VENTURE Insights

AltmanVilandrie & Company

Global & Australian gaming market trends – mobile, cloud and 5G to drive growth

Mobile gaming is now the dominant driver in the global gaming market accounting for more revenue than console and PC combined and the majority of all growth.

This shift has been enabled by improvements to internet infrastructure, from stronger mobile networks to faster wireline bandwidth to better cloud-based delivery models; however, there hasn't been a significant amount of direct monetisation by telcos, as they have only dipped their toes, at best, into this new source of demand.

Key takeaways

/ **The Australian gaming market accounts for A$4bn in revenues** and grew by 25% in 2018. Within this, mobile gaming accounts for A$1.2bn and is growing at about 11% pa. Comparatively, the global gaming market projected at US$167bn is expected to grow at 5% CAGR between 2018-22 with mobile gaming growing at 10% CAGR.

/ **66% of consumers play games on their smartphones,** based on Venture Insights' and Altman Vilandrie & Company's analysis, which includes a consumer survey of gaming habits in Australia, US, UK, China and Japan.

/ **Mobile gaming usage is increasing in Australia** - almost 75% of respondents said they spent more or the same time playing mobile games vs. a year ago, with more 33% spending more than 30 minutes a day.

/ **Globally, gamers are playing online and on-the-go.** Across US, UK, China and Japan, 60% of gamers play games while commuting or travelling. Australians on the other hand chose 'Home' (80%) as the most frequently used location for playing games on their smartphone, following by playing on the go (50%).

/ **Gamers are waiting on AR/VR** with only 44% of gamers (36% excluding China) having played AR/VR games. The main hurdles to adoption are expensive hardware and the early stage of the technology.

/ **72% of gamers in the US, UK, China and Japan stated that they would be willing to play games provided by a non-traditional provider.** This augurs well for recently launched cloud gaming platforms like Google Stadia, Apple Arcade and even telcos.

/ **About 30% of gamers in Australia are willing to pay more for 5G.** Just like they have with video and sports content, we could see telcos offer zero rated gaming plans – in February 2019, Vodafone Germany launched a €5 a month zero rated data gaming pass.

Introduction

Over the last ten years, the market has transitioned from a console and PC-based opportunity to one that is increasingly mobile first. Across many major markets mobile gaming is now the biggest games opportunity and the broadest in terms of audience size and demographics. In key territories such as China, Japan and South Korea, consumers play a wide variety of games on mobile devices including high-end games that originate on PC and console platforms. This has increased demand to either migrate PC and console games to mobile platforms or to develop higher-quality mobile games. Online and Mobile content dominates the global games market – accounting for the majority of global business.

In January 2019, our US research and consulting partner, Altman Vilandrie & Company conducted a survey of four major countries (U.S., China, Japan and U.K.) to determine consumer preferences and trends in gaming. The findings, some of which are highlighted in this report, show an industry quickly shifting toward Mobile gaming, which has made gaming more accessible and has changed the way the industry develops and monetizes games. Still, the survey found that traditional gaming platforms (Console and PC) are resilient, and gamers are open to trying new platforms and formats.

In April 2019, Venture Insights conducted a survey in Australia to determine consumer preferences and trends in mobile gaming and how the market may evolve with the arrival of 5G. The findings that are discussed in this report show that mobile gaming users are more willing to pay a premium for 5G services and handsets as compared to regular consumers. In this report, we analyse the findings across both surveys and highlight the opportunity for telcos in the mobile gaming space.

What's happening in Australia?

The Australian gaming market now accounts for A$4bn in revenues and grew by 25% in 2018[1]. Within this, mobile gaming accounts for A$1.2bn of the overall market and is growing at about 11% per annum. We expect in-game purchases, cloud-based gaming platforms like Google Stadia and Apple Arcade and ultra-high-speed latencies enabled by 5G to drive strong growth in the mobile gaming market over the next few years.

5G will fuel a new wave of mobile gaming innovations.

5G is set to fundamentally alter the gaming landscape with ultra-fast data speeds, minimal latencies driving lag-free performance, next -gen AR gaming and cloud enabled VR gaming. 5G is also expected to enable responsive and immersive UHD and 4K gaming experiences at 90 fps. In Australia, Telstra, Intel and Ericsson recently demonstrated one of the world's first gaming experiences over 5G, showcasing the power of 5G's ultra-low latency that professional and amateur gamers alike can expect in the future. Telstra believes that gaming is no longer just a niche application. Telstra estimates that about 2.5mn households in its customer base are intense gamers with 39% of these being Gen X and Gen Y while 24% are Baby Boomers[2]. Telstra is working with many gaming and technology companies (Microsoft, Sony, Nvidia) around the

