



LIQUID&GRIT

CASINO REPORT

Competitive Research and Actionable Product Recommendations

TABLE OF CONTENTS

REVENUE DRIVERS

- Scratch Card Progression Events
 - Pick-A-Diamond in *Bingo Blitz*
- Progression Choice Mechanics
 - Merry Maze in *Bingo Bash*

MARKET WATCH

- Notable Releases I, II, & III

APPENDIX

- Liquid and Grit Slots Personas
- Premium Partnerships
- Casino Mechanics Taxonomy

3

12

16

DECEMBER

2019

REVENUE DRIVERS



CASINO > EVENTS > MINI-GAMES

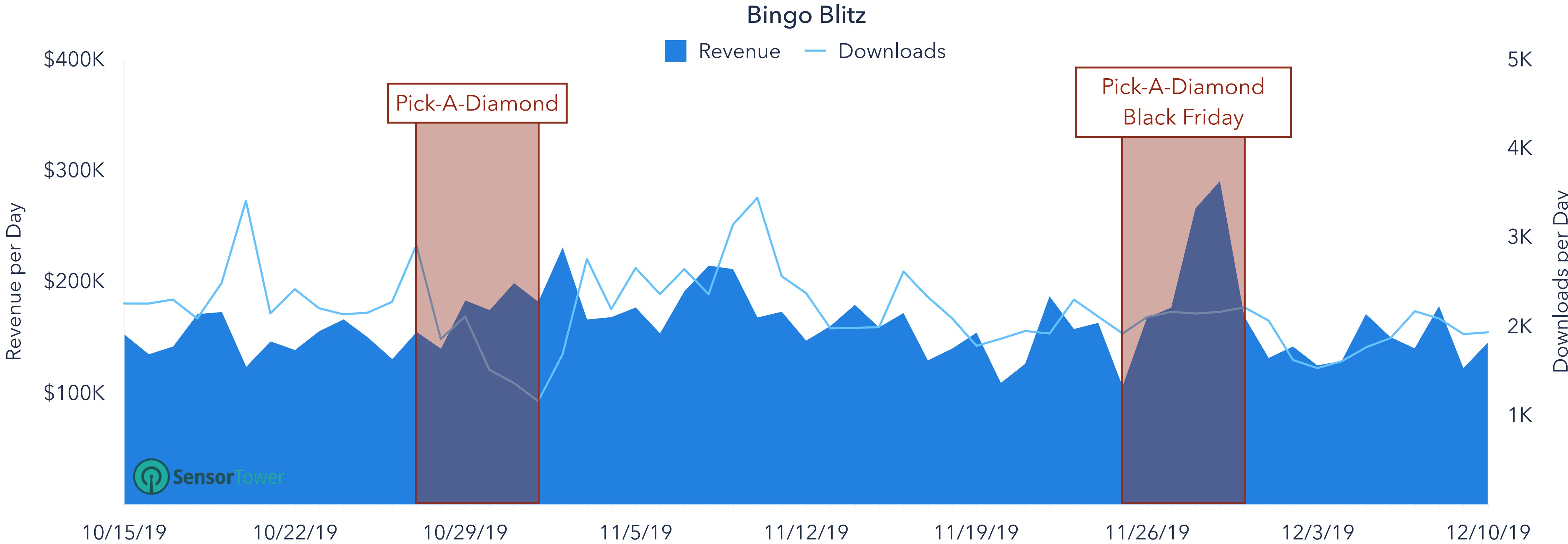
SCRATCH CARD PROGRESSION EVENTS

Pick-A-Diamond in *Bingo Blitz*

REVENUE ANALYSIS

During the two most recent releases of *Bingo Blitz's* Pick-A-Diamond mini-game event, revenue averaged +25.6% WoW and +14.1% 2Wo2W.

Releases
8/28-ongoing: Euro Bites collection feature
10/27-11/1: Pick-A-Diamond mini-game event
11/25: Charlie's Wish expansion feature
11/25-11/30: Pick-A-Diamond Black Friday mini-game event
11/28: Version update
No IAP changes during this time.



