

March 1, 2016

# Shoal Games Ltd. (TSXV: SGW / OTCQB: SGLDF) – Initiating Coverage – A Unique Opportunity in the Mobile Games Business

### **Sector/Industry: Mobile Games**

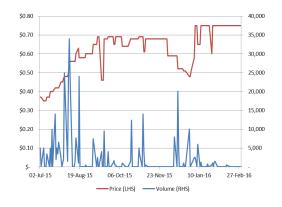
## www.shoalgames.com

#### Market Data (as of March 1, 2016)

<b>Current Price</b>	C\$0.75
Fair Value	C\$1.60
Rating*	BUY
Risk*	5 (Highly Spec)
52 Week Range	C\$0.35 - C\$0.75
Shares O/S	56,197,703
Market Cap	C\$42.15 mm
Current Yield	N/A
P/E (forward)	N/A
P/B	44.3x
YoY Return	N/A
YoY TSXV	-23.1%

<sup>\*</sup>see back of report for rating and risk definitions

<sup>\*</sup>All the figures are in US\$ unless otherwise specified.



#### **Investment Highlights**

- Shoal Games Ltd. ("company", "Shoal", "SGW") owns and operates Trophy Bingo a free to play mobile bingo game launched worldwide in the third quarter of 2015. The company generates revenues through in-app purchases and advertising.
- Trophy Bingo has been downloaded over 325,000 times, and currently has 18,000+ Daily Active Users ("DAU") and 92,000+ Monthly Active Users ("MAU").
- > The company has a strong management team, led by Mr. T.M. (Tarrnie)Williams Ex President and CEO of Electronic Arts (Canada) Inc. (Nasdaq: EA).
- Shoal is the only publicly listed micro/small cap company in Canada offering investors the opportunity to participate in the growing mobile games market in the social casino segment.
- According to Eilers Research, the global social casino sector is estimated to have been \$3.46 billion in 2015, up from \$1.33 billion in 2012, and is expected to grow to \$4.44 billion by 2017, reflecting a CAGR of 27% from 2012 to 2017.
- ➤ The mobile games industry has been subject to several M&A transactions in the past few years. King Digital, makers of one of the most popular and top grossing games, Candy Crush Saga, was acquired for \$5.9 billion in November 2015. Larger players are constantly on the look out to acquire smaller players that have potential.
- The social bingo games market is estimated at \$150 million in annual revenues and is dominated by two games: Bingo Bash and Bingo Blitz. Both of these market leaders were acquired by larger players in recent years. Shoal's goal is to secure a significant share of the growing social bingo market by offering a new and innovative form of bingo, and position itself as an acquisition target over the next 12 24 months. The company intends to start paying dividends upon achieving profitability.
- We are initiating coverage on Shoal with a BUY rating and a fair value estimate of C\$1.60 per share.

#### Risks

- > The mobile games industry is highly competitive. There are over one million apps available in each of the Apple App Store and the Google Play Store.
- The market for social bingo games is currently dominated by two established games, accounting for over 90% of the total market share
- It is a challenge to keep players engaged, and it is therefore critical, to maintain continuous game development and innovation.
- > Trophy Bingo is in its early stages and has yet to start to generate significant revenues.
- The company may have to pursue further equity financings, which may dilute existing shareholders.
- > The mobile games sector is not subject to any material regulations. Any unfavorable changes in regulations in the future may impact the company's business.

Key Financial Data (FYE - Dec 31)			
(US\$)	2015	2016E	2017E
Cash	570,086	400,269	1,886,945
Working Capital	454,342	233,996	2,311,068
Total Assets	1,129,421	641,292	2,868,939
LT Debt to Capital	0.0%	0.0%	0.0%
Revenues	111,521	2,353,155	8,041,863
Net Income	(2,965,307)	(1,701,147)	2,077,556
EPS	-0.05	-0.03	0.04



# Company History

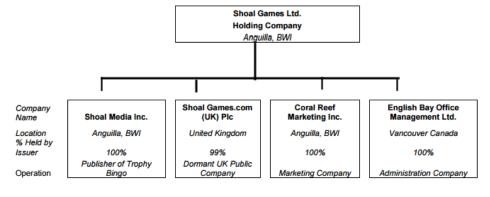
Shoal Games Ltd. was originally incorporated as Bingo.com Inc. in September 2004 in Anguilla, B.W.I. The company was primarily focused on the real-money online gambling business, and offered bingo and other games through its internet portal, www.bingo.com. Management of Shoal has been operating in the online bingo business since 1999.

The majority of the company's business came from customers located in Europe. In December 2010, the company started a partnership with Unibet Group Plc. (OM: UNIB SDB). As a technology partner, Unibet offered its partners a suite of solutions to operate an online gambling business, including gambling licenses, multi-language systems, financial processing capabilities, website technology, etc. However, increased competition and general market maturity of the online gambling industry prompted management to sell the cash games business, the associated brand, and URL (www.bingo.com) to Unibet for \$8 million (\$2 million in cash and redemption of 15 million common shares @ \$0.40 per share held by Unibet) in December 2014. This business had generated \$1.68 million in revenues in 2014, and \$1.91 million in 2013, for the company.

Recognizing the emergence of social and mobile games and their significant potential, combined with management's extensive knowledge and experience in the online bingo business (having acquired over 2 million registered bingo players since 1999 through its various games), the company started the development of a social bingo game in 2012. A beta test launch of the new game, named Trophy Bingo, was made in May 2013, followed by a soft launch of an updated version in 2014. Subsequently, the company made a full global release of Trophy Bingo on Android in August 2015, and on iOS in September 2015. Shoal has so far spent \$3.86 million on the development of Trophy Bingo over the three-year development time.

In January 2015, the company changed its name from Bingo.com, Ltd. to Shoal Games Ltd. to reflect its new focus. The company listed its shares on the TSXV, and its shares started trading on the exchange in July 2015 under the trading symbol "SGW". Prior to that, the company's shares were only trading through the US OTC markets.

SGL's head office is located in Anguilla, BWI. SGL's wholly owned subsidiary, Shoal Media Inc., is the publisher of Trophy Bingo, and is also registered in Anguilla due to its favorable tax regime. The following chart shows the structure of the company.

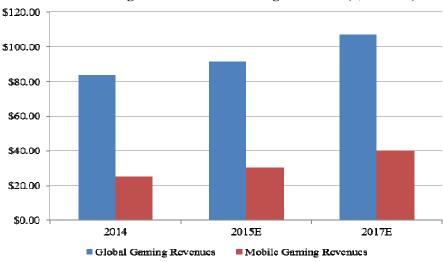




## Mobile Gaming

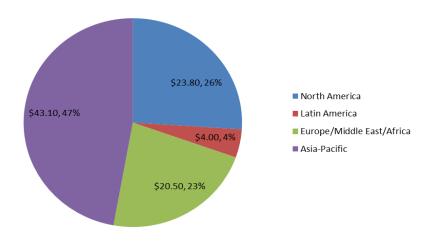
Video games continue to grow in popularity worldwide, and the sub-segment in which Shoal has targeted with Trophy Bingo is one of the highest growing, and most active in M&A. According to Newzoo, a market research firm focused on the video games industry, the global games market is estimated to have been \$91.95 billion in 2015, up from \$83 billion in 2014, and is estimated to grow to \$107 billion by 2017, reflecting a compounded annual growth rate ("CAGR") of 8.6% from 2014 to 2017. The mobile games market (which includes smartphones and tablets) is estimated to have been \$30.3 billion in 2015, or 33% of the overall gaming market. This market is estimated to grow to \$40.9 billion by 2017 (38% of the total), up from just \$17.6 billion in 2013 (23% of the total), reflecting a CAGR of 24%.

