

Market Readiness for Book Building Pricing in Nepal

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ABSTRACT

This study examines the market readiness for book-building pricing in the context of Nepalese IPOs. Sectoral heads of merchant banker along with CEOs, CEOs of stock brokerage houses, one each of EPF and CIT executives, capital market experts and retail investors located at Kathmandu valley were approached and data was collected. A purposive sampling technique was used in selecting the respondents. Multiple regression analysis was employed to examine the impact of intermediary capacity, regulatory capacity, potentials of institutional investors, general investors' sentiment, and issuers' concerns on market readiness for book-building pricing and to test the hypotheses. The results show that the mean score of market readiness is below the average indicating that the primary market is not ready to adopt book building pricing. The study also reveals that market readiness is significantly influenced by regulatory capacity followed by intermediary capacity. However, there is a negative and significant relationship between issuers' concerns and market readiness for book-building pricing. No support is found for the potentials of institutional investors and general investors' sentiment in measuring market readiness. Overall, the findings indicate that stock markets in Nepal is yet to be ready for book-building pricing.

I. General Background

Firms go public to access pools of investors capital to finance their growth (Ameer, 2012). Initial public offering (IPO) is an outstanding touchstone in the history of a firm to raise capital. One crucial matter of this phenomenon for both the firm and the investors is to determine the pricing of IPO. Generally, new issues are priced using varieties of pricing methods such as fixed price public offer, book building, and auction price. In a fixed price IPO, the company fixes the IPO price in advance as the sum of the par value and sometimes at a premium. The offering price is established without first formally attempting to learn investor valuations (Benveniste & Busaba, 1997). In a book building pricing, the firm will only provide an indicative price range followed by a "roadshow" of underwriter especially to the institutional investors who transmit non-binding indications of interest. Once the book building process is over, the issuing firm and the underwriter set a price of IPOs (Derrien & Womack, 2003). The underwriter has substantial discretion over allocations, with those investors who helped in the pricing of the issue and those with long term relationships with the underwriter tending to get more favourable treatment (Jagannathan, Jirnyi & Sherman, 2010). Auction pricing is based on investor bids but auction allocations are usually determined by rules that are set and announced publicly before bidding.

It is assumed that new issues generally appear to be issued at a discount. Ibbotson (1975) tested this hypothesis and found, on average, an 11.40 percent discount in the offer price that disappeared

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within weeks in the aftermarket. The discount on the offer price is also referred to as IPO underpricing. The degree of underpricing varies with the methods/mechanisms used in the pricing of new issues. Shengfeng (2010) documented that underpricing and its variance is highest in fixed-price public offer while it is low in book building and the lowest in auction pricing. Further, the underwriter has its discretion on allocations of IPOs depending on the subscriptions and information obtained from the investors under book building pricing which is not found in a fixed-price public offer.

Jagannathan and Sherman (2006) also found that the underpricing in fixed-price public offers tend to be larger than underpricing either in auctions or book building. Moreover, IPO underpricing is relatively higher in the emerging markets than in the developed markets (Loughran & Ritter, 1995). However, the deeper the underpricing, the higher will be the initial returns resulting in the better performance of IPOs for the investors at the cost of the issuer (Welch, 1989). On the other hand, deeper the underpricing, the issuing firms are not able to realise the true value of the offerings resulting in “leaving money on the table” or a wealth loss of the firm as it represents the part of the cost of going public. However, Rock (1986) argued that the underpricing of IPOs is necessary to induce uninformed investors to take part in the offering despite the adverse selection problem introduced by the presence of informed investors.

Book building is one of the most important and widely used price discovery mechanisms that favour market/investors, initially started from the United States. In book building, issuing firms hire an underwriter to certify the new issue as regards firm quality and fair pricing (Barnes, 2006). The fundamental assumption underlying the use of this mechanism is that the underwriter has the best understanding of market conditions and access to potential investors. The price of IPO is not set according to any pre-specified rule, but at the discretion of the underwriter in consultation with the issuing firm (Cornelli & Goldreich, 2001), which is based on the non-bidding indication of interests from the institutional investors. Once the final offer price is determined, the underwriter has complete discretion in the allocation of shares to the investors. Generally, the institutional investors who submit the most aggressive bids, will receive the largest initial share allocations at the offering price and thus are in the best position to profit from a secondary market price increase.

