contribute to Canada's success in the game industry. During these interactions, certain common factors were cited at multiple meetings that indicated the importance and criticality of said factors to the Canada games scene. Compiling these factors, and other relevant information derived from the meetings, yielded key findings, which can be broadly categorised and discussed as follows:

- Talent
- Anchor Companies
- Financial Incentives
- Game Industry Community
- Global Profile
- Culture and Lifestyle

Source: Vinova, Singapore

FINDINGS FROM THE CANADIAN BENCHMARKING EXERCISE

The following subsections provide a discussion of each of the key finding topics.

TALENT

One of the key attractions for games FDI into Canada is its talent pool, which is renowned for its breadth and depth, and advanced expertise in digital media. The unique philosophy relating to talent development in Canada is the closeness of cooperation between industry and academia in ensuring industry needs are addressed. Furthermore, the courses offered are designed around a theme of practicality by ensuring accessibility to the masses while focusing on the real needs of the industry.

Games associations and game studios collaborate directly with IHLs on determining the demand and required supply, as well as the required training components for industry talent development. Studios enter partnerships with IHLs to collaboratively ensure relevant training is provided and to commit to hiring junior staff from the pool of graduates.

Ubisoft had established its own Ubisoft Campus to develop talent during the company's initial years in Montreal. The decision by Ubisoft to provide its own campus personifies the close involvement industry plays in driving the supply of talent for the game industry in Canada.

The TAG (Technoculture, Art and Games) programme of Concordia University advocates extending the access to game development training to every 'person on the street' and strives to promote interest and awareness in game development at an early age. The spirit of making game development programmes known and accessible to every facet of society is an important stance that would contribute to making game development a significant and mainstream part of the larger talent pool of a nation.

The Master of Digital Media course offered by Vancouver's Centre for Digital Media is an innovative game related module that looks beyond the technical aspects of game development. This course heavily involves the leadership and management dimensions of game development. This is to provide a holistic set of skills, beyond merely technical knowledge, involved in the development life cycle of a game.

The various characteristics of talent development in Canada as described above provide a strong ecosystem that ensures balanced supply and demand, quality and relevance of graduates, and sustainability of a profession that is well regarded in the country.

ANCHOR COMPANIES

Two anchor companies in Canada, namely Ubisoft Montreal and EA Canada, have been cited as critical players in jumpstarting the larger game industry in the region, and ultimately putting Canada on the global map as a game industry hub.

EA Canada was established in 1983 through the purchase of a company called Distinctive Software. EA Canada started with 70 employees and currently employs some 1,800.

Ubisoft Montreal was established in 1997. The provincial government provided a salary grant as a main incentive, in return for Ubisoft's creating jobs in the province. Ubisoft now employs some 2,600 staff.

The existence of these anchor companies acts as the nucleus that spurs an ecosystem for the game industry. This includes a pipeline for required talent from local colleges to meet initial demand and which in turn triggered the emergence of other game studios and support industries in the region. The incentive that was introduced to Ubisoft initially has now evolved and become the basis for the tax credit that Quebec offers, often quoted as a key reason for industry growth in the province. This is discussed in more detail in the following section.

Many of the independent studios that have spawned in Canada are founded by former employees of anchor companies. These founders bring immense experience and expertise to drive the growth of a new wave of independent studios within the industry.

Anchor companies in Canada also play a role in setting the direction for the games' talent development, as discussed earlier, and contribute to lobbying for the industry either directly or indirectly (through associations;) this will be discussed later in this paper.

The role that anchor companies can play in jumpstarting and eventually sustaining a growing game industry ecosystem is truly significant and consequential.

Source: Game Pro International, Malaysia

THE EXISTENCE OF THESE ANCHOR COMPANIES ACTS AS THE NUCLEUS THAT SPURS AN ECOSYSTEM FOR THE GAME INDUSTRY.

FINANCIAL INCENTIVES

A keystone of the Canadian game industry is its financial incentive offering. This support is provided by the national government, primarily through the Canada Media Fund, and individual provinces, primarily in the form of tax credits for labour costs.

The Canada Media Fund is available nationwide for a variety of media projects including games. The fund is available as a loan, which is capped at CAD 1.2m or 75% of total project cost (from development to production to marketing and promotion.) Recoupment of the loan is required if the project goes into the production, and will commence once revenue is generated.

> THE TAX CREDIT ON LABOUR COST IS DESIGNED TO BE SUSTAINABLE TO THE PROVINCIAL GOVERNMENTS AS OUTFLOW TO SUPPORT THE SCHEME IS OFFSET BY PERSONAL INCOME TAX RECOUPED FROM THE GAME INDUSTRY EMPLOYEES.

