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Pre-COVID19 Scenario of Aftermarket Price Performance of Initial Public Offerings: Evidence from Dhaka Stock Exchange

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Abstract

Purpose of the study: The purpose of the study is to test the short-run price performance of IPO stocks in the Dhaka Stock Exchange from 2011 to 2018.

Methodology: The Dhaka Stock Exchange General Index i.e. DSEX has been used as a proxy for market return. Secondary data are used to analyze the return anomalies within the primary market.

Findings: The study finds that Bangladesh's market for IPOs was underpriced. The results denote that post-market offers provide positive short-run returns. High returns were to be found within the early days of listings. Hence, Investors are highly profitable in the short-run period.

Implications: This study highlights specifically the return behavior of the market in the short-term period. Investors are directly affected by this investment pattern which leads to abnormal returns in the short-term period. Less number of IPOs is the prime reason for these short-term abnormal returns.

Limitations and Future direction: The data is taken from 2011 to 2018 which represents a small sample size of merely eight years. A larger sample size directs to more accuracy and the COVID scenario can be dragged particularly to see the return anomalies between the different timeframes.

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1. Introduction

Primarily, a private company needs to convert itself into a public company to issue shares to the general public so that it can raise its desired capital. This entire process is called an initial public offering. Public offerings normally allow potential investors to take part in a rising firm's ownership. The price behavior of IPO stocks has been investigated in many different countries. Through wide investigation, Researchers have found three important price behavior anomalies of IPO stocks. Firstly, the initial or primary return of IPO stocks is abnormal. This proves that investors can buy stocks at a cheaper price in the primary market. Secondly, there is the hot wave. Thirdly, the abnormal or excess return of IPO stocks turns out to be negative, which is why the Initial public offerings are called overpriced. Thus, it fads in the initial aftermarket trading (Ritter, 1991). In short, underpricing defines the positive or excess return on the offer price to the equilibrium price. In other words, underpricing denotes the difference between the willingness of investors to pay and the actual respect of new issuers. In different countries, many theoretical and empirical investigations have been made to explain the IPO underpricing in the capital market. This study is undertaken to show the short-run price performance of IPOs in Bangladesh from 2011 to 2018. The main objective of this study is to analyze the aftermarket price performance of IPOs in the short-run that came from 2011 to 2018 in the Dhaka Stock Exchange (DSE). Hence, the research question of this study:

- Was the market price higher than the offer price of IPOs in the short-run that came from 2011 to 2018 in the Dhaka Stock Exchange?

2. Literature Review

In many different markets of the world, different studies have been conducted on underpricing and overpricing of IPOs. Generally, these studies suggest that underpricing occurs in the short run and overpricing occurs in the long run. The return anomalies of IPOs have been broadly inspected. These investigations have been conducted on the aftermarket price behavior or performance. To discuss the issue of abnormal initial return of IPOs, financial analysts and economists have established a variety of models. One of the models tells that information asymmetry is the prime reason for an abnormal initial return of IPOs. Baron (1982) says that the abnormal initial return of IPO is because of the asymmetric information between the investment bankers and the issuers. But Muscarella and Vetsuypens (1989) oppose this proposition by showing the similar initial return formed by self-marketing IPOs of security firms. Barry et al. (1990) also showed similar findings. The curse proposition of the winners, named as winner's curse, was formulated by Rock (1986). He showed here that the abnormal initial return originated because of the asymmetry of information between informed and uninformed investors.

Levis (1993) brought suggestions on the market in the UK to preserve the curse proposition of the winner. Also, Koh and Walter (1989) and Keloharju (1993) critically evaluated the theory of Rock (1986). Nevertheless, the correctness of Rock's model is opposed by Welch (1989) and Ruud (1993). Beatty and Ritter (1986) modified the theory of Rock (1986), stating that more money will be needed by uninformed investors because of the uncertainty about the initial price performance of IPO shares in the secondary market. Benveniste and Spindt (1989) argued that underpricing originated due to the positive information mainly to compensate investors. Allen and Faulhaber (1989) claimed that firms that do not have asymmetric information and underpricing IPOs, solely the good companies can indicate that their type of firms is not underpriced. Also, Welch (1989) figures up a signaling theory. The high-quality companies that are underpriced in their IPOs show their investors comparable information. During 1975-1984, Ritter (1991) was the first one to show the long-run price performance of 1254 U.S. IPOs. Primarily, the initial return was positive but after the 36 months of trading the overall performance began to fall. Akhigbe et al. (2006) showed average unfavorable price behavior or performance of the correlating sector-rival portfolios for 36 months. Approximately 23 percent of the market underperformed after the 36 months of listings of the companies, this was also said by Ritter and Welch (2002).

The price-performance difference was shown between the new and developed industries by Ang and Boyer (2009). They showed that the new industries outperform the developed industries during the holding periods of one to ten years. This happened because of the fewer entry barriers, competition, and uncertainty about

future earnings. During the data of 1980-2003, the Day effect was examined on public offerings of 6427 public issues by Jones and Ligon (2009). They extract an average initial return of 18.64 percent. They also found that 76 percent of the total number of issues made a positive initial return. Kooli and Suret (2004) investigated the issue market during 1991-1998. They found that the long-term price performance of IPOs is underperforming. On the other hand, they said the observed pattern is not always statistically important. They also gave importance to the mechanism and weighting schemes used. IPOs underperform using value-weighted aggregate abnormal returns after five years of price performance examination.

Tsangarakis (2004) discovered price behavior or performance during 1993-1997 in the IPOs and found that there were high initial positive returns in IPOs. Investors could achieve positive average returns on IPOs who bought them up to 12 months: first-day notifications mean 9.07% and 12-months mean 78.51%. Kenourgios et al. (2007) during 1997-2002 reveal evidence of underpricing. Their outcomes show that the over-subscription times and competitiveness of underwriters have a substantial influence on underpricing. They stated a raw return of 52.7 percent and an adjusted mean return of 54.28% on the first day. Almeida and Duque (2006) recorded that in the Portugal market about 10.5 percent of the mean underpricing for the first day. Durukan (2002) appraised 173 Turkish public issues during the 1990-1997 period and disclosed an average underpricing of 14.16 percent. In the Mexican issue market from 1987-1993, Hensler et al. (2000) exposed the difference between non-bank and bank IPOs and discovered that surplus returns in banking industries and services are not considerable in post-listing.

