

DoubleU Games

Social casino professional developer

Investor Relations 2017





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1. Company

1) Company Overview (General)



Company Overview

Company	DoubleU Games Co., Ltd.
CEO	Ga-Ram Kim
Established	May. 2012
Paid in Capital	KRW 8.7 Billion won
Employees	190 (175 Developers, 92%)
Listing date	Nov. 2015 on KOSDAQ (IPO value 1.1 trillion won)
M&A	Jun. 2017 DoubleDown Interactive LLC
Dividend	Total W10.3bn (650 won per week), market dividend rate of 1.7%

CEO / Shareholder status








Ga-Ram Kim

'00 KAIST, B.S in Electrical Engineering
'12-Now DoubleU Games, CEO

Shareholder	Ratio	Note
Ga-Ram Kim	43.06%	CEO
Treasury share	7.88%	
Institutional investors	19.84%	
Foreign investors	4.55%	
Individual investors	24.67%	

('16.12.31. Stockholder's list)

Key Service Line-Up

	DoubleU Games		
			
Title	DoubleU Casino	DoubleU Bingo	Take5
Launched	May. 2012	Jun. 2014	Nov. 2015
Platform	   	   	   

	DoubleDown Interactive		
			
Title	DoubleDown Casino	DoubleDown Classic	Ellen Slots
Launched	Apr. 2010	Sep. 2017	Sep. 2017
Platform	   		 

1) Understanding Social Casino Games

A healthy leisure game that maximizes the benefits of casinos and online games

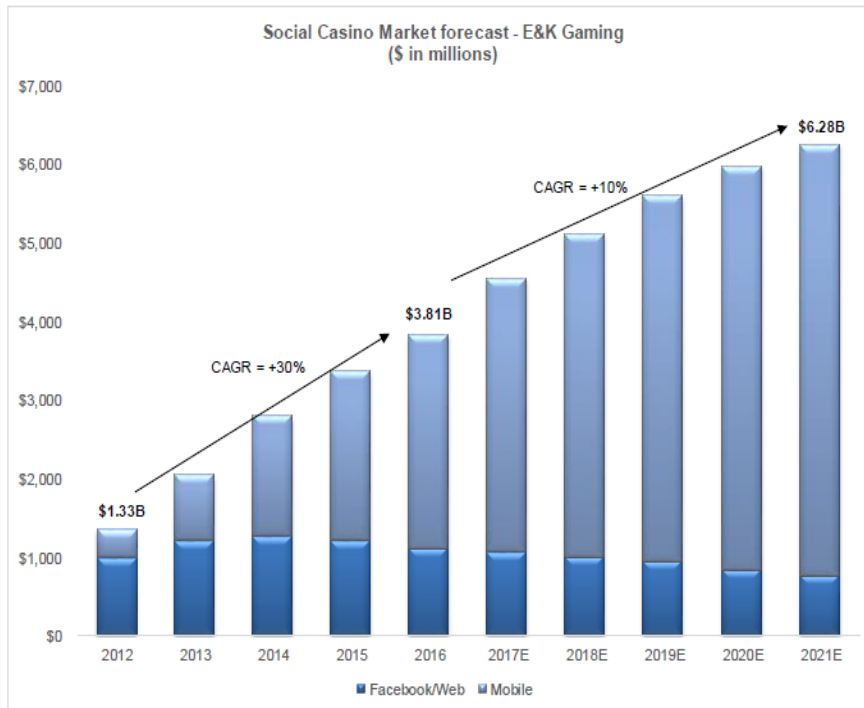


2) Global social casino market size



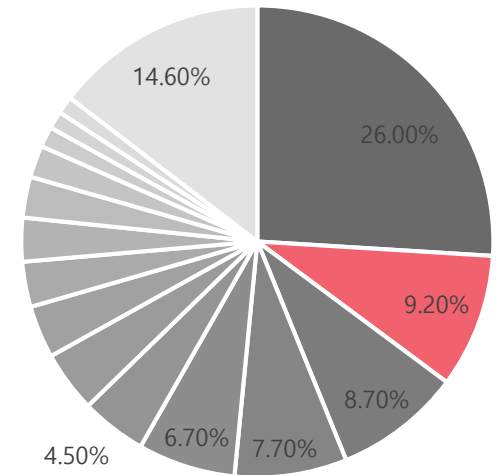
- We expect the current 5 trillion won market to grow to 7 trillion won in 2021 (our global market share of 9.2%)
- In the global mobile game market, M/S based on the payment amount of the social casino genre is about 20%

Global social casino market growth trend



(Source: Eilers & Krejcik Gaming, LLC 17.3Q)

TOP TIER share in global social casinos market



■ Playtika ■ DoubleU ■ Scientific ■ Zynga
■ Aristocrat ■ Churchill ■ Other

(Source: Eilers & Krejcik Gaming, LLC 17.3Q)

3) Market Competitive Environment



- Social casino TOP 10 publishers take control of 76.6% of total M/S
- **Market with high entry barriers: no company has entered the top 10 list of slot games since 2013 (Except Huuuge)**

Social Casino Top 10 Publishers

#	Company	Key Titles	Launched	M/S	Type	Offline Casino IP
1	Playtika	Slotomania, House of Fun, Bingo Blitz, WSOP, CZR	2010	26.00%	Slot	X
2	DoubleU Games	DoubleDown Casino, DoubleU Casino, Take5	2010	9.20%	Slot	IGT
3	Scientific Games	Jackpot Party Casino, Gold Fish, Quick Hits, Hotshot	2009	8.70%	Slot	Bally, WMS
4	Zynga	Zynga Poker, Hit it Rich!, Wizard of OZ, Black Diamond	2007	7.70%	Slot	X
5	Aristocrat	Heart of Vegas, FaFaFa real Casino Slots, Cashman Casino	2013	6.70%	Slot	Aristocrat
6	Churchill Downs	Big Fish Casino, Big Fish Bingo, Jackpot City Slots	2012	4.50%	Slot	Churchill Downs
7	Sony/GSN	Bingo Bash, GSN Casino, Fresh Deck Poker, Mirrorball	2010	4.20%	Slot	X
8	Playstudios	myVegas, Konami Slots, POP Slots	2012	3.60%	Slot	Konami
9	Tencent	Fight the Landlord, Tencent Poker	2014	3.10%	Poker	X
10	Huuuge	Huuuge Casino, Billionaire Casino	2015	3.00%	Slot	X

(Source: Eilers & Krejcik Gaming, LLC 17.3Q)