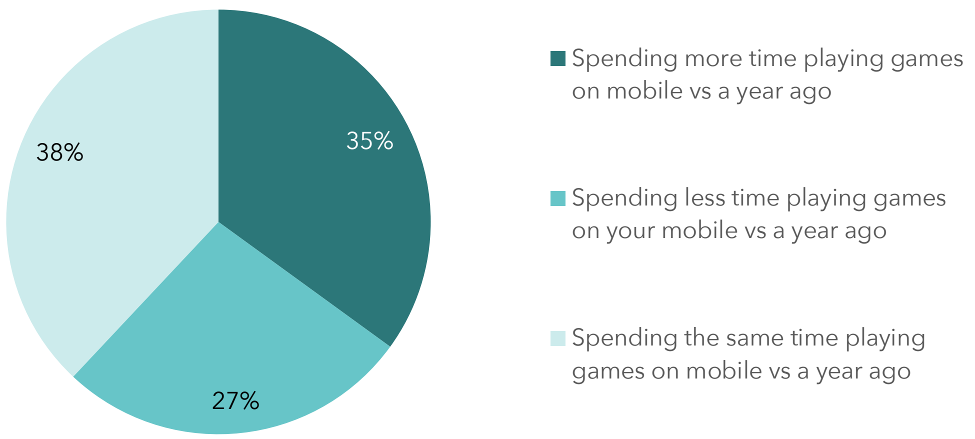
[1] IGEA
[2] Telstra 5G update December 2018

potential of cloud gaming and expects 5G to be a key driver of the transition from console to cloud gaming going forward.

Mobile gaming trends and consumer preferences - Australia

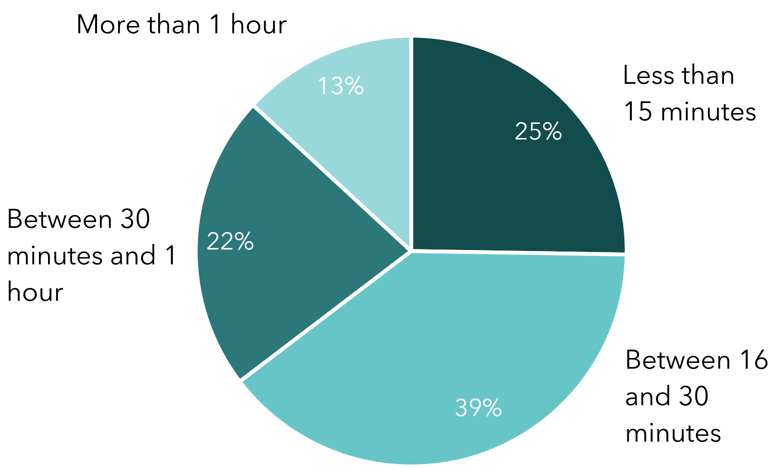
- Almost 2/3rds of the 1,026 respondents from our survey, play games on their mobile phones.
- Compared to a year ago, almost 75% of respondents said that they spent more or the same time playing mobile games, with more than a third spending more than 30 minutes a day playing mobile games.

Figure 1. Mobile gaming usage is increasing [Q. On average are you:]



SOURCE: Venture Insights Mobile Consumer Survey April 2019

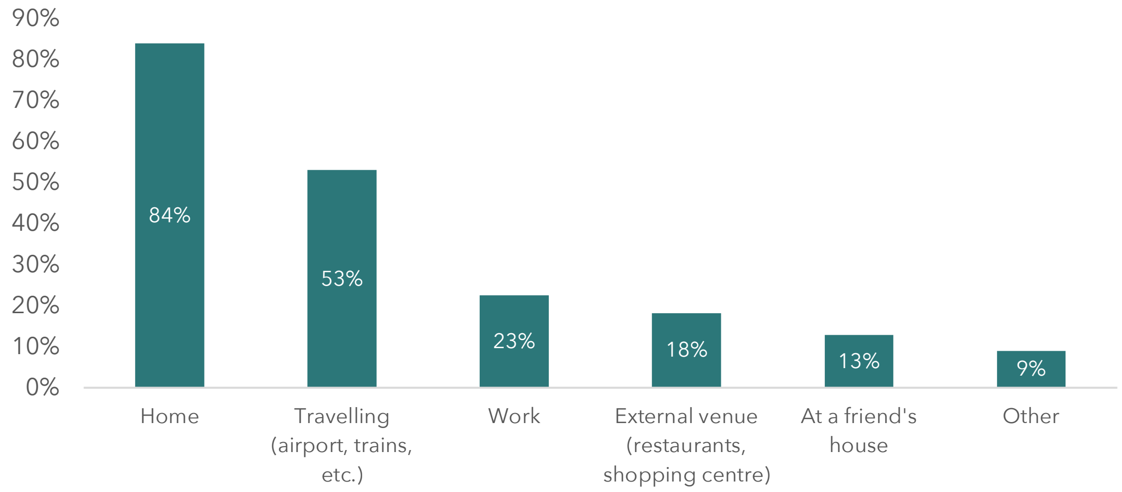
Figure 2. In a typical day, about how much time do you spend playing games on your smartphone?



SOURCE: Venture Insights Consumer Mobile Survey, n=1,026, March 2019

- Almost 80% of respondents that play games on their mobile chose ‘Home’ as one of their top two most frequently used locations for playing mobile games, followed by ‘Travelling’ (50%).

