CHAPTER-7

SUMMARY AND CONCLUSION

The summary of findings and conclusions of the statistical analysis performed on the sample data in the research study are discussed in this chapter. The findings and conclusions are presented in the order of the objectives listed in Chapter 3 of the study.

7.1 SUMMARY OF FINDINGS

Objective 1: To classify various risk factors exhibited by Indian companies in their IPO prospectus into risk categories.

In the study, 131 IPO firms are empirically analysed, including 27 firms from the Finance Sector, 15 firms from Healthcare, 20 Consumer Durables and Non-durable firms, 12 Consumer Services Sector firms, 7 firms each from the Commercial Service Sector and software & IT sector, 13 firms from Construction, Engineering and Infrastructure, 6 firms from Transportation & Logistics, 14 firms from Producer Manufacturing firms, and 10 Miscellaneous firms. The Risk Factors section presents a concise synopsis of risks that are explained in more detail in other parts of the offer document. The risk factor section of Indian prospectuses describes the major risks associated with the companies' businesses, operations, industry, and the risk related to the offer in a number of statements. The lead key sentences of each risk factor statement are written in bold, which present a brief summary of the risk factor, and the statement is accompanied by explanatory paragraphs that give further detail of each risk factor, stating its impact on business, results of operation, and financial condition.

The Risk Factor Section of almost every Indian IPO prospectus begins with cautioning introductory lines that alarm the investors about the high degree of risk involved in investment. Investors should read this section in conjunction with 'Our Business," "Industry Overview," "Management's Discussions," and "Analysis of Financial Condition and Results of Operations."

Disclosure by page counts, word counts, character counts, and sentence counts

In terms of the page proportion of the complete IPO prospectus, 'Risk Factors Section" accounts for 5.77 % of the average length of an IPO prospectus. This proportion varies by industry, ranging from 5.37% in Healthcare to 6.50% in Software & IT, and by individual company, ranging from less than 4% to more than 9%. Most companies have shown their forward-looking statements on 1 to 2 pages only, which constitutes merely 0.32% on average. The Business Description section represents an average of 14.13% of the pages in Indian IPO prospectuses. On an average basis, the Consumer Services Sector shows the highest proportion of nearly 15%, while the lowest proportion of 13.21% is represented by the Commercial Services Sector on an average basis. On a company basis, a wide page proportion range is noticed between 10% and 20%. A large page proportion of the prospectus is covered by financial statements, which is figured at 26.52% on an average basis. MD&A is management's assessment of the financial condition and outlook of the firm. On average, maximum page proportion disclosure is about 6% of this section disclosed by the Finance Sector, while all firms' page proportion is 5.11% on an average basis. The minimum page proportion of both the sections, viz. MD&A and Financial Statements, is represented by 4.04% and 23.12%, respectively, by the Transportation & Logistics sector. Around 32% of the average proportion of the prospectus comprises the management discussion and analysis (MD&A) and financial statements sections, while the remainder 20% comprises the risk factor, forward-looking statements, and business description sections.

The risk factor section of the prospectus has an average length of 28 pages and ranges from 15 pages to more than 40 pages for individual companies. Sector-wise, the average page length ranges from 25 to 30. Companies have identified their risk factors and narrated them in a number of statements with bold captions, which range from 45 to more than 100 for an individual company. The risk factor statements in each sector are close to 70 on an average basis. The risk factors section has a total word count of 20207, a character count of 128980, and an average of 756 sentences. Total counts of risk factors include both introductory language and ending prominent notes, as these contain significant information. The word count ranges from 10,000 to over 34,000 as per an individual company basis. Sector-wise, the sentence counts range from 627 to 815 on an average basis. In the finance sector, the word counts (22459), character

counts (143591), and sentence counts (815) have been noticed to be the highest. The use of word and sentence counts to derive measures of length and complexity in the Risk Factor section of the prospectus.

A Flesch Reading Ease (FRES) score is applied to determine the readability of the prospectus. This score shows how easy something is to read**.** The content with the higher score is considered easier to understand, while the content packed with difficult words and long sentences is regarded as a complex one. As per the FRES method, the content with a score of 0-30 is considered very difficult. In the present study, the FRES score is recorded at less than 30 on an average basis in all the sectors. Hence, it is more challenging to understand the contents of risk factors.

Categories of Risk Factors

Within the risk factors section of the prospectus, the risk factors are divided into three broad categories: Internal Risk Factors (ii) External Risk Factors (iii) Risk Factors related to Equity Shares or Offer related Risk Factors. Indian firms floating IPOs have disclosed their internal risk factors through the number of statements, which figured 50 on an average basis, containing 14653 words, 93678 characters, and 545 sentences on an overage basis. Internal risk factor word and character counts are also highest in the finance sector, while sentence counts are highest in the consumer service sector.

With 16 statements, 4951 words, 30847 characters, and 149 sentences on average, the Transportation & Logistics Sector expects external risk factors the most of any sector. The average of all sectors, on the other hand, is 10 risk factor statements, 3005 words, 19292 characters, and 110 sentences. Individually, companies have identified a couple of external risk factors with more than 20 statements.

Like the disclosure of external risk factors, the transportation and logistics sector firms have reflected more offer-related risks than the other sectors. On average, this sector has ten risk factor statements, 2153 word counts, 12790 character counts, and 94 sentences. Individual companies' representation of offer-related risk factors varies from a single risk to 17 risk statements.

There are no established criteria for categorising risk statements into three major categories: internal risk factors, external risk factors, and offer-related risk. The nature

of the issuer's business determines how risk factors are classified. Some risks are intrinsic to some businesses, while others are external to others. In their prospectuses, some firms have only mentioned two categories: internal risk factors and external risk factors. Furthermore, in many IPO prospectuses, external risk factors and offer-related risk factors appear to overlap. Some companies have displayed a particular risk under internal risk factors, while others have reflected so under external risks or offer-related risks.