Reilly and Hatfield (1969) examined the performance of 53 new equity issues offered from 1963 to 1965 and found that these issues were underpriced on average by 9.90 percent in the US. In the UK, Davis and Yeomans (1976) analysed 174 issues offered from 1965 to 1971 and found that issue price discount of 8.50 percent. Aussenegg (2001) reported an average initial return of 35.57 percent in Poland. Similarly, Ma (2005) investigated the causes of the high first-day returns of Chinese firms making an initial public offering of A-shares from 1991 to 2003 on Shanghai and Shenzhen stock exchanges and found that an average underpricing of 175.21 percent with an interaction of ex-market underpricing and on-market overpricing. Khan and Chowdhary (2017) found that the initial return is 284.0 percent and the degree of underpricing in terms of market adjusted initial return is 266.0 percent for the first day listing of the IPOs for the period 2007 to 2016 in Bangladesh. Yadav and Goel (2019) found that the normal undervaluing value is met at 102.0 percent of the fixed cost and 25.0 percent by the bookmaking technique in India. In the context of Nepal, Dahal (2007) documented that the Nepalese IPOs are heavily oversubscribed which provide the investors with the market-adjusted excess rate of return of 53.25 percent leading to the conclusion that Nepalese IPOs are highly underpriced. Subedi (2012) found that the average return is highly positive (503.40 percent) which indicates that Nepalese IPOs are deeply underpriced. Gurung (2019) reported that the underpricing of Nepalese IPOs is 276.87 percent for the period of 2009/10 through 2018/19. Thus,

the empirical studies showed that Nepalese IPOs are highly underpriced as compared to developed and emerging markets mainly due to fixed-rate pricing mechanisms.

On the recommendations of an expert committee, the Securities and Exchange Board of India (SEBI) approved and implemented book building pricing with effect from November 1, 1995 in India. Starting in September 1999, issuers could have the option of choosing between the fixed price and book building methods. In November 2005, SEBI began mandating pro-rata allocations of IPOs and introduced “anchor” investors in 2009. More recently, a small and medium enterprise (SME) platform was introduced for small firms wishing to do IPOs (Bubna & Prabhala, 2014). Similarly, with the amendments in Securities and Exchange Commission (Public Issue) Rules, 2006 and Securities and Exchange Ordinance, 1969 book building method was introduced on March 5, 2009, in Bangladesh to ensure fair price in the IPOs for the entrepreneurs whose companies will go public (Rashid, 2013). However, companies going public have to adopt either of the two pricing methods, fixed pricing, or book building in Bangladesh. Historically the Chinese securities markets started in the 1990s with fixed pricing dominance in the IPOs (Upadhyay, 2019). The establishment of the China Securities Regulatory Commission (CSRC) in 1992 and the enactment of Circular on Several Issues Concerning the Book Building Procedures for IPOs, was marked the introduction of free pricing mechanisms in the Chinese securities markets. Fei (2009) stated that the notice of trial on book-building pricing mechanism for China’s IPOs in 2005 is a milestone document issued by CSRC officially took effect.

The book-building mechanism of IPO was introduced by the Securities and Exchange Commission of Pakistan (SECP) in 2008 through amendments to the listing regulations of the stock exchanges. However, the provision of both fixed price and book building mechanisms of IPOs pricing has been found in Pakistan. Sri Lanka, another neighboring country, has also followed both fixed price and book building pricing mechanism of IPOs. The price of IPOs under the fixed price method and price band of IPOs under the book-building mechanism have to be determined with the help of an independent auditor or evaluator and all the detail processes followed under the pricing of IPOs should be disclosed through the prospectus in Sri Lanka. The practices among neighbouring countries have forced Nepalese primary market to think in adopting book building pricing of IPOs.

SEBON has been attempting to go for book-building pricing with its long series of discussions along with policy reforms toward this. As per the recommendation of SEBON, the Government of Nepal has announced a tax rebate of 15 percent for the companies from real sector listed in the stock exchange in the budget for FY 2016/17 with the aim of encouraging more companies to enter the stock markets. Upadhyay (2019) argued that as being a member of the World Trade Organisation (WTO), Nepal cannot remain an exceptional market in the global world and will go for adopting a widely used pricing mechanism like book building for selling IPOs. Book building provides ample benefits to all three parties – issuers, underwriters, and investors, as it ensures to have a fair price of IPO stocks in one hand and the secondary market trading goes smoothly at a fair market price so that the problem of illiquidity may not appear in the market right after the first-day trading on the other. The prospect of introducing book building as free pricing mechanism sounds enticing, thus, Vaidya (2012) recommended some of the prerequisites like market readiness, infrastructural capacity, regulatory capacity for supervision, investors’ sentiment, and issuers’ concerns are very much crucial to ensure its successful implementation.