FEATURE TEARDOWN

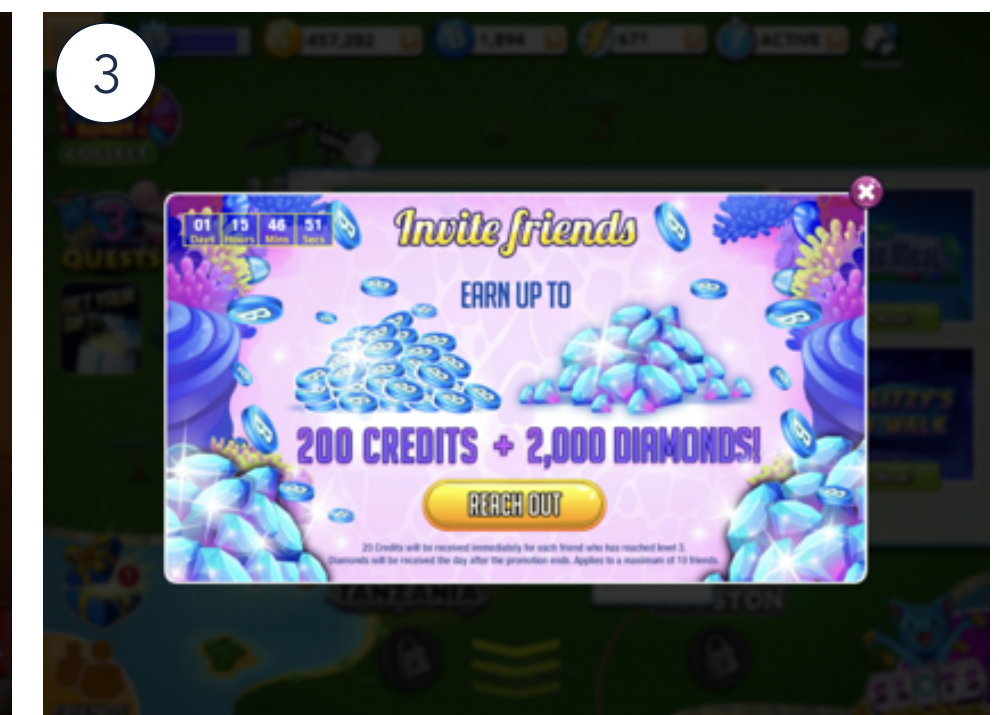
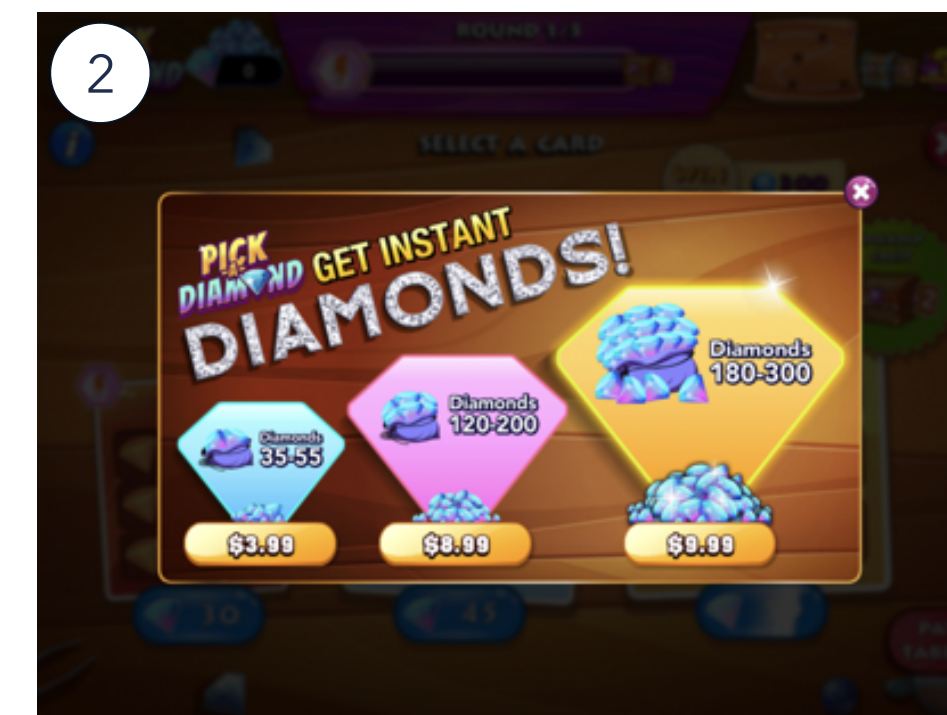
Players collect diamonds, an event currency, from bingo cells and IAP bundles. Diamonds are used to buy scratch cards that advance players on a prize map.

Details

- Players collect diamonds by:
 - Daubing bingo cells (1).
 - Buying event IAP bundles (2).
 - Inviting friends (3).
- Diamonds can be spent on three tiers of scratch cards (4 and video).
- Scratch cards award boosts, credits, diamonds, and lightning gems (5 and 6).
- Lightning gems fill a meter that advances players on a prize map (7).
- Completing the map awards a grand prize.