Indian firms have not categorised risk factors into sub-categories which absorb all the homogeneous risks into one standardised risk category. Here in the study, the risk statements disclosed in the prospectus are grouped into 15 components, namely: Regulatory Risks, Litigation Risks, Operational Risks, IT/Cyber Risks, Economic Risks, Project Management Risks, Business Risks, Financial Risks, Technological and Innovation Risks, Competition/ Industry Risks, Manpower Risks, Management Related Risks, Company Policy Risks, Third Party Risks, and Equity Share Related Risks. Each individual risk factor for each company in the sample is assigned to one of the 15 identified risk factor sub-categories. It is found that more than 80% of the companies on an average basis are placed in categories disclosing regulatory risks (82%), operational risks (85%), financial risks (82%), competition/industry risks (82%), management related risks (82%), and equity share related risks (85%). On an average basis, 97% of companies are disclosing litigation risks, while sector wise, 100% of companies in almost all the sectors (Finance, Healthcare, Consumer Durable & Non-durable, Commercial Services, Transportation & Logistics, Software & IT, Producer Manufacturing, and Miscellaneous Sectors) are disclosing litigation risks, proving the universality of this risk factor category. Similarly, 100% of companies in the Consumer Services, Commercial Services, Transportation & Logistics, and Software & IT sectors are reflecting operating risks. 85% of companies or more in the remaining sectors are disclosing operating risks. Financial risks are also exhibited by 100% of companies placed in Consumer Services, Commercial Services, Software & IT Sectors, and Miscellaneous Sectors. Similarly, 100% of companies in the Consumer Services, Commercial Services, Transportation & Logistics, Software & IT Sectors, Construction, Engineering & Infrastructure, and Producer Manufacturing Sectors are reporting equity share-related risks. The reflection of management-related risks by firms in different sectors ranges from more than 70% to 100% of firms.

Economic risk factors are reported by different firms, whose percentage ranges from 60% to 100%. Competition/ industry risks are narrated by 100% of firms in the Commercial Services and Transportation and Logistics Sectors. Risks associated with project management and human resources are unimportant in the Software and IT industries. Correspondingly, IT/Cyber risks do not appear to represent a risk factor for the Construction, Engineering and Infrastructure Sectors.

The Prevalence of Risk Factors in Different Sectors and Categories

Examining the spread of risk factor categories, based on the total number of risks factors disclosed by each sector and overall across all the companies, it is found that There are four risk factor categories which are most common to Finance Sector representing more than 50% of all the risks reported by this sector. These are Regulatory Policy Risks (12%), Operational Risks (11%), Financial Risks (21%) and Equity shares related Risks (15%). Representation of remaining risk categories ranges in between 1% to 8% only. The same four categories are also considered main for Healthcare Sector also representing their portion as 9%, 11%, 15% and 17% respectively. The main categories for Consumer Durable and Non-durable, Consumer Services and Commercial Services Sectors are Operational Risks Category, Financial Risks Category and Equity Shares Risks Category showing 12%, 18% and 16% of all risk factors cited in each sector. For remaining other sectors also these three risk factors remained major risk categories. Software & IT Sector has not reflected any risk factor in Project Management Risk and Manpower Risk Category. Construction, Engineering & Infrastructure Sector has shown no risk in IT/Cyber Risk Category. Disclosure of litigation risks remains in between 6% to 11% across all the sectors. Overall Regulatory Policy Risk Category (8%), Litigation Risk Category (7%), Operational Risk Category (12%), Financial Risk Category (18%), Management Risk Category (8%), Equity Share related Risk Category (16%) and Economic Risk Category (6%) can be considered as prominent risk categories showing significant concentration of risks out of total risks across all the companies in Indian prospectuses.

Identification of Mutually Exclusive Risk Categories using Factor Analysis

255 risk disclosure statements derived from IPO prospectuses of 131 Indian companies going public from 2013 to 2019 were examined and grouped into 15

identified risk categories through content analysis. These risk statements were placed on a Five Point Likert Scale to apply Factor Analysis. Further Factor Analysis has summarised the data and grouped the 15 risk categories into six mutually exclusive risk factor categories, as per the percentage of factor loading. The first factor (F1) is titled "Operating Risks," and it includes three variables: Project Management Risk (0.835 loading), Business Risk (0.689 loading), and Operational Risk (0.437), while the second factor (F2) is titled "Compliance Risks," and it includes IT Policy Risk (0.747 loading), Company Policy Risk (0.571 loading), and Litigation Risk (0.406 loading).The third factor (F3), embraced as 'Managerial Risks' includes three variables, namely Third Party Risk, Manpower Risk, and Management Related Risk, showing loads of 0.797, 0.643, and 0.434, respectively. The fourth factor (F4) is known as "Equity Risks," and it consists of two variables: Economic Risk with a loading of 0.730 and Equity Shareholder Risk with a loading of 0.743.The fifth factor (F5), labelled "Financial Risks," includes two variables, namely: Regulatory Policy Risk and Financial Risk, with factor loadings of 0.638 and 0.558, respectively, and the sixth factor (F6), labelled "Technological and Competitive Risks," includes Technology and Innovation risk with a factor loading of 0.869 and Competitive/Industrial risk with a factor loading of 0.452.

Furthermore, after the classification of latent factors, the new emerging factors are ranked by using the Factor Scale Rating technique. The Financial Risk factor has been ranked first. This risk category illustrates firm-specific financial characteristics such as its financial credibility, financial reputation, prospective investment plans, and policy regulation-related investment risks. It also shows the firm's use of financial leverage, debt financing, etc. It is followed by Equity Risk, which is ranked as the second highest risk in the ranking criteria. This category of risk is associated with the company's financial stability, fluctuations in inflation, interest rates, global economic conditions, and the company's repeated changes in top leadership, among other things. Such issues often incite investors to be conscious when making investment decisions. Managerial Risk is ranked third among all risk categories based on its mean ranking. A company may face problems due to the unavailability of experienced management personnel. This risk includes risks related to recruitment and selection, wages, employee level disputes, fringe benefits, distributor issues, and other third-party disputes. Such issues affect the internal and external reputation of the company. The

factor lying in the middle range (fourth rank) of the ranking list is Operational Risk. It involved all the risks related to the functioning of business, managing the various projects in the company, and related to the various operations of the company, promoters, directors, and auditors' reports. The last two factors, Technological & Competitive Risk and Compliance Risk (fifth and sixth rank, respectively), shed light on the fears of investors related to the company's decision regarding inculcating new technology, innovations in the company's products, IT policies, and companies' policies related to handling various issues. It can be concluded that these six mutually exclusive risk categories give investors a better understanding of risk before investing in IPOs.

Objective 2: To analyse the impact of risk categories on IPO performance

The impact of risk factors on IPO performance is measured in two ways: first by analysing their impact on initial and subsequent stock prices, and second by analysing their impact on under-pricing. Listing Day Opening Price, Listing Day Closing Price, and Issue Price are the components of under-pricing. So, firstly, the impact of risk factor categories on these stock prices is being investigated.