The Canada Media Fund is usually used by smaller game studios to aid cash flow. This would aid application for provincial incentives which are generally in the form of reimbursement, and require cash to be spent before hand.

The key attraction of the provincial tax credits is the tax credit on labour costs. This scheme provides a rebate to companies for a portion of the labour costs for work done by residents in the respective provinces. The portion of the labour cost returned varies between provinces. In Quebec, the tax credit rate is 30% of labour costs, with an additional 7.5% provided for multi-lingual titles. The tax credit rate in British Columbia is 17.5%. The effectiveness of this tax credit in attracting investment can be attributed to it being applicable to most companies throughout their lifetime, and in view of the significant labour cost associated with a knowledge driven industry such as games.

In addition to the tax credit on labour costs, other, less universal, tax credits are offered include concessions for hiring foreign experts, rebates for training and HR management costs, and tax credits for personal investment into games companies.

The tax credit on labour cost is designed to be sustainable to the provincial governments as outflow to support the scheme is offset by personal income tax recouped from the game industry employees. Relatively, the provinces impose low corporate tax to make it attractive for corporations, but impose high personal income tax to maximise recoupment of the awarded tax credits, providing sustainability to this mechanism.

The overall slate of financial incentives provided in Canada through the national and provincial governments is well deliberated and implemented, and effectively addresses the needs of investors. The framework also allows for sustainability to ensure a stable and reliable proposition which investors desire.

GAME INDUSTRY COMMUNITY

Despite having a multitude of game development studios of various sizes, genres and constitutions, the industry players in Canada's game industry are able to rally together to mutually advance the interest of the industry through formation of representative games associations.

The games associations in Canada are born independent of government intervention and provide a united front, usually amongst competitors, to realise mutual benefits for members. Some key tasks these associations undertake include lobbying to the government, providing networking platforms amongst members, international marketing and collaboration with colleges and other institutions for talent development.

The games associations in Canada are self-funded, normally through membership fees and proceeds from events. Smaller associations rely on sponsorship from members to conduct activities. The leadership of bigger organisations is normally rotated between leading companies, that form dedicated teams to provide operational and programme management. Smaller associations rely on volunteers to helm the office.

Specific associations exclusively for independent developers exist. These associations focus on providing a platform for indie developers to network. They hold meetings periodically to allow networking and experience sharing amongst members, and are extremely popular - normally attended to capacity.

Larger associations are normally all-inclusive and represent the voice of the industry. They are run very professionally with dedicated full-time officers assigned to run the association activities. These associations work closely with colleges to ensure the quality and quantity of talent supply is able to meet demand. Apart from membership fees, events are often organised to provide revenue to the associations.

Part of the work that these associations conduct includes commissioning studies and research required for business intelligence.

The game industry associations that have formed in Canada play a pivotal and effective role in advancing the agenda of the industry. The strength of the game industry community in Canada is highly recognised and represents a key pull factor to investors.

THE GAME INDUSTRY ASSOCIATIONS THAT HAVE FORMED IN CANADA PLAY A PIVOTAL AND EFFECTIVE ROLE IN ADVANCING THE AGENDA OF THE INDUSTRY.

Source: Kurechii, Malaysia

FINDINGS FROM THE CANADIAN BENCHMARKING EXERCISE

GLOBAL PROFILE

The discussions in Canada frequently touched on the subject of creating a recognisable global profile in the game industry. Canada portrays a very positive international profile, which is backed by its value proposition as an investment location. Canada is acknowledged for its strong talent pool of skilled labour, rich background in the film, arts and culture scenes, targeted and competitive tax credits, and high quality of life. All these combine to provide a very compelling proposition to the world.

As such, South East Asia is relatively unknown for what it can offer to the global game industry. Part of the effort to emulate Canada's success would involve positioning the region prominently on the world map as a game development location. A concerted effort to craft a united, comprehensive, meaningful and clearly defined set of value propositions is critical in ensuring the right message may be broadcasted.

The above recommendations by the Canadian counterparts would seek to bolster the region's global profile by attracting the right attention from the right parties.

Source: Sunnet Studio, Vietnam

A CONCERTED EFFORT TO CRAFT A UNITED, COMPREHENSIVE, MEANINGFUL AND CLEARLY DEFINED SET OF VALUE PROPOSITIONS IS CRITICAL IN ENSURING THE RIGHT MESSAGE MAY BE BROADCASTED.