Additional Information

- See the [Pick-A-Diamond](#) and [Pick-A-Diamond Black Friday](#) (reskin) Libraries.



PRODUCT INSIGHTS

Add event-specific currency and bundled IAP sales to linear progression mechanics. Frame these large IAP sales as discounts, use percentages, and offer three strategically priced packages.

Revenue

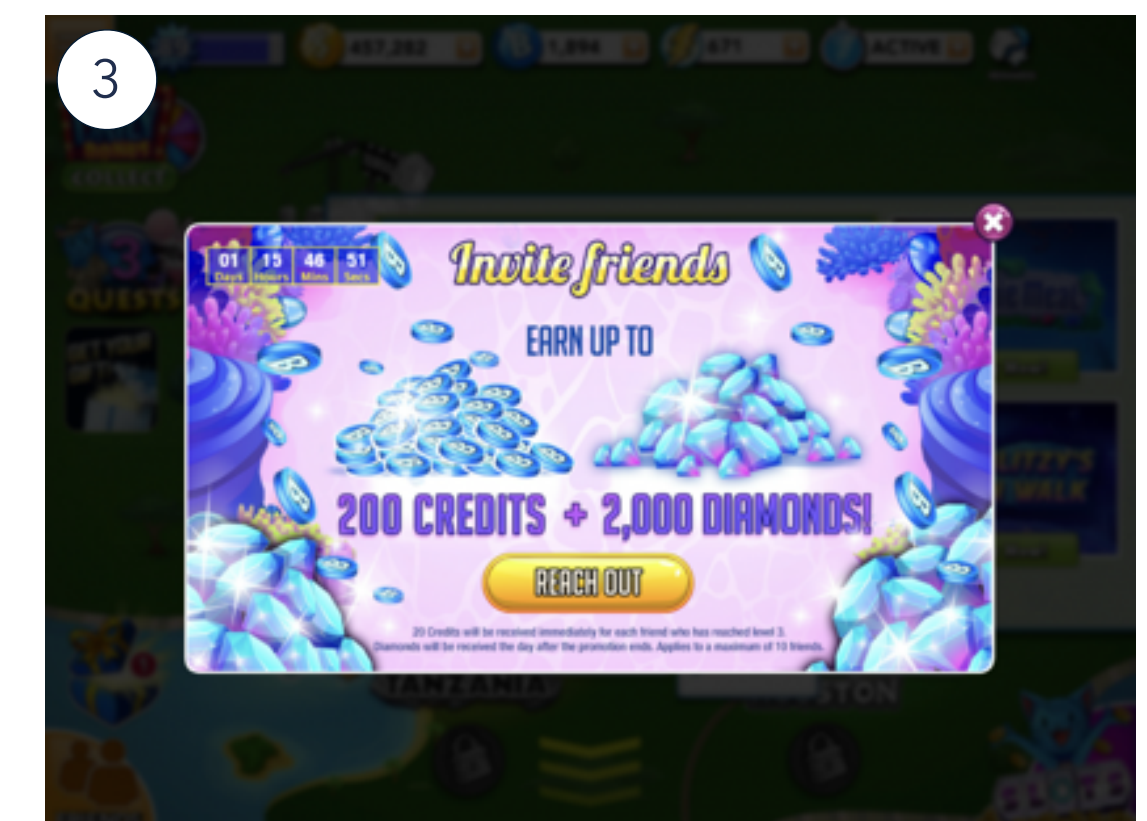
- **Include event currency in IAP bundles and lock desirable rewards behind linear progressions.** Based on [our analysis of custom design events](#) in top-grossing puzzle apps, events that combine IAP sales of event currency with linear progressions of event-exclusive unlockable items produce larger revenue growth.
- **Offer three packages with two distinctly higher price points.** Customers assess a package's value based on the other prices offered and are most likely to buy at the middle and highest price points *regardless of the actual prices* ([Pricing Psychology](#)). Compare the results of a study on beer purchases across three different pricing structures:
 - Test 1: \$1.80 (20% of purchases) and \$2.50 (80% of purchases) = \$2.36 per customer
 - Test 2: \$1.60 (0%), \$1.80 (80%), and \$2.50 (20%) = \$1.94 per customer
 - Test 3: \$1.80 (5%), \$2.50 (85%), and \$3.40 (10%) = \$2.56 per customer

Test 3 generated 8% more revenue than test 1 and 32% more than test 2. Pick-A-Diamond prices packages at \$3.99, \$8.99, and \$9.99 to maximize revenue from the higher-priced options (1).