Impact of Risk Factor Categories on Issue Price, Listing Day Opening Price, Listing Day Closing Price and Subsequent Stock Prices

Model 1 shows the effect of risk factors on the IPO issue price. At 1% and 5% levels of significance, respectively, IPO Issue Size and Firm Age have a significant positive effect on the Issue Price. The risk factor categories have shown limited effects. At a 5% level of significance, only one risk category (F6) category labelled as "Technological and Competitive Risk Factors" has shown a significant impact on the IPO Issue Price. Other risk categories (F1, F2, F3, F4, and F5) and the Percentage Change in the Market Sensex were found to have a negligible impact on the issue price. The following regression equation was developed to predict the impact of risk factors on the IPO issue price:

Ln (ISSP) = 2.628 + .201 Ln (FAGE) + .441 Ln (ISSIZE) - .096 Ln (PRCHGSENSX) - .051 (OPRRISK) -.032 (COMPRISK) -.033 (MNGRRISK)-.020 (EQRISK) -.089 (FINRISK) +.161(TECHCMPRISK) ……Model 1

The same control variables, Issue Size (p<.001) and Firm Age (p<.10) which were significantly related to Issue Price (as shown in Model 1) and the same risk category, Technological and Competitive Risk Factors (F6), have shown a significant positive impact on the Opening Price, also at a 1% level of significance. In this Model, the remaining risk factor categories (F1, F2, F3, F4 and F5) proved to be insignificant in influencing the Listing Day Opening Price of IPOs and the Regression equation was therefore:

Ln (LDOP) = 2.630+ .158 Ln (FAGE) + .425 Ln (ISSIZE) + .039 Ln (PRCHGSENSX) + .079 (OPRRISK) -.007 (COM0PRISK) -.029 (MNGRRISK) -.027 (EQRISK) -.083 (FINRISK) + .183 (TECHCMPRISK) ……Model 2

The Model 3, which was used to measure the impact of risk factor categories on Listing Day Closing Price, also showed the same impact but with different regression coefficients. The result shows that Issue Size (*p*< .001), Firm Age *(p*< .10), and Technological and Competitive Risk Factors Category *(p*< .01) are significantly positively related to the Listing Day Closing price. The regression coefficient of the F6 category tells us that a one-unit increase in Technological and Competitive Risk Factors leads to a.185% increase (on average) in Listing Day Closing Price. Similarly, all other risk factor categories except the F6 risk category have no impact on stock prices at the end of the listing day, stock prices after one week from the listing day, after two weeks, after three weeks, after two months from the listing day, and stock prices after three months from the listing day. The regression equations showing the impact of risk factors on different dependent variables result in the following:

Ln (LDCP) = 2.648+ .157 Ln (FAGE) + .424 Ln (ISSIZE) + .038 Ln (PRCHGSENSX) + .077 (OPRRISK) -.006 (COM0PRISK) -.024 (MNGRRISK) -.024 (EQRISK) -.080 (FINRISK) + .188 (TECHCMPRISK) ……Model 3

Model 4 shows the relationship between the extent of risk factor disclosure in different risk categories and the IPO Price after 1 Week (PA1W) as under:

Ln (PA1W) = 1.878+ .051 Ln(FAGE) + .482 Ln(ISSIZE) + .223 Ln(PRCSENSX1W) + .079(OPRRISK) -.097(COM0PRISK) -.041(MNGRRISK) -.073 (EQRISK) -.058 (FINRISK)+ .174 (TECHCMPRISK) ……Model 4

The results of Regression Model 4 reflect that Issue Size has a positive impact on stock price after one week from the day of the listing of the IPO at a 1% level of significance. At a 5% level of significance, the Technological and Competitive Risk Factors Category (F6) shows a positive influence on PA1W. The regression coefficient of the F6 category predicts a .174 percent increase (on average) in stock price after one week from the day of the security's listing for each one percent increase in Technological and Competitive Risk Factors.

While reflecting on the relationship between the disclosure in different risk factor categories and the IPO price after 2 weeks (PA1W) in Model 5, it shows that the Technological and Competitive Risk Factors Category (F6) and Issue Size have significant positive impacts on stock price after two weeks from the day of the listing of the IPO at 1% level of significance and 5% level of significance, respectively. The regression coefficient of the F6 category predicts a.174 % increase (on average) in stock price after one week from the day of the security's listing for each one unit increase in Technological and Competitive Risk Factors.

Ln (PA2W) = 2.126 + .051 Ln(FAGE) + .481Ln(ISSIZE) + .147 Ln (PRCSENSX2W) + .081(OPRRISK) -.095(COM0PRISK) -.042(MNGRRISK) -.072(EQRISK) -.062(FINRISK) +.174(TECHCMPRISK) ……Model 5

Model 6 can predict the IPO Price after 3 Weeks (PA1W) using the risk factors categories with the following regression equation:

Ln (PA3W) = 2.254 + .058 Ln(FAGE) + .470 Ln(ISSIZE) + .128 Ln (PRCSENSX3W) + .077(OPRRISK) -.091(COM0PRISK) -.047(MNGRRISK) -.074 (EQRISK) -.067(FINRISK) + .167(TECHCMPRISK) ……Model 6

Like other models, Model 6 and Model 7 also show that the "Technological and Competitive Risk Factors Category (F6)" is the only risk category that influences positively the stock price after 3 weeks and the stock price after 1 month, respectively, at a 5% level of significance. The stock price after three weeks of the IPO's listing can be predicted with a 0.167 percent increase, and the stock price after one month with a 0.166 percent increase for every unit increase in disclosure of technological and competitive risk factors. The issue size of an IPO also has a positive significant effect on the stock price after 3 weeks and after 1 month, respectively, at a 5% level of

significance according to the results of both the models when issue size is included as a control variable. As the issue size is log-transformed in the model, its estimated regression coefficient can be interpreted as a 1% increase in issue size will produce an expected increase of 0.458 percent and 0.429 percent increase in stock price after 3 weeks and stock price after 1 month, respectively. Other variables, such as individual predicators, remain insignificant in influencing the subsequent stock prices. Model 7 has produced the following regression equations to estimate the respective stock price:

Ln (PA1M) = 2.456 + .062 Ln (FAGE) + .458 Ln (ISSIZE) + .086 Ln (PRCSENSX1M) + .076(OPRRISK) -.093(COM0PRISK) -.047(MNGRRISK) -.071 (EQRISK)-.070(FINRISK) +.166(TECHCMPRISK) ……Model 7