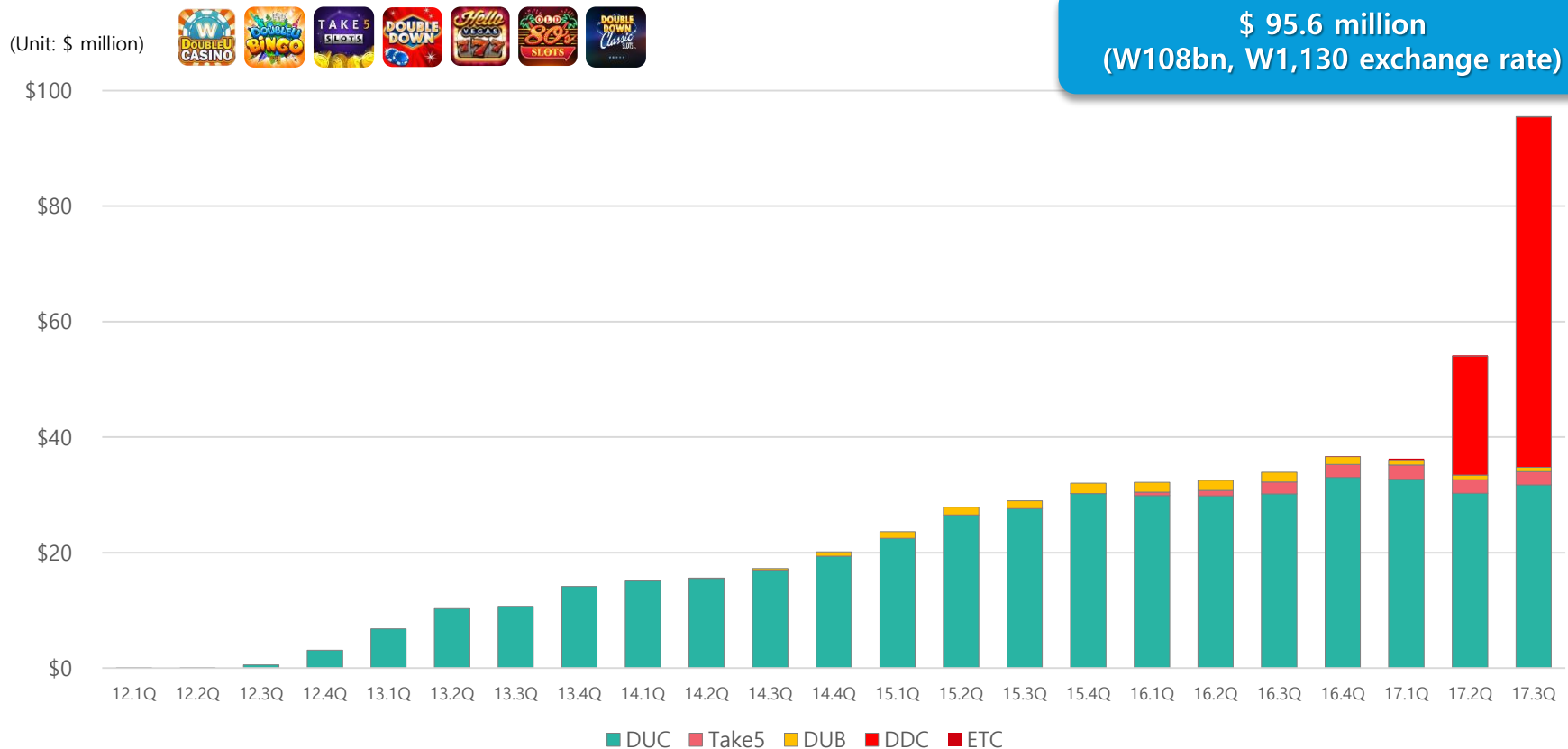
3. Highlight of 3rd Quarter



1) Record highest quarterly payment

- 17' 3Q, payments increased Q / Q by 76.3% and Y / Y by 181.5% to reach **US \$ 95 million**.
- (Based on exchange rate of KRW 1,130) Recorded **highest quarterly payment amount** of KRW 108 billion in KRW

Quarterly payments growth



2) DUG separated financial statements

- DUG recorded sales of W38.5bn in 3Q, **EBITDA of W13bn** (34.5% of operating revenue)
- Operating income margin declined Q/Q due to increased marketing expenses of W1.56bn and bonus payments in 3Q

DUG 17.3Q review (separated)

(Unit: million won)

Type	17.2Q	Operating revenue %	17.3Q	Operating revenue %	Q/Q Inc./Dec	Q/Q %	Note
Operating Revenue	37,806		38,544		738	2.0%	Sale to payment is not reflected well due to deferred effect
Operating Cost	22,368	59.2%	25,921	67.3%	3,553	15.6%	
Platform fee	11,342	30.0%	11,563	30.0%	221	2.0%	Only variable cost (Same as 30% per platform)
Marketing cost	5,039	13.3%	6,598	17.1%	1,559	30.9%	Additional marketing cost due to increased mobile marketing efficiency - Mobile Q/Q growth rate: DUC 8.8% / T5 38.7%
Labor cost	2,517	6.7%	4,022	10.4%	1,505	59.8%	3Q bonus payment of W1.35bn (implemented in the 1 st and 3 rd quarters)
Other operating expenses	3,470	9.2%	3,738	9.7%	268	7.7%	
Operating income	15,438	40.8%	12,623	32.7%	-2,815	-18.2%	
EBITDA	15,928	42.1%	13,122	34.0%	-2,806	-17.6%	

3) DDI separate financial statements

- DDI achieved sales of W68.7bn and EBITDA of **W24.1bn** in 3Q (**35.2%** of operating revenue)
- Reduced marketing expenses by more than 40% and **improved margins by more than 5%** by reducing operating expenses (server costs, service costs, etc.)

DDI 17.3Q review (separated)

(Unit: million won)

구분	17.2Q	Operating revenue %	17.3Q	Operating revenue %	Q/Q Inc./Dec	Q/Q %	Note
Operating revenue	22,574	100.0%	68,616	100.0%	46,042	204%	Reflecting full 3Q (only June for 2Q)
Operating cost	18,754	83.1%	52,644	76.7%	33,890	181%	
Platform fee	6,444	28.5%	20,360	29.7%	13,916	216%	Only variable cost (same as 30% for each platform)
Marketing cost	3,774	16.7%	6,726	9.8%	2,952	78%	Expenditure of \$ 2M per month (16.7% → 9.8% reduction)
Amortization expense	2,739	12.1%	8,160	11.9%	5,421	198%	Maintain expenditure of W2.7bn per month
Royalty	1,881	8.3%	5,385	7.8%	3,504	186%	Maintain 8% of sales
Labor cost	2,089	9.3%	7,764	11.3%	5,675	272%	
Other operating expenses	1,827	8.1%	4,250	6.2%	2,423	133%	
AWS	526	2.3%	1,519	2.2%	993	189%	Server cost reduction is in progress (5 ~ 10% quarterly)
Outsourcing service cost	931	4.1%	1,662	2.4%	731	79%	Outsourcing service cost reduction is in progress
Other Operating expenses	370	1.6%	1,069	1.6%	699	189%	
Operating income	3,820	16.9%	15,971	23.3%	12,151	318%	
EBITDA	6,559	29.1%	24,131	35.2%	17,572	268%	improvement in profitability (29.1%→35.2%)

4) DUG Group's consolidated financial statements

- Based on DUG consolidated 3Q **operating revenue of W107.2bn**, **EBITDA of W36.1bn** (**33.7%** of operating income)
- Operating revenue growth and cost reduction trend are expected to continue in 4Q. Business leverage effect expected.