- **Use images on the buy page.** Customers perceive digital storefronts with images as having greater variety and accuracy than those with only text ([The "Visual Preference Heuristic"](#), p. 1008). Pick-A-Diamond's buy page uses images to clearly communicate the contents of different IAP tiers (2).
- **Frame large sales as "Save __%!"** Customers prefer discounts to bonuses and percentages to dollar amounts for sales with deep benefits ([Consumer evaluations of different promotion types and price presentations](#)). Using percentages also reduces discounts' negative impact on future purchase decisions ([Cents or Percent?](#), p. 167).

DAU

- **Grow your player base with word-of-mouth incentives.** According to a [2019 report by Comscore](#), 30% of app users said they based download decisions on recommendations from family and friends. Pick-A-Diamond rewards players with event and primary currency for inviting friends (3). Other apps, including [Legendary Game of Heroes](#), [WSOP](#), [Wizard of Oz](#), and [Zynga Poker](#), have also released referral features or events.



CASINO > FEATURES > EXPANSIONS

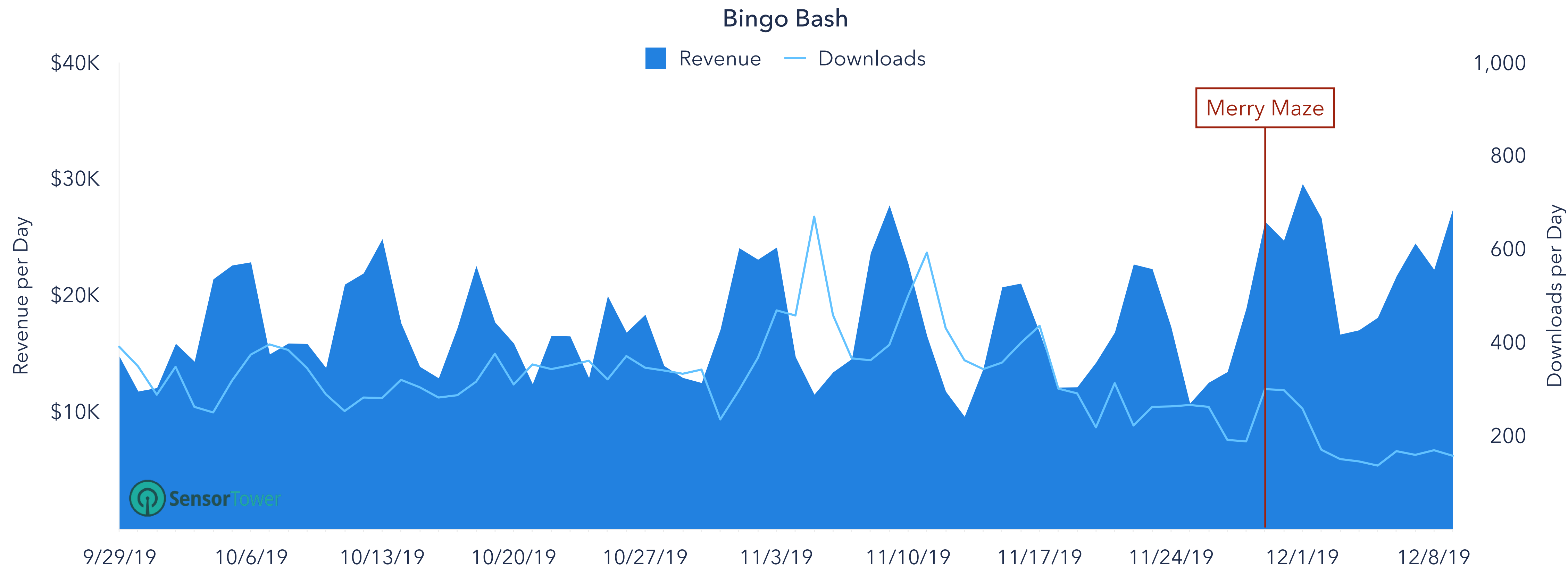
PROGRESSION CHOICE MECHANICS

Merry Maze in *Bingo Bash*

REVENUE ANALYSIS

Bingo Bash's revenue was +29% WoW after the release of the Merry Maze expansion feature.

Releases
11/25: Version update
11/25: Snowy Sprint expansion feature
11/25-11/27: Treasure Hunt mini-game event
11/27-11/29: Up, Up and Away competition event (FB)
11/28-12/2: Thank You Bashers purchase events (1 , 2 , 3 , and 4)
11/29: Merry Maze expansion feature
11/30-12/7: Merry Maze Win Extra Chips challenge event (FB)
No IAP changes during this time.



Graph data is iOS U.S. only.

FEATURE TEARDOWN

Players win bingos and collect puzzle pieces to earn tools. Tools are used to clear obstacles from maze levels.