CULTURE AND LIFESTYLE

A less tangible aspect that was observed during the Canada benchmarking exercise was the influence of culture and lifestyle in creating a successful ecosystem for the game industry.

Canada has been able to capitalise its vibrant arts and culture background to move into the game development space, which inherently involves artistic talent and seeks to entertain. In tandem with this, the lifestyle which game developers desire, revolves around an environment which is relatively casual, entertaining and culturally rich.

The importance of a vibrant, entertaining and culturally fulfilling lifestyle is important to game developers, and the decision for studio locations often depended on the presence of social amenities and access to entertainment, arts and culture nearby. It was pointed out that providing a conducive work environment and work programme will assist a studio in attracting and acquiring better talent for the team.

Our observation of the workspace for studios in Canada supports this theme and is evidenced by the studios' casual, lively and vibrant offices, featuring minimal compartmentalisation and abundant break out areas for socialising and unwinding.

The provision of amenities, facilities and activities to appeal to the lifestyle of game developers who seek entertainment, arts and culture, is an aspect that should be considered by the region as a critical enabler to support the industry.

Source: Vinova, Singapore

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STRATEGIC RECOMMENDATIONS FOR THE SOUTH EAST ASIA GAME INDUSTRY

STRATEGIC RECOMMENDATIONS FOR THE SOUTH EAST ASIA GAME INDUSTRY

Combining and synthesising the findings of the South East Asia Game Industry survey and the findings of the Canada benchmarking exercise, the following are key strategic recommendations to accelerate the growth and development of the industry in South East Asia:

HUMAN CAPITAL AND TALENT DEVELOPMENT

- Cooperation between industry, academia and associations must be forged in shaping talent development to supply the industry with the required quantity and quality of employees. The three parties need to collaboratively determine the required curriculum and the number of graduates that are required to meet the rapidly changing demand of the industry. Scholarship from game companies could spur more talent to join the industry.
- Cross border internship programmes for undergraduates from institutions of higher learning in South East Asia can help democratise the flow of talent within the region to ensure supply and demand can be balanced effectively.
- Regional Campus Game Jam for institutions of higher learning in South East Asia is recommended to allow knowledge and skill sharing on game technology, and provide networking amongst future game industry professionals in the region. Anchor game companies to be closely involved to ensure quality of the jam meets international standards.
- Anchor game companies to create short training courses for game development in conjunction with local IHLs. The courses provide avenues for up skilling and reduce dependency on IHLs exclusively to churn out talent for the industry.

FUNDING FRAMEWORK

- Comprehensive and competitive tax credit based funding support can be a critical component in attracting strong anchor companies to the region, and would also be relevant for smaller established studios. Funding assistance for smaller companies should focus on aiding companies' cash flow, and can be in the form of grants and soft loans. These two types of funding support can help jumpstart and sustain the growth of the game industry in the region.
- The legal framework governing foreign ownership of companies operating locally should be adjusted to allow for a more open and transparent system that would provide foreign investors better confidence setting up operations locally.
- To collaborate with local financial institutions into providing financing facilities, including pre-seed and seed funding for companies and start-ups in the region.
- Funding focus to facilitate the commercialisation stage, which is often neglected, in addition to production and development stages.
- Open door for more joint ventures for both local and foreign angel investors.

GAMES ASSOCIATIONS FOR SOUTH EAST ASIA

- A dedicated alliance to move the South East Asia game industry landscape to the next level, and become significant to the global game industry to be formed, and formalised. All nations to collaboratively work towards a formal alliance that may be called the ASEAN Game Network Connection.
- To establish at least one official games association for each country that is the representative voice of the game industry proponents.
- Greater involvement by IGDA chapters to promote the interest of game companies and to organise a regional joint meeting for South East Asia at least once a year.
- Games associations to become trade associations for the industry to bring buyers, create market access and provide B2B matchmaking.
- Games associations to become the access point in the discovery for game talent.
- Games associations in South East Asia to work with associations in other regions to organise game events to increase reach and network globally.