17.3Q review (Consolidated)

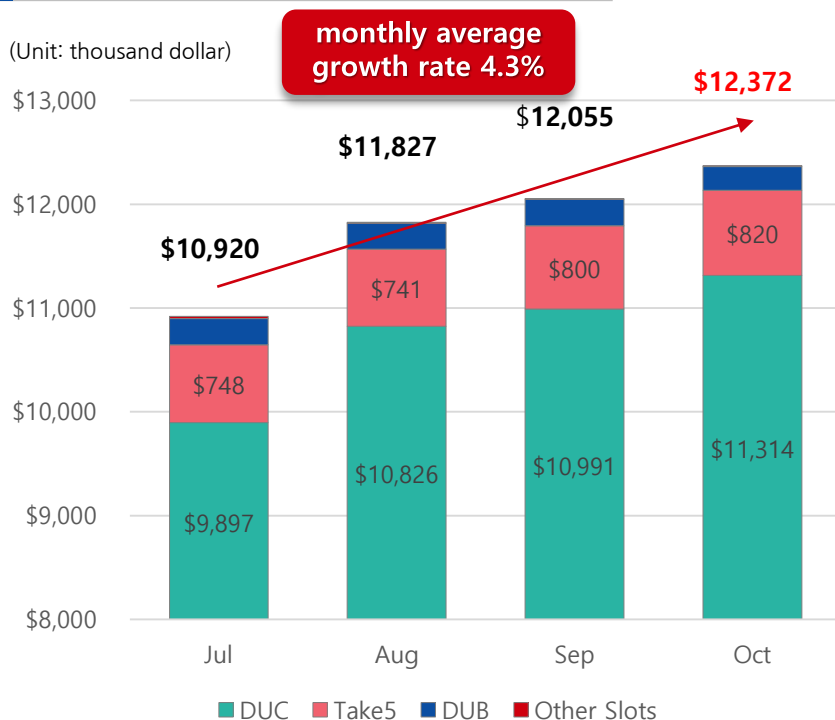
(Unit: 100 million won)

Type	17.2Q	%	17.3Q	%	Q/Q inc./dcr.	Q/Q %	Note
Operating revenue	604	100.0%	1,072	100.0%	468	77.5%	Reflecting full 3Q (only June for 2Q)
Operating cost	528	87.4%	796	74.3%	268	50.8%	
Platform fee	181	30.0%	322	30.0%	141	77.7%	Only variable cost (same as 30% for each platform)
Marketing cost	88	14.6%	133	12.4%	45	51.1%	
Royalty	19	3.1%	54	5.0%	35	184.2%	
Amortization expense	27	4.5%	81	7.6%	54	200.0%	
Temporary cost (M&A)	107	17.7%	0	0.0%	-107	-100.0%	M&A related costs recognized in 2Q
Labor cost	54	8.9%	111	10.4%	57	105.6%	
Other operating expenses	52	8.6%	95	8.9%	43	83.4%	
Operating income	76	12.6%	276	25.7%	200	263.2%	
EBITDA	106	17.5%	361	33.7%	255	240.6%	Labor costs effect of T8G and DUD partly reflected

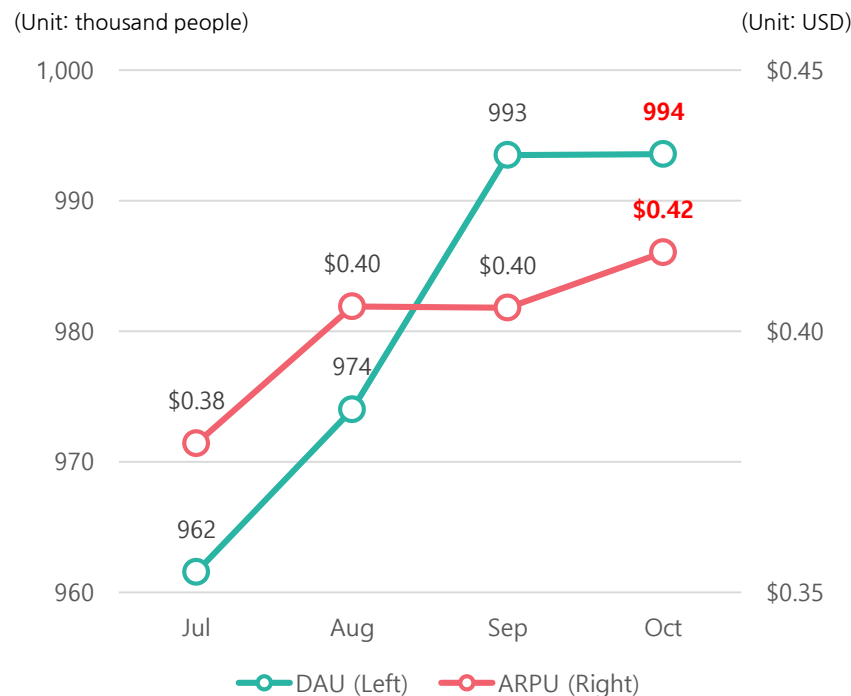
1) DUG Monthly Game Payment Trends and Key Indicators

- Due to steady growth of the lineup, DUG's overall game payment has been steadily growing at a **monthly average growth rate of 4.3%**
- **DAU and ARPU grow at the same time** thanks to increased marketing efficiency due to increased payment efficiency

Quarterly payment trend *



DAU * and ARPU ** trend



* 8 ~ 10% growth in the mobile sector. Web (FACEBOOK) sector congestion
 ** Mobile payment ratio is 65%. Web impact gradually declining