Details

- Players win bingos by clearing all elves' paths to the workshop (1).
- Daubing green cells awards puzzle pieces.
- Winning a bingo or collecting 10 puzzle pieces awards one of the available tools (2 and [video](#)).
- Each tool clears a specific obstacle in maze levels (3).
- Players choose a path on the maze to collect bells (4 and [video](#)).
- Collecting all the bells completes the level and fills a prize meter.
- Additional tools unlock as players complete maze levels (5).

Additional Information

- See the [Merry Maze](#) Library for more images and videos.



PRODUCT INSIGHTS

Reward luck, skill, and effort in events that allow player choice. Add customizable elements to increase intrinsic motivation. For recurring events, use loyalty programs to improve event retention.

Event Engagement

- **Construct systems that reward luck, skill, and effort.** Merry Maze rewards players for luck when winning a bingo, for skill when completing a maze, and for effort when filling the prize meter. [Goblin' Candies](#), another *Bingo Bash* event with a similar reward system, increased revenue by 41% 2Wo2W ([1](#) and [video](#)). Many successful games use luck—or the appearance of luck—to soften the demands of pure skill. For example, *League of Legends* has an invisible “pity timer” that awards players after a period of bad luck ([How Designers Engineer Luck Into Video Games](#)).
- **Add more intrinsic rewards.** Research has found that even limited character customization heightens players’ enjoyment and intrinsic motivation, increasing engagement and play time ([Fostering Intrinsic Motivation through Avatar Identification](#), p. 8). Consider adding optional customization rewards to mechanics that allow player choice, such as unlockable elf outfits in maze levels. The average revenue increase from custom design this year in *Fishdom* and *Homescapes* is 21.5% WoW ([December 2019 Puzzle Report](#), p. 10).

Event Retention

- **Retain player progress across recurring events with an event-specific loyalty program.** Game-wide loyalty programs drive revenue—so why not append them to recurring events? A study found that loyalty programs increase purchase frequency, transaction size, and loyalty among light and moderate spenders ([The Long-Term Impact of Loyalty Programs](#), p. 26-29). In *Bingo Blitz*’s [Euro Bites](#), which boosted revenue by 23% WoW, players improve their ranks for better rewards and faster progression. These ranks carry over to future events, similar to a loyalty program ([2](#)).

Ecosystem Health

- **Show drop rates for items.** Not only is this beneficial for the long-term health of players, but it may also reduce regulatory risk: lawmakers across the E.U., U.S., U.K., and Australia have either already made or are currently campaigning for regulatory changes around loot boxes ([Is it time to give loot boxes the boot?](#)). In *Disney Emoji Blitz*’s [Diamond Box](#), players can see the probability of winning each character from a chest ([3](#)).