Model 8 has also produced the same results as the earlier Models 4 to 7 have generated, but with one more predicator, i.e. Percentage Change in Market Sensex after 3 months from the offer date of the IPO, showing a positive impact on the stock price for the corresponding time period at a 1% level of significance. The model 8 has given the following regression equation:

Ln (PA3M) = .752 + .097 Ln (FAGE) + .429 Ln(ISSIZE) + .596 Ln(PRCSENSX3M) + .081(OPRRISK) -.122(COM0PRISK) -.042(MNGRRISK) -.057(EQRISK) -.054 (FINRISK)+.171(TECHCMPRISK) ……Model 8

Impact of Risk Factor Categories on extent of Under-pricing in primary market

The market performance of the IPO in the short run was measured in terms of the extent of under-pricing on the first day of listing as well as in the post-listing days. Further, initial day returns are classified under the two market scenarios as primary market under-pricing and secondary market under-pricing. The returns calculated in the present study are raw returns on the listing day as under-pricing in the primary market and under-pricing in the secondary market, and further post-listing day returns as under-pricing after 1 week, under-pricing after 2 weeks, under-pricing after 3 weeks, under-pricing after 1 month, and under-pricing after 3 months. Different regression models are used to investigate the impact of risk factor categories on the initial day of under-pricing in the primary market and subsequent under-pricing in subsequent weeks.

The extent of under-pricing in the primary market on the opening of the first day of listing ranges from -1.00 to 1.42, while it ranges from -21.56 % to 143.06 % amongst the 131 firms on the closing of the first day of listing. The minimum issue size is Rs 23 crores (Xelpmoc Design and Tech Limited in 2015), while the maximum issue size was recorded for the General Insurance Corporation of India IPO, amounting to Rs 11175.84 crores in the year 2017. The total number of risk factor statements disclosed remained between 30 and 67, with an average of 51 risk factor statements. On an average, Indian firms report the following risk disclosure categories: operating risks (F1) range from 3 to 23, management risks (F3) range from 1 to 10, equity risks (F4) range from 7 to 25 risk statements, financial risks (F5) range from 4 to 20, and technological and competitive risks (F6) range from 1 to 7 risk statements. Percentage Change in the Market Sensex from the issue day to the day of the opening day of listing remained at -0.19% on an average basis in the primary market, while in the initial day secondary market, it was -0.24%. The level of under-pricing, i.e., the average difference in IPO price at the beginning of the first day of trading from the issue day, is noticed as 0.13%, while at the end of the first day of trading, it is recorded as 15.96 % on an average basis.

At a 5% level of significance, only the Operating Risk Category is found to be significantly positively associated with the degree of under-pricing in the primary market, while the other risk categories have shown no such association. According to the regression coefficient, every 1% increase in operating risk factors corresponds to a 6.0 % increase in the degree of under-pricing. The Percentage Change in Market Sensex on the opening of listing day from the IPO issue day has also had a significant positive impact on the extent of under-pricing at a 1% level of significance. Issue Size shows insignificant influence, while Firm Age demonstrates a negative impact on the level of initial day-opening under-pricing. The overall impact of risk factors on under-pricing in the primary market can be predicated as per the following regression equation 9:

UPPRIM = .505 - .027 Ln (ISSIZE) - .070 Ln (FAGE) +.036 (PRCHOPSNSX) +. 060(OPRRISK) + .010 (COMPRISK) + .012 (MGTRISK) - .003 (EQRISK) + .007 (FINRISK) +. 015 (TECHCMPRISK) ….. …Model 9

Impact of Risk Factor Categories on extent of Under-pricing in the secondary market on initial day as well as subsequent time period up to 3 months

In terms of the impact of risk factor categories on initial under-pricing in the secondary market, it was observed that F1 -Operating Risk and F2- Compliance Risk categories have a substantial positive impact on first day under-pricing at a 5% significance level. It means that if all other components in the model remain constant, we may estimate an increase in the level of under-pricing of 4.58 percent and 3.18 percent for every 1% increase in the Operating Risk Factor and Compliance Risk disclosure, respectively. Other risk categories do not appear to have a significant relationship with the degree of underpricing. The Percentage Change in the Market Sensex has a significant positive impact, while Firm Age has a negative impact on the level of under-pricing as determined by the stock price at the time of the IPO's listing day closing. Finally, this regression equation can be used to forecast the initial return on the closure of the listing day.

UP_{sec} = 51.270 – 3.70 Ln (ISUSIZE) - 4.010 Ln (FAGE) + 2.873 (PRCHSENSX) + 4.583 (OPRRISK) + 3.374(COMPRISK) + 1.032 (MNGRRISK) -.159 (EQRISK) + 1.491 (FINRISK) + 1.932 (TECHCMPRISK) …….Model 10

Regression Model 11 to Model 13 show a lack of fit to adequately describe the functional relationship between the risk factor disclosures and Under-pricing after 1 week (UP1W), Under-pricing after 2 weeks (UP2W), and Under-pricing after 3 weeks (UP3W), respectively. Surprisingly, risk factor disclosures start to show a significant relationship with stock under-pricing after one month onward. Model 14 and Model 15 are statistically good at estimating the influence of predicators on the extent of under-pricing after 1 month and 3 months, respectively. The regression results of Model 14 show that only one independent variable, namely the Percentage Change in Market Sensex after 1 month from the issue date of the IPO, has a significant positive impact on UP1M at 1% level of significance, while other predicators, namely Issue Size, Firm Age and none of the risk categories, have any impact on the extent of under-pricing after 1 month. Model 15 reflects that Technological and Competitive Risk Factors (F6) and Percentage Change in Market Sensex after 3 months from the issue date of the IPO have a significant positive impact on Under-pricing after 3 months (UP3M) at 5% and 1% levels of significance, respectively. The remaining risk categories, Issue Size and Firm Age, have no effect on the percentage change in stock price three months after the issue price (UP3M).

Objective 3: To determine the impact of risk categories on IPO performance across various sectors

FINANCE SECTOR

Twenty-seven IPOs in the financial sector were examined. The level of initial day under-pricing in this sector varies between -14.40% and 75.57%. After two weeks, the range of under-pricing widened to a range between -20.17% and 198.19%. The average under-pricing on the initial day was 19.07%; after 1 week it was 19.12%; and it reached up to 25.97% after 3 months. The Percentage Change in the Market Sensex from the market price on the offer date to the listing day market sensex was 0.15%. It was negative after 1 week, after 2 weeks, and 3 weeks and started increasing after 1 month and reached up to 27.49% after 3 months on an average basis. The issue size varies between a minimum of Rs. 270.39 crores issued by Repco Home Finance Ltd in 2013 and a maximum issue size of Rs. 11175.84 crores by General Insurance Corporation of India in 2017. The firm age ranges between 20 months and a maximum life of 1187 months during the study period.