## Global Gaming versus Mobile Gaming Revenues (\$, billions)



Source: Newzoo

The following chart shows global video game revenues by region (\$, billions).

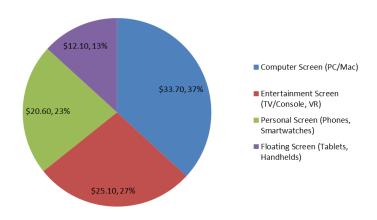


Source: Newzoo



The following chart shows the distribution of global gaming revenues across various screens.

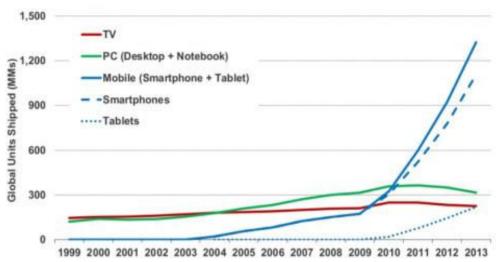




Source: Newzoo

Computer screens accounted for the largest portion (37% of the total), while personal screens (which includes phones and smartwatches) accounted for 23% of the total. Floating screens (tablets and handhelds) accounted for 13% of the total. Trophy Bingo is available for download on most personal and floating screens worldwide. **Revenues from personal screens and floating screens are the most rapidly growing segments.** These segments reported growth rates of 21% and 14% YOY, respectively, versus the 7% growth in computer screens and the 2% growth in entertainment screens (TV/Console/VR). The following chart shows the rapid growth in sales of mobile devices.



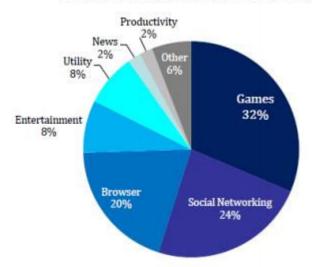


Source: Digi-Capital Global Games Investment Review / Churchill Downs



Consumers spend more time on games than for any other purposes on mobile devices, accounting for 32% of the total usage, as shown in the chart below.

# iOS/Android (Mobile/Tablet) Usage



Source: Kleiner Perkins Caufield Byers, Internet Trends 2014 / Churchill Downs

All the factors above have led to rapid growth in the mobile games industry. One additional catalyst for the wide adoption of mobile games is the explosion of Facebook (Nasdaq: FB). Facebook has increased the distribution of games and the connectivity of people within the games themselves. A further driver of the growth of mobile games can be attributed to the shift to the "freemium" model where games are free to download and generate revenues after engaging players via in-app purchases. In 2014, three popular social games, Puzzle and Dragons, Clash of Clans, and Candy Crush Saga, each generated over US\$1 billion in revenues. The makers of Candy Crush Saga, King Digital, were acquired in November 2015 for US\$5.9 billion. King Digital had annual revenues of US\$2.27 billion with 474 million Monthly Active Users ("MAU").

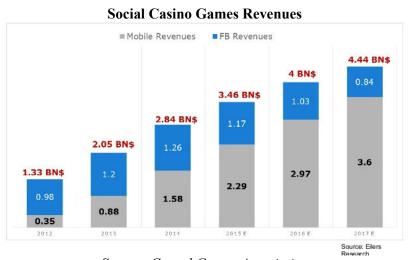
Within the mobile games industry is the social casino sector, which is comprised of free to play casino games (such as poker, bingo, slot machines, etc.). Social casino games feature gambling themes, but do not payout winnings in monetary form. In essence, they are video games built around slots, poker or bingo game mechanics. Players of social casino games progress through levels, unlock new content, and interact socially just as they would in other non-casino based mobile games. The revenue model of social casino games is usually the freemium model where customers pay only after they have become engaged in a game. The idea is that engaged customers will spend for enhanced game features and/or to make further progress on the game.

Developers of mobile games aim to convert as many free downloads into paying players as possible. Sources indicate that the conversion rate for social casino games is typically 2% on a monthly basis. The conversion rate measures the percentage of the total customers spending money on a game.



According to a study by Optimove (a provider of marketing solutions), the level of player engagement in social games is much higher than in online gambling. The research suggests that 60% of social players who have paid once will continue to play, even if just for fun, versus just 7% in the online gambling industry. The challenge for Shoal will be to maintain a high level of engagement for the players of Trophy Bingo. A high conversion rate shows that players are willing to make a first purchase, but to create long-term value, a game must retain a high percentage of its players, and develop them into repeat customers. Research conducted by Optimove indicates that approximately 62% of social gamers who made a first payment will make a second payment, whereas in gambling, it is only around 46%. Ultimately, it is a game's design, and the longevity of its content, that determines the level of long-term retention and engagement.

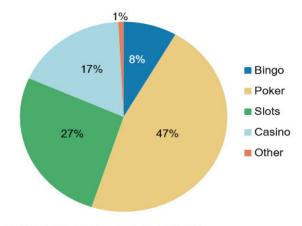
Social Casino Gaming The social casino games sector is estimated to be approximately 20% of the social games industry, and less than 4% of the overall video games industry. According to Eilers Research, the global social casino gaming sector is estimated to have been \$3.46 billion in 2015, up from \$1.33 billion in 2012, and is expected to grow to \$4.44 billion by 2017, reflecting a CAGR of 27% from 2012 to 2017.



Source: Casual Games Association

Poker dominates the social casino games market. Slots and bingo are two other popular social casino games.





Source: SuperData Research, Morgan Stanley Research

Some of the top social casino games are TexasHoldEm Poker, Slotomania, DoubleDown Casino, Big Fish Casino, Bingo Bash and Bingo Blitz. TNW News estimates that these games attract over 11 million users a day. Sources suggest that social games attract over 300 million active players per month just on Facebook.

In a report published in 2012, Morgan Stanley estimated that approximately 800 million people play one or more online social games every month. Approximately 20%, or 173 million people, play social casino games, up from approximately 5 million in 2008. Super Data Research estimates this figure to grow to 260 million people by 2017.

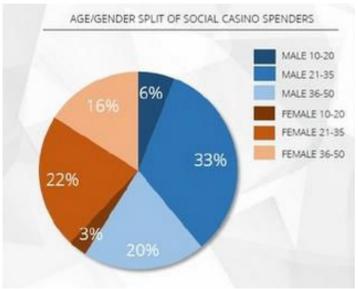
The following table shows the market size and the Average Revenue Per User ("ARPU"). Of the 173 million players of social casino games, approximately 3.2 million players ( $\approx 2\%$  of the total) pay an average of \$538 per year, or \$45 per month. The average ARPU of the social casino market is \$9.90 per year. This translates into Average Revenue Per Daily Active User ("ARPDAU") of \$0.03. Although these estimates were made back in 2012, we believe they provide a good understanding of the sector's key characteristics.