3. Data Set and Research Methodology

3.1. Companies to be Analyzed

The data of 69 IPOs are taken who came into the market through book building and fixed-price methods. The companies were listed on the Dhaka stock exchange from July 2011 to December 2018.

Table 1: Name of the companies

No. of IPOs	IPO	Date of trading
1	Rangpur Dairy & Food Products Limited	28.11.2011
2	Zahintex Industries Ltd.	28.11.2011
3	GBB Power Limited	13.06.2012
4	GPH Ispat Limited	19.04.2012
5	Bangladesh Submarine Cable Company Limited	14.06.2012
6	Saiham Cotton Mills Limited	24.06.2012
7	Unique Hotel & Resorts Limited	02.07.2012
8	Aamra Technologies Limited	04.07.2012
9	Generation Next Fashions Limited	05.12.2012
10	Envoy Textiles Limited	09.12.2012
11	Summit Power Limited	04.02.2013
12	Argon Denims Limited	19.02.2013
13	Premier Cement Mills Limited	03.03.2013
14	Golden Harvest Agro Industries Limited	04.03.2013
15	Global Heavy Chemicals Limited	06.03.2013
16	Orion Pharma Limited	20.03.2013
17	Bengal Windsor Thermoplastics Limited	16.04.2013
18	Familytex (BD) Limited	18.06.2013
19	Bangladesh Building Systems Limited	08.10.2013
20	Paramount Textile Limited	19.11.2013

21	Appollo Ispat Complex Limited	24.12.2013
22	Mozaffar Hossain Spinning Mills Limited	21.01.2014
23	AFC Agro Biotech Ltd	11.02.2014
24	Emerald Oil Industries Limited	19.03.2014
25	Matin Spinning Mills Ltd.	08.04.2014
26	Hwa Well Textiles (BD) Limited	14.05.2014
27	The Peninsula Chittagong Limited	15.06.2014
28	FAR Chemical Industries Ltd	08.07.2014
29	Shahjibazar Power Co. Ltd	15.07.2014
30	Khulna Printing & Packaging Limited	18.08.2014
31	Far East Knitting & Dyeing Industries Limited	28.08.2014
32	Tung Hai Knitting & Dyeing Limited	01.09.2014
33	Shurwid Industries Limited	08.09.2014
34	Ratanpur Steel Re-Rolling Mills Limited	22.09.2014
35	Saif Powertec Limited	29.09.2014
36	Western Marine Shipyard Limited	02.11.2014
37	Khan Brothers PP Woven Bag Industries Limited	18.11.2014
38	Hamid Fabrics Limited	04.12.2014
39	National Feed Mill Limited	19.01.2015
40	IFAD Autos Limited	05.02.2015
41	Shasha Denims Limited	05.03.2015
42	Zaheen Spinning Limited	25.03.2015
43	United Power Generation & Distribution	05.04.2015
44	Bangladesh Steel Re-Rolling Mills Limited	27.04.2015
45	Regent Textile Mills Limited	14.12.2015
46	Simtex Industries Limited	23.11.2015
47	KDS Accessories Limited	15.10.2015
48	Aman Feed Limited	01.09.2015
49	C&A Textiles Limited	21.01.2015
50	Tosrifa Industries Limited	17.06.2015
51	Olympic Accessories Limited	25.06.2015
52	Fortune Shoes Limited	20.10.2016
53	Doren Power Generations & Systems Limited	06.04.2016
54	Dragon Sweater & Spinning Limited	23.03.2016
55	Evince Textiles Limited	17.07.2016
56	Yeakin Polymer Limited	22.09.2016
57	The ACME Laboratories Limited	07.06.2016
58	Pacific Denims Limited	07.02.2017
59	Shepherd Industries Limited	08.03.2017
60	Nurani Dyeing & Sweater Limited	01.06.2017
61	BBS Cables Ltd.	31.07.2017
62	Aamra Networks Limited	02.10.2017
63	Nahee Aluminum Composite Panel Ltd	24.12.2017

64	VFS Thread Dyeing Limited	09.09.2018
65	SK Trims & Industries Limited	15.07.2018
66	Intraco Refueling Station Limited	17.05.2018
67	Advent Pharma Limited	12.04.2018
68	Queen South Textile Mills Ltd	13.03.2018
69	Aman Cotton Fibrous Limited	06.08.2018

3.1.1. Industry-wise breakdown of companies

The companies are categorized based on the industry. The 13 industries are covered to prepare this report. However, a large number of companies come from the textile industry.

Table 2: Industry-wise breakdown of companies

Name of the sector	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**Sample size**
Cement			1						1
Engineering		1	3	3	4	1	2		14
Food & Allied	1		1	1					3
Fuel and Power		1	1	1	1	1		1	6
IT		1					1		2
Miscellaneous				1	2			1	4
Paper & printing				1					1
Pharmaceuticals and chemicals			2	2		1		1	6
Tannery						1			1
Telecommunication		1							1
Textile	1	3	3	6	6	2	3	3	27
Travel & leisure		1		1					2
Services & Real estate					1				1
Sample Size	2	8	11	16	14	6	6	6	69

3.2. Research Methodology

The Dhaka Stock Exchange General Index or market index has been used as a proxy for market return. The DSEX as a market index, established on January 28, 2013, using the standard and poor's method, has been used.

- H_1: there is no significant difference between the means of TD1 to TD7 in continuous feedback and event day collections group.
- H_2: there is no significant difference between the means of PD1 to PD8 in the short-run group.

T-stat has been used in this report to measure the significance of the initial market-adjusted return of 80 consecutive trading days.