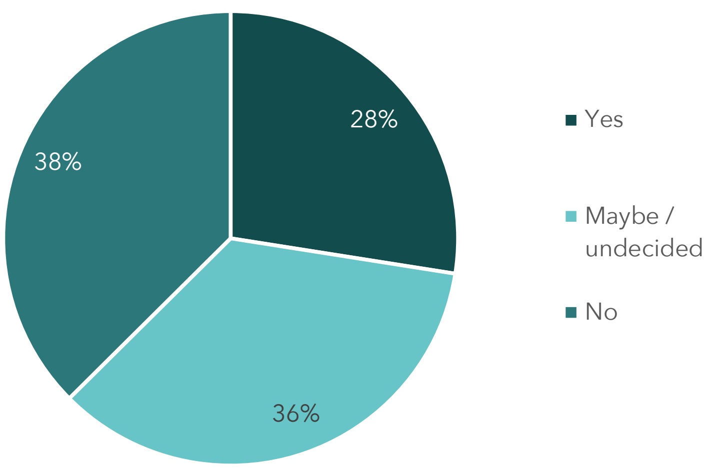
Figure 3. Most frequently used locations for playing mobile games in Australia



SOURCE: Venture Insights Consumer Mobile Survey, n=1,026, March 2019
Note: Q. Which of the following locations do you most frequently use to play mobile games on your smartphone? [Select top two]

- On average, nearly 40% of respondents said that they are spending more time playing games on their mobile vs traditional gaming consoles.
- More than 2/3rds of respondents that play games on their mobile were aware of the arrival of 5G.
- Data speeds and latency are important for gamers with nearly 30% of respondents willing to pay more for a 5G service when available, with a further 36% being undecided.

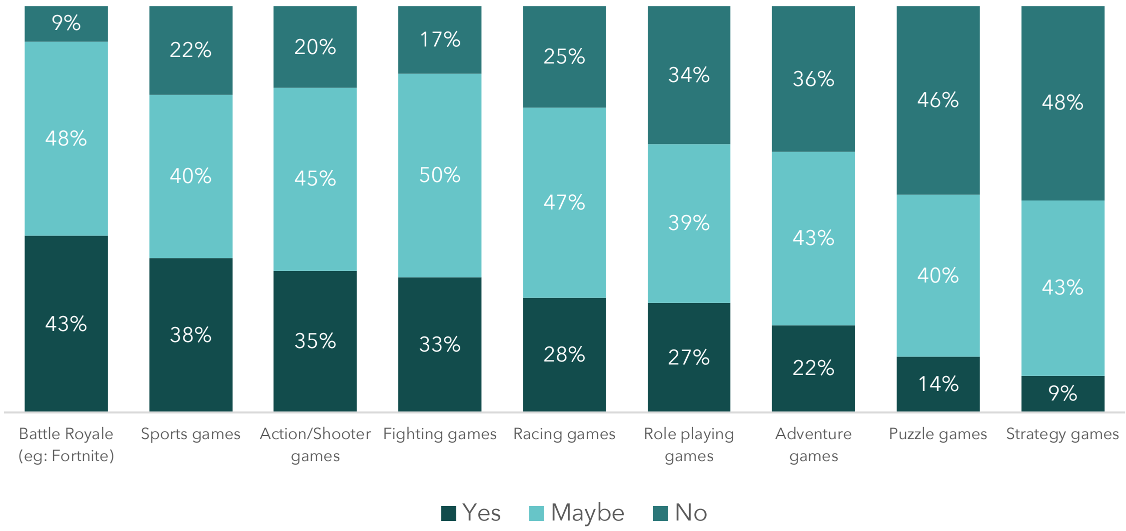
Figure 4. Would you be willing to pay a premium for 5G service when available?



SOURCE: Venture Insights Consumer Mobile Survey, n=1,026, March 2019

- However, players of certain genres are more likely to be willing to pay more for a 5G enhanced mobile experience than others.
- Player genres such as Fortnite, Sports and Shooting games, were up to 3x more likely to pay more for enhanced 5G experiences than those who played puzzle or strategy games.

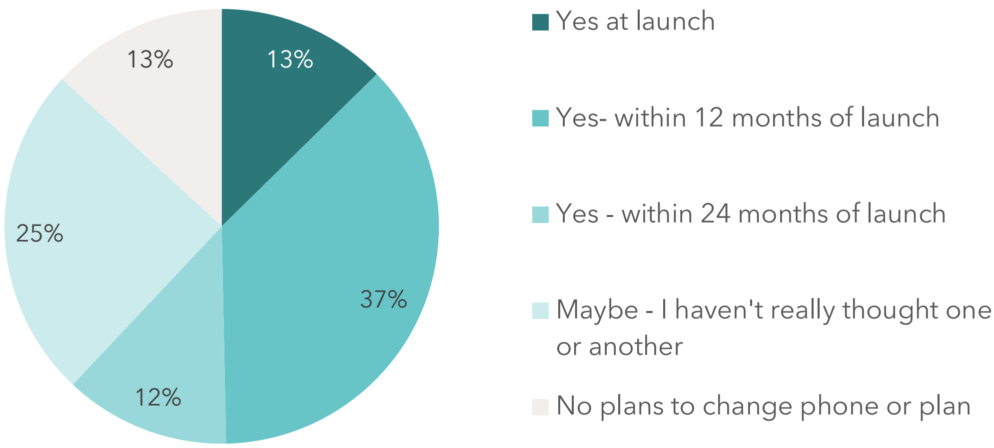
Figure 5. Would you be willing to pay more for a 5G enabled mobile gaming experience?