2012e	Social gaming	Social gambling	Paying social gambling	Online gambling
Player base (m)	799	173	3.2	49
Market size (US\$m)	7,952	1,704	1,704	35,058
ARPU (US\$)	10.0	9.9	538	716

Source: SuperData Research, H2 Gambling Capital, Morgan Stanley Research

In a survey conducted on U.S. based social casino players, Newzoo found that the paying audience is comprised of 59% percent male, 55% aged 21-35.





Source: Newzoo

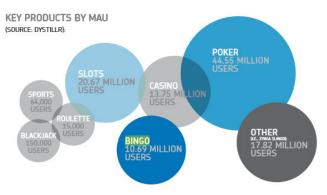
The survey found that men dominate internet poker and women make up the large majority of players in bingo games (the largest segment being over the age of 40). Newzoo also found that, social casino gamers play an average of 5.6 titles in a genre, and most of them spend 2-5 hours per week on their favorite title.

The key objective of social games publishers is to acquire, retain, and monetise customers. Keeping players engaged is the key, and therefore, requires continuous development and innovation.

Publishers of social games also generate revenues from advertising. However, they are not high as research indicates that excessive advertisements tend to drive players away. Zynga, a leading social game developer, currently generates approximately 20% of its overall revenues through advertisements.

Bingo Market

The social bingo market is estimated to have approximately 11 million MAUs.



PAYVISION

The market is currently dominated by two games – Bingo Bash and Bingo Blitz, each



with more than 1 million DAUs, and 4.5 million MAUs. These two games, we estimate, account for over 90% of the total market. Both of these games were acquired in recent years:

- > In December 2012, Caesars Interactive Entertainment (Nasdaq: CZR) acquired Buffalo Studios (owner of Bingo Blitz) for approximately \$53 million. Bingo Blitz is estimated to have had 710k DAUs and 2.7 million MAUs at that time. Caesars is one of the largest gaming companies in the world with a current enterprise value of approximately \$7.5 billion. Buffalo Studios was a private corporation founded in 2010.
- In 2014, GSN Games acquired Bash Gaming (owner of Bingo Bash) for approximately \$160 million. Bingo Bash is estimated to have had 1.5 million DAUs and 4.8 million MAUs at that time. Bash Gaming was a private corporation formed in India in 2007. Bingo Bash was launched in 2010. GSN Games is a joint venture between Sony (NYSE: SNE) and AT&T Inc. (NYSE: T).

In the social games industry, the ARPDAU of most games ranges between \$0.03 to \$0.30 depending on the type of game. For example, a casual game, such as Candy Crush Saga, we estimate, has an ARPDAU of approximately \$0.04; whereas a strategy game such as Clash of Clans, has an ARPDAU of over \$0.20. Bingo Bash, we estimate, has an ARPDAU of approximately \$0.11 (\$60 million in annual revenues with 1.5 million DAUs). Using the estimates of 11 million MAUs and 3.5 million DAUs, we estimate the social bingo market is worth approximately \$150 million per annum. Since the success of Bingo Bash and Bingo Blitz, hundreds social bingo games were launched; most of which have failed to gain any significant traction. Shoal's management believes that an opportunity exists in this market for an innovative product that engages bingo players in new and challenging ways. They developed Trophy Bingo specifically designed to attain a significant share of this easily targeted market niche.

Shoal's plan with Trophy Bingo was to offer bingo players a new experience by incorporating strategy into game play. They believe that, after analyzing hundreds of different high performing games, they have been able to design a game that is unique, engaging, and incorporates the industry's best performing monetization techniques from other game categories.



Source: Company



# M&A in Social Gaming

The social games industry has been active in terms of M&A transactions. Larger players have used acquisitions to grow their revenues and earnings, as well as for diversification and to expand their base of players. The largest acquisition to date in the sector is Activision Blizzard's (Nasdaq: ATVI) acquisition of King Digital for \$5.9 billion in November 2015. King Digital had annual revenues of \$2.27 billion with 474 million MAUs, which translates into a Price to Revenue ratio of 2.6x, and a Price to MAU ratio of \$12.60.

The following table shows details of relevant acquisitions over the past few years.

Date	Acquirer	Target	Acquisition Price (\$, Millions)	MAU	Revenues (\$, Millions)	Price / MAU	Price / Revenues
Oct-11	Caesars Entertainment Corporation (Nasdaq: CZR)	Playtika	\$103.00	5.8		\$17.76	
Dec-12	Caesars Entertainment Corporation (Nasdaq: CZR)	Buffalo Studios (Bingo Blitz)	\$52.60	2.7		\$19.48	
Jan-12	International Game Technology (NYSE IGT)	Double Down Interactive	\$500.00	4.7	\$128.00	\$106.38	3.9
Jan-13	Zynga (NASDAQ: ZNGA)	NaturalMotion	\$527.00		\$144.00		3.7
Feb-14	GSN Games	Bingo Bash	\$160.00	4.8	\$60.00	\$33.33	2.7
Feb-14	Caesars Entertainment Corporation (Nasdaq: CZR)	Pacific Interactive	\$108.00	2.7	\$27.50	\$40.00	3.9
Jun-14	Bally Technologies (NYSE: BYI)	Dragonplay	\$100.00	3.0	\$30.00	\$33.33	3.3
Aug-14	Zhongji Holdings (SHA: CN: 600634)	DianDian Interactive	\$960.00	20.0	\$72.00	\$48.00	13.3
Nov-14	Scientific Games Corp.	Bally Technologies (NYSE: BYI)	\$5,100.00		\$1,370.00		3.7
Dec-14	Churchill Downs Inc. (NASDAQ: CHDN)	Big Fish Games	\$885.00	10.0	\$278.00	\$88.50	3.2
Jul-15	Stride Gaming PLC (LON: STR)	InfiApps	\$39.20	0.5	\$13.70	\$78.40	2.9
Nov-15	Imperus Technologies Corp (TSXV: LAB)	Akamon Entertainment	\$23.90	0.5	\$16.00	\$47.80	1.5
Nov-15	Activision-Blizzard (NASDAQ: ATVI)	King Digital	\$5,900.00	474.0	\$2,270.00	\$12.45	2.6
	Average (excluding outliers) Min Max					\$47.77 \$12.45 \$106.38	3.1 1.5 13.3

Source: Fundamental Research and Various Sources

# The average price to revenue ratio of the above acquisitions was 3.1x, and the price to MAU ratio was \$48.

The following table shows the major players in the social games business. It is estimated that International Game Technology (NYSE: IGT), Caesars Entertainment and Zynga (Nasdaq: ZNGA) control over 40% of the market, with another 10-15 players controlling another 25%.