3.2.1. Method 1

Aggarwal et al. (1993) examined the short-run price performance of IPOs. The initial return period is considered day 0, and the aftermarket period is considered as the following 80 trading days. Months are well-defined as consecutive 21 trading-day periods relative to the IPO date. Therefore, the first month takes event days 1 to 21, and the following second month takes event days 22 to 42, etc. At the end of the first trading day, the total return for stock 'i' is calculated as:

$$R_{i1} = (P_{i1} / P_{i0}) -1$$

Now here, P_{i1} is the first trading day closing price for stock i and $Pi0$ is the offering price. And now R_{i1} is the total first-day return. The market return captures a similar period:

$$R_{m1}=(P_{m1}/P_{m0})-1$$

Now here P_{m1} is the first trading day closing price of the market. $Pm0$ is the offering price of the market for a stock. R_{m1} is the total market return of the first day. However, on the first day of trading the market-adjusted abnormal return for individual IPO is obtained by:

$$MAAR_i= 100 (R_{i1} - R_{m1})$$

MAAR is the market-adjusted excess or abnormal return for the first trading day. It is measured as a Performance index. It is the excess or abnormality of the market return. An investment is divided likewise among N new subjects in a sample:

$$\text{Average MAAR}= (1/N) \sum \text{MAAR}_i$$

3.2.2. Method 2

Earnings management has some disparagements or criticisms. It is used to calculate simple returns and market-adjusted or abnormal returns. The objective is to determine share prices over financial reorganization announcements. The reliability of IPO is assessed by mainly two formulas. The variables (the aftermarket price performance, dividend disbursements, mergers, etc.) assess IPO. The first one is raw returns. And the second one is market-adjusted returns. Through this proposition, this study analyzes the initial market-adjusted returns from the first to the seventh day and twentieth trading day consecutively.

Likewise, performance is set in the frameworks of holding periods of market-adjusted return, like one to eighty days. This study finds simple returns (R_{it}). It also finds out the market returns to test the hypotheses. In recent studies it has been found that Simple returns are obtained by using the subsequent expression in the framework of Bangladesh:

$$R_{it} = \sum_{i=1}^{n}(\frac{P_{it}- P_{it-1}}{P_{it-1}})$$

Now here, R_{it} denotes simple returns. P_{it} denotes the closing price of a specific stock.

Pit-1 denotes the offer price of a stock. This assists us in getting the summation of simple returns, thus we get the Mean of stock:

$$\overline{X} = \frac{1}{N} (\sum R_{it})$$

Here, N refers to the Sample size. And, market returns are extracted by using the subsequent expression. And also, I use this index [DSEX] as a proxy.

$$R_{mt} = \sum_{i=1}^{n}(\frac{P_{mt}- P_{mt-1}}{P_{mt-1}})$$

Here, Rmt is the market returns. Pmt is the market closing price. And P_{mt-1} is the closing market price of the previous day.

The short-run price performance of IPOs will be investigated by categorizing the year of IPO issues and industry-wise. The data of 69 companies are taken from the Dhaka Stock Exchange. The offer prices are collected from the electronic data of DSE and DSE websites. Here are the groups among which companies are categorized in Table 3 based on different criteria.

Table 3: Event windows: group-wise

Panel A: Continuous feedback and event day collections group
TD 1: Offer price to first-day closing value
TD 2: Offer price to second trading day closing value
TD 3: Offer price to third trading day closing value
TD 4: Offer price to fourth trading day closing value
TD 5: Offer price to fifth trading day closing value
TD 6: Offer price to sixth trading day closing value
TD 7: Offer price to seventh trading day closing value
Panel B: Short-run group
Period 1 (PD1): Offer price to one month after closing value
Period 2 (PD2): Offer price to two months after closing value
Period 3 (PD3): Offer price to three months after closing value
Period 4 (PD4): Day one closing to one month after closing value
Period 5 (PD5): Day one closing to two months after closing value
Period 6 (PD6): Day one closing to three months after closing value
Period 7 (PD7): Day eighteenth after closing to one month after closing value
Period 8 (PD8): Day eighteenth after closing to two months after closing value

4. Results and Discussions

4.1. Method 1

The initial return has been calculated for 80 consecutive trading days with t-statistics. The number of companies is 69. Average MAAR = $\{(1/N) \sum (R_{i1} - R_{m1})\}$, where R_{i1} is the total first-day return on the stock. And R_{m1} is the first day's market return. T-statistic = $MAAR_t*(\sqrt{} n/sdt)$, where $MAAR_t$ is the average market-adjusted return for day t, n is the number of observations in day t and standard deviation is calculated for market-adjusted returns for day t.

Table 4: Daily Return 1 to 80 Days

Days	Number of firms	Average MAAR	Std	T-stat
1	69	208%	1.82	**9.6**
2	69	-2%	0.08	**-2.1**
3	69	-1%	0.07	-1.5
4	69	-1%	0.06	-0.8
5	69	-1%	0.06	-1.6
6	69	-1%	0.05	-1.2
7	69	-1%	0.05	-0.9
8	69	-2%	0.04	**-3.7**
9	69	-2%	0.04	**-3.5**

10	69	-1%	0.04	-1.8
11	69	0%	0.04	0.2
12	69	-1%	0.04	-1.8
13	69	0%	0.04	0.1
14	69	0%	0.04	-0.1
15	69	0%	0.04	-1.1
16	69	0%	0.04	-0.3
17	69	0%	0.05	-0.2
18	69	1%	0.04	**2.1**
19	69	0%	0.03	-1.0
20	69	1%	0.04	1.7
21	69	0%	0.04	0.3
22	69	1%	0.05	0.9
23	69	0%	0.04	1.0
24	69	1%	0.04	1.2
25	69	0%	0.04	-0.8
26	69	0%	0.04	1.1
27	69	1%	0.04	1.4
28	69	1%	0.04	1.7
29	69	0%	0.04	-0.4
30	69	0%	0.05	0.1
31	69	1%	0.03	1.3
32	69	0%	0.03	-0.8
33	69	0%	0.04	-0.5
34	69	1%	0.04	1.3
35	69	0%	0.04	0.9
36	69	0%	0.04	-0.8
37	69	0%	0.03	0.0
38	69	1%	0.04	1.4
39	69	-1%	0.03	-1.6
40	69	0%	0.03	-0.7
41	69	0%	0.03	0.6
42	69	-1%	0.04	-1.7
43	69	1%	0.04	1.4
44	69	0%	0.04	1.0
45	69	0%	0.04	0.3
46	69	0%	0.03	0.8
47	69	0%	0.03	0.1
48	69	-1%	0.04	**-2.0**
49	69	0%	0.03	0.6
50	69	0%	0.04	-0.2
51	69	1%	0.04	1.5
52	69	0%	0.04	0.0