The OLS-Regression Model 19 indicated that Technological and Competitive Risk Factors (F6) have a significant positive effect on the amount of initial under-pricing at the 1% significance level, while other risk categories were shown to have no effect on IPO initial returns. The percentage change in the Market Sensex on the date of listing from the date of issue of the IPO has a favourable impact on the degree of initial under-pricing at the 5% level of significance. However, firm age has a negative impact on initial market returns. The following regression equation can be used to assess the level of under-pricing on the first day in this sector:

UP_{fs} = 92.706 - 6.272 Ln(ISSIZE) - 8.533 Ln(FAGE) + 3.610 (PRCHSENSX) + 6.751 (OPRRISK) - 2.393 (COMPRISK) -1.219 (MGTRISK) -.376 (EQRISK) + 4.104 (FINRISK) + 19.832 (TECHCMPRISK) …….. Model 19

However, at a 5% level of significance, the Technological & Competitive Risk Factor Category (F6) has a positive influence on the IPO return after one week, whereas the Compliance Risk Factors (F2) have a negative influence at a 10% level of significance in Model 20. Firm age is adversely related (p.<05) in this model, while

other independent variables are found to have no effect on the IPO return after one week. The extent of under-pricing in the Finance Sector after one week from the day of listing may be forecast using the following regression equation:

$UP1W_{fs}$ = 3.663 +.102 Ln (ISSIZE) - .250 Ln (FAGE) + .013 (PRCHSENSX1W) - .068 (OPRRISK) - .271 (COMPRISK) -.149 (MGTRISK) -.179 (EQRISK) + .146 (FINRISK) + .368(TECHCMPRISK) …….. Model 20

Models 23 and 24 also show a significant relationship between under-pricing (after 1 month and after 3 months) and a linear combination of predictors, but only because of the Percentage Change in the Market Sensex at the 5% significance level. Model 21 and Model 22 exhibit a lack-of-fit in determining the impact of risk categories on the level of Under-pricing after 2 weeks and after 3 weeks respectively.

NON-FINANCIAL SECTOR

104 IPOs in the non-financial sector were examined. The level of initial day under-pricing in this sector varies from (–) 21.56 % to 75.57%. This range of under-pricing widened and varied between (-) 20.17 % and 198.19% after 2 weeks and this range picked to (-) 63.39% to 207.94% after 3 months. The under-pricing on the initial day was 15.11% on average basis and reached up to 23.89% after 3 months. The average percentage change in market sensex from market price on offer date to listing day market sensex was (-) 0.34% and it reached up to 25.53% after 3 months on average basis. After three months, the range in percentage change in the market sensex corresponding to change in stock price was at its maximum measuring as (-) 77.50 % to 214.75%. But the degree of skewness is maximum i.e. 2.107 in percentage change in market sensex after 1 month. Model 25 demonstrate that Operating Risk Factors (F1) and Compliance Risk Factors (F2) have significant positive impact on the level of under-pricing on the initial day of listing at 1% and 5% level of significance respectively. Other risk categories found to be insignificant in impacting IPO the initial returns. The Issue Size is negatively associated; on the other hand Percentage Change in NSE Market Sensex on date of listing from the date of issue of IPO is positively related with the degree of initial under-pricing.

In Model 26, Compliance Risk Factors (F2) reflect a positive impact on the level of under-pricing after 1 week at a 1% significance level, while Financial Risk Factors (F5) show a negative impact on the same at a 10% level of significance. Other risk categories and none of the control variables have shown any significant impact on the UP after 1 week. The same risk factors-Compliance risks and Financial Risks show an impact on the level of under-pricing after 2 weeks as well as after three weeks in the same direction as reported by Regression Model 27 and Model 28. The percentage change in the market Sensex after 2 weeks and after 3 weeks from the offer date also shows the significant positive influence on the stock price percentage change from the offer price for the same period at a 1% significance level.The regression coefficient of Model 29 reports that there is only one variable, the Percentage Change in Market Sensex after 1 month from the issue date of the IPO, which has a significant positive influence on the stock price percentage change from the offer price after 1 month at a 1% significance level. In addition to this variable, in Model 30, Technological & Competitive Risk Factors (F6) have a positive influence at a 5% level of significance, while Issue Size shows a negative impact on IPO return after 3 months at a 10% significance level.

CONSUMER DURABLES AND NON-DURABLE SECTOR

19 IPOs belonging to consumer durables and non-durables firms that occurred from 2013 to 2019 were analysed. Descriptive statistics of this sector show that the level of initial day under-pricing in this sector ranges between (-)20.67% and 63.73%. This range of under-pricing continuously stretched and touched the range of (-) 22.69% to 139.31% after three months with a standard deviation of 40.34. On the closing of the listing day of the IPO, the level of under-pricing was 13.55% on an average basis, and after three months, it was 25.81%. The average percentage change in the market sensex from the market price on the IPO offer date to the listing day market sensex was (-) 0.11% and it reached up to 26.57% after 3 months on an average basis. The range of percentage change in the market sensex corresponding to the change in stock price was reached after 3 months, measuring from (-) 20.70% to 145.22%. However, the degree of skewness is greatest, with a 1.58 percent change in the market sensex after one month.

As per Model 31, Compliance Risk Factors (F2) and Technological & Competitive Risk Factors (F6) have a significant positive impact, while Financial Risk Factors (F5) show a significant negative impact on the level of under-pricing on the initial day of listing at a 1% level of significance. The same variables show the same impact on the level of under-pricing after 1 week of listing in Model 32 also. Furthermore, at a 1% level of significance, Issue Size is negatively associated with Other risk categories were found to be insignificant in impacting the initial returns in consumer durables and non-durable sectors in Model 31 and Model 32. At a 10% significance level, Compliance Risk factors (F2) show a positive impact on the level of under-pricing after 2 weeks at a 10% significance level, while Financial Risk Factors (F5) show a negative impact on the same at a 5% level of significance. The Issue size shows a negative impact on the same at a 5% level of significance in the Model 33.

