

# Validity of Winner's Curse Hypothesis: Evidence from Indian Stock Market IPOs during 2017-18

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## ABSTRACT

The winner's curse is a tendency for the winning bid in an auction to exceed the intrinsic value or true worth of an item. Because of incomplete information, emotions or any other number of factors regarding the being auctioned, bidders can have a difficult time determining the item's intrinsic value. As a result, the largest overestimation of an item's valued ends up winning the auction. This paper examines the validity of Winners' Curse Hypothesis in Indian IPOs during 2017-18. 40 IPOs during the period are analysed in this aspect and it could be found that Winners' Curse do exist in the Indian IPOs. It could also be found that there are few sectors resilient of Winners' Curse and otherwise.

## 1. Introduction

The winner's curse is a tendency for the winning bid in an auction to exceed the intrinsic value or true worth of an item. Because of incomplete information, emotions or any other number of factors regarding the being auctioned, bidders can have a difficult time determining the item's intrinsic value. As a result, the largest overestimation of an item's valued ends up winning the auction. The winners curse is a phenomenon that may occur in common value auctions, wherein the winner will tend to overpay due to emotional reasons or incomplete information. Accordingly, the winner will be "cursed" in one of two ways: either the winning bid will exceed the value of the auctioned asset making the winner worse off in absolute terms, or the value of the asset will be less than the bidder anticipated, so the bidder may garner a net gain but will be worse off than anticipated. However, an actual overpayment will generally occur only if the winner fails to account for the winner's curse. The expense of the stockholders of the acquiring firm when several potential acquirers are involved in the bidding. The winning bidder in an auction of several bidders will pay too high a price. From an investor's standpoint, the winner's curse implies the stockholders of the firm acquired in a merger will benefit.

Book Building is basically a capital issuance process used in Initial Public Offering (IPO), which aids price and demand discovery. It is a process used for marketing a public offer of equity shares of a company and is a common practice in most developed countries.

### 1.1. Statement of the Problem

The investigation is to conducted to validity of winner's cures hypothesis Evidence from IPOs in 2017 to 2018. The study examined Whether the IPOs in 2017-2018 (FY) are oversubscribed; Whether winners curse hypothesis in the IPOs during 2017-2018, Whether there is any significant difference among sectors in IPOs performance and also analyse the best performing IPO during 2017-2018.

## 1.2. Objectives of the Study

- To know whether the IPOs in 2017-2018 FY were oversubscribed
- To study whether winners curse exists in the IPOs during 2017-2018 FY
- To study whether there is any significant difference among sectors in IPO Performance
- To study the association between sector and Winners' Curse

## 1.3. Research Methodology

The study is empirical in nature and considers all the recent IPOs occurred in the different sectors. The data collected from the websites of National Stock Exchange of India, annual reports of Companies, websites, RBI and various journals and academic publications. The study uses Returns and Market Adjusted Returns to calculate abnormal returns. Testing of winners curse hypothesis

$$ER = MAR - RF;$$

if ER is Negative, there is Winner's Curse

ER = Excess Return

MAR =Market Adjusted Return

RF =Risk Free Return

The study includes all the companies which offer public issue as the Initial Public Offerings (IPOs) during the period April 2017 up to March 2018 through National stock exchange (NSE).

## 2. Results

Analysis of rates of oversubscriptions indicates the response of IPO investors for subscribing the IPOs. Almost all the issues were oversubscribed by the investors. Average Issue size and times oversubscribed are 1694.76 and 51.5445 respectively. It indicates that IPOs from various companies got good response from the market. Among these, Apollo Micro System Ltd has high over subscription rate of 248.51 times and The Bharat Dynamics has the low over subscription rate of 1.3 times.