SOURCE: Venture Insights Consumer Mobile Survey, n=1,026, March 2019

- 50% of respondents that play games on their mobile would be willing to upgrade their plan and smartphones to 5G within 12 months of launch.

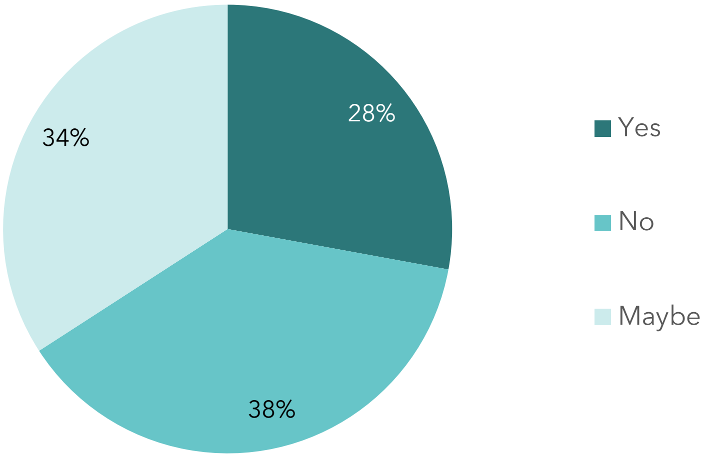
Figure 6. Mobile gamers that would consider upgrading their mobile plan and smartphone to 5G when it becomes available



SOURCE: Venture Insights Mobile Consumer Survey April 2019

- Mobile gamers also indicated a higher propensity to pay a premium for 5G enabled smartphones which bodes well for both telcos and handset manufacturers. 28% of mobile gamers said that they would be willing to pay premium for 5G handsets vs 19% of the overall survey respondents.

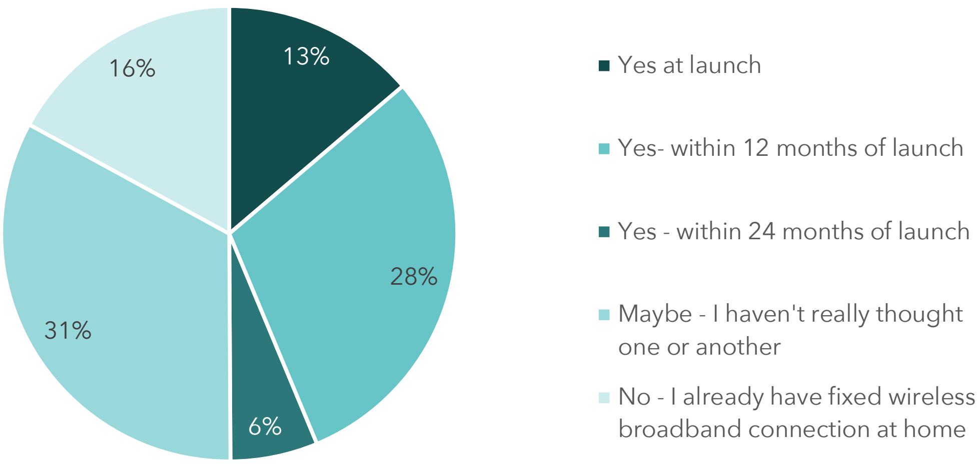
Figure 7. Mobile gamers that would be willing to pay a premium for a 5G handset



SOURCE: Venture Insights Mobile Consumer Survey April 2019

- 5G enabled fixed wireless broadband connection in the home could prove to be popular amongst mobile gamers. More than 40% of mobile gamers said that they would be willing to change their household fixed broadband connection to a 5G fixed wireless broadband connection within 12 months of launch.