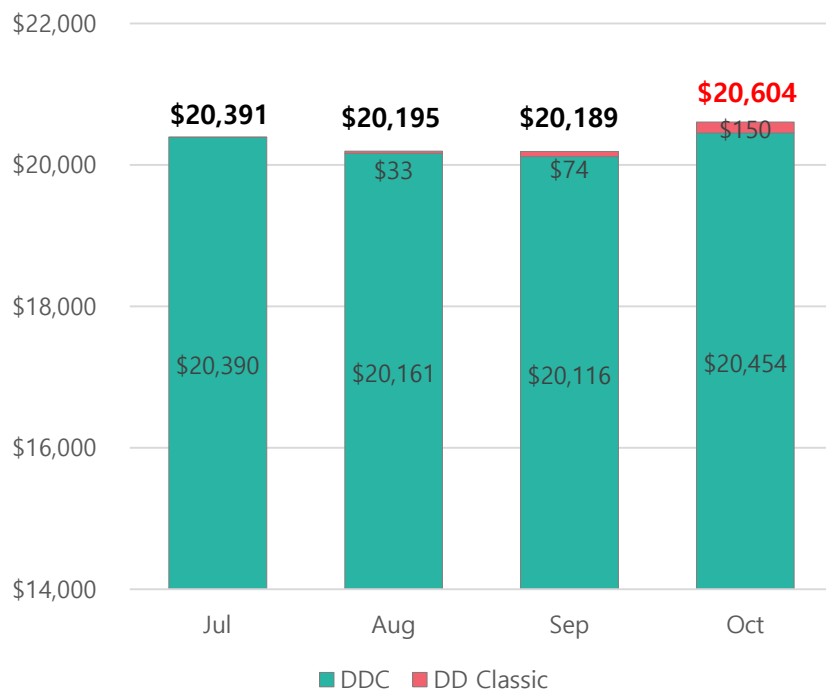
* DAU : Daily Active Users
 ** ARPU : Average Revenue Per User

2) DDI Monthly Game Payment Trends and Key Indicators

- DDI is ongoing service improvement work * on a monthly basis, **maintaining stable payments despite small-scale marketing** * Detailed Description on p.22
- In addition to **the rising ARPU**, **DAU also has risen in October** with the launch of the DD Classic

Quarterly payment trend

(Unit: thousand dollar)

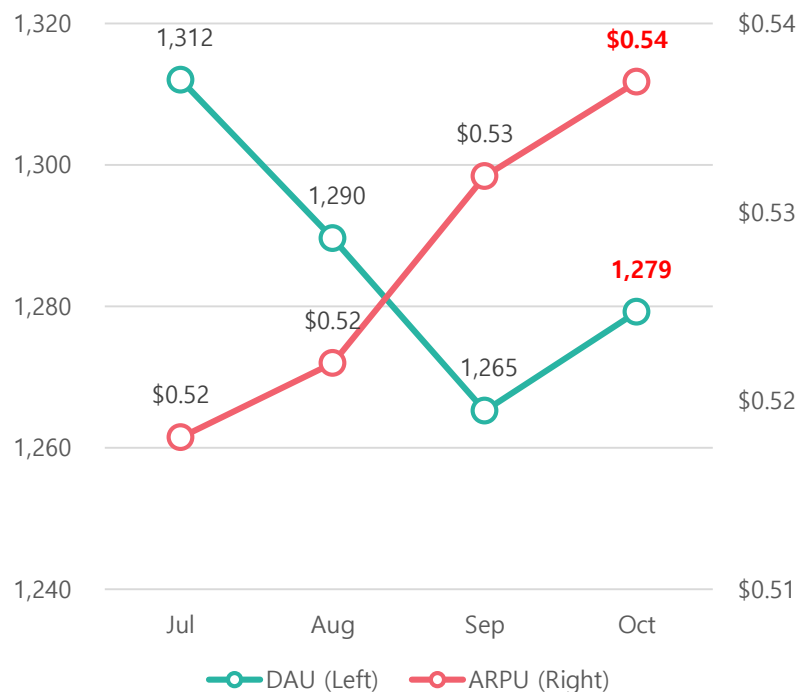


* 'Double Down Casino' payment amount rebound in October
 ** 'Double Down Classic' growing more than 100% monthly

DAU and ARPU trend

(Unit: thousand people)

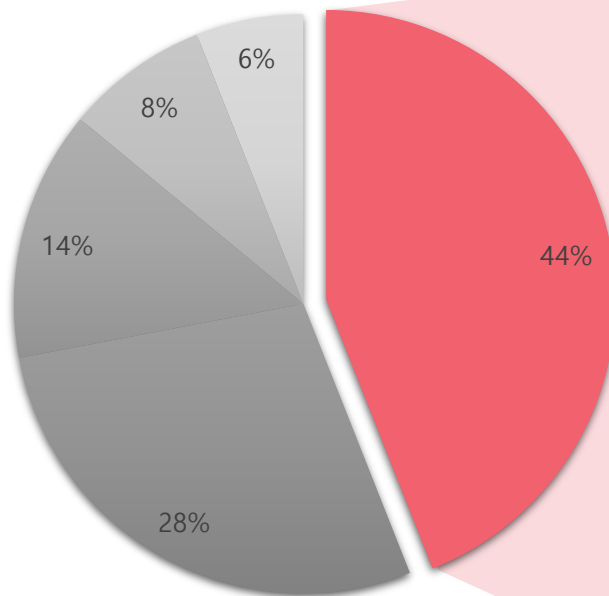
(Unit: USD)



1-1) DDI – Powerful off-line slot IP

- Exclusive supply of **IGT's overwhelming IP**, which is 44% of offline slot market
- Provision of **more than 26 proven offline slot IPs per year for at least 10 years** through license agreement

Off-line TOP TIER casino market share

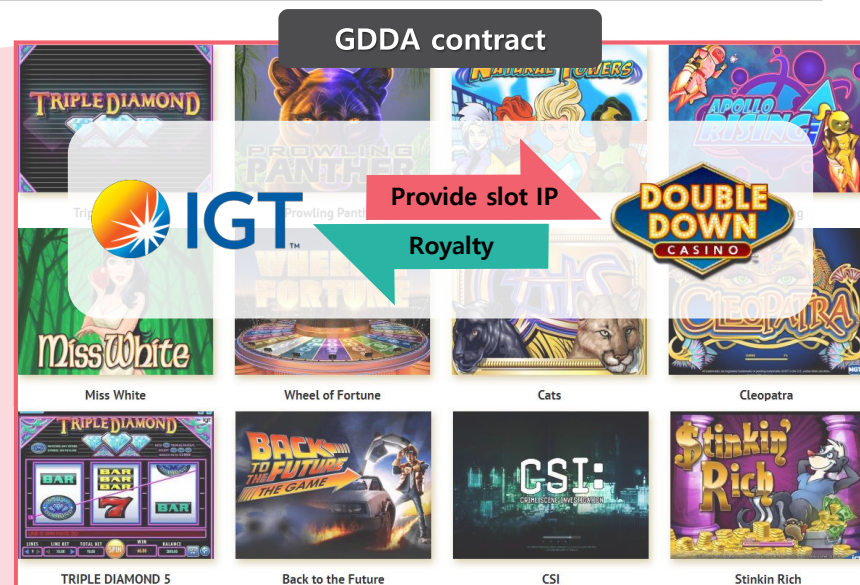


■ IGT ■ Scientific Games ■ Aristocrat ■ Konami ■ other

Subject: Total North America Participants – Casino Owned Games

Source: Eilers-Fantini Slot Survey('16 3Q)