SEBON’s policies and programmes for the fiscal year 2019/20, moving one step ahead, stated that there will be an implementation of book building mechanisms on an experimental basis for

competitive pricing of IPOs. Besides the provision of a tax rebate, SEBON recommended providing loans at a subsidised rate to the manufacturing companies to encourage them to enter into the stock markets. Moreover, the provisions of the existing lock-in-period of promoters' shares need to be revised for encouraging founder/existing shareholders of the listed companies.

Most recently, SEBON has made the third amendment in its "Securities Registration and Issuance Regulations, 2016" with the provision of implementing book building mechanisms for initial public offerings of securities and came into effect from February 13, 2020. The Regulations has added one more rule in the regulation which explains the provisions and necessary conditions for public issues through book building mechanisms. The rule has also made a provision about the institutional investors who can involve as qualified institutional investors (QIIs) under book building mechanism.

Referring to underpricing about IPOs in various countries, it is evident that the IPO underpricing is relatively lower in the developed and emerging markets indicating firms going public leave a relatively lower amount of money on the table. While the underpricing of IPOs is deeper in Nepal implying there is a relatively huge cost of going public for the firms. Similarly, the regulations related to a public issue in the neighbouring countries have been largely amended after the 1990s to attract companies to come to the public by allowing the pricing of IPOs in fair or intrinsic value. The regulations have allowed issuing firms to issue shares both at the fixed pricing and book building pricing. In this respect, the demand side regulations have been somehow amended in the most recent days while there are still several hindrances in the supply side regulations in the Nepalese primary market. The market experts have also been advocating for adopting free pricing of IPOs taking into considerations of its prerequisites for the development of the capital markets and encouraging real sector companies to go for the public. It is a matter of fact that the effective implementation of a new pricing system requires fulfilling all sorts of issues that guide the overall affairs of the markets. This study, therefore, will measure the current status of the primary market and recommend the various issues that contribute in formulating appropriate policies that help adopting free pricing of public issues.

The remainder of this study is organised as follows. While Section II describes the data and methodology, results and discussion are presented in section III. Finally, Section IV provides the conclusions.

II. Data and Methodology

The data used in this study were quantitative in nature. This study has based mainly on primary sources of data which is collected during the months of January and February 2020. The primary sources of data were used to assess the opinion of respondents concerning the market readiness to book building pricing of IPOs in Nepal. The executive heads of the merchant bankers including CEOs, CEOs of some stock brokerage companies, and other dominant stakeholders of the markets as well as academics were approached to get responses on the pricing of IPOs in the study. However, the sample comprised a total of 71 respondents consisting of issue managers (19), portfolio managers (16), share registrars (six), mutual funds (10), stockbrokers (nine), financial institutions established under the special act (two) viz. Citizen Investment Trust (CIT) and Employees Provident Fund (EPF), and retail investors (nine). Retail investors include those having a good knowledge of IPO with long experiences like professional staffs of stock market institutions. The researcher

purposely selected the respondents with the expectation of obtaining the correct responses on the scale items of the questionnaire.

Data have been collected through the distribution of a well-structured questionnaire to the respondents based on five-point Likert scale items in each variable under study, 1 indicating “Strongly Disagree” and 5 indicating “Strongly Agree”. Market readiness for book-building pricing is taken as a dependent variable and intermediary capacity, regulatory capacity, potentials of institutional investors, general investors’ sentiment and issuers’ concerns are explanatory variables. Using Likert scale items, the researcher tried to collect the opinion of respondents concerning the book building pricing in Nepal on different variables/issues under consideration. The variable *market readiness* was measured by using five Likert scale items related to the regulatory frameworks of all the capital market participants to adopt book building pricing as well as the practices of disclosure systems of companies, capabilities of institutional investors, availability of online systems of bidding and awareness of the general public about the book building pricing of IPOs. Similarly, *intermediary capacity* is measured by seven items consisting of competency of merchant bankers to work as lead manager, their role in attracting companies from real sectors, facilitating investors for informed investment decisions, and credibility of credit rating agencies in grading IPOs. Further, the capabilities of Central Depository Service and Clearing (CDSC) for providing a bidding platform for IPOs, trading services to be provided by stock exchanges, and adequacy of mutual funds to promote book building pricing were also measured. *Regulatory capacity* of SEBON is examined using six items as to whether the existing regulations to lead the market with new pricing are sufficient, existing regulation can ensure to disclose required information to the public, promote private equity funds, hedge funds, endowment funds as well as allow divestment of existing shares and promote an environment for an exit strategy.