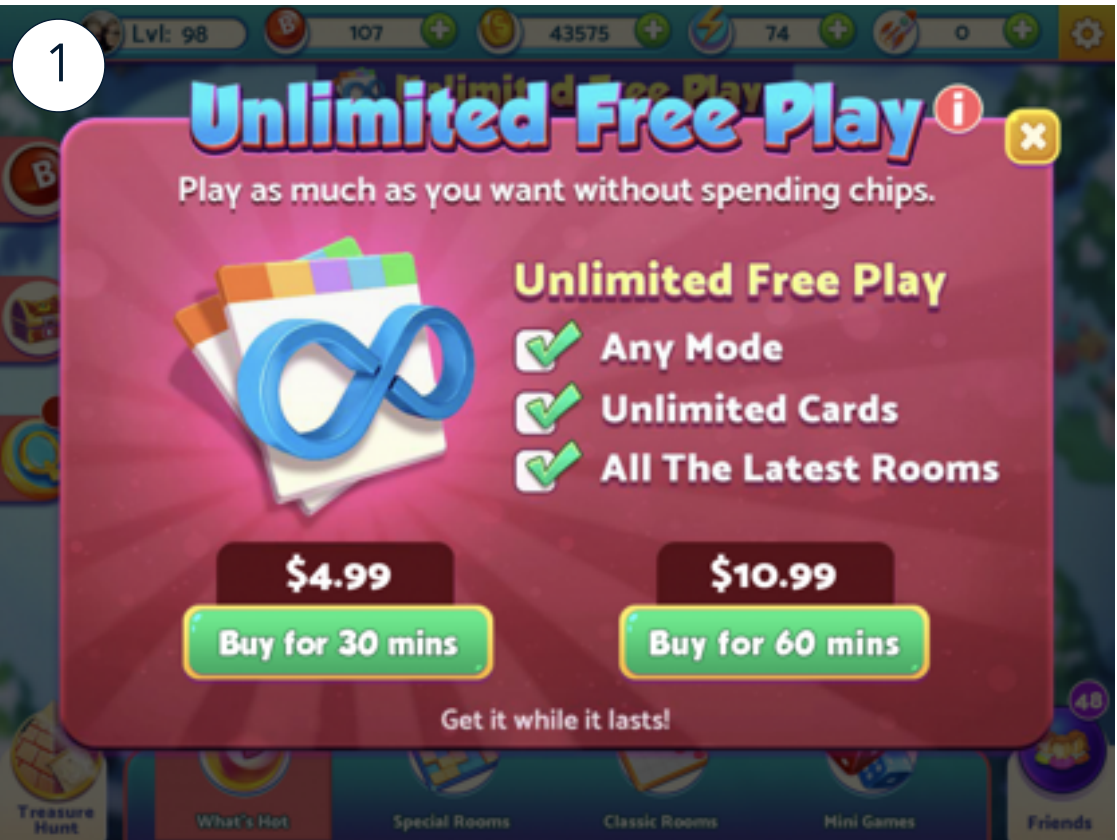


MARKET WATCH



NOTABLE RELEASES I

App	Library	Description
Bingo Bash	Unlimited Free Play purchase event	<ul style="list-style-type: none">Players can purchase 30 minutes of unlimited play for \$4.99 or 60 minutes for \$10.99 (1).
Cash Frenzy	Mission Pass mission feature	<ul style="list-style-type: none">Players complete daily missions to fill a meter.Filling the meter increases players' pass level.The free pass rewards players every five levels.Two purchasable pass options add rewards to all levels (2).The \$17.99 option awards 20 pass levels and additional items.
Cashman Casino	Robot Factory collection event	<ul style="list-style-type: none">Players earn bolts by betting above the minimum.Bolts are used to purchase upgraded body parts for a robot (3).Each body part has three tiers of upgrades.Upgrading the robot awards coin prizes.



NOTABLE RELEASES II

App	Library	Description
DoubleDown	Journey Beta quest event	<ul style="list-style-type: none">• Players complete challenges in eight stages to compete on a leaderboard.• Each stage has three challenge machines.• Completing a challenge awards a star.• Collecting the specified number of stars unlocks the next stage (1).• Players are ranked based on their total scores.
Governor of Poker 3	End of Year Calendar mission feature	<ul style="list-style-type: none">• Players complete daily missions on a calendar to collect rewards.• At the end of the event, players earn a bonus for the number of days claimed.• Players can pay to claim missed days (2).
House of Fun	HoF Album collection feature	<ul style="list-style-type: none">• Players spin or purchase coin packages to collect card packs.• Higher bets award rarer card packs.• Each pack contains up to four cards.• Completing card sets rewards players.• A new Lucky Card allows players to scratch for a reward (3).