The results of Model 34 are the same as those of Model 32. Compliance Risk Factors (F2) and Technological & Competitive Risk Factors (F6) have a significant positive impact, while Financial Risk Factors (F5) show a significant negative impact on the level of under-pricing after 3 weeks of listing. Here also, Issue Size shows a negative impact on under-pricing after 3 weeks at a 1% level of significance.
In Model 35, only one variable, the percentage change in the market Sensex after 1 month from the issue date of the IPO, has a significant positive influence on the level of under-pricing after 1 month. Technological & Competitive Risk Factors (F6) have a positive influence on the IPO return after 3 months at a 5% level of significance, while the percentage change in the market sensex after 3 months from the issue date of the IPO has a positive impact on the degree of under-pricing after 3 months at a 1% level of significance.

CONSTRUCTION, ENGINEERING & INFRASTRUCTURE SECTOR

The descriptive statistics for this sector show the average initial day under-pricing for IPOs in the sample is 9.98%, and after 3 months of the listing of the IPO, this average under-pricing was 23.94%. In this sector, the initial return ranges from –20.67% to 143.06%. This range of under-pricing after 3 months was -12.06% to 173.29%, with the highest standard deviation of 49.44. The average percentage change in the market sensex from the IPO offer date to the listing day market sensex was (-) 1.96%, rising

to 26.48% after 3 months on average. After three months, the range of percentage change in the market sensex corresponding to the change in stock price was reached, measuring (-) 10.25% to 145.22%.The coefficient of skewness is also measured at a maximum of 2.24 for the same period.

According to Model 37, Managerial Fisk factors (F3) and Technological & Competitive Risk Factors (F6) have a significant negative impact on the level of under-pricing on the first day of listing at the 1% and 5% levels of significance. Other risk categories were discovered to have an insignificant impact on the initial returns of IPOs. At the 10% significance level, the percentage change in the Sensex on the date of listing of IPOs from the issue date has a significant negative influence on the percentage change in stock prices from the offer price on the date of listing.

In Model 40, the same risk categories have the same impact on the level of under-pricing after 3 weeks but with different significance levels. In contrast, the percentage change in the market Sensex after 3 weeks from the issue date reflects a significant positive influence on the level of under-pricing after three weeks at a 5% significance level.

Further, Model 41 and Model 42 show that only one variable, namely the percentage change in the market Sensex after 1 month and after 3 months from the date of the issue of the IPO, has a significant positive influence on the level of under-pricing for the respective time period at a 1 % level of significance. None of the risk categories has a significant impact on this level of under-pricing. Model 38 and Model 39 show that neither model is significant in predicting the dependent variables, namely under-pricing after 1 week and under-pricing after 2 weeks.

HEALTH CARE SECTOR

The range of initial day returns on healthcare IPOs ranges from (–) 21.56% to 50.00%.This range is noticed to be the maximum for the level of under-pricing after 3 months from the day of listing. It varies between (-) 11.71 % and 145.97%. The level of under-pricing on the initial day was 18.00% on an average basis and reached up to 34.29% after 3 months. The average percentage change in the market sensex from the market price on the offer date to the listing day market sensex was (-) 3. 15% and it reached up to 36.41% after 3 months on an average basis. After three months, the

range of percentage change in the market sensex from the date of the IPO was maximum, measuring (-) 9.34% to 147.52%, with a degree of skewness of 1.5.

The regression result of Model 43 reveals that Equity Risk Factors (F4) have a negative impact on the level of under-pricing on the initial day of listing at a 10% level of significance. Other risk categories were found to be insignificant in impacting the initial returns of IPOs. The percentage change in the market Sensex on the date of listing of IPOs from the issue date also shows a significant negative influence on the same at a 1% significance level. When it comes to predicting dependent variables such as under-pricing after 1 week, under-pricing after 2 weeks, as well as under-pricing after 3 weeks, all three models (Models 44, 45, and 46) have a significance level of greater than.05 for goodness of fit.

The percentage change in the market Sensex after 1 and 3 months from the IPO issue date has a significant positive influence on the level of under-pricing for the corresponding time period according to Model 47 and Model 48 at a 1 % significance level.

PRODUCER/MANUFACTURER SECTOR

The descriptive statistics of data which were used in regression models applied to the Producer Manufacturing Sector disclose that the initial day returns on IPOs range from (–) 12.46 % to 37.49 %. This range of under-pricing after 3 months was (-) 63.39% to 95.46%. The level of under-pricing on the initial day was 8.73% on an average basis. After 3 weeks, it was 12.29% and then decreased, and after 3 months, it was noticed as 2.71 %. The average percentage change in the market sensex from offer date to listing day was (-) 3.15 %, and it reached up to 27.54 % after 3 months on an average basis. After three months, the range of percentage change in the market sensex from the date of the IPO was maximum, measuring (-) 20.70% to 145.22%, with a degree of skewness of 1.34.

As per Model 49, Equity Risk Factors (F4) have a positive impact at a 5% significance level, while Managerial Risk Factors (F3) have a negative impact on the level of under-pricing on the initial day of listing at a 10% level of significance. Issue Size is influencing the initial return at a 10% significance level. Other risk categories were found to be insignificant in impacting the initial returns of IPOs. With the

specified risk categories, Model 50, Model 51, and Model 52 lack goodness of fit in predicting the level of under-pricing after 1 week, under-pricing after 2 weeks, and under-pricing after 3 weeks.

According to Model 53, the percentage change in the market Sensex after 1 month from the date of the issue of the IPO has a significant positive influence on the level of under-pricing for the respective time period at a 1% level of significance, whereas Model 54 reports that the percentage change in the market Sensex after 3 months from the date of the issue of the IPO has a significant negative impact and the Issue Size has a significant positive impact on the level of under-pricing after 3 months at a 1% level of significance. None of the risk categories is found to have a significant impact on the level of under-pricing for the respective period.

The impact of risk factor categories on initial under-pricing across various sectors is demonstrated in table 7.1. Different risk categories show the different magnitudes of influence on under-pricing with varying levels of significance across the different sectors.

Table-7.1: Sector-wise Summary Table of Impact of Risk Categories on under-pricing

Risk Factors	Finance Sector	Non-Financial Sector	Consumer Dur. & Nondurable Sector	Healthcare Sector	Construction, Engn. & Infrastructure Sector	Producer Manufacturing Sector
Issue Size		-				+
Firm Age	-					
Prchsensx	+	+		-	-	
F1		+				
F2		+	+			
F3					-	-
F4				-		+
F5			+			
F6	+	+	+		-	

Objective 4: To recommend key risk factors which have impact on IPO performance

Based on the analysis of the research findings, it can be suggested that the Technological & Competitive Risk Factors/Category is the risk category that has a significant impact on key components of under-pricing such as Issue Price and Listing day Opening as well as Listing Day Closing Price. Further, the Operating Risk

Category and Compliance Risk Categories pose significant positive impacts on the IPO performance. However, due to differences in the structure and operations of different firms across various sectors, these risk categories differ significantly, influencing the IPO performance.