Company	Ticker	Market Capitalization (\$, Millions)	Enterprise Value (\$, Millions)	EV / Revenues	EV / EBITDA	Debt / Capital
Activision Blizzard, Inc.	Nasdaq:ATVI	\$22,315.70	\$24,563.70	5.3	17.3	33.60%
International Game Technology PLC	NYSEIGT	\$2,524.00	\$10,720.30	2.8	8.6	71.30%
Caesars Entertainment Corporation	Nasdaq:CZR	\$904.00	\$7,479.20	1.3	6.3	75.50%
Churchill Downs Inc.	Nasdaq:CHDN	\$2,080.00	\$2,620.50	2.4	10.7	43.60%
Zynga, Inc.	Nasdaq:ZNGA	\$1,688.70	\$701.40	0.9		n/a
Average				2.5	10.7	56%

Source: Capital IQ

Shoal's strategy is to build Trophy Bingo into a Top Grossing game that can be monetized over the long term. Their team is focussed on enhancing the game play, expanding the content, and delivering innovative game modes so that players will become immersed in Trophy Bingo. Management believes that Trophy Bingo's performance to-date has proven it's capability, and that by executing the software development planned for 2016, the game will enter the Top Grossing charts.

Roadhouse – Development Partner Shoal outsources all of the software development and marketing activities to Vancouver, BC based Roadhouse Interactive. The Trophy Bingo team at Roadhouse consists of 12 individuals, with backgrounds in programming, art, design, analytics, quality assurance, and project management. Founded in 2009, Roadhouse is now one of the largest independent gaming companies in Vancouver with 160+ employees, and has several multinational companies as its clients. Their major clientele include Red Bull Media House, Activision, Games Workshop, Publishers Clearing House, and the heavy metal band, Iron Maiden. Roadhouse focuses with its partners on building and operating quality games for all mobile platforms. We visited Roadhouse's facilities in January 2016, and met with its management team

Although Shoal and Roadhouse are at arm's length, one of the three founders of Roadhouse, Tryon Williams Jr., is the son of Shoal's Chairman, T.M. Williams. Also, one of Shoal's Directors, C. M. Devereux is also the Chief Strategy Officer of Roadhouse. Shoal's CFO, H. W. Bromley, is also the CFO of Roadhouse.

Although Shoal may be able to lower its monthly operating costs through insourcing all of its development and marketing activities, we believe the partnership with Roadhouse, and the outsourcing strategy, provide Shoal several benefits. First and foremost, Shoal is able to access the high-quality development resources employed by Roadhouse. In addition, Shoal gets the benefit of product codes that are shared between teams in the Roadhouse studio so not every aspect of the Trophy Bingo product must be created from scratch. Finally, Shoal runs an extremely lean business and only has two full-time employees — Executive Chairman, T.M. Williams, and CEO, J. M. Williams (son of T.M. Williams). As the rest of the staff are contractors and the development and marketing are outsourced, the



company has flexibility in controlling its operating costs, and all of its operational costs (including costs associated with Roadhouse) can be significantly reduced or cancelled on 30 days notice.

Management

The following table shows the board of directors and key management members. The company's board of directors is comprised of five individuals, of which three are independent.

Name	Age	Position	Audit Committee	Governance Committee	Compensation Committee
T. M. Williams	74	Executive Chairman	X		x
J. M. Williams	39	Chief Executive Officer	x	X	
C. M. Devereux	51	Non Executive Director		<b>X</b> *	x
G. Whitton	78	Non Executive Director	<b>X</b> *	X	
F. Curtis	50	Non Executive Director	X		<b>X</b> *
H. W. Bromley	44	Chief Financial Officer			

Mr. T.M. Williams (directly and indirectly) owns 18.50 million common shares or 33% of the total outstanding at this time. An unrelated party, Pendinas Ltd., owns 26.09 million shares, or 46% of the total. In total, management, directors and Pendinas Ltd. own 45.69 million shares, or 81% of the total shares. Although liquidity and the average daily trading volume of SGW's shares are low at this time, we believe the large insider holdings indicates management's conviction regarding Shoal's potential, and aligns management and investors' interests.

Brief biographies of management and directors, as provided by the company, follow:

## Mr. T.M. Williams - Executive Chairman & Director

Mr. T. M. Williams has served as President, Chief Executive Officer and Chairman of SGW from August 20, 2001 until June 16, 2011. Since June 16, 2011, Mr. Williams has served as the Executive Chairman of SGW. Since 1984, Mr. Williams has served as a principal of T.M. Williams (ROW), Inc., a private consulting firm, and from 1993 until 2008, was Adjunct Professor, Faculty of Commerce and Business Administration at the University of British Columbia. From 1988 to 1991, he was President and Chief Executive Officer of Distinctive Software, Inc. in Vancouver, BC, and, upon the acquisition of that company by Electronic Arts Inc., North America's largest developer of entertainment software, he became President and Chief Executive Officer of Electronic Arts (Canada) Inc., where he continued until 1993. From 1995 to 2012, Mr. Williams was a director of YM Biosciences, Inc., a biotechnology company, until its acquisition by Gilead Sciences, Inc. In addition, he is a director of several other private corporations.

#### Mr. J. M. Williams – C.E.O. & Director

Mr. J. M. Williams served as Vice President, Business Development and Marketing Director for SGW from September 2001 until June 16, 2011. Mr. J.M. Williams has been a director of SGW since July 26, 2007. Since June 16, 2011, Mr. J. M. Williams has served as the President and Chief Executive Officer of SGW. Prior to his employment with SGW, he was a Business Analyst with Blue Zone Inc. (a technology company) and RBC Dominion



Securities. Mr. J. M. Williams has a bachelor of Commerce degree from the University of Victoria and a Masters of Business Administration degree, specializing in strategic marketing, from the University of Warwick. Mr. J. M. Williams is the son of Mr. T. M. Williams, SGW's Executive Chairman.

### Mr. C. M. Devereux - Director

Mr. C. M. Devereux served as Vice-President, Corporate Affairs for SGW from October 2001 until March 31, 2011. Since July 26, 2007, Mr. Devereux has served as a director of SGW. Since July 2012, Mr. Devereux has served as the Chief Strategy Officer for Roadhouse Interactive Limited, an online games development company. From April 2011 to April 2012, Mr. Devereux was the Chief Executive Officer of Greenscape Capital Group Inc., a publicly listed company specializing in providing strategic capital and business advisory services to companies in the environmental space. From May 2000 to September 2001, he was Vice-President, Corporate Affairs at Blue Zone Inc., a technology company. From 1996 to 2000, he was President of Mill Reef Holdings, a consultancy company. From 1992 to 1997, he practiced corporate / commercial law in private practice. Mr. Devereux has a law degree from Osgoode Hall, Toronto, Canada.

#### Mr. G. Whitton – Director

Mr. G. Whitton, now retired, has served as a director of SGW since June 10, 2009. He was Chairman and CEO of International Verifact Inc. ("IVI") from 1987 to 2000 prior to its merger with INGENICO of France. IVI was a publicly traded Canadian company which was a major supplier of point of sale terminals and related equipment for the banking, retail, and health care industries in Canada and the USA. From 1979 to 1987, Mr. Whitton was the owner, President and Chairman of Howarth & Smith Ltd., a large typography, printing and data management company which he sold in 1987. From 1985 to 1987, he was also the President and CEO of Canadian Telecommunications Group which was purchased by British Telecom in 1987. From 1973 to 1979, Mr. Whitton held senior operating positions with Canada Permanent Trust and CIBC. From 1962 to 1973, he was with IBM Canada holding various positions in sales, marketing and data center operations. Mr. Whitton has a Bachelor of Arts degree from the Scottish College of Commerce in 1960.