IGT's off-line IP exclusive contract



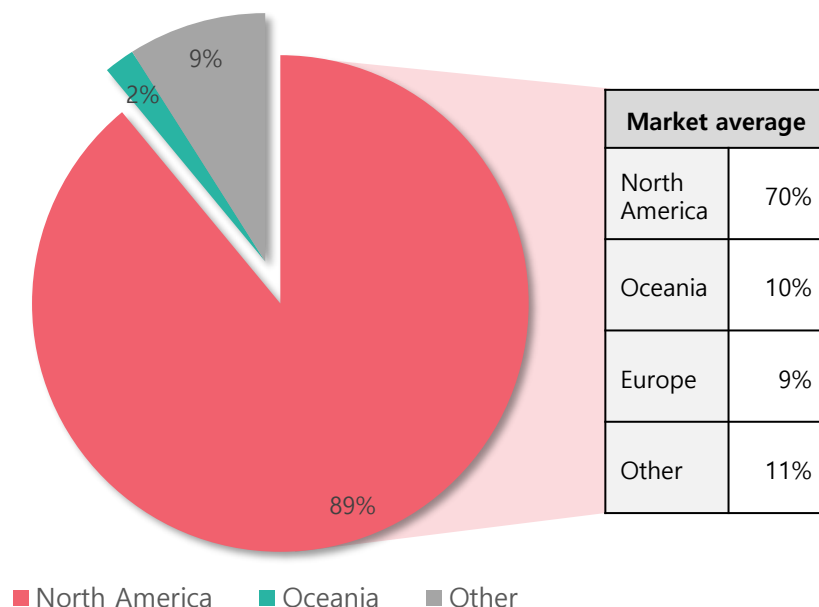
- Main contents: Separate license agreement (GDDA) for acquisition of exclusive license for social casino market for IGT intellectual property (IP)
- Convert 26 offline slots to online slots per year
- Contract period: Initial contract period 10 years (can be extended up to 20 years)
- Royalty: Estimated royalty based on net sales (rate is non-public)

* GDDA : Game Development Distribution and Services Agreement

1-2) DDI – Excellent customer retention through market preemption

- 89% of all payments are generated in North America with **high purchasing power and royalties** (Preemption effect in North American market)
- Hence, ARPU and payment user conversion ratio are higher than competitors

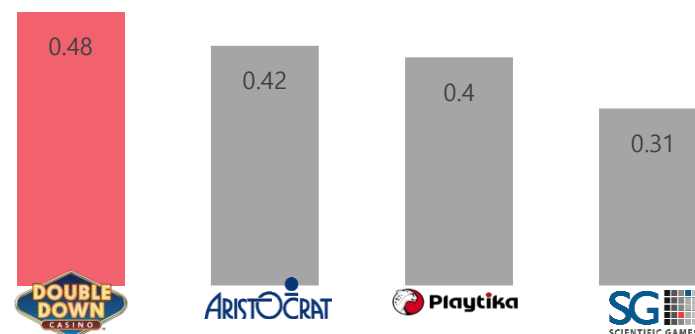
DDC sales centered on North America



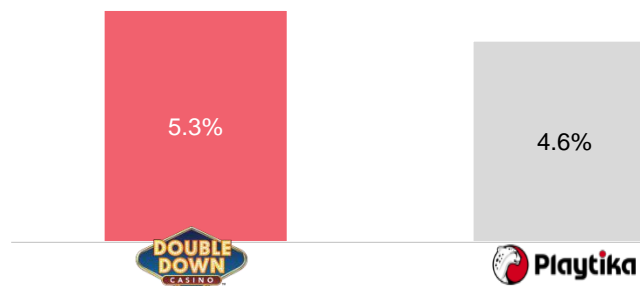
Annual average DAU → 1.6M

High purchasing power of DDC users

➤ Major social casinos ARPU status



➤ Payment user conversion ratio (% MUP / MUU)



2-1) DUG – Powerful casual slot self-development ability

- **More than 100 highly competitive slot libraries** (new slot games every 2 weeks)
- It has a strong slot IP with a cumulative sales of more than US \$ 100 million (future IP revenues will be diversified)

Slot game development

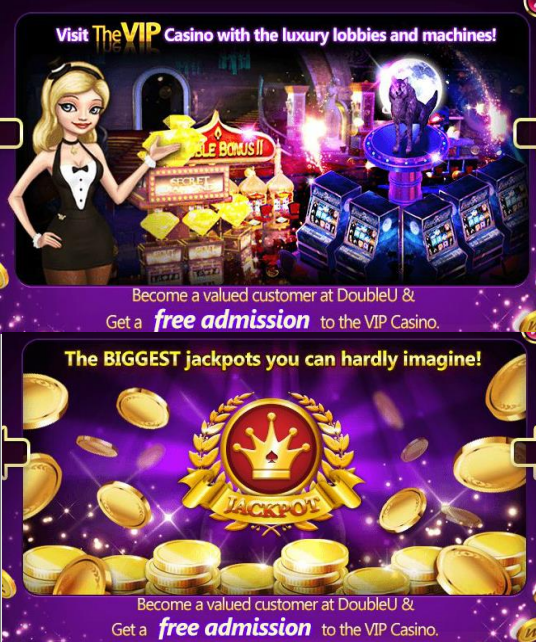


2-2) DUG – Ability to operate the casino based on DATA

- **Exceptional economic system and ability to operate personalized service** through analysis of Big Data
- Maximize customer value through proven slot management by theme