Figure 8. Would you consider changing your household fixed broadband connection to a 5G fixed wireless broadband home connection when available? (mobile gamers only)

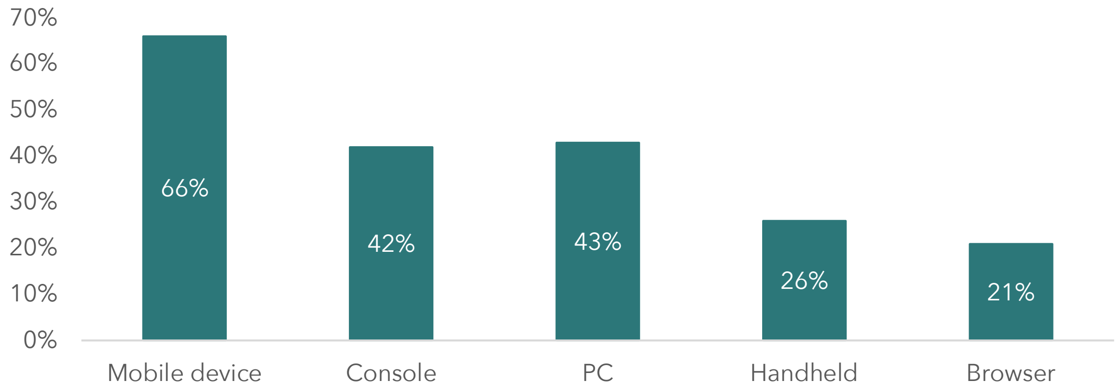


SOURCE: Venture Insights Mobile Consumer Survey April 2019

Gaming market trends – US, China, Japan and UK

Mobile gaming is now the dominant driver in the global gaming market, reaching a tipping point at which it generates more revenue than Console and PC combined and accounts for the majority of all growth. Altman Vilandrie & Company's analysis, which included a consumer survey of gaming habits in the U.S., U.K., China, and Japan, found that 70% of U.S. respondents – and 66% overall – play video games on their smartphones, ushering in a new era of game accessibility and purchasing habits.

Figure 9. Do you game on any of the following platforms? (Overall results)

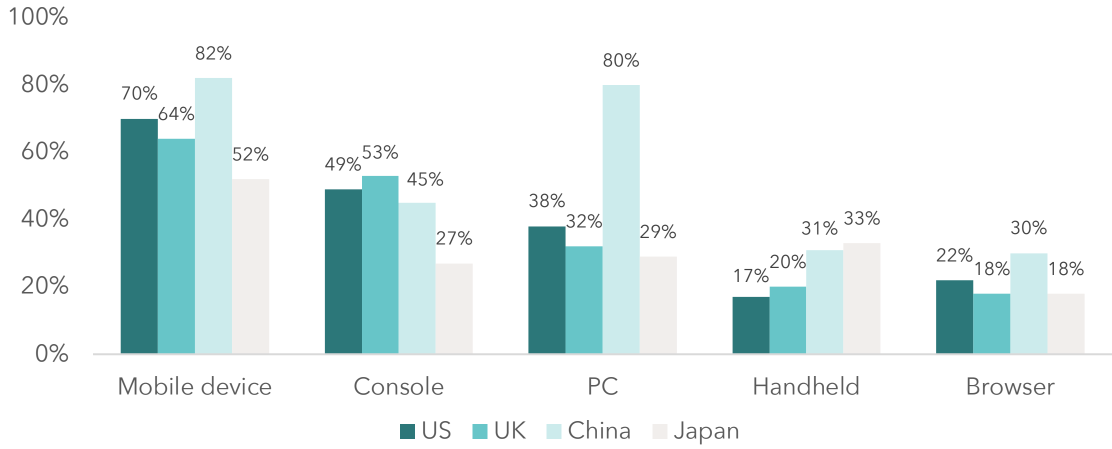


Source: AV&Co. 2019 International Gaming Survey
Note: 1) Single respondent playing multiple platforms shows up in each count, includes non-gamers, 2) n=2,117; includes non-gamers

Mobile is the most popular gaming platform

The overall video game market size, projected as US$167 billion for 2019[3], is expected to grow 5% annually from 2018 to 2022, almost entirely driven by growth in mobile gaming (10% annually). Mobile is the most-used platform in gaming, with 83% of all gamers stating that they play on their smartphone or tablet, versus 54% each for Console and PC. While gamers from most countries had similar platform preferences, the survey found that Chinese gamers gravitated toward PCs at a much higher level.

Figure 10. Do you game on any of the following platforms?



Source: AV&Co. 2019 International Gaming Survey
Note: 1) Single respondent playing multiple platforms shows up in each count, includes non-gamers, 2) n=2,117; includes non-gamers