The variable *potentials of institutional investors* were measured by eight items consisting of whether institutional investors are well equipped, capable to the fundamental valuation of firms, assure to subscribe the IPOs as per the indications of interests, expected to have enough knowledge to understand the risk of the markets and induce real sector companies to join in the capital markets. The expertise and skills of institutional investors can be beneficial to the individual investors; mutual funds can benefit the small investors in book building and institutional investors need flexibility in their regulations were also other measures. Another variable *general investors’ sentiment* consists of six items such as readiness of general investors to go for book-building pricing, their feeling about the due diligence of issuing companies by the lead book runner, tendency of investment based on the grades rated by the credit rating agencies, trust in corporate governance practices of companies, the expectation to be protected their rights in book building pricing, and allow easy investment process in the new pricing. Finally, the variable *issuers’ concern* comprises five items such as issuing firms like to obtain market feedback for deciding offer price under book building, reduce the cost of going public, allow divestment of shares, standardise legal hassles, and issuing firms’ interest towards the market price of IPOs.

The reliability of scale items used in the questionnaire has been checked using the internal consistency method of Likert scale items known as Cronbach’s Alpha. Additionally, pilot testing of

the questionnaire has been conducted and expert opinion has also been undertaken while finalising it. The random pilot sample has been chosen that represent six experts comprising of two each of CEOs of merchant bankers, CEOs of stockbrokers, and stock market experts working in securities markets related entities and institutions. The responses and comments of the pilot study led to make moderate changes in the questionnaire.

Descriptive cum causal comparative research designs have been employed in the study. The descriptive statistics contain mean, standard deviation, minimum and maximum values along with some observations to explain the characteristics of variables under study. Bivariate Pearson correlation analysis has been employed among variables like market readiness, intermediary capacity, regulatory capacity, potentials of institutional investors, general investors' sentiment, and issuers' concerns to identify the direction and magnitude of the relationship between different pairs of variables. The regression analysis is used to find out the influence of the explanatory variables such as intermediary capacity, regulatory capacity, potentials of institutional investors, general investors' sentiment, and issuers' concerns over the dependent variable i.e., market readiness. Various regression specifications have been employed in order to examine the impact of explanatory variables individually, and in combined on market readiness. This also helps examine robustness of the results of the study. Data have been analysed with the help of the Statistical Package for Social Science version 20.

The econometric models have been employed in this study to examine market readiness considering explanatory variables separately as well as combined. The functional relationship between dependent and explanatory variables takes the following form:

$$\text{Market Readiness} = f(\text{IntCapt}, \text{RegCapt}, \text{InsInvstr}, \text{GenInvstr}, \text{IssConcn}) \dots\dots\dots(i)$$

The functional relationship stated in equation (i) can be restated in the empirical linear regression model (Gujarati et al., 2016) specified in equation (ii) as:

$$\text{MrkReady} = b_0 + b_1\text{IntCapt} + b_2\text{RegCapt} + b_3\text{InsInvstr} + b_4\text{GenInvstr} + b_5\text{IssConcn} + e_i \dots(ii)$$

Where, *MrkReady* = Market readiness for book building pricing of IPO; *IntCapt* = Intermediary capacity; *RegCapt* = Regulatory capacity; *InsInvstr* = Potentials of institutional investors; *GenInvstr* = General investors' sentiment; *IssConcn* = Issuers' concerns; and e_i = Residuals.

Similarly, b_0 is the intercept term, and b_1 , b_2 , b_3 , b_4 and b_5 are the respective parameters of the explanatory variables to be estimated.