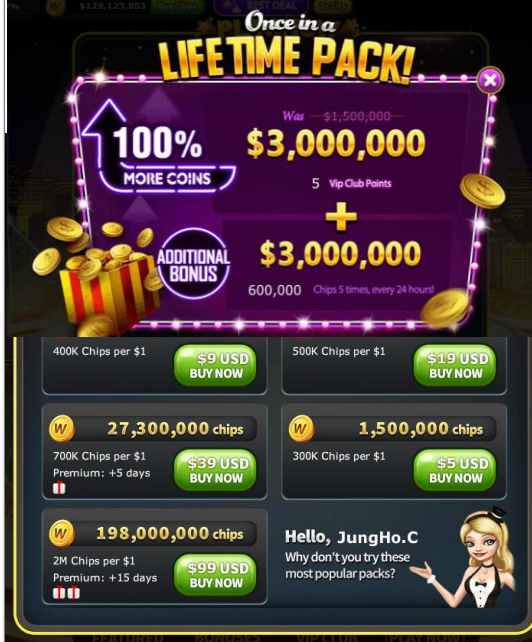
Casino operation know-how

Active economic system operation



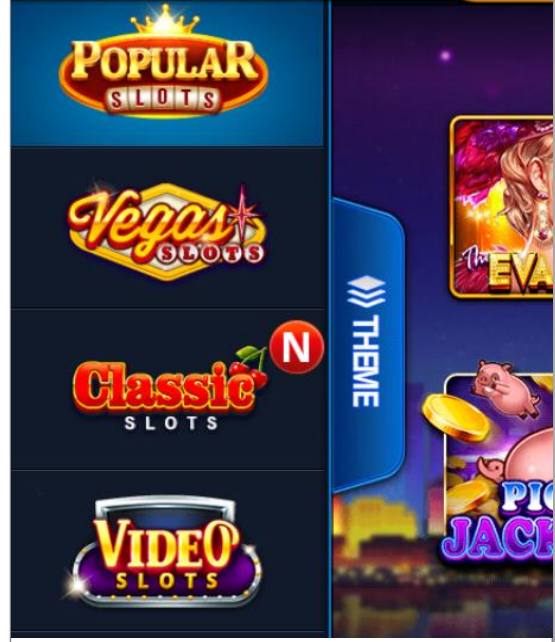
➤ High roller Slot machine

Personalized service



➤ Personalized payment Service

Provide slot by theme



➤ New type launching: Classic

2-3) DUG – Ability to perform high-efficiency marketing

- High efficiency ROI through agency and campaign management based on DATA
- Stable sales base in N. America, Europe and Oceania through marketing by region

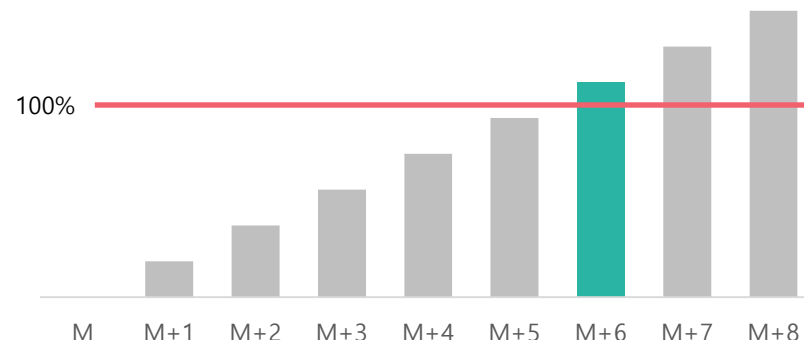
High-efficiency marketing expenses

➤ Comparison of marketing efficiency between DDC and DUC

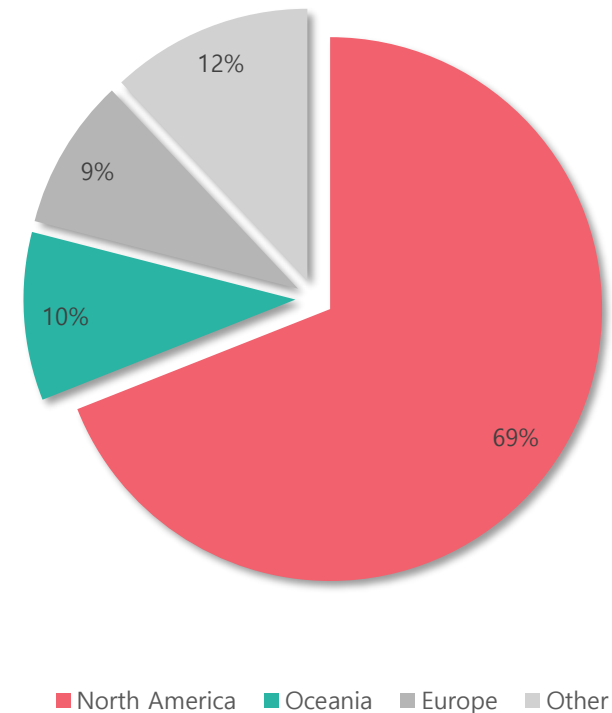
(Unit: 1,000 dollar)

Type	Division	DDC	DUC
Marketing costs	A	\$ 51,167	\$ 18,133
New subscriber's billing contribution	B	\$ 26,188	\$ 24,530
ROI	C=B/A	51%	135%

➤ ROI trend: 100% return on marketing costs within 6 months



Diversified DUC sales area distribution

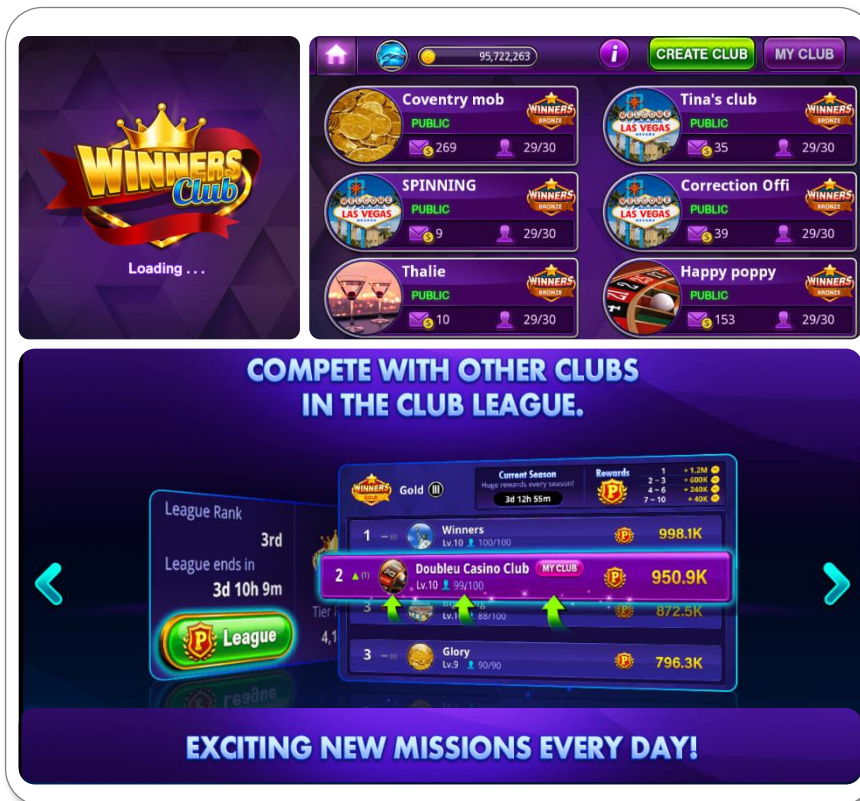


1-1) DUC Maximizing Seasonal Effect

- DUC social function and retention, **introduction and activation of club function** for payment enhancement (event linkage)
- Strengthening **major season contents and enhance payment event** for maximizing peak season effect in 2nd half