53	69	0%	0.04	-0.2
54	69	1%	0.04	1.4
55	69	-1%	0.04	-1.2
56	69	0%	0.04	0.8
57	69	1%	0.03	1.6
58	69	-1%	0.03	-1.5
59	69	0%	0.04	0.6
60	69	0%	0.04	0.1
61	69	0%	0.04	-0.7
62	69	0%	0.04	0.1
63	69	-1%	0.03	**-1.7**
64	69	0%	0.04	0.3
65	69	0%	0.03	1.1
66	69	0%	0.04	0.1
67	69	0%	0.04	-0.8
68	69	0%	0.03	-0.9
69	69	-1%	0.03	-1.4
70	69	0%	0.03	-0.7
71	69	0%	0.04	0.7
72	69	0%	0.04	0.3
73	69	0%	0.03	-0.3
74	69	-1%	0.03	**-1.7**
75	69	0%	0.04	-0.2
76	69	0%	0.03	-0.3
77	69	0%	0.03	0.0
78	69	0%	0.03	0.3
79	69	0%	0.03	-0.3
80	69	0%	0.03	1.0

Significance has been found till the 18th trading day after going IPO. Thus, the equilibrium price-adjusted day is found to be the 18th day.

4.1.1. Findings of Underpricing and Asymmetric Information Associated with IPO

Firms going public from July 01, 2011, to December 31, 2018, were underpriced on an average of 208% (1st day initial return) and 175% on equilibrium day (event day 18).

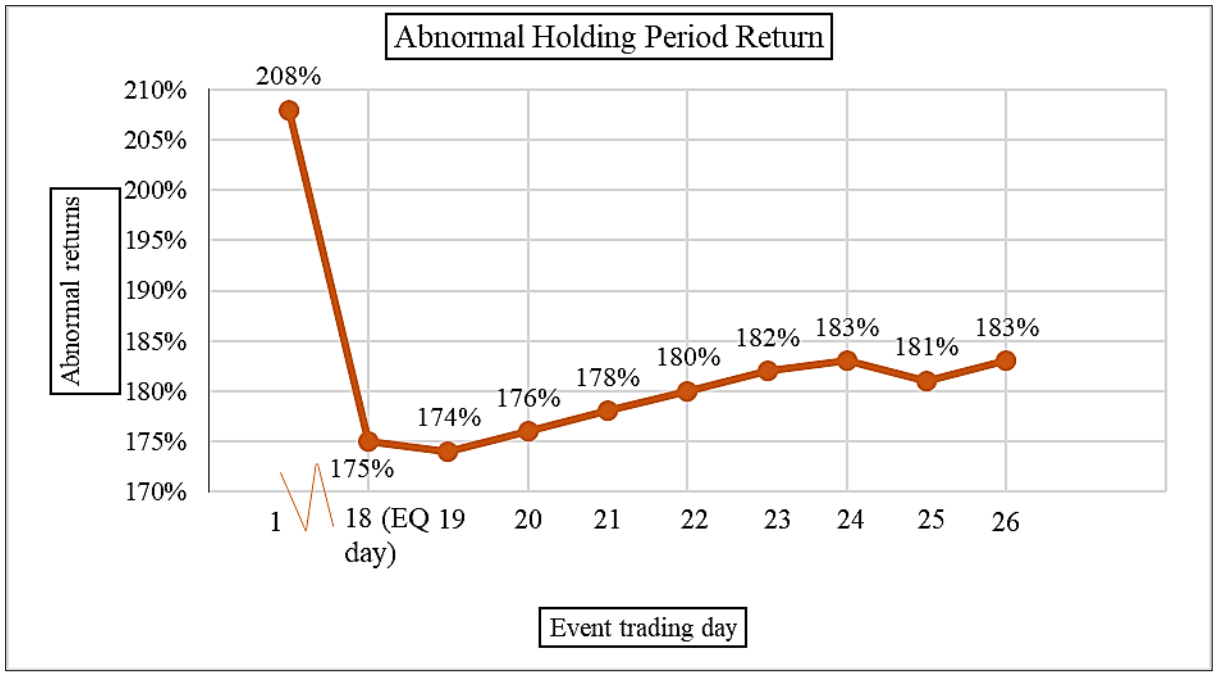

Figure 1: Abnormal holding period (scale is not maintained)

The level of underpricing of the 69 companies on the initial day was to be found at 208%. The equilibrium price adjustment day is to be the 18th. On the 18th day, the degree of underpricing was 187%. The abnormal return gradually increased to 183% on the 24th day and decreased by 2% on the 25th day.

4.1.2. Daily Return from EQ Day to Consecutive 62 Trading Days

The daily return has been calculated from equilibrium day (Event Day 18) to 62 consecutive days. The maximum HPR is to be found around 9.8% at 18-61 days. The minimum HPR is to be found around -0.4% at 18-19 days.