The equations (ii) specified above assume a priori expectation in equations (iii):

$$\frac{\delta\text{MrkReady}}{\delta\text{IntCapt}} > 0; \frac{\delta\text{MrkReady}}{\delta\text{RegCapt}} > 0; \frac{\delta\text{MrkReady}}{\delta\text{InsInvstr}} > 0; \frac{\delta\text{MrkReady}}{\delta\text{GenInvstr}} > 0; \text{and } \frac{\delta\text{MrkReady}}{\delta\text{IssConcn}} > 0 \dots(iii)$$

The priority sign expectation in equation (iii) implies that market readiness is positively related to intermediary capacity, regulatory capacity, potentials of institutional investors, general investors' sentiment, and issuers' concerns.

Statistical significance of regression coefficients has been tested using a *t*-test. The overall significance of the model has been checked using the coefficient of determination (*Adj. R*²) and *F*-test. The regression assumptions have been tested using normality, homoscedasticity, and multicollinearity.

This paper has some limitations. The data were collected only from the expert group of respondents and completely ignores the opinion of general/retail investors. The questionnaire was distributed to 113 prospective respondents that provided only 71 responses which represents a response rate of 62.8 percent. The majority of the respondents were the executives of merchant bankers. The reliability of the study findings relies upon the accuracy of the information provided by the respondents. Moreover, the questionnaire did not incorporate the provisions of newly amended regulations for book-building pricing because it came into effect later. The regression models have been designed based on the various theoretical grounds, opinions of experts and the recommendations made in the studies. This study could not address the procedural and operating issues like road-shows and price determination, IPO allocations and refunding of proceeds, lock-up period, etc. relating to the book building pricing in the context of Nepal.

III. Results and Discussion

Reliability Analysis

Reliability analysis has been carried to confirm the internal consistency of the Likert scale items of the questionnaire or survey instrument.

Table I
Reliability Test of Scale Items

This table presents the variable code, explanations of the variables under study, number of scale items, and coefficients of Chronbach's Alpha for the variables. MktReady indicates the market readiness, IntCapty refers to the intermediary capacity, RegCapty is the regularity capacity, InsInvstr is the potentials of institutional investors, GenInvstr is the general investors' sentiment, and IssConcn refers to the issuers' concerns.

Code	Variables	Items	Cronbach's Alpha
MktReady	Market Readiness	5	0.850
IntCapty	Intermediary Capacity	7	0.700
RegCapty	Regulatory Capacity	6	0.847
InsInvstr	Potentials of Institutional Investors	8	0.762
GenInvstr	General Investors' Sentiment	6	0.614
IssConcn	Issuers' Concern	5	0.607

Source: Questionnaire survey, 2020

Table I highlights the reliability of the scale items of variables. Cronbach's Alpha coefficients of all the variables lie between 0.6 to 0.9, so it shows an excellent fit (Burns & Burns, 2008).

Descriptive Statistics

This section presents the summary statistics of selected dependent and explanatory variables used to examine the market readiness for the implementation of book building pricing. Market readiness is the dependent variable while all other variables are explanatory variables.

Table II
Descriptive Statistics

This table presents mean, standard deviation, minimum, maximum values, and many observations of the survey for analysing market readiness for book-building pricing mechanism. MktReady indicates the market readiness, IntCapty refers to the intermediary capacity, RegCapty is the regularity capacity, InsInvstr is the potentials of institutional investors, GenInvstr is the general investors' sentiment, and IssConcn refers to the issuers' concerns.

Variable	Mean	Std. Dev.	Min	Max	n
MktReady	2.53	0.72	1.20	4.20	71
IntCapty	3.37	0.51	2.00	4.14	71
RegCapty	2.75	0.72	1.83	4.00	71
InsInvstr	3.41	0.52	2.38	4.25	71
GenInvstr	2.80	0.48	1.67	3.67	71
IssConcn	3.80	0.44	3.00	4.60	71

Table II presents the perception about market readiness of respondents' ranges from minimum 1.20 to 4.20 implying that they have no uniform views about the market readiness required for book-building pricing in Nepal which is substantiated by the lower weighted mean score and higher standard deviation. This finding indicates that the Nepalese primary market is not ready to adopt book building pricing of IPOs. The study also reveals that the weighted mean score of regulatory capacity and general investors is less than three. The mean value of intermediary capacity and potential institutional investors are slightly above three indicating respondents feel that they are moderately capable and equipped for discharging their roles under book building pricing. The highest mean value and the lowest standard deviation of issuer's concern indicate that issuing firms would be highly motivated for the implementation of book building pricing of IPOs.

Correlation Analysis

Having indicated the descriptive statistics, Pearson's correlation coefficients have been computed and the results are presented in Table III. More specifically, it shows the correlation coefficients of dependent and explanatory variables for explaining their direction and magnitude.