**Table 1**  
**Analysis of IPO Under pricing**

Name of the company	Sector	Issue Price	Listing Price	Method	Result
Hindustan Aeronautics Ltd	Diversified	1215	1152	BB	Overpriced
Bandhan Bank Ltd	Bank-Private sector	375	487.33	BB	Underpriced
Bharat Dynamics Ltd	Miscellaneous	428	418	BB	Overpriced
HG Infra Engineering Ltd	Infrastructure	270	270	BB	No change
Aster DM Health	Diversified	190	183	BB	Overpriced
Galaxy Surfactants	Miscellaneous	1480	1115	BB	Underpriced
Amber Enterprise India Ltd	Miscellaneous	859	1175	BB	Underpriced
Newgen Software Technologies Ltd	Computer –software	245	253	BB	Underpriced
Apollo Micro System Ltd	Miscellaneous	275	465	BB	Underpriced
Astron Paper & board mill Ltd	Paper	50	115	BB	Underpriced
Future Supply chain solution ltd	Transport and logistics	664	664	BB	No change
Shalby Ltd	Hospitals and medical services	248	239.17	BB	Overpriced
HDFC Life insurance company ltd	Miscellaneous	290	310	BB	Underpriced
Khadim India Ltd	Leather products	750	730	BB	Overpriced
Mahindra Logistic Ltd	Diversified	429	429	BB	No change
Reliance Nippon Life Asset Management Ltd	Miscellaneous	252	295.9	BB	Underpriced
General Insurance	Diversified	912	850	BB	Overpriced
Indian energy exchange Ltd	Diversified	1650	1500	BB	Overpriced
Godrej Agrovet Ltd	Miscellaneous	460	615.6	BB	Underpriced
Prataap Snacks Ltd	Food processing	938	1270	BB	Underpriced
SBI Life Insurance Company	Diversified	700	735	BB	Underpriced
ICICI Lombard General insurance company Ltd	Diversified	661	651.1	BB	Overpriced
CapaciteInfraprojects Ltd	Construction and contracting	250	399	BB	Underpriced
Matrimony.com Ltd	Miscellaneous	985	985	BB	No change
Bharath Road Network Ltd	Infrastructure	205	205	BB	No change
Dixon Technologies Ltd	Electricals	1766	2725	BB	Underpriced
Apex Frozen Foods Ltd	Food processing	175	202	BB	Underpriced
Cochin Shipyard Ltd	Miscellaneous	432	440.15	BB	Underpriced
Security and intelligence Service (I) Ltd	Miscellaneous	815	879.8	BB	Underpriced
Salasar Techno Engineering Ltd	Engineering	108	250	BB	Underpriced
AU Small Finance Bank	Finance – general	358	525	BB	Underpriced
GTPL Hathway Ltd	Media and entertainment	170	170	BB	No change
Central Depository Service Ltd	Finance – investment	149	250	BB	Underpriced
Eris Lifescience Ltd	Pharmaceuticals	603	611	BB	Underpriced
Tejas Network Ltd	Tele communications-equipments	257	257	BB	No change
India Grid Trust Inv IT	Finance – general	100	99.7	BB	Overpriced
PSP Projects Ltd	Constructions and contracting	210	190	BB	Overpriced
Housing and Urban Development Corporation Ltd	Constructions and contracting	58	73	BB	Underpriced
S. Chand Publishing	Printing and stationery	670	700	BB	Underpriced
Shankar Building Products Ltd	Miscellaneous	460	555	BB	Underpriced

Source: Compiled from NSE and moneycontrol.com

There are 23 Companies are underpriced, as their listing price is more than the issue price and 10 Companies are overpriced and there are 7 companies are No change, as their listing price is less than the issue price.

**2.1 Analysis of Sectoral Difference in IPO Performance**

Analysis of sectoral difference (19 sectors) in IPO performance using One Way ANOVA produced the following results:

**Table 2**  
**Mean Returns of IPOs in Different Sectors**

Sector	Listing Gain/Loss	Day 1	Week 1	Week 2	Week 4	Week 8	Week 12
Bank-Private sector	29.95	-6.17	2.28	-3.97	0.22	0.76	-3.08
Computer –software	3.26	-0.65	3.06	-0.25	-1.90	-1.22	2.43
Constructions and contracting	25.31	-5.53	-0.31	0.19	-1.21	-3.32	16.92
Diversified	-3.04	1.24	-2.27	-2.15	-1.67	-1.47	-2.69
Electricals	54.30	9.42	-0.41	-0.81	-0.02	-3.31	5.72
Engineering	131.48	11.56	12.25	6.67	14.66	-2.46	-7.50
Finance – general	23.17	1.10	0.52	0.32	0.56	-0.90	-4.39
Finance – investment	67.79	7.91	27.50	-2.90	5.26	-6.05	2.05
Food processing	25.41	-1.88	-1.04	-2.61	-9.53	-4.54	-11.02
Hospitals and medical services	-3.56	-0.04	-1.09	-2.71	2.92	1.37	-0.48
Infrastructure	0	-0.42	0.37	0.95	-4.01	-1.12	2.02
Leather products	-2.67	-5.49	0.67	1.00	0.71	-0.48	-1.71
Media and entertainment	0	0.00	-3.62	0.38	3.32	0.61	1.52
Miscellaneous	15.23	3.77	-1.05	0.17	-0.04	0.72	1.67
Paper	130	11.50	0.00	-0.20	-2.30	-3.20	-3.60
Pharmaceuticals	1.33	-1.56	1.68	0.62	1.89	-0.78	-1.97
Printing and stationery	4.48	-3.58	0.45	-1.71	-0.71	1.80	75.39
Tele communications-equipments	0	0.00	1.81	0.30	-2.28	1.21	2.52
Transport and logistics	0	0.00	0.81	0.44	1.40	-0.85	1.21
Total	18.39	1.35	0.42	-0.46	-0.46	-0.95	2.40