7.2 CONCLUSION

The risk factor disclosures in the prospectus are frequently generic and with a lack of clarity, conciseness, and insight. The company's risk factor statements are largely carbon copies of those of other companies in the same industry. Instead, they typically represent a list of generic risks, with little to help investors differentiate the relative importance of each risk to the company. Furthermore, the language is frequently repetitive and written with legal jargon and a compliance-oriented approach. While discussing the risk mitigation efforts and/or changes in the nature of the risk, companies' risk disclosures are typically brief and dominated by the widespread use of vague, boilerplate language throughout risk factor disclosures. Furthermore, there is no standardised criterion for categorising risk statements into three major categories: internal risk factors, external risk factors, and offer-related risk factors. The nature of the issuer's business determines how risk factors are classified. Some risks may be internal to one company but external to another. Some firms' prospectuses simply show two categories: internal risk factors and external risk factors. Moreover, in the prospectuses of many IPO firms, external risk factors and offer-related risk factors appear to overlap. Some companies showed a specific risk in the internal risk factors category, while others reflected the same risk in the external risk factors category. As a result, in the present research, mutually exclusive risk categories were identified.

The conclusions on the level of under-pricing are supported by the applicability of an ex ante uncertainty model and signaling theory. Risk is defined as the possibility of a negative outcome or the uncertainty of future outcomes (Reilly and Brown, 2006). Earnings volatility is another term for it (Kuritzkes, 2002). The uncertainties regarding aftermarket prices and returns, referred to as "ex ante uncertainty," are a type of short-run return risk. According to Ritter (2014), the most significant reason for underpricing is ex-ante uncertainty. According to the signaling hypothesis, the level of risk disclosure may be evaluated positively or adversely by investors

depending on the circumstances, eventually impacting the extent of IPO initial returns or under-pricing (Wasiuzzaman et al., 2018). In order to compensate for the increased risk, potential investors expect "more money to be left on the table" as the level of ex-ante uncertainty rises. Ex ante uncertainty emerges from the level of risk disclosures revealed in the prospectus. According to the signaling hypothesis, it is assumed in the study that investors perceive high-risk disclosure statements in the prospectus as increased uncertainty, thus expecting to be highly compensated. In contrast, investors expect less compensation for decreased risk, resulting in lower under-pricing, if information is limited.

Looking at the second objective of this study, which is to determine the impact of risk categories on IPO performance, the study found that one of the mutually identified risk categories, Technological & Competitive Risk Factors, as well as Issue Size and Firm Age, has a significant positive relationship with the Issue Price, Listing Day Opening Price, and Listing Day Closing Price of stock. Furthermore, the same risk category and issue size have a positive impact on stock prices after one week, two weeks, three weeks, one month, and three months. The percentage change in the market sensex from the IPO issue date to the market price after three months has a positive relationship with the stock price for the same period.

No industry can exist without competition. The IPO companies that are using better, more sophisticated technology in their operations may have cost advantages or be able to offer better quality products in the market. In fact, the presence of competition can be beneficial because it indicates that the company's products and services have a market. The extent of competition among distinct competitors in any industry is a crucial factor to be considered while investing. Within an industry, competition initially leads to increased efficiency, product advancements, and innovation. However, competition can be extremely fierce at times, particularly in fast-paced industries such as technology. Technological innovations may also indicate increased productivity and investment opportunities, prompting companies to go public in order to raise funds for future investments in response to improved product market conditions. Positive productivity shocks, according to Chemmanur and Fulghieir (1999), will lower the information production costs of going public, motivating firms to go public. Technological innovation may drive firms in highly competitive industries to go public in order to acquire a competitive edge over competitor (Hsu,

2014). Hence, technological and competitive risk factors are significant risk factors that impact the components of under-pricing, viz., the issue price, the listing day opening price, and the listing day closing price of stock, as well as the degree of under-pricing. The IPO issue price is a critical component of the stock's return. The lower the initial offer price, the greater the potential for the stock to rise on the first day of trading. The offer price is expected to have a negative relationship with the level of under-pricing because, all else being equal, a higher offer price will result in a lower percentage return on the first day of trading. A lower offer price also leaves more room for under-pricing, indicating the firm's positive future prospects (Allen and Faulhaber 1989). The firms with more competition are expected to disclose more risk factors. Technological and competitive risk factors also have a significant positive impact on the extent of under-pricing after three months.

While measuring the IPO performance as the level of under-pricing on the initial day of trading in the primary market, it was observed that the Operating Risk Category and the percentage change in the market sensex from the IPO issue date to the opening of the first trading day have a positive impact, while Firm Age has a negative impact on the extent of under-pricing in the primary market. Looking at the IPO market performance as the degree of under-pricing on the initial day in the secondary market, determined as the percentage change in stock price at the time of the closing of the first day of trading from the IPO issue price, it was found that it is positively influenced by two risk categories, namely the Operating Risk Category and the Compliance Risk Category, at a 5% level of significance. However, the percentage change in the market Sensex and firm age have the same impact on the level of initial day under-pricing in the secondary market as they have in the primary market.

Operational risk is a type of business risk that emerges from day-to-day operations and activities of the business as a result of a variety of work-related risks and unpredictability. Systems, structures, individuals, procedures, and products could all pose a risk. It arises due to internal failures, breakdowns, or even mismanagement and is beyond the control of any organisation. It ultimately affects operating profits and sales growth. The sales growth rate impacts the volatility of the rate of change in operating profit, which influences the equity risk. The equity risk is related to the volatility of stock returns. Hence, more disclosure of operating risk factors has a positive impact on the degree of under-pricing in the primary market as well as in the

secondary market on the initial day. Lev (1974) also discovered that operating risk is positively related to total business risk.