Table III
Pearson Correlation Coefficients of Dependent and Explanatory Variables

This table shows the bivariate Pearson's correlation coefficient between different pairs of variables used in the study based on 71 observations. Variables MktReady, IntCapty, RegCapty, InsInvstr, GenInvstr, and IssConcn are as defined in Table II and Table III.

Variable	MktReady	IntCapty	RegCapty	InsInvstr	GenInvstr	IssConcn
MktReady	1					
IntCapty	.534**	1				
RegCapty	.763**	.455**	1			
InsInvstr	.384**	.271*	.433**	1		
GenInvstr	.270*	.404**	.336**	0.067	1	
IssConcn	-.469**	-.363**	-.387**	-0.057	0.023	1

*Note. The asterisk signs (**) and (*) indicate that results are significant at 1 percent, and 5 percent level respectively.*

Table III shows that the intermediary capacity is positively correlated to market readiness for the implementation of book building pricing. It indicates that the better the capacity of market intermediaries, the higher would be the market readiness for book building mechanism. Similarly, regulatory capacity has a positive relationship with market readiness. It states that the better the regulatory capacity for the supervision of the markets, the higher would be the market readiness for book-building pricing. The result also shows that the potentials of institutional investors have a positive relationship with market readiness. It states that the higher the potentials of institutional investors, the better would be the market readiness for book-building pricing. Similarly, the result also shows that general investors' sentiment is positively related to market readiness and significant at the five percent level. It indicates that the higher the general investors' sentiment, the higher would be the market readiness. However, issuers' concerns have a negative relationship with market readiness. It implies that issuing firms are highly interested to go for book building pricing but the market is still not ready.

Table III also indicates that correlations among different pairs of explanatory variables are also statistically significant except that of institutional investors with that of general investors and issuers' concern as well as general investors with issuers' concern. All other correlations are statistically significant at the one percent level while the correlation between institutional investors and intermediary capacity has significant at the five percent level. Gujarati (1995) states that high correlations, over 0.8, are a sufficient but not necessary condition for the existence of multicollinearity because it can exist even though the correlations are comparatively low, less than 0.5. However, low correlations being observed among different pairs of explanatory variables in Table III gives sufficient evidence to believe that the problem of multicollinearity may not exist in the analysis.

Regression Analysis

Having indicated the Pearson's correlation coefficients, the regression analysis has been carried out and the results are presented in Table IV. More specifically, the table shows the regression results

of intermediary capacity, regulatory capacity, potentials of institutional investors, general investors' sentiments, and issuers' concerns on market readiness for book-building pricing in Nepalese IPOs.

Table IV

Estimated Regression Results of Intermediary Capacity, Regulatory Capacity, Potentials of Institutional Investors, General Investors' Sentiment and Issuers' Concerns on Market Readiness for 71 Sample Observations

Model Specification: $MktReady = b_0 + b_1IntCapty + b_2RegCapty + b_3InsInvstr + b_4GenInvstr + b_5IssConcn + e_i$. The table shows the regression results of five explanatory variables on market readiness of 71 observations. The regression model cover model one to eight. The dependent variable is market readiness denoted as $MktReady$ and explanatory variables are intermediary capacity $IntCapty$, regulatory capacity $RegCapty$, potentials of institutional investors $InsInvstr$, general investors' sentiment $GenInvstr$, and issuers' concerns $IssConcn$. Also reported are the adjusted coefficient of determination ($Adj. R^2$), standard error of the estimate (SEE), and the F -statistics associated with each variable(s).

Model	b_0	Regression coefficient of					Adjusted R^2	SEE	F-value
		IntCapty	RegCapty	InsInvstr	GenInvstr	IssConcn			
I	-0.027 (-0.055)	0.760*** (5.253)					0.275	0.614	27.595
II	0.440 (1.997)		0.762*** (9.808)				0.576	0.469	96.198
III	0.708 (1.326)			0.535*** (3.458)			0.135	0.671	11.958
IV	1.403*** (2.850)				0.403** (2.327)		0.059	0.700	5.413
V	5.485*** (8.139)					-0.777*** (-4.41)	0.209	0.642	19.446
VI	-0.398 (-1.099)	0.336*** (2.843)	0.654*** (7.882)				0.616	0.447	57.079
VII	-0.240 (-0.360)			0.512*** (3.399)	0.366** (2.264)		0.184	0.652	8.899
VIII	0.778 (1.004)	0.271** (2.074)	0.579*** (5.979)	0.100 (0.856)	-0.005 (-0.040)	-0.283* (-1.980)	0.625	0.442	24.307

Notes.