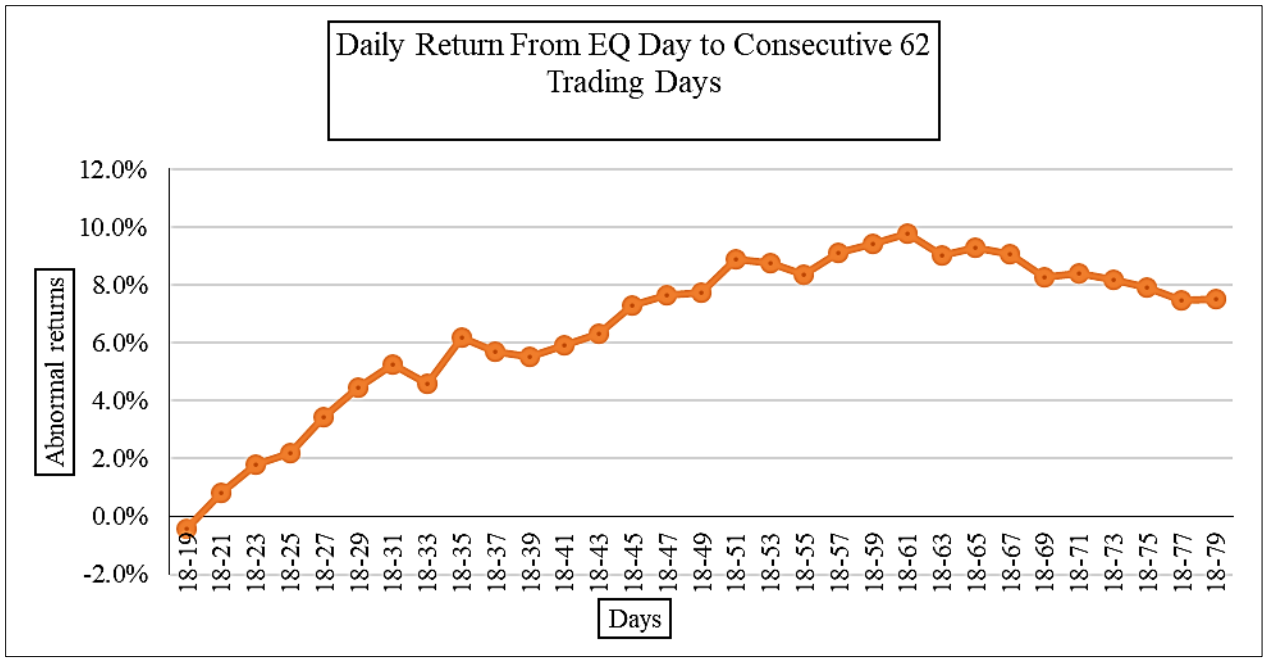

Figure 2: Daily return from EQ-day

4.1.3. Initial Overshooting

The initial overshooting is around 33%, a calculation of deducting the event day's initial return from 1st day's initial return.

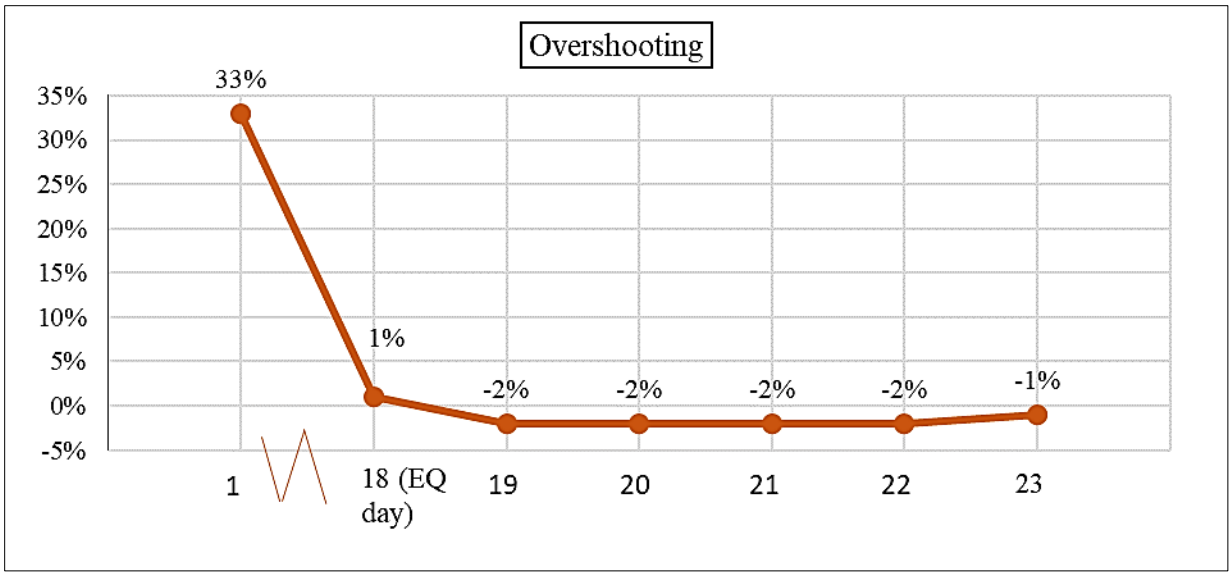

Figure 3: Initial overshooting (scale is not maintained)

4.1.4. Industry-wise breakdown

Industry-specific average underpricing is given below for nine industries. The period is from 2011 to 2018.