Introduced CLUB content to enhance social features and competition

Quarterly payment events plan for 4Q

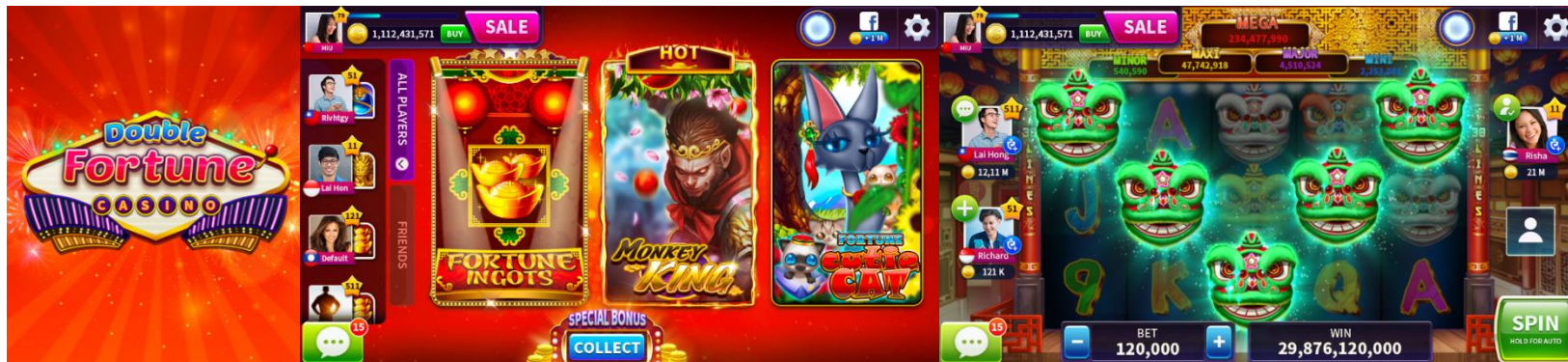


Event name	Event period	Remarks
1. Halloween	10/27~31 (5days)	importance ★★★★★ • Average daily payment of \$ 430,000 for the same period (18.7% increase from October's daily average) • Highest daily payment: \$ 540,000
2. Thanks giving + Black Friday	11/23~27 (5days)	importance ★★★★★
3. Christmas	12/21~25 (5days)	importance ★★★★★
4. New year	12/29~1/1 (5days)	importance ★★★★★

1-2) Entry into Asian social casino market (continued)

- Completed Android Market soft launch of "**Double Fortune Casino**", the first project in Asia (3rd quarter)
- After **official launching in December**, it will expand affiliate marketing with local publishers in 18' 1Q

Strategy to enter the Asian social casino market



17' 3Q / Work Results

DFC soft launch

- DFC improvement results (by October 2017)
 - 1) 6 slots service now completed
 - 2) Completed development of additional 9 slots
 - will be updated sequentially
 - 3) Identify preference probability models of target users

17' 4Q (Planned)

DFC official launch

- DFC improvement goal (by the end of 2017)
 - 1) Strengthen social features (club functions, etc.)
 - 2) Strengthen retention and settlement factors
 - (Offering various product groups according to culture)
 - 3) Schedule to be officially launched in December

18' 1Q (Planned)

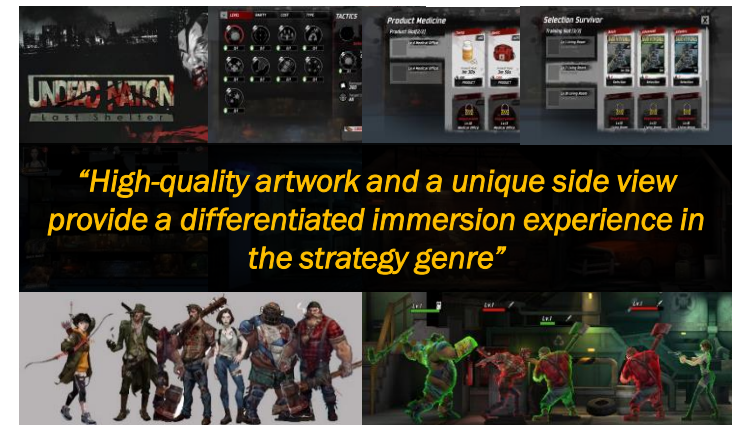
DFC Expand local marketing

- DFC improvement goal (until 1Q 2018)
 - 1) Partnering with local publishers and marketing
 - 2) Targeted marketing launched (Chinese user input)
 - Taiwan, Singapore, Malaysia, Australia, USA

1-3) Launches Undead Nation, strategy genre

- Plan to measure game advancement and marketing efficiency through **Facebook (web) soft launch in December '17**
- **Global launch plan for the world's two major markets(mobile) in May '18** after Android soft launch in March '18

Project Z : Undead Nation : Last Shelter



Strategy game that compete / cooperate with other users and collect resources to grow their own station in a zombie-covered world

Plan to launch

2017.12.
Facebook soft launch

2018.03.
Android (Mobile) soft launch
(Canada)

2018.05.
iOS/Android global launch

2-1) DoubleDown Casino Service Improvement (continued)

- (Results of 3Q DDC service improvement) **iOS server speed 76%, server usage 10% improvement**
- Achieving 4 goals to improve DDC service through 4Q server and 18'1Q client renewal

DoubleDown Casino Four goals of service improvement

Building an optimized client / server architecture

1. Improving game access speed

2. Free extension of meta (UI) functionality

3. Big Data Accumulation and enhance Personalized Services

4. DUC Hit Slot Service

17.3Q / Work Results

Maintain DDC 1.0 VER

➤ DDC Improvement result (By October 2017)

- 1) Improved iOS access speed by 76%
 - o Reduce loading time and slot entry time
 - o Improve marketing efficiency (ROI) by more than 15%
- 2) Reduce server usage by 10%

17.4Q

DDC 1.5 VER launch

➤ DDC improvement goal (by the end of 2017)

- 1) Plan to speed up Android server
- 2) 10 ~ 20% reduction in server usage
- 3) Customer behavior pattern data building plan
- 4) DDC 1.5 VER launch
(Server Side Re-structuring, speed improvement)

18.1Q

DDC 2.0 VER launch

➤ DDC improvement goal (by the 1Q 2017)

- 1) DDC 2.0 VER launch
(Client Side Re-structuring, Improvement of various game functions)
- 2) Introducing various game functions - VIP room, Expand Jackpot Feature, Coupon and Free Spin function etc.
- 2) Ready to supply DUC mega-hit slot IP