#### Ms F. Curtis – Director

Ms. F. Curtis has served as a director of SGW since June 10, 2009. She has served as Compliance Officer and General Corporate Secretary for Counsel Limited, an Anguillian financial services corporation, since 2006. Ms. Curtis has been working in the financial services industry since 1990. She started at the brokerage firm, Burns Fry, in Toronto (now Nesbitt Burns, Bank of Montreal). She completed her Canadian Securities Course and became a licensed Securities Broker in 1992. She was educated in England, and attended the University of Toronto, Canada for her undergraduate degree. Ms. Curtis's Master in Business Administration in Finance & International Affairs was granted by the Rotman School of Business, University of Toronto.

## Mr. H. W. Bromley – C.F.O

Mr. Bromley has served as the Chief Financial Officer of SGW since July 2002. Mr. Bromley is the former Chief Financial Officer for CellStop Systems, Inc., a security



manufacturing company and is the CFO for Roadhouse Interactive Limited. From 2000 to 2001, Mr. Bromley was a director and the Group Financial Officer for Agroceres & Co. Ltd. From 1995 - 1999, he was an employee of Ernst & Young working in South Africa and in the United States of America. Mr. Bromley has in addition worked for CitiBank, Unilever PLC and Gerrard. Mr. Bromley is a Chartered Accountant. Mr. Bromley is a consultant to SGW and devotes approximately 25% of his working time to his duties as C.F.O. of SGW.

Trophy Bingo

Trophy Bingo is a 120-level puppy themed social bingo game. The game is free to download and generates revenue when players make in-app purchases and through advertisements. The in-app purchases allow players to earn extra bingos or use power plays, which they can use to make progress in the game. The game includes many innovations for social bingo, including new power plays, a map progression system, unique game types, card blockers, bonus bingo rounds, and a bingo combination system - all of which are intended to make Trophy Bingo more engaging and fun for the players.

According to management, players typically start paying between levels 7 and 15 (out of 120 levels at present) after playing for 1 to 2 weeks.



Source: Company

The table on the next page shows a summary of the various paid packages offered in the game at various levels.



Packs	Diamonds	Price	
A	200	\$1.99	
В	500	\$4.99	
C	1,050	\$9.99	
D	2,250	\$19.99	
E	6,000	\$49.99	
F	13,500	\$99.99	
Welcome Pack	1,000 + 50  treats	\$7.49	
Low Balance	2,250	\$16.99	
Having Trouble	1,050	\$8.99	
Segment Offer 1	1,050	\$8.99	
Segment Offer 2	2,250	\$16.99	
Segment Offer 3	6,000	\$36.99	
Segment Offer 4	13,500	\$74.99	

The game is currently live in three languages – English, Spanish and French. Management plans to add Swedish, Dutch, Portuguese, and Italian once the content plans for Trophy Bingo are completed in the third quarter of 2016.

Management's objective is to attract users by offering an innovative new type of bingo game that is fun, challenging, and most importantly, requires players to act strategically to win. Management believes that these traits will allow them to attract players away from Bingo Bash and Bingo Blitz, which are built in a more traditional format and are becoming dated (both launched in 2010). As mentioned earlier, research indicates that an average social casino gamer plays an average of 5.6 titles in a genre.

According to management, Trophy Bingo differentiates itself from Bingo Bash and Bingo Blitz through the following features:

### Released:

- > Progression is based on a Level format instead of a Lobby format
- > Trophy Bingo allows players to select their Power Plays which creates strategic play
- > Bingo card blockers create obstacles that players must overcome
- > Bingo combo system creates unique game types and multi-bingo situations
- > Challenging bingo objectives that players must act strategically to beat

## Pending:

- > Game event system for players to compete to become the "Top Dog"
- > Card customization tools for players to create bespoke content
- Live Player vs. Player system for players to compete in competitive games
- Social and viral system for players to share and refer friends

Trophy Bingo was soft launched in 2014, and the full launch was in the third quarter of 2015, when the latest version was released in the Apple App and Google Play Stores. The game was subsequently released in the Amazon Appstore in November 2015. Google (NASDAQ: GOOGL), Apple (NASDAQ: AAPL), and Amazon (NASDAQ: AMZN) charge a transaction fee of 30% for each sale made through their application store.



One of the most attractive features of mobile games is that developers are able to tune a game's settings, and economy, based on real-time user response, and feedback, to improve the game's performance. Therefore, a committed approach to game analytics can significantly increase the profitability of a game. Roadhouse's development team, in coordination with Shoal, monitors the game's Key Performance Indicators ("KPI") on a daily basis to maximize retention, virality, and monetization. The following chart shows some of the key strategies adopted by the company.



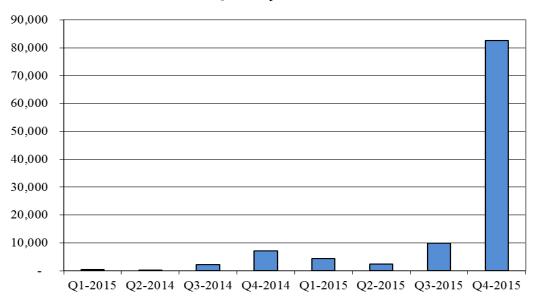
Key Performance Indicators According to Statista, there were over 1.2 million apps available in the App Store and 1.3 million apps available on Google Play as of July 2014. Therefore, attracting players to a new game can be a very difficult challenge. However, Shoal has chosen to enter a popular and established segment (bingo) with Trophy Bingo; therefore, finding players is relatively easy. Their strategy is to position Trophy Bingo as a new and exciting bingo game to entice players of Bingo Blitz and Bingo Bash to try. Given the advanced marketing techniques and the narrow demographic profile of bingo players, it is possible to target the players of other social bingo games (including Bash & Blitz) with precision. These factors help to reduce Shoal's marketing expenses.

Trophy Bingo has been downloaded over 325,000 times from the Apple iOS and Google Play app stores. The DAUs and MAUs are currently 18,000 and 92,000, respectively. It has a rating of 4.3 (out of 5) on Google Play from over 7,000 reviews. This compares to the current rating of 4.4 for Bingo Blitz (from over 335k reviews), and for 4.2 for Bingo Bash (from over 400k reviews). In the Apple App Store, Trophy Bingo has a 4.5 rating from 87 reviews. In comparison, Bingo Bash has a 4.0 rating (6,720 reviews) and Bingo Blitz has a 4.5 rating (5,250 reviews).

The chart below shows revenues since Trophy Bingo's launch. In Q4-2015, Trophy Bingo's revenues were \$82,540 versus \$9,914 in Q3-2015. These revenues are net of the 30% fee charged by Google and Apple.