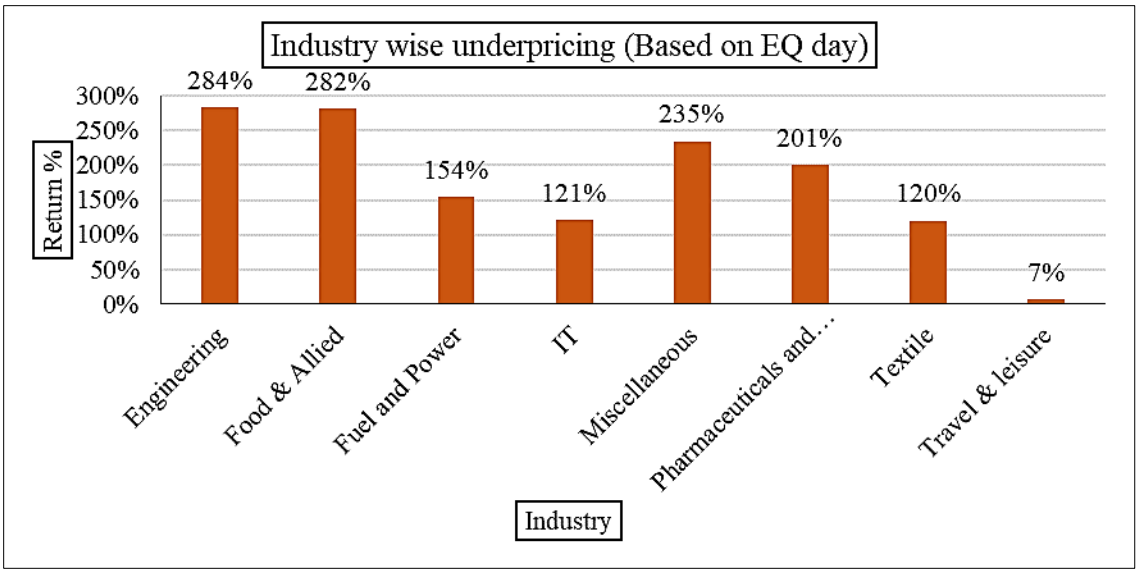

Figure 4: Industry-wise underpricing

The highest average underpricing is 284% in the Engineering industry followed by the Food and Allied industry around 282%. The lowest average underpricing is 7% in the Travel and Leisure industry. The time frame is from 2011 to 2018.

4.1.5. Year-wise underpricing

Year-wise underpricing is given that came from 2011 to 2018.

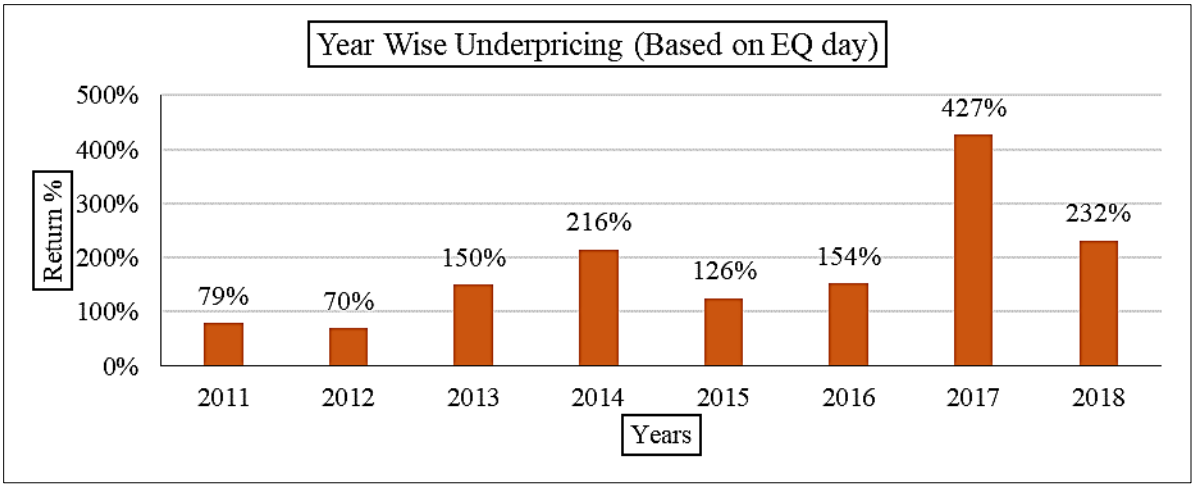

Figure 5: Year-wise underpricing

The highest average underpricing was found at 427% in 2017 and the lowest average underpricing was found at 70% in 2012.

4.2. Method 2

Many studies showed that the IPOs generate better returns in the short-run, and fall over the long run. This work investigates the price assessment of the companies' stocks for the first week, one month, two months, and three months respectively. Table 5 shows the HPR from offer day to 1-7 consecutive trading days.

Table 5: Descriptive statistics during continuous feedback and event day collections group

	TD1	TD2	TD3	TD4	TD5	TD6	TD7
Mean	208%	201%	194%	192%	190%	188%	186%
Median	138%	134%	134%	131%	124%	122%	114%
SD	1.82	1.75	1.68	1.67	1.73	1.75	1.78
Minimum	-1%	-8%	-16%	-23%	-17%	-18%	-18%
Maximum	803%	721%	727%	743%	826%	903%	958%
N	69	69	69	69	69	69	69

Here, it can be found that the earnings are 208% in TD1, 201% in TD2, 194% in TD3, 192% in TD4, 190% in TD5, 188% in TD6, and 186% in TD7 respectively. Table 6 shows the HPR from offer day to one month, two months, and three months.

Table 6: Descriptive statistics during short-run group (PD1-PD3)

	Period 1	Period 2	Period 3
Mean	178%	180%	185%
Median	115%	131%	126%
SD	2.03	1.99	2.06
Minimum	-18%	-24%	-26%
Maximum	1309%	1143%	1281%
N	69	69	69

Table 7 shows the HPR from the first day to one month, two months, and three months.

Table 7: Descriptive statistics during Short-run group (PD4-PD6)

	Period 4	Period 5	Period 6
Mean	-5%	0%	1%
Median	-13%	-15%	-14%
SD	0.57	0.71	0.65
Minimum	-58%	-62%	-66%
Maximum	422%	481%	368%
N	69	69	69

Following Table 8 shows the HPR from the 18th event day to one month and two months.

Table 8: Descriptive statistics during short-run group (PD7-PD8)

	Period 7	Period 8
Mean	6%	9%
Median	-3%	-5%
SD	0.29	0.46
Minimum	-34%	-35%
Maximum	107%	208%
N	69	69

In short, in the short-run group, Period 1 shows 178%, Period 2 shows 180%, and Period 3 shows 185% return, but significantly lower than the Continuous feedback and event day collections group. Subsequently, Period 4 shows a negative return, and Period 5 shows a 0% return.

4.2.1. Graphical Presentation of HPR for Overall Group

The below graph shows the HPR from offer day to 1-7 consecutive trading days.