In the study, Compliance risk category has a positive impact on the level of under-pricing, in line with the litigation avoidance theory. Under-pricing protects a business from legal ramifications (Ibbotson, 1975). Litigation follows any misrepresentation or misleading disclosure of risk factors, as well as non-compliance with the law. Although all firms do due diligence before the IPO, it is impossible to forecast everything that will happen in the future. According to Alexander (1993), the likelihood of being sued is highly correlated with the IPO's first-day returns. As a result, under-pricing is an appealing strategy for reducing the risk of investor lawsuits. An issuing business that under prices its stock by a larger margin is less likely to be sued, and the possible damages are less. It is possible that the IPO will be priced too low to satisfy investors and limit the risk of being sued after the IPO has occurred (Saunders, 1990, Lowry & Shu, 2002).

Aside from the risk factor categories of issue size and firm age, the percentage change in the market Sensex has a significant positive impact on the listing day opening price, listing day closing price, and subsequent stock prices up to 3 months after listing.The positive impact on these stock prices will lead to a positive impact on under-pricing also. However, firm age is inversely associated with the degree of under-pricing both in primary and secondary markets on the day of the listing of an IPO. Older firms generally have a better reputation and possess the ability to survive and function in the market for a longer length of time. So investment in older firms is regarded as less risky or less uncertain. It implies that, on average, IPO firms with quite longer operational histories incur less under-pricing, and such firms are not required to leave less money on the table in order to compensate investors for the quantity of risk information provided. The findings are consistent with those of Ritter (1984), Muscarella &Vetsuypens (1989) and similar study of Wasiuzzaman et al., (2018). The Percentage Change in Market Sensex has significant positive impact on the extent of under-pricing in both primary market and secondary market which is in line with the results of the earlier similar researches of Abdou & Dicle (2007) and Jain & Vasudeva (2018).

Analysing the sector-wise impact of risk factor categories on the level of under-pricing, it was observed that the Operating Risk Category, Compliance Risk Category and Percentage Change in Market Sensex all have a significant positive impact on the under-pricing in Non-Financial Sector firms. Firm age has a significant negative impact on the amount of under-pricing. Among large issues, there is less ex-ante uncertainty, according to Beatty and Ritter (1986), and this leads to under-pricing of the issue.

While Technological & Competitive Risk Factors Category and Percentage Change in the Market Sensex positively influenced the level of under-pricing in Financial Sector firms. Pioneering firms with superior technology, E-technology, and innovative financial products will charge the initial cost of R&D by under-pricing their IPOs. Furthermore, a public offering creates a secondary market for a company's securities, which reveals additional information. Under-pricing is negatively impacted by firm age. The more information available about a company on the date of issue, the less information asymmetry there will be, and thus less under-pricing in financial sector firms.

Compliance Risk Category and Technological & Competitive Risk Factors Category both have a significant positive impact on the extent of under-pricing in Consumer Durable and Non-durable goods companies. The Equity risks Category indicates that this risk is extremely important to investors concerned about their investment returns. Generally, investors assume that a company that discloses more equity/investment risks is signaling greater uncertainty which leads to high under-pricing. But here this category shows negative impact on under-pricing. In the Construction, Engineering & Infrastructure Sector, Managerial Risk Category and Technological & Competitive Risk Factors Category have negative impact on the degree of under-pricing. Managerial risks include inability to attract or retain skilled/ qualified / highly specialised personnel. Risk of strikes, work stoppages or any other dispute with employees, increase in employee benefit expenses and under-utilization of our workforce may also pose a risk to the company's reputation. Such managerial risks create negative impact on the level of under-pricing. Credit risks, liquidity risks, and market risks from interest rate or currency exchange rate fluctuations, among other things, can all lead to financial risks. The degree of under-pricing in the Health Care

Sector is negatively impacted by exposure to these Financial risk Category. But this Financial Risk Category has shown a positive impact while Managerial risk Category has negative impact on the extent of under-pricing in the Producer Manufacturing Sector. This is all due to signaling hypothesis which narrates that the level of risk disclosures may be interpreted positively or negatively by investors as per prevailing market conditions. Further Issue Size possesses positive impact on the under-pricing. Issue Size is treated as a good proxy for ex-ante uncertainty and larger issues experience greater under-pricing (Michaely and Shaw, 1994).

7.3 CONCLUDING REMARKS

In a nutshell, the findings of the study indicate that company-specific risks are most likely the most common risk to individual stock investors. Investors lose their money if the company in which they own their securities does not generate enough sales or profits. The market value of a company might decline due to poor operational performance by a company. Operating risk factors generally include risks related to project management, business risks, and operational risks. Operational risk is one of the most severe concerns and challenges being faced by any firm. Complex manufacturing processes, a changing global supply chain, and legislation all have increased the risks of operations in the prevailing economic environment. Organizations must be adaptable, well-organized, and nimble enough to respond rapidly to unforeseen circumstances. Operational risks are those related to people, processes, and assets. It indicates that this operational risk category broadly includes people risk, process risk, systems risk, external event risk, and also legal and compliance risk. This risk category indirectly involves the impact of other risk categories as well, such as compliance risk factors, managerial risk factors, and financial risk factors. As these primary areas of operational risk are so intertwined, it becomes essential for the executives to develop a plan and implement procedures for corrective and preventive actions. Firms going public have to disclose such risks and their risk management plans in the prospectus. It provides significant information to the investors to enable them to evaluate the risk of the IPOs. As a result, according to the findings of this study, the operating risk category and the compliance risk category are the most significant risk categories when it comes to influencing IPO performance. However, because of the differences in the structure and operations of diverse organisations across various industries, these risk categories differ greatly

when determining IPO performance. As per signaling theory, information asymmetry may affect the perceptions of investors regarding investment decisions either negatively or positively. If the clear and greater risk information is seen positively, the initial under-pricing will be reduced. On the contrary, risk information will enhance the initial return if it is regarded negatively. The results of this study support some prior studies like Abdou and Dicle, 2007; Murugesu and Santhapparaj, 2010; Wasiuzzaman et al., 2018, Jain and Vasudeva, 2018; and Kuswanto, 2020, but with some different findings. Wasiuzzaman et al. (2018) found the investment risk category is the only risk category that is significantly positively related, while Jain and Vasudeva (2018) reported that all the different risk categories, except the management risk category, have no impact on the level of under-pricing. Kuswanto (2020) claimed that investment and general risk disclosure adversely affect market returns. Further, it can be said that in the current IPO market, less ex-ante uncertainty exists among IPOs. Because of the internet, it has become easier to get informed about a company in addition to prospectus information. This decreases the ex-ante uncertainty about the pricing of an IPO. As a result, it is possible that the ex-ante uncertainty theory is losing influence while other theories, such as litigation and signaling theory, are gaining influence on IPO performance.