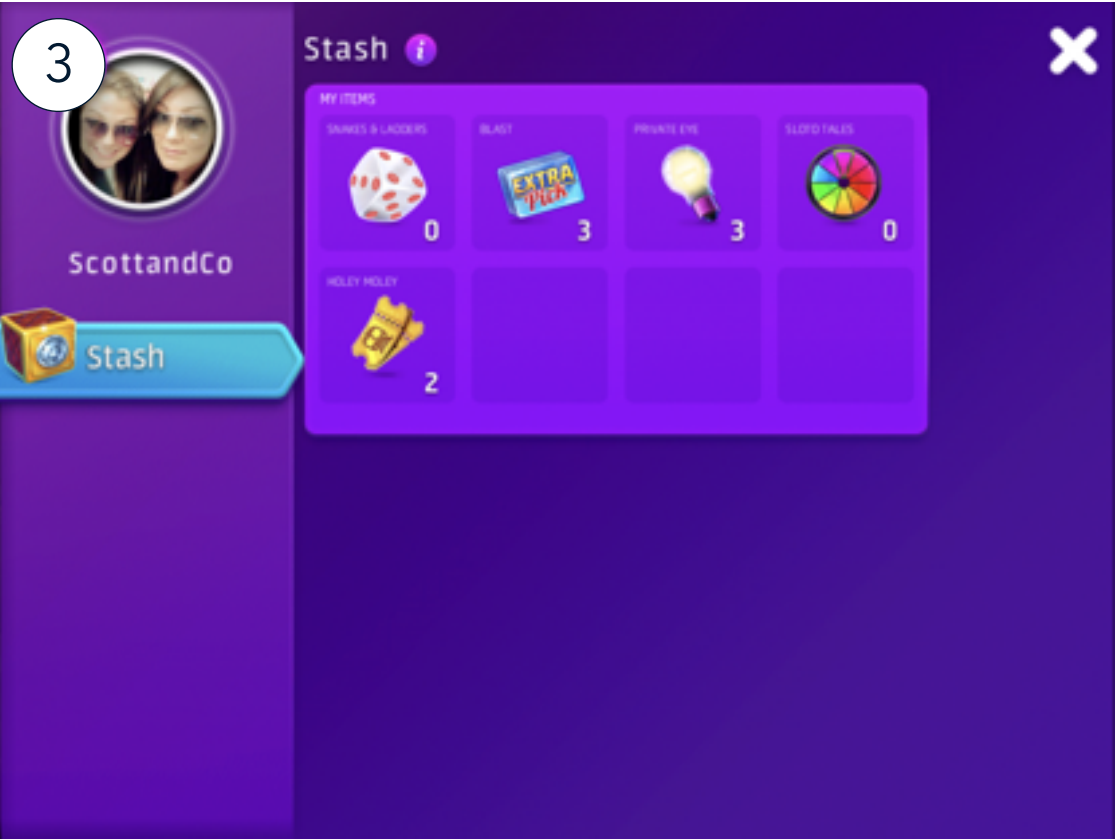
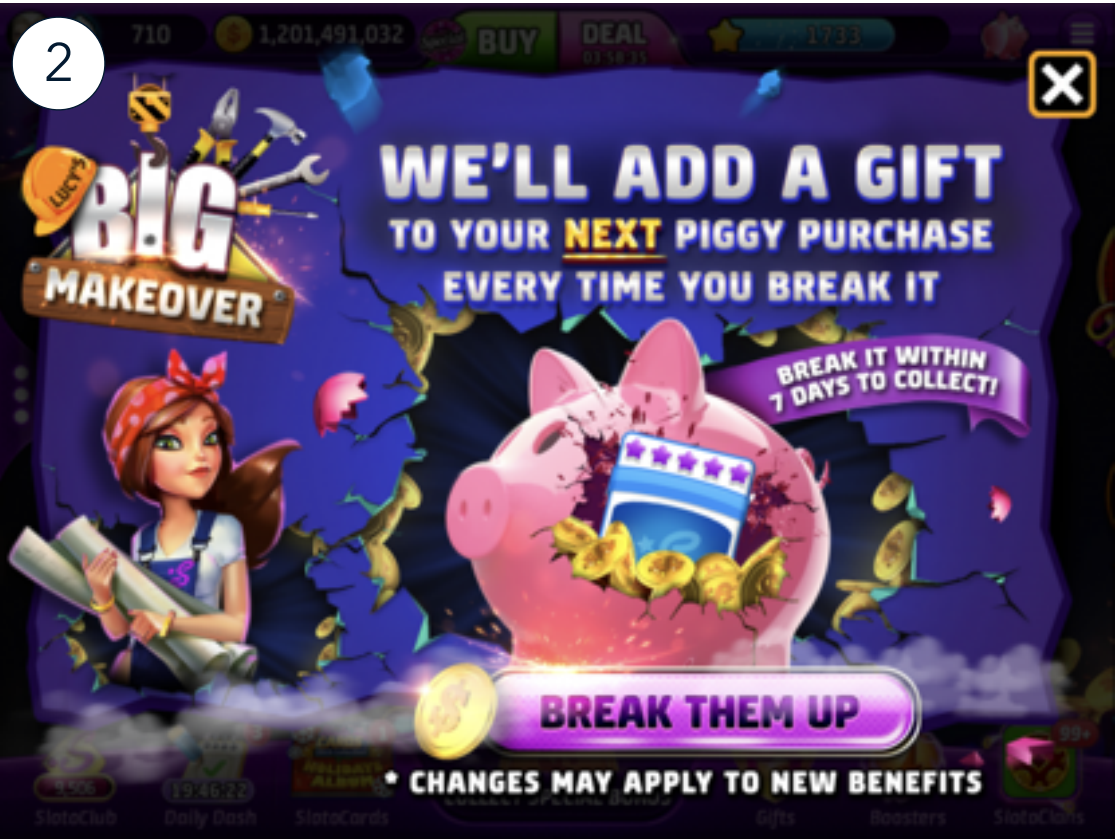


NOTABLE RELEASES III

App	Library	Description
POP! Slots	Win Zone Exclusive Content competition event	<ul style="list-style-type: none">These one-day tournaments began as limited-time events and are now regularly scheduled in featured and progression machines (1).
Slotomania	Lucy's Big Makeover other feature	<ul style="list-style-type: none">Purchasing and breaking a piggy bank adds a gift to the next piggy bank (2).
	Personal Profile profile feature	<ul style="list-style-type: none">A new "Stash" section in players' profiles shows all earned items (3).A limited-time IAP bundle accompanied the feature release.