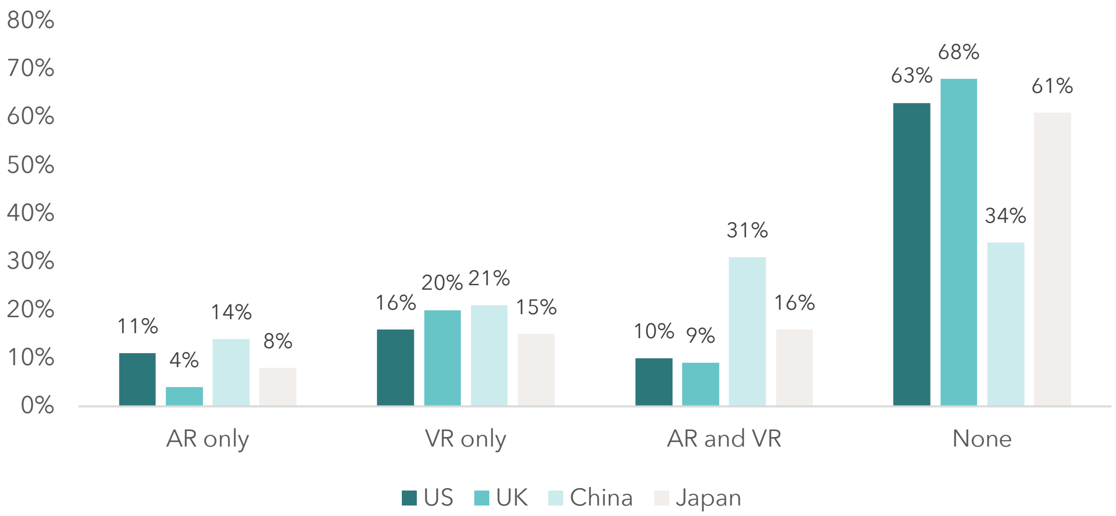
[3] IDC, NewZoo, AV&Co. Research & Analysis

The growing popularity of Mobile has shifted the balance of power among gaming platforms; Consoles and PCs, once dominant in the gaming market, have shown only modest growth recently and will be eclipsed by Mobile revenues in 2019 (US$80B Console & PC vs US$86B Mobile)[4]. Despite Nintendo's resurgence with the Switch, console shipments still lag historical highs and the overall installed base for consoles is shrinking.
However, even as the market shifts to Mobile, less than 5% of Console and PC gamers are shifting their usage to mobile. The survey data indicates that while Mobile is growing, it has not yet started to cannibalize traditional gaming platforms.

Gamers waiting on AR/VR

Augmented Reality and Virtual Reality hasn't fully arrived as a gaming platform, with only 44% of gamers (36% excluding China) having played AR/VR games. However, 67% stated (56% excluding China) that they would play games on an AR/VR device in the future. The main impediments to adoption are the still-high prices of AR/VR devices and the early state of the technology.

Figure 11. Have you ever played an AR/VR game?



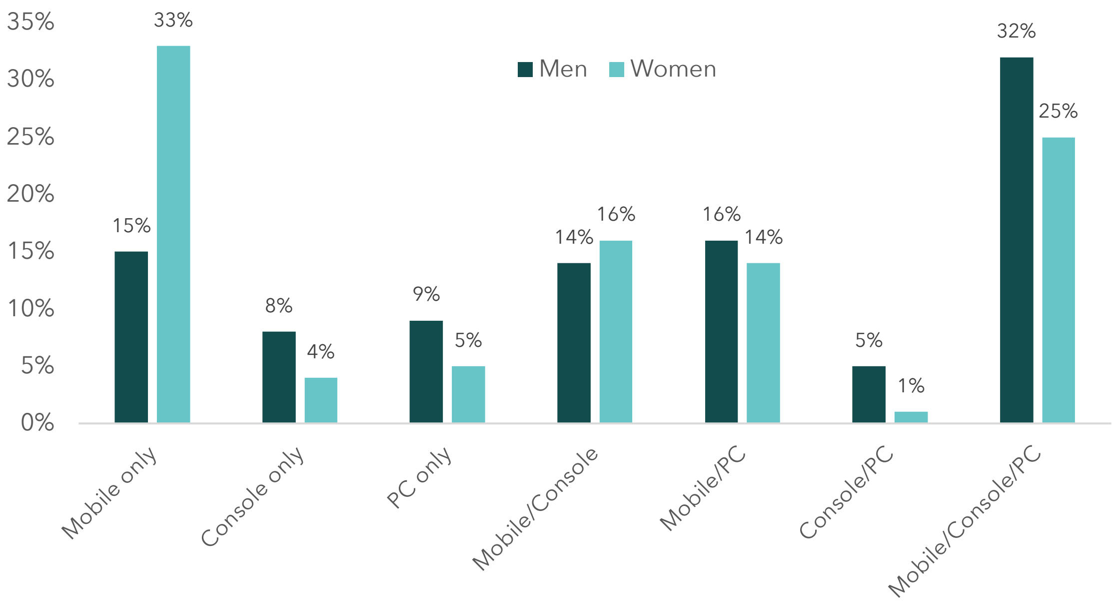
Source: AV&Co. 2019 International Gaming Survey
Note: n=1,125

Mobile and F2P expand gaming accessibility and player base

Games that are Free-to-Play (F2P), or requiring no upfront charge, are now very popular, and were cited by players as the most common reason to try a new game. The F2P model continues to gain revenue market share with an estimated 80% of digital revenue for 2018[5]. While F2P drives players to try games, the survey found that new content (e.g., new characters, new maps, DLC) is the most cited reason for continued engagement with a game.