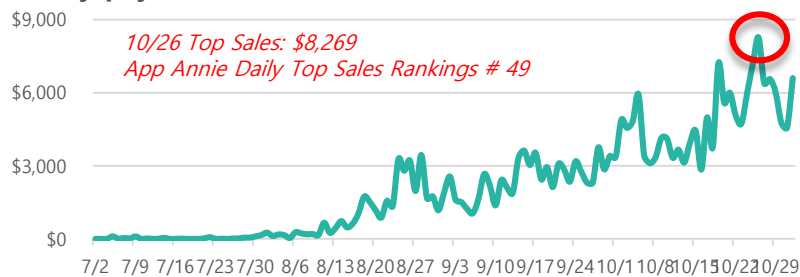


2-2) Market entry of new games

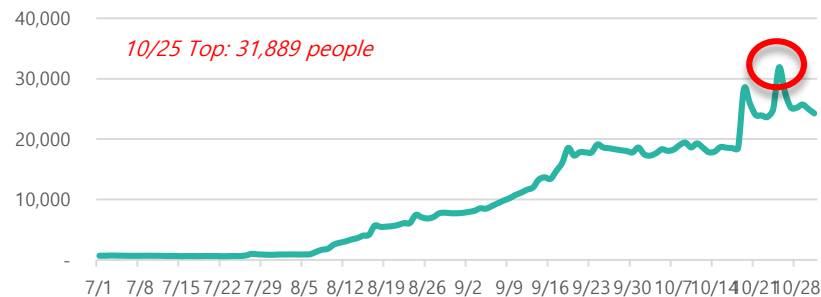
- Full-scale marketing of 'DD Classic', which grew into a game of **over \$ 150,000 payment per month** within two months of its launch
- In the case of 'Ellen Slot', intensive viral marketing using direct publicity through Ellen Show and SNS

DoubleDown Classic growth trend (iOS)

➤ Daily payment trend



➤ DAU Trend



Android version will be released in January 2018

ELLEN Slot global launch



- 'Ellen Road to Riches Slot'
- Global launch October 31
- Platform iOS, Google
- Soft launch result
 - iOS ranked # 1 in New Zealand (9/25)
 - iOS 2nd place in Canada (11/3)
 - iOS 3rd place in Australia (9/26)
 - iOS US 14th place (11/2)

Introducing new games through the Allen Show
in early November
Increase viral marketing such as Instagram +
YouTube + Facebook

1) Synergy of DUG (marketing, operations, development) and DDI (IP, user pool)

- Expansion of total payment through **exchange of non-pay users** and **popular slots**
- Based on its DUG marketing capabilities, DDC's **revenue structure is expanded to Australia and Europe** and **DUG to Asia**

Strategies to increase sales through mutual exchange of representative games

Non-pay user and popular slot exchange

Non-pay user



Popular slot IP



Non-pay user



Popular slot IP



Expansion of sales area by game through Integrated synergy

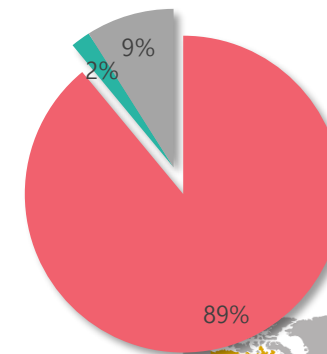
Regional expansion plan for each game

DoubleDown Interactive

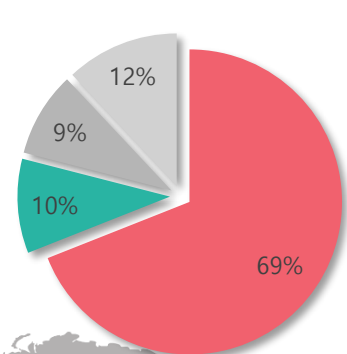
DoubleU Games

Australia, Europe

Asia



North America
Oceania
Other



North America
Oceania
Other

Consolidated financial statement

17.3Q

(Unit: 100 million won)

Type	16 3Q	16 4Q	17 1Q	17 2Q	17 3Q	17 3Q 누적
Operating revenue	376	422	414	604	1,072	2,090
Operating cost	274	260	246	528	796	1,570
Platform fee	113	127	124	181	322	627
Marketing cost	58	38	50	88	133	272
Stock-based compensation	27	26	5	4	4	12
Royalty	-	-	-	19	54	73
Amortization expense	1	1	1	26	82	109
Other expenses	76	69	65	103	202	371
Temporary cost (M&A)	-	-	-	107	-	107
Operating income	102	163	168	76	276	520
EBITDA	129	189	174	106	361	641
Adjusted Operating income ¹⁾	102	163	168	182	276	627
Adjusted EBITDA	129	189	174	212	361	748
Non-operating income	13	51	15	67	38	121
Interest income	14	14	12	14	10	35
Foreign currency effect	(1)	37	3	53	29	85
Non-operating Cost	32	(27)	66	83	93	242
Interest cost	-	-	-	97	90	187
Foreign currency effect	33	(30)	59	(7)	2	54
Equity-method loss & others	(1)	2	7	(7)	1	1
Profit before tax	83	241	118	59	221	399
Taxes	(1)	27	9	(10)	75	74
Net income	84	215	109	67	148	325
Ownership of parent company	80	219	107	66	151	325
Non-controlling interest	4	(4)	2	1	(3)	-
Adjusted Operating income %	27.1%	38.5%	40.7%	30.2%	25.8%	30.0%
EBITDA %(excluding temporary cost)	34.4%	44.8%	42.1%	35.2%	33.7%	35.8%

Note 1) Adjusted operating income: operating income + Stock-based compensation (non-cash expenses) + M&A cost

Note 2) Consolidated subsidiaries: DDragon Games (100%), Diamond Games (100%) and The8Games (100%)

Payments of games

Payments by game

Game	16.3Q	16.4Q	17.1Q	17.2Q	17.3Q
DoubleDown Casino	\$0	\$0	\$0	\$19,976,653	\$60,666,742
DoubleDown Classic	\$0	\$0	\$0	\$0	\$108,280
DoubleU Casino	\$30,171,254	\$32,994,214	\$32,721,064	\$30,245,312	\$31,714,248
Take5	\$2,039,951	\$2,252,202	\$2,465,636	\$2,361,884	\$2,288,041
DoubleU Bingo	\$1,705,432	\$1,387,054	\$886,300	\$827,750	\$762,121
Other slots	\$0	\$41,243	\$202,973	\$165,125	\$37,270
Total	\$33,916,637	\$36,674,713	\$36,275,973	\$53,576,724	\$95,576,702

2) DDI Acquisition Structure