The following chart shows the KPIs in Q4-2015 versus Q3-2015.



Source: Company

- > Downloads increased from 96,496 in Q3 to 157,354 in Q4.
- > Day 1 retention increased from 34% in Q3, to 38% in Q4. D1, D7 and D30 retentions are the percentage of users who are active after 1 day, 7 days and 30 days of installing an application.
- > ARPDAU increased from \$0.046 in Q3 to \$0.092 in Q4.

Marketing Strategies

As bingo is played predominantly by females, aged 25 - 50 years, the company's marketing strategies target such an audience. The company's key marketing strategies are summarized below:

- > **Internal marketing** directed at existing players to encourage them to make in-game purchases or engage with the advertisements in the game.
- **External marketing** to acquire players and build brand awareness through large scale direct marketing campaigns, primarily through Facebook. A few examples are presented



#### below:

- Facebook offers marketers the opportunity to target people by age, sex, location, interest, etc.
- Shoal targets the players of Bingo Bash and Bingo Blitz on Facebook and encourages such players to download and try Trophy Bingo.
- Players are encouraged to use viral features, such as request help from friends, gift collection items to friends, refer friends for extra in-game bonuses, etc.

A key metric used by online game operators is the Lifetime Value ("LTV") of a customer and the average User Acquisition Cost ("UAC"). Marketing strategies are chosen taking into account the LTV/UAC ratio – this ratio has to be higher than 1, and the higher the ratio is for a strategy, the more effective it is. According to management, Shoal's current LTV/UAC ratio is less than 1, but management believes that with additional game tuning, feature updates, and content releases, that Trophy Bingo's ratio will pass 1 and approach 2 during 2016. In discussions with Shoal management, we were shown how players in the current version of Trophy Bingo are limited by the amount of content in the game. When the most engaged players reach the end of the game, they tend to stop spending. According to management, as Shoal develops and releases new game content, the average LTV of players is likely to significantly increase. Management also indicated that their current UAC is \$1.25 per install, which they expect to reduce to approximately \$0.80 by December 2016, and to \$0.60 by December 2017.

Our discussions with management indicated that currently, Trophy Bingo's engaged players are taking 3 to 4 months to play the 120 levels presently available, and are constantly requesting more levels. This indicates that Trophy Bingo may be a 'long tailed' game that engaged players will continue to play as long as additional levels are created – another feature which may result in an increase in LTV.

## Development Plans

The company's key focus at this time are the following:

- > Deliver content & feature expansions
- > Release social & viral feature set (Q1 release)
- > Release 20 new levels every month (commencing in Q2)
- > Develop tools for build-your-own content (Q3 release)
- > Develop innovative multi-player game play (Q3 release)

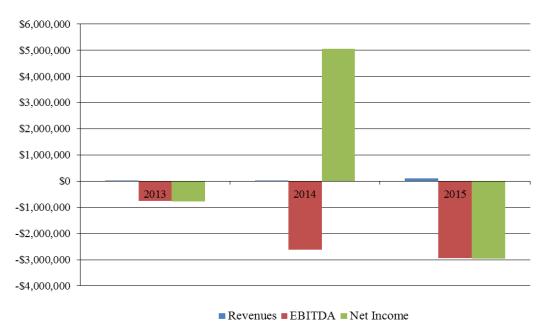
By achieving the milestones above, Shoal believes they will be able to:

- ➤ Increase the average ARPDAU by 100% by December 2017.
- > Increase long-term player retention beyond 180 days.
- ➤ Increase LTV by 100% 200%
- > Reduce UAC by 50% through increased virality by December 2017.
- > Significantly increase the number of DAUs from the current 18,000 to 140,000+ by December 31, 2016.
- > Start paying dividends to investors upon achieving profitability.



## **Financials**

The following chart summarizes the company's performance history since they began developing Trophy Bingo. Revenues and EBITDA in the chart below do not include discontinued operations.



In 2015, the company generated \$112k in revenues, \$85k of which were reported in Q4. Revenues in 2014 were \$32k. These revenues are net of the 30% fee paid to Apple and Google.

Shoal reported \$0.48 million per year as cost of sales in 2014 and 2015 – these are amortized development costs.

EBITDA was -\$2.95 million in 2015 versus -\$2.62 million in 2014. Operating expenses were \$2.58 million in 2015 up from \$2.17 million in 2014. Operating expenses included the following:

- Selling and marketing fees were \$0.55 million in 2015, up from \$0.25 million in 2014.
- Development costs were \$1.23 million in 2015, up from \$1.18 million in 2014.
- Salaries, benefits and directors' fee were \$0.44 million in 2015 versus \$0.53 million in 2014.
- General and Administrative expenses were \$0.36 million in 2015 versus \$0.21 million in 2014.

Management estimates operating expenses (excluding player acquisition and marketing costs) will be approximately \$2.25 million and \$2.50 million in 2016 and 2017, respectively.



The net loss in 2015 was \$2.97 million (EPS: -\$0.05) versus a normalized net loss of \$2.67 million (EPS: -\$0.04) in 2014. The company reported net profit of \$5.06 million (EPS: \$0.07) in 2014 after accounting for a gain on sale of assets of \$6.68 million in the year.

The following table shows a summary of the company's cash flows.

Summary of Cash Flows	2013	2014	2015
Cash Flows from Operations	(222,095)	(902,497)	(2,383,038)
Cash Flows from Investing	(1,060,609)	1,878,330	(512)
Cash Flows from Financing	900,000	1,409,350	77,250
Net Change	(382,704)	2,385,183	(2,306,300)
Free Cash Flows	(1,282,704)	975,833	(2,383,550)

Free cash flows were -\$2.38 million in 2015 versus \$0.98 million in 2014. The positive FCF in 2014 was a result of the \$2 million cash received from the sale of assets.

The company's capitalized software development costs were \$0.34 million in 2012, \$1.06 million in 2013, \$0.05 million in 2014, and nil in 2015, for a total of \$1.45 million. In addition, the company expensed a total of \$2.41 million so far, indicating a total development cost of \$3.86 million since 2012.

At the end of 2015, the company had \$0.57 million in cash, with no debt. Working capital and the current ratio were \$0.45 million, and 3.6x, respectively.

Liquidity Analysis	2013	2014	2015
Cash	\$491,203	\$2,876,386	\$570,086
Working Capital	\$646,015	\$2,856,230	\$454,342
Current Ratio	3.71	19.24	3.56
Debt / Capital	0.0%	0.0%	0.0%
LT Debt / Capital	0.0%	0.0%	0.0%
EBIT Interest Coverage Ratio	(900.9)	(5,150.2)	(2,708.1)

**Stock options and warrants:** At the end of 2015, the company had no options or warrants outstanding.

Current Financing – On February 29, 2016, the company announced its plan to pursue a C\$2 million private placement by issuing up to 3.33 million common shares at C\$0.60 per share. Upon completing this financing, the company plans to pursue a rights offering to holders of the common shares, wherein shareholders will receive one right for each common share held. Ten rights will entitle the shareholder to purchase one common share at a specified exercise price within a fixed time period. The time period and pricing will be announced by the company within one month of closing of the current financing. The rights are expected to be listed on the TSX Venture Exchange. To further sweeten the offering to investors, shareholders who exercise all their rights will have the option to purchase



## Valuation

additional shares at the same price without requiring the purchase of additional rights.