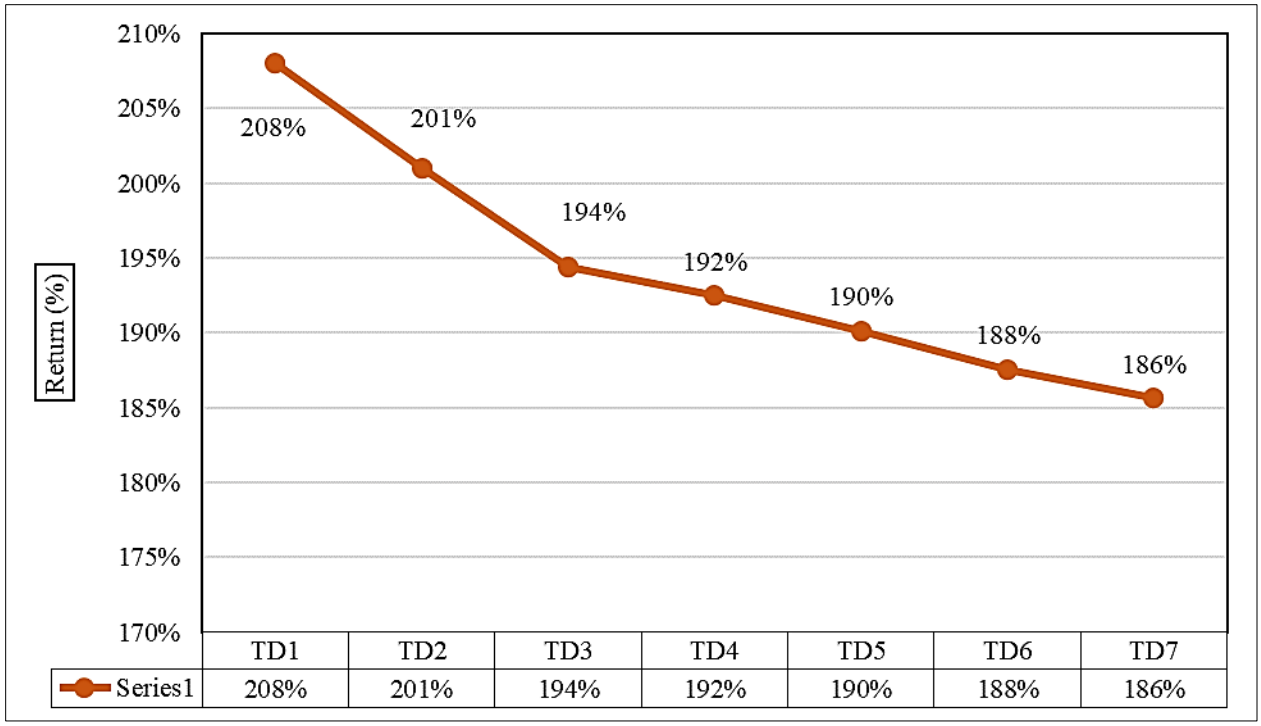

Figure 6: HPR of continuous feedback and event day collections group from offer day to 1-7 trading days

The following graph shows the HPR from offer day to one month, two months, and three months respectively.

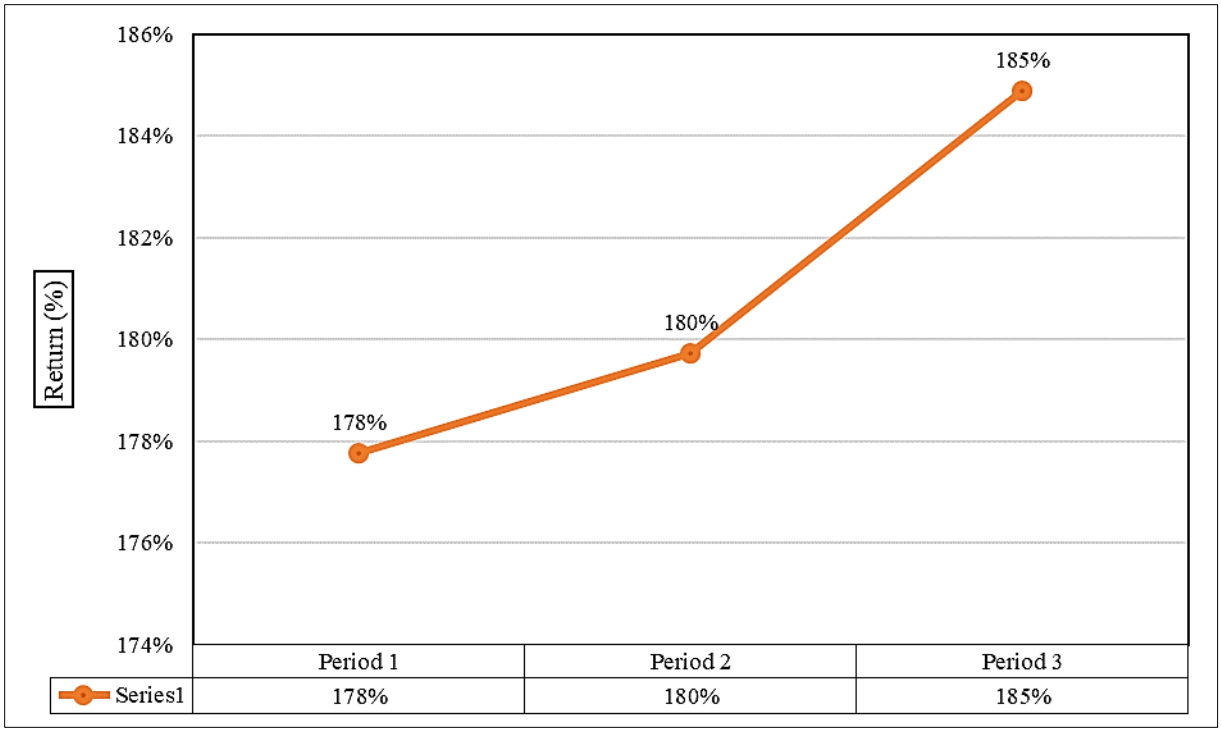

Figure 7: HPR of the short-run group from offer day to one, two, and three months (PD1-PD3)

The following graph shows the HPR from the first day to one month, two months, and three months.