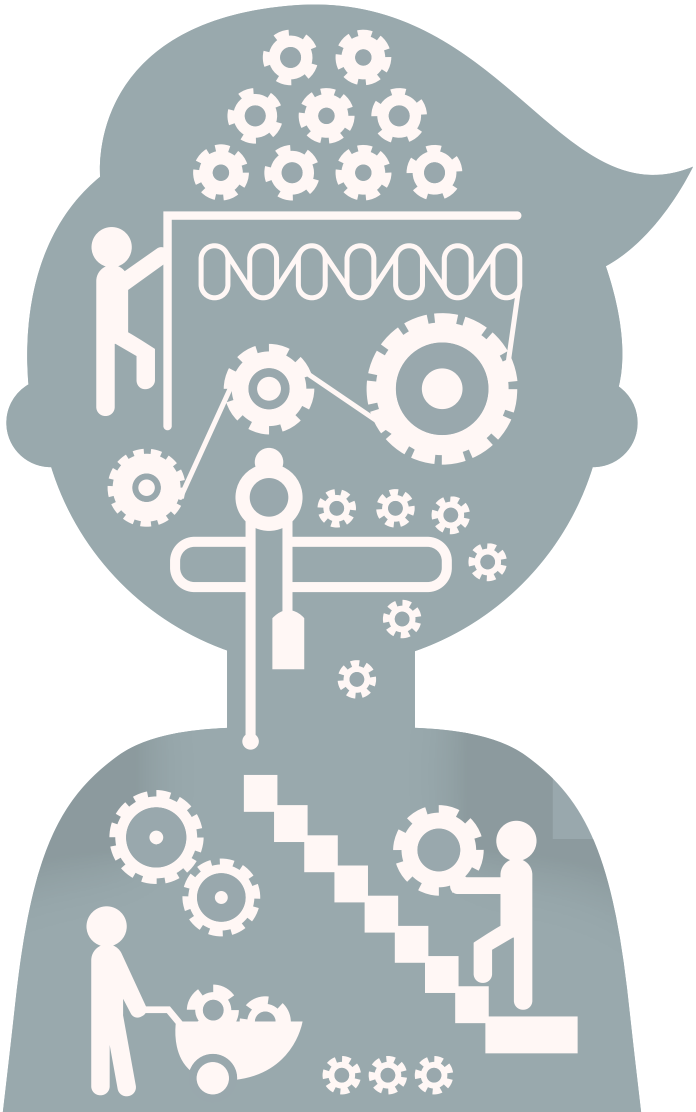
BRANDING AND AWARENESS

- Rebrand South East Asia's game industry as a whole instead of individual countries. Necessary promotional and marketing activities should be collaboratively carried out for this purpose.
- Pavilion booth for game companies from South East Asia in international game events. This is a form of branding and market access creation for game companies in the region. Member countries of South East Asia region may take turns to pay for the cost of participation and sponsorship.
- Organise more international game events in South East Asia to announce the region as a serious global player in the industry and create visibility to game industry professionals worldwide. This will provide platforms for local developers to showcase to more international buyers.
- Creation of collaborative content to represent South East Asia, capitalising on cultural similarity and geographical proximity, to portray a common but impactful identity for the region's industry.
- Game companies or games association to strengthen connections with international game media writers or media partners to provide more and targeted media coverage on the industry in South East Asia.

TREATIES AND LEGISLATION

- ASEAN Economic Community (AEC), launched in 2015, to expand priority sectors to include the game industry allowing both local and international game companies to enjoy AEC benefits which include common regulations and incentive system.
- Strengthen intellectual property framework in South East Asia to increase confidence of large game studios, game publishers and other angel investors to invest in this region. This will also protect the interest of local companies more effectively against piracy.