[4] IDC, NewZoo, AV&Co. Research & Analysis
[5] SuperData, January 2019

Figure 12. Which platforms do you use for gaming? (by gender)



Source: AV&Co. 2019 International Gaming Survey
Note: n=1,672

Altman Vilandrie & Company also discovered that Mobile has virtually closed the gaming gender gap. Women now play games at similar rates to men (79% for women v. 83% for men), buoyed by a strong preference for Mobile (33% of women gamers are "mobile-only" compared to 15% for men).

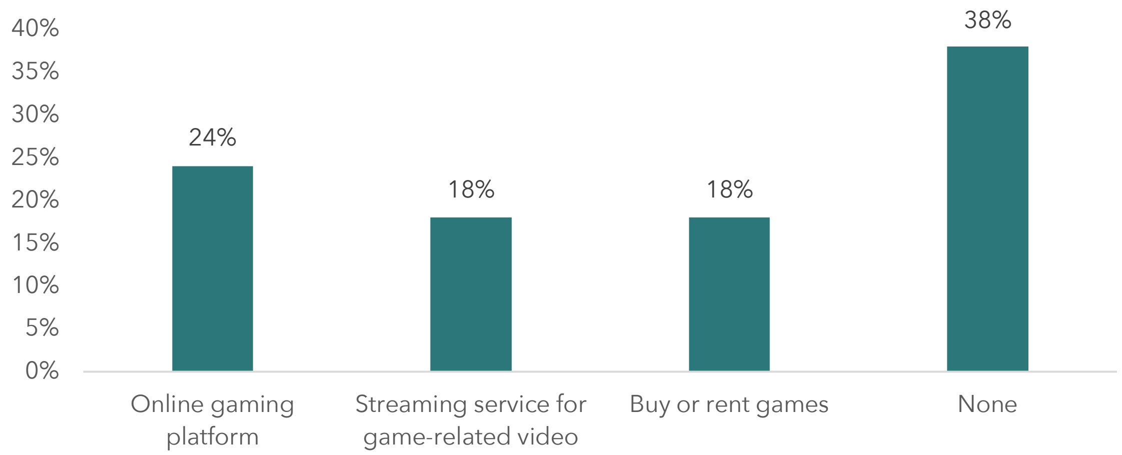
At the same time, mobile preferences vary significantly by geography and gender, with women from most countries having different preferences than men of the same nationality. By contrast, Chinese gamers of both genders shared similar preferences. And, while F2P is the primary driver of adoption, players have expressed a strong willingness to pay for good games: 77% of mobile gamers say they have paid or would pay for a mobile game.

Rise of new content and revenue models

Players are increasingly embracing game-related video content and subscription services, introducing added opportunities for user adoption, retention, engagement, and monetization:

- 67% of video game players watch game-related content (e.g., eSports, Twitch)
- 62% of gamers pay for a game-related subscription service (e.g., PlayStation Now; Twitch Prime)
- 89% of gamers make in-game purchases (e.g. cosmetic, performance, or content-related upgrades)

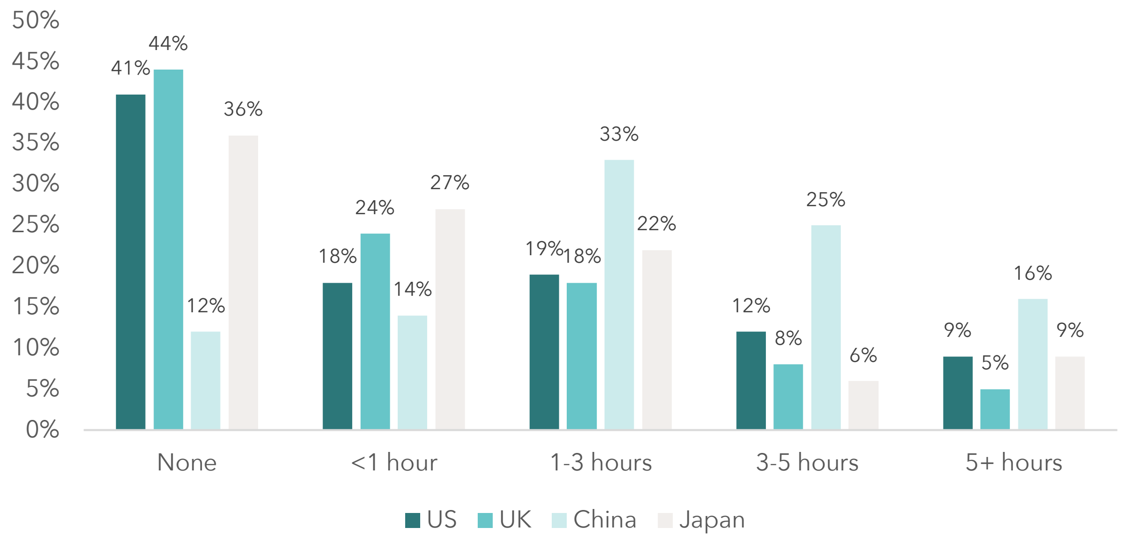
Figure 13. Do you subscribe to any game-related services? (All paid-for services; excludes China)



SOURCE: AV&Co. 2019 International Gaming Survey
Note: 1) n = 1,245; does not include China, 2) Online gaming platforms include PlayStation Now, Xbox Live Gold, EA Access, 3) Streaming services include Twitch, YouTube, Premium, 4) Game rentals and purchases include PlayStation Plus, Humble Bundle.