(Source: Researcher's Computation)

**Table 3**  
**ANOVA Summary**

		Sum of Squares	Df	Mean Square	F	Sig.
Listing Gain/Loss	Between Groups	36051.323	18	2002.851	4.206	0.001**
	Within Groups	10001.007	21	476.238		
	Total	46052.330	39			
Day 1	Between Groups	696.869	18	38.715	0.425	0.964
	Within Groups	1912.049	21	91.050		
	Total	2608.918	39			
Week 1	Between Groups	987.139	18	54.841	3.935	0.002**
	Within Groups	292.687	21	13.937		
	Total	1279.826	39			
Week 2	Between Groups	121.415	18	6.745	0.508	0.924
	Within Groups	278.572	21	13.265		
	Total	399.987	39			
Week 4	Between Groups	512.569	18	28.476	1.572	0.160
	Within Groups	380.460	21	18.117		
	Total	893.029	39			
Week 8	Between Groups	137.606	18	7.645	0.171	0.998
	Within Groups	939.830	21	44.754		
	Total	1077.436	39			
Week 12	Between Groups	6821.498	18	378.972	3.806	0.002**
	Within Groups	2091.058	21	99.574		
	Total	8912.555	39			

(Source: Researcher's Computation)

From the detailed analysis, it could be inferred that there is significant difference among the IPO performance in different sectors in the Listing Gain, 1st Week Gain and 12th Week Gain.

**Table 4**  
**Analysis of Winner's Curse**

Name of the company	Sector	1 day	1 <sup>st</sup> week	2 <sup>nd</sup> week	4 <sup>th</sup> week	8 <sup>th</sup> week	12 <sup>th</sup> week	Decision
Bandhan Bank Ltd	Bank-Private sector	-6.17	2.28	-3.97	0.22	0.76	-3.08	Partially Accepted
Newgen Software Technologies Ltd	Computer –software	-0.65	3.06	-0.25	-1.9	-1.22	2.43	Partially Accepted
Capacite Infraprojects Ltd	Construction and contracting	-22.58	-3.78	-1.42	-2.52	-9.94	5.22	Accepted
PSP Projects Ltd	Constructions and contracting	4.52	-0.5	1.49	-1.26	-0.28	43.73	Partially Accepted
Housing and Urban Development Corporation Ltd	Constructions and contracting	1.47	3.35	0.51	0.16	0.25	1.81	Rejected
Hindustan Aeronautics Ltd	Diversified	-1.6	-1.23	-1.97	-0.92	-0.65	-0.51	Accepted
Aster DM Health	Diversified	-0.76	-1.27	4.4	2.9	0.92	0.26	Rejected
Mahindra Logistic Ltd	Diversified	0	-14.52	-15.12	-14.49	-9.66	-27.86	Accepted
General Insurance	Diversified	2.66	1.86	-2.27	0.21	0.63	3.96	Rejected
Indian energy exchange Ltd	Diversified	7.83	0.13	-0.97	-1.91	-0.68	0.06	Partially Accepted
SBI Life Insurance Company	Diversified	-3.93	-0.87	0.28	1.82	-0.02	4.14	Partially Accepted
ICICI Lombard General insurance company Ltd	Diversified	4.45	0.03	0.6	0.7	-0.84	1.13	Rejected
Dixon Technologies Ltd	Electricals	9.42	-0.41	-0.81	-0.02	-3.31	5.72	Accepted
Salasar Techno Engineering Ltd	Engineering	11.56	12.25	6.67	14.66	-2.46	-7.5	Rejected
AU Small Finance Bank	Finance – general	3.25	1.69	0.16	0.1	-1.74	-8.78	Rejected
India Grid Trust Inv IT	Finance – general	-1.06	-0.65	0.47	1.01	-0.05	0	Partially Accepted
Central Depository Service Ltd	Finance – investment	7.91	27.5	-2.9	5.26	-6.05	2.05	Rejected
Prataap Snacks Ltd	Food processing	-9.53	-2.39	-0.3	-2.12	-1.06	-14.87	Accepted
Apex Frozen Foods Ltd	Food processing	5.77	0.31	-4.91	-16.94	-8.02	-7.17	Partially Accepted
Shalby Ltd	Hospitals and medical services	-0.04	-1.09	-2.71	2.92	1.37	-0.48	Partially Accepted
HG Infra Engineering Ltd	Infrastructure	-0.83	1.56	1.47	-7.34	-1.13	-0.31	Partially Accepted
Bharath Road Network Ltd	Infrastructure	0	-0.83	0.42	-0.68	-1.1	4.35	Partially Accepted
Khadim India Ltd	Leather products	-5.49	0.67	1	0.71	-0.48	-1.71	Partially Accepted
GTPL Hathway Ltd	Media and entertainment	0	-3.62	0.38	3.32	0.61	1.52	Rejected
Bharat Dynamics Ltd	Miscellaneous	4.63	0.78	0.8	0.48	25.75	-0.03	Rejected
Galaxy Surfactants	Miscellaneous	11.85	0.2	-1.74	-0.46	0.4	1.59	Rejected
Amber Enterprise India Ltd	Miscellaneous	8.18	2.44	-2.39	-1.82	1.51	1.01	Rejected
Apollo Micro System Ltd	Miscellaneous	-8.46	-6.64	2.31	-1.69	-7.82	13.71	Partially Accepted
HDFC Life insurance company Ltd	Miscellaneous	11.93	-1.85	-0.24	4.17	-3.6	0.55	Partially Accepted
Reliance Nippon Life Asset Management Ltd	Miscellaneous	-4.53	1.66	0.85	-0.67	-0.15	0.8	Partially Accepted
Godrej Agrovet Ltd	Miscellaneous	-4.21	-2.74	0.66	-0.66	-1.33	-1.19	Accepted
Matrimony.com Ltd	Miscellaneous	0	-0.05	-0.42	0.07	0.98	-0.91	Partially Accepted
Cochin Shipyard Ltd	Miscellaneous	20.37	-0.69	4.16	-1.36	-4.3	0.7	Partially Accepted
Security and intelligence Service (I) Ltd	Miscellaneous	-15.06	0.13	-0.11	-1.4	0	0.29	Partially Accepted
Shankar Building Products Ltd	Miscellaneous	16.81	-4.8	-1.96	2.93	-3.5	1.86	Partially Accepted
Astron Paper & board mill Ltd	Paper	11.5	0	-0.2	-2.3	-3.2	-3.6	Partially Accepted
Eris Lifescience Ltd	Pharmaceuticals	-1.56	1.68	0.62	1.89	-0.78	-1.97	Rejected
S. Chand Publishing	Printing and stationery	-3.58	0.45	-1.71	-0.71	1.8	75.39	Partially Accepted
Tejas Network Ltd	Tele communications-equipments	0	1.81	0.3	-2.28	1.21	2.52	Rejected
Future Supply chain solution Ltd	Transport and logistics	0	0.81	0.44	1.4	-0.85	1.21	Rejected
<b>Average</b>		<b>1.212</b>	<b>0.518</b>	<b>-0.561</b>	<b>-0.189</b>	<b>-1.778</b>	<b>2.819</b>	