Source: Gamevil, Malaysia



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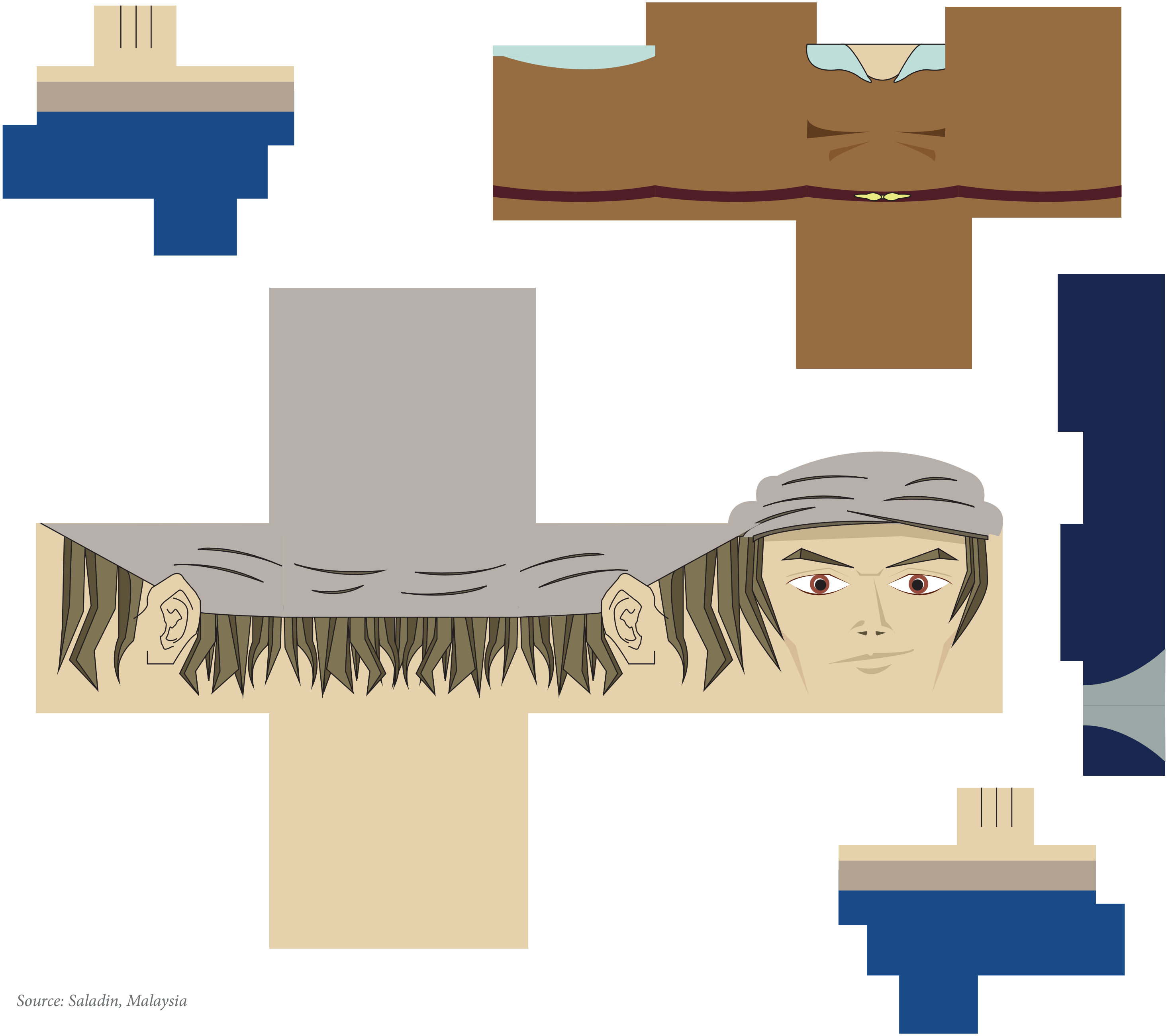
REFERENCES

REFERENCES

1. PwC Global Entertainment and Media Outlook 2015 - 2019
2. Corporate Tax 2015 (International Tax) Report by Deloitte. Version August 2015.
3. Asia Pacific Office Forecast 2015-16 Report by Cushman & Wakefield Research Publication
4. The Global Information Technology Report 2015 (GITR) by World Economic Forum (WEF)
5. International Telecommunication Union (ITU), ITU World Telecommunication/ICT Indicators Database 2014 in The Global Information Technology Report 2014 Rewards and Risks of Big Data by World Economic Forum (WEF)
6. Doing Business 2015 Going Beyond Efficiency Comparing Business Regulations for domestic firms in 189 Economies (A World Bank Group Flagship Report)
7. 2014 Global R&D Funding Forecast (Battelle and R&D Magazine)
8. Heightened Urgency for Business English in an Increasingly Global Workforce A look at the 2013 Business English Index & Globalization of English Report (White Paper: The 2013 Business English Index & Globalization of English Report)
9. The Global Innovation Index 2015 The Human Factor in Innovation
10. ASEAN Economic Community Blueprint (AEC) by Association of South East Asia Nations
11. The Human Capital Report 2015 by World Economic Forum (WEF): Employment, Skills and Human Capital Global Challenge Insight Report
12. 2015 Global Games Market Report by Newzoo
13. List of Asian countries by Population (2015) – Last updated 27 March 2015 (http://statisticstimes.com/population/asian-countries-by-population.php)
14. Higher Education in Asia: Expanding Out, Expanding Up. The Rise Of Graduate Education And University Research. Published by UNESCO Institute for Statistics in 2014.
15. OECD Science, Technology and Industry Scoreboard 2013 (STI Scoreboard)
16. 2015 Global Mobile Game Industry White Book published by The Global Mobile Game Confederation (GMGC) and Newzoo
17. The Inclusive Growth and Development Report 2015 by World Economic Forum (WEF)
18. QS World University Rankings 2015/16 by QS Top Universities Worldwide University Rankings, Guides & Events



Source: Saladin, Malaysia

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