One key finding was the benefit of affiliated media on gameplay: 81% of players that watch game-related content say that doing so makes them more likely to play that game; similarly, gamers that watch eSports play 2.1 hours more of the game that they watch each week.

Figure 14. How many hours per week do you spend watching game-related video?

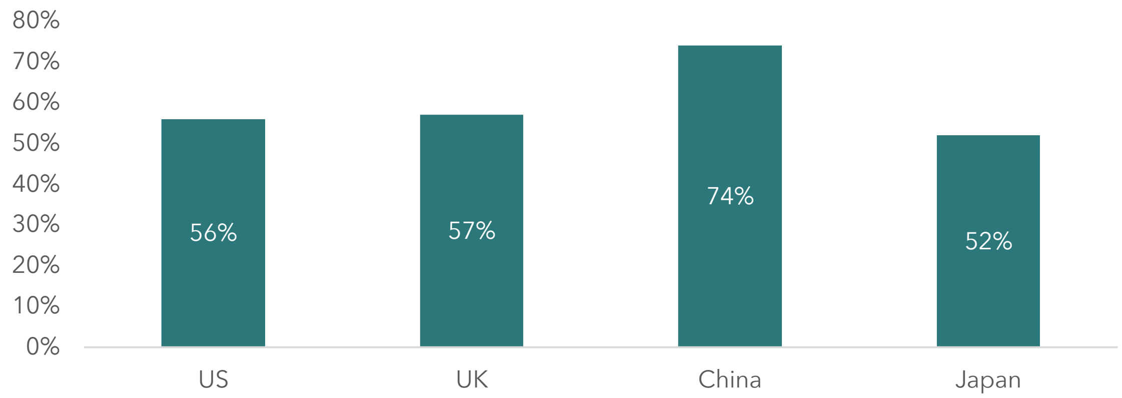


SOURCE: AV&Co. 2019 International Gaming Survey
Note: n = 1,672

Gamers increasingly playing online and "on-the-go"

For decades, game publishers have worked to "win the living room." Today's gamers are leaving the living room both physically and virtually: 60% of Mobile gamers play "on-the-go" while commuting or traveling; at the same time, gamers are increasingly playing, watching, and buying games online. Supporting this notion, 72% of gamers stated that they would be willing to play games provided by a non-traditional provider (e.g., cable company, Google).

Figure 15. Do you play mobile games while commuting or traveling?



Source: AV&Co. 2019 International Gaming Survey
Note: n = 1,392

This shift has been enabled by improvements to internet infrastructure, from stronger mobile networks to faster wireline bandwidth to better cloud-based delivery models; however, there hasn't been a significant amount of direct monetization from the telecom players. Cloud and internet service, for instance, providers have only dipped their toes into this new source of demand.

Conclusion

- The global gaming market projected at US$167bn in 2019, is expected to grow at a 5% CAGR through to 2022, with mobile growing at a faster pace (10% CAGR). In Australia, mobile gaming accounts for more than 25% of the A$4bn gaming market.
- 66% of consumers play games on their smartphones, based on Venture Insights' and AV&Co's analysis, which includes a consumer survey of gaming habits in Australia, US, UK, China and Japan.
- Mobile gaming usage is increasing in Australia - almost 75% of respondents said they spent more or the same time playing mobile games, with more 33% spending more than 30 minutes a day.
- Globally, gamers are increasingly playing online and on-the-go. Across US, UK, China and Japan, 60% of gamers play games while commuting or travelling. Australians on the other hand chose 'Home' (80%) as the most frequently used location for playing games on their smartphone, following by playing on the go (50%).
- 72% of gamers in the US, UK, China and Japan stated that they would be willing to play games provided by a non-traditional provider. This augurs well recently launched cloud gaming platforms like Google Stadia, Apple Arcade and even telcos.
- Data speeds and latency are important for gamers in Australia with nearly 30% of respondents willing to pay more for a 5G service when available. Just like they have with video and sports content, we could see telcos offer zero rated mobile gaming plans or add-ons – in February 2019, Vodafone Germany launched a €5 a month zero rated data gaming pass.

About Venture Insights

Venture Insights is an independent company providing research services to companies across the media, telco and tech sectors in Australia, NZ and Europe, with a special focus on new disruptive technologies.

For more information go to www.ventureinsights.com.au or contact us at info@ventureinsights.com.au

About Altman Vilandrie and Co.

Altman Vilandrie & Company is a U.S.-based strategy consulting group that serves global corporate and investor clients in the Telecom, Media, Technology (TMT) sector. The company's consultants are experienced in strategy, marketing, finance, M&A, technology, and operations.

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