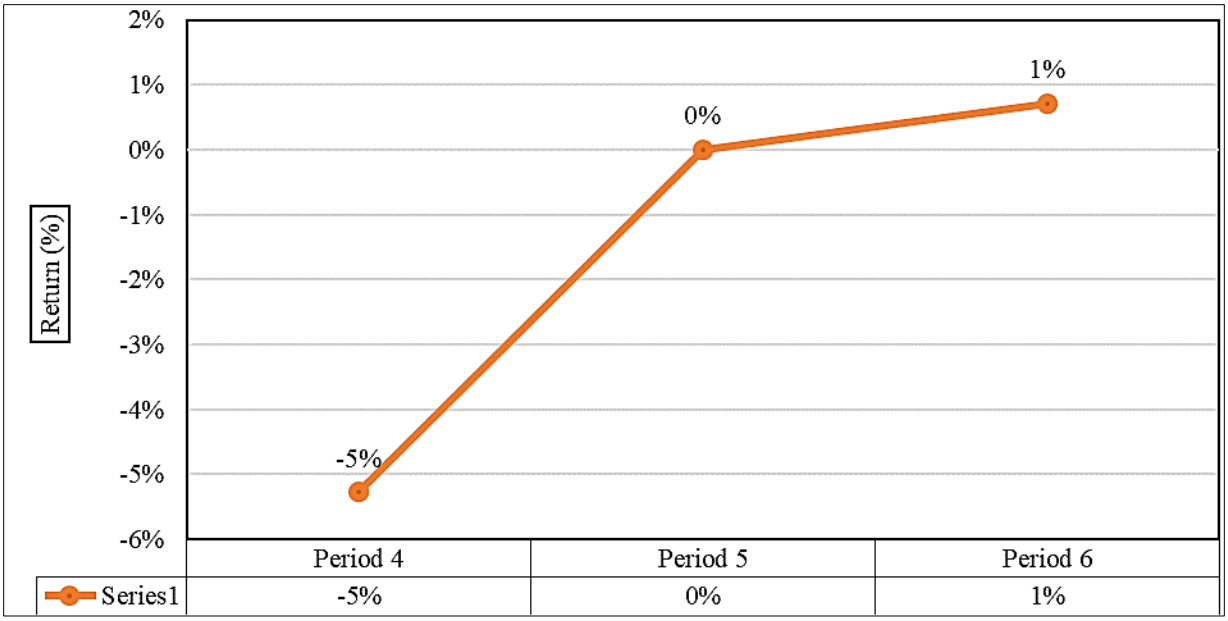

Figure 8: HPR of the short-run group from 1st day to one, two three months (PD4-PD6)

The following table shows the HPR from the 18th event day to one and two months.

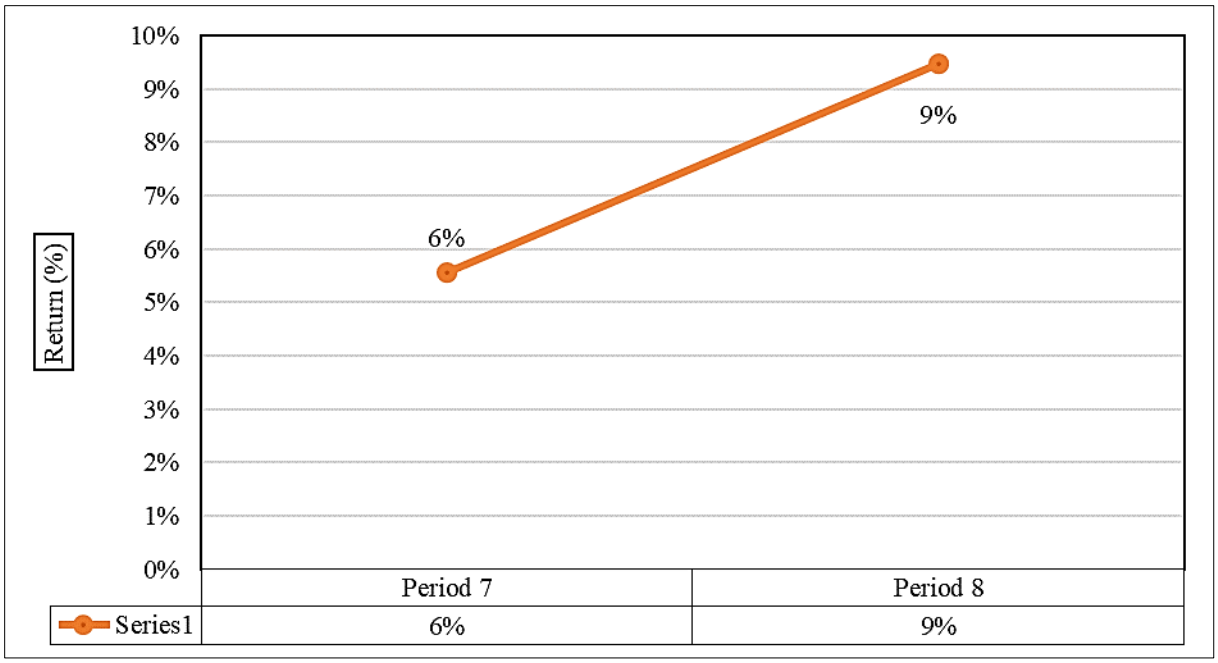

Figure 9: HPR of the short-run group from the 18th day to one and two months (PD7-PD8)

5. Conclusions

This study consists of 69 IPOs that came during July 2011 to December 2018. The companies became public through book building and fixed-price methods. Growth is reflected here by the performances of IPOs. There are continuous feedback event day groups and short-run periods. In the short run, the initial market-adjusted return has been calculated for consecutive 80 trading days. Overall, the study concludes that Bangladesh's

market for IPOs was underpriced. The results denote that post-market offers provide positive short-run returns. High returns were to be found within the early days of listings. Therefore, Investors are highly profitable in the short-run period. It is mentionable that firms have been underpriced on an average of 208% (first-day initial return) and 175% on equilibrium day (Event Day 18). So, the initial overshooting is around 33% on average. The highest average underpricing is found at around 284% in the engineering industry and the lowest average underpricing is found at around 7% in the travel and leisure industry. Any investor who buys shares on event day 18th could not earn abnormal returns for the subsequent two months. So, the price of event day 18th turns out to be the equilibrium price. No regression statistics are applied in this work.

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