The following table shows our revenue and earnings projections based on management's goal of 140,000 DAUs by the end of the year, and 1 million DAUs by the end of 2020.

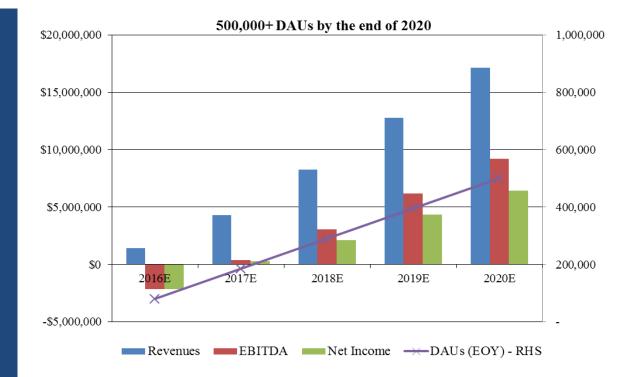
STATEMENTS OF OPERATIONS					
(in US\$)- YE Dec 31st	2016E	2017E	2018E	2019E	2020E
Net Revenues	2,353,155	8,041,863	16,090,113	25,237,013	34,205,063
Cost of Sales	482,013				
Gross Profit	1,871,142	8,041,863	16,090,113	25,237,013	34,205,063
Expenses					
Selling & Marketing	1,224,477	2,490,983	4,654,868	6,818,752	8,982,636
Trophy Bingo development	1,350,000	1,485,000	1,633,500	1,796,850	1,976,535
Compensation & Consulation	548,215	603,037	663,340	729,674	802,642
G & A	445,809	490,390	539,429	593,371	652,709
EBITDA	-1,697,359	2,972,453	8,598,976	15,298,365	21,790,541
Amortization	3,788	4,515	4,806	4,922	4,969
EBIT	-1,701,147	2,967,938	8,594,170	15,293,443	21,785,572
EBT	-1,701,147	2,967,938	8,594,170	15,293,443	21,785,572
Income Taxes	-	890,381	2,578,251	4,588,033	6,535,672
Net Earnings for the period	-1,701,147	2,077,556	6,015,919	10,705,410	15,249,900
EPS	-0.03	0.04	0.10	0.19	0.26
Average DAU (end of year)	140,000	355,000	570,000	785,000	1,000,000
ARPDAU (end of year)	\$0.12	\$0.13	\$0.14	\$0.15	\$0.15

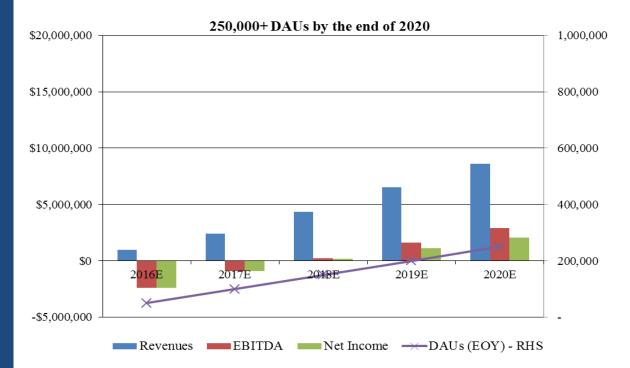
Based on the above assumptions, free cash flows ("FCF") are estimated to be approximately \$1.49 million (\$0.03 per share) in 2017, allowing the company to start paying dividends.

Summary of Cash Flows	2015	2016E	2017E	2018E	2019E	2020E
Cash Flows from Operations	(2,383,038)	(1,164,817)	1,491,676	5,297,108	9,857,455	14,426,291
Cash Flows from Investing	(512)	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)
Cash Flows from Financing	77,250	1,000,000	-	-	-	-
Net Change	(2,306,300)	(169,817)	1,486,676	5,292,108	9,852,455	14,421,291
Free Cash Flows	(2,383,550)	(1,169,817)	1,486,676	5,292,108	9,852,455	14,421,291

The following charts show the performance at various DAUs by 2020.







**Discounted Cash Flow ("DCF") Valuation** – Our DCF valuation on Shoal's shares is C\$1.60 per share.



DCF Valuation							
		2016E	2017E	2018E	2019E	2020E	Terminal
Funds Flow from Operations (US\$)		(1,215,346)	2,082,072	6,020,725	10,710,332	15,254,869	
Change in Working Capital (US\$)		50,529	(590,396)	(723,617)	(852,877)	(828,579)	
Cash from Operations (US\$)		(1,164,817)	1,491,676	5,297,108	9,857,455	14,426,291	
CAPEX (US\$)		(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	
Free Cash Flow (US\$)		(1,169,817)	1,486,676	5,292,108	9,852,455	14,421,291	
Present Value (US\$)		(1,079,559)	1,232,679	3,942,457	6,594,587	8,672,656	64,723,084
Discount Rate	11.3%						
Terminal Growth	3.0%						
Present Value (C\$)	\$92,494,494						
Cash - Debt* (C\$)	\$2,717,095						
Fair Value (C\$)	\$95,211,589						
Shares O/S*	59,531,036						
Value per Share (C\$)	\$1.60						

<sup>\*</sup> assumes completion of the current \$2M financing

We used a discount rate of 11.3%, which we estimate is in line with the current industry average return on equity of companies in the gaming industry. Multiple data sources were used to arrive at this estimate. We believe the discount rate is appropriate for our base-case cash flow model, which assumes 140,000 DAUs by the end of 2016, and 1 million DAUs by the end of 2020.

The following table shows our comparables valuation based on our expected revenue and EBITDA estimates in 2020. The estimated values have been discounted back to the present using an 11.3% discount rate.

Comparables Valuation					
2020 Forecast (Gross Revenues)	\$48,864,375	2020 Forecast (EBITDA)	21,790,541		
Average EV/ Revenue	2.54	Average EV/ Revenue	10.73		
Expected EV (US\$)	\$124,115,513	Expected EV (US\$)	\$233,703,553		
Value per Share (C\$)	\$1.41	Value per Share (C\$)	\$2.63		

Based on our review of the company's business model, the quality of the management team and their execution plan, and our valuation models, we are initiating coverage on Shoal with a BUY rating and a fair value estimate of C\$1.60 per share. We expect several catalysts for the shares over the next 6-12 months as the company hits its near-term milestones.

<sup>\*</sup> long-term C\$/US\$ - 1.1



Risks

The following risks, though not exhaustive, may cause our estimates to differ from actual results:

- The social games sector is highly competitive. There are over one million apps each available on both the App Store and Google Play.
- The social bingo gaming market is currently dominated by two established players.
- Keeping players engaged is critical and requires continuous development and innovation.
- Trophy Bingo is in its early stages and has yet to start to generating significant revenues.
- The company may have to pursue equity financings, which may dilute existing shareholders.
- The social games sector is not subject to any material regulations. Any unfavorable changes in regulations in the future may impact the company's business.
- Management and insiders own 81% of the outstanding shares. Therefore, the liquidity and the average daily trading volume of SGW's shares are low at this time.