Quickly review all features and machines

- Filter the [Library Tool](#) by month and year to see all new releases.



APPENDIX



LIQUID AND GRIT SLOTS PERSONAS

Participants from the U.K. and U.S. (N=1,299) were surveyed about their mobile gaming use. The data produced five personas with distinct patterns of slots preferences and playing habits.

	Demographics				
	Fame Frank	Money Mike	Daydreamer Denise	Gambler Gail	Sensation Serena
Size	21%	22%	27%	19%	11%
Women	50%	51%	66%	60%	55%
Age	32 mean / 30 median	34 mean / 32 median	35 mean / 34 median	35 mean / 33 median	35 mean / 32 median
Education	3.5	3.3	3.5	3.2	3.3
Money Spent	4.2	4.9	3.5	5.4	5.8
Play Time	5.0	4.5	5.0	4.9	6.5



* The education, money spent, and play time numbers represent the relative value of each category compared to other player personas.

PREMIUM PARTNERSHIPS

Liquid and Grit partners with these premier market research and analytics companies to infuse our reports with the most relevant and detailed gaming personas, data, and statistics available.

Sensor Tower	Kinrate Analytics	Quadrant Strategies
<p>Mobile App Store Intelligence</p> <p>Sensor Tower website</p> <p>Sensor Tower is relied upon by financial analysts, VCs, and publishers who need to leverage data to identify the fastest-growing apps, emerging markets, and more.</p> <p>Clients harness Sensor Tower’s suite of app intelligence tools to:</p> <ul style="list-style-type: none">▸ Evaluate app economies and app vitality.▸ Drive organic growth with the leading App Store Optimization platform.▸ Get the best global download and revenue estimates for the App Store and Google Play.▸ Discover top creatives and better shape user acquisition strategy.	<p>Player Personas</p> <p>Kinrate Analytics website</p> <p>Kinrate Analytics offers game developers, consultants, publishers, and cloud gaming operators the best cross-platform game recommendation engine for targeted marketing, as well as a novel profiling-as-a-service solution for intelligent market segmentation and social networking.</p> <p>Other services include advanced market prediction analyses for identifying emergent gaming trends and access to unique AI-enhanced data of 140 thousand game titles and 48 million game players.</p> <p>The products of Kinrate Analytics have been developed in university-led research projects in collaboration of economists, psychologists, game scholars, and data scientists.</p>	<p>Market Research</p> <p>Quadrant Strategies website</p> <p>Quadrant Strategies is a market research consultancy that uses research to help the world’s most prominent technology, gaming, and entertainment companies develop strategies for building their user base, increasing user engagement and spend, and strengthening their marketing and brand plans.</p> <p>We do that using a range of quantitative and qualitative methodologies, including gamer segmentation and persona development, feature testing, message creation, and loyalty and engagement modeling. The work of our senior leadership goes back many years, and includes long-term engagements for console and gaming-PC hardware-makers, individual games in a range of genres, and across consoles, PCs, and mobile, and for some of the top game franchises.</p>



CASINO MECHANICS TAXONOMY

Family	Definitions
Accelerators	Increases the power, impact, or efficiency of play
Banks	Saves a % of spend that can be unlocked later
Bonuses	Free bonuses given to players, often with time intervals
Challenges	Goal-oriented tasks for players to complete
Clubs	A group of players accomplishing goals or competing with other groups
Collections	A set of items players collect, often for a completion prize
Competitions	Players competing against other players
Cosmetics	Improvements or updates to the game or a feature
Currencies	Changes to currencies, economies, stores, and items
Expansions	Additional rooms, worlds, play modes, VIP lounges, etc.
Flows	Specific flows, like the new user flow, ratings, and surveys

Family	Definitions
Interactions	Any social feature with direct or indirect interaction
Leaderboards	Stand-alone leaderboards
Levels	Anything to do with leveling
Mini-Games	Smaller, shorter games within the app (e.g., scratch cards)
Missions	A linear set of tasks that players must accomplish
Notices	Feature or product announcements
Other	Miscellaneous features and outliers
Profiles	A player's setup, profile, settings, and controls
Purchases	Anything to do with spending money on items in the app
Quests	Completing tasks to progress along a map or map-like mechanic
Rewards	Any reward players receive for engagement or spend (other than in the bonuses family)

“Logic will get you from A to B. Imagination will take you everywhere.”

– Albert Einstein

LiquidandGrit.com



Brett.Nowak@LiquidandGrit.com