Source: Computations by Researcher

Analysis of Winner's Curse Hypothesis done by analysing 1 day 1st week 2nd week 4th week 8th week 12th week. Negative returns shows the Winners Curse there are 6

companies are Accepted and 20 companies are Partially Accepted and there are 14 companies are Rejected . Hence, it is confirmed that Winner's Curse does exist in Indian IPOs.

## 2.2 Analysis of Winner's Curse across Different Sectors

**Table 5**  
**Sector Wise Occurrence of Winner's Curse**

Sector	Winner's Curse			Total
	Rejected	Partially Accepted	Accepted	
Bank-Private sector	0	0	1	1
Computer –software	0	0	1	1
Constructions and contracting	0	0	3	3
Diversified	0	6	1	7
Electricals	0	1	0	1
Engineering	0	1	0	1
Finance – general	0	2	0	2
Finance – investment	0	1	0	1
Food processing	0	2	0	2
Hospitals and medical services	0	1	0	1
Infrastructure	0	2	0	2
Leather products	0	1	0	1
Media and entertainment	0	1	0	1
Miscellaneous	9	2	0	11
Paper	1	0	0	1
Pharmaceuticals	1	0	0	1
Printing and stationery	1	0	0	1
Tele communications-equipments	1	0	0	1
Transport and logistics	1	0	0	1
<b>Total</b>	<b>14</b>	<b>20</b>	<b>6</b>	<b>40</b>
Chi Square	64.623			
Df	36			
P Value	0.002**			

Source: Computations by Researcher

\*\*Highly Significant

It could be found that sector is associated with Winner's Curse where some sectors didn't have a single occurrence.

### 3. Conclusion

The study shows that winner's curse hypothesis is valid in most of the cases. It signifies the information asymmetry and

lack of investor awareness in the equity market. The sectors found underpriced and unaffected shall be studied by the prospective investors before making a commitment. All factors like EPS, Price Band, Issue Size, etc shall be considered by the investors in this aspect.

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The authors do not recommend investment in any of these securities. Investors are responsible for their investment actions.

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