We assign a risk rating of 5 (Highly Speculative).



## **APPENDIX**

STATEMENTS OF OPERATIONS						
(in US\$)- YE Dec 31st	2015	2016E	2017E	2018E	2019E	2020E
Net Revenues	111,521	2,353,155	8,041,863	16,090,113	25,237,013	34,205,063
Cost of Sales	482,012	482,013				
Gross Profit	-370,491	1,871,142	8,041,863	16,090,113	25,237,013	34,205,063
Expenses						
Selling & Marketing	549,726	1,224,477	2,490,983	4,654,868	6,818,752	8,982,636
Trophy Bingo development	1,230,216	1,350,000	1,485,000	1,633,500	1,796,850	1,976,535
Compensation & Consulation	438,572	548,215	603,037	663,340	729,674	802,642
G & A	356,647	445,809	490,390	539,429	593,371	652,709
EBITDA	-2,945,652	-1,697,359	2,972,453	8,598,976	15,298,365	21,790,541
Amortization	3,467	3,788	4,515	4,806	4,922	4,969
EBIT	-2,949,119	-1,701,147	2,967,938	8,594,170	15,293,443	21,785,572
EBT	-2,981,612	-1,701,147	2,967,938	8,594,170	15,293,443	21,785,572
Income Taxes		-	890,381	2,578,251	4,588,033	6,535,672
Net Earnings for the period	-2,965,307	-1,701,147	2,077,556	6,015,919	10,705,410	15,249,900
EPS	-0.05	-0.03	0.04	0.10	0.19	0.26



BALANCE SHEET						
(in US\$)- YE Dec 31st	2015	2016E	2017E	2018E	<b>2019</b> E	2020E
Assets						
Cash	570,086	400,269	1,886,945	7,179,053	17,031,509	31,452,800
Accounts receivable	44,843	187,114	804,186	1,609,011	2,523,701	3,420,506
Prepaid expenses	17,205	37,423	160,837	321,802	504,740	684,101
Current Assets	632,134	624,806	2,851,969	9,109,867	20,059,950	35,557,407
Property and equipment Other Assets	6,314 482.013	7,526	8,010	8,204	8,282	8,313
Security Deposits Intangibles, net	8,960	8,960	8,960	8,960	8,960	8,960
Goodwill	1 120 121	(41.202	2.070.020	0.127.021	20.055.102	25.554.600
Total Assets	1,129,421	641,292	2,868,939	9,127,031	20,077,192	35,574,680
Liabilities & Shareholders' Equity						
Accounts payables & accrued liabilities	143,832	356,850	506,941	749,114	993,865	1,241,452
Related parties	33,960	33,960	33,960	33,960	33,960	33,960
<b>Current Liabilities</b>	177,792	390,810	540,901	783,074	1,027,825	1,275,412
Loans payable						
Shareholder's Equity						
Share Capital	19,334,290	20,334,290	20,334,290	20,334,290	20,334,290	20,334,290
Foreign Currency Translation	24,580	24,580	24,580	24,580	24,580	24,580
Deficit	-18,407,241	-20,108,388	-18,030,832	-12,014,913	-1,309,503	13,940,398
Total Liabilities & Shareholders' Equity	1,129,421	641,292	2,868,939	9,127,031	20,077,192	35,574,680



STATEMENTS OF CASH FLOWS (in US\$)- YE Dec 31st	2015	2016E	2017E	2018E	2019E	2020E
(III US\$)- YE Dec 51st	2015	2010E	2017E	2010E	2019E	2020E
Operating Activities						
Net earnings for the period	-2,965,787	-1,701,147	2,077,556	6,015,919	10,705,410	15,249,900
Items not involving cash						
Depreciation	3,467	3,788	4,515	4,806	4,922	4,969
Trophy Bingo Amortization	482,012	482,013				
	-2,496,613	-1,215,346	2,082,072	6,020,725	10,710,332	15,254,869
Accounts Receivable	77,213	-142,271	-617,072	-804,825	-914,690	-896,805
Other Assets	1,682					
Prepaid Expenses	-2,838	-20,218	-123,414	-160,965	-182,938	-179,361
Accounts payable and accrued expenses	37,518	213,018	150,091	242,173	244,751	247,587
Changes in working capital	113,575	50,529	-590,396	-723,617	-852,877	-828,579
Cash from (used in) operations	-2,383,038	-1,164,817	1,491,676	5,297,108	9,857,455	14,426,291
Financing activities						
Private Placement		1,000,000				
Exercise of Stock Options	77,250					
Cash provided by financing activities	77,250	1,000,000	-	-	-	-
Investing activities						
Acquisition of Equipment	-512	-5,000	-5,000	-5,000	-5,000	-5,000
Proceeds on sale of domain name, net						
transaction costs						
transaction costs Software Development						
	-512	-5,000	-5,000	-5,000	-5,000	-5,000
Software Development	-512 -2,306,300	-5,000 -169,817	-5,000 1,486,676	-5,000 5,292,108	-5,000 9,852,455	-5,000 14,421,291
Software Development  Cash used in investing activities		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	·



#### Fundamental Research Corp. Equity Rating Scale:

Buy – Annual expected rate of return exceeds 12% or the expected return is commensurate with risk

Hold – Annual expected rate of return is between 5% and 12%

Sell - Annual expected rate of return is below 5% or the expected return is not commensurate with risk

Suspended or Rating N/A—Coverage and ratings suspended until more information can be obtained from the company regarding recent events.

#### Fundamental Research Corp. Risk Rating Scale:

1 (Low Risk) - The company operates in an industry where it has a strong position (for example a monopoly, high market share etc.) or operates in a regulated industry. The future outlook is stable or positive for the industry. The company generates positive free cash flow and has a history of profitability. The capital structure is conservative with little or no debt.

- **2 (Below Average Risk)** The company operates in an industry where the fundamentals and outlook are positive. The industry and company are relatively less sensitive to systematic risk than companies with a Risk Rating of 3. The company has a history of profitability and has demonstrated its ability to generate positive free cash flows (though current free cash flow may be negative due to capital investment). The company's capital structure is conservative with little to modest use of debt.
- 3 (Average Risk) The company operates in an industry that has average sensitivity to systematic risk. The industry may be cyclical. Profits and cash flow are sensitive to economic factors although the company has demonstrated its ability to generate positive earnings and cash flow. Debt use is in line with industry averages, and coverage ratios are sufficient.
- 4 (Speculative) The company has little or no history of generating earnings or cash flow. Debt use is higher. These companies may be in start-up mode or in a turnaround situation. These companies should be considered speculative.
- **5** (Highly Speculative) The company has no history of generating earnings or cash flow. They may operate in a new industry with new, and unproven products. Products may be at the development stage, testing, or seeking regulatory approval. These companies may run into liquidity issues, and may rely on external funding. These stocks are considered highly speculative.

#### **Disclaimers and Disclosure**

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