1. Figures in the parenthesis are t -values.
2. The asterisk signs (***) (**), and (*) indicate that the results are significant at 1 percent, 5 percent, and 10 percent level respectively.
3. The dependent variable is market readiness

The simple regression result of market readiness on intermediary capacity in specification I shows a positive relationship between intermediary capacity with market readiness. The slope coefficient of intermediary capacity is significant at 0.01 level which implies that market readiness becomes stronger with the increased intermediary capacity. Similarly, the regression result of

regulatory capacity on market readiness in specification II shows a positive relationship and the regression coefficient of regulatory capacity is statistically significant at one percent level indicating market readiness becomes stronger with the increased regulatory capacity for supervision in the capital markets. Likewise, another simple regression result of specification III, market readiness is observed to be positively related to the potentials of institutional investors, and the coefficient is again significant at a one percent level. However, the result indicates that only 13.5 percent of variations in market readiness is captured by the potentials of institutional investors. The regression result of general investors' sentiment on market readiness in specification IV shows a positive relationship and the coefficient is significant at the 5 percent level. The result shows, however, that only 5.9 percent variability associated with market readiness is explained by general investors' sentiment. However, the regression result of issuers' concerns on market readiness in specification V shows a negative relationship and the coefficient is significant at a one percent level. The result shows that only 20.9 percent of the total variations in market readiness is captured by issuers' concerns. Thus, in all simple regressions, the *F*-statistic of each model associated with all explanatory variables are statistically significant individually but explain small variations in market readiness as indicated by adjusted *R*² in the respective model specifications except regulatory capacity. The regulatory capacity explaining the highest variation on market readiness (57.6 percent) for book-building pricing further implies that the regulatory frameworks that are relevant to all the market participants should be sufficient and strong enough. Descriptive statistics show that the mean score of existing regulatory capacity is only 2.75 which is below three indicating there are weak regulatory frameworks in the Nepalese primary market for implementing book building pricing.

As an additional check of the robustness of results, two or more variables have been included as explanatory variables in multiple regressions of specifications VI through VIII. When intermediary capacity and regulatory capacity are included as explanatory variables, both variables still maintain their observed direction of relation with market readiness and respective coefficients are also significant at one percent level. The explanatory power of the model has also been improved in specification VI with the inclusion of these variables. As such, it is evident that these two explanatory variables are considered as major influencing variables on market readiness for book-building pricing. However, the mean score of both the variables is just around average i.e., regulatory capacity (2.75) and intermediary capacity (3.37), implying the Nepalese primary market is weak in terms of both regulatory regime and intermediary capacity. Further, the use of institutional investors and general investors as explanatory variables in specification VII also shows that these variables have retained their observed direction of the relationship and statistical significance but explain small variations (i.e., 18.4 percent) in market readiness. The small variations in market readiness indicate that the role of institutional and general investors has remained questionable in the context of the Nepalese primary market.

Finally, the specification VIII represents the full form of the regression model, where all explanatory variables are included as predictors. It means it shows the combined effect of all explanatory variables on market readiness for book-building pricing. The regression results again establish the economic and statistical significance of intermediary capacity, regulatory capacity for

supervision, and issuers' concern in predicting market readiness while the influence of the other two variables is weak. It implies intermediary capacity, regulatory capacity for supervision, and issuers' concern are the major factors in predicting market readiness for book-building pricing while the potentials of institutional investors and general investors' sentiment are weak. The model, however, is significant at 1 percent level and the predictive power of the model is 62.5 percent.

This study hypothesised that market readiness is positively related to intermediary capacity, regulatory capacity, institutional investors, general investors, and issuers' concern. Thus, the observed relationship of market readiness with intermediary capacity, regulatory capacity, and institutional investors is according to prior sign expectation although priory sign expectations do not hold with other explanatory variables. Among all, intermediary capacity and regulatory capacity for supervision have been observed as the best predictors because coefficients are statistically and economically significant across all the model specifications. The explanatory power of the model indicated by the adjusted coefficient of determination (61.6) has also been improved in the specification VI. Variables like institutional investors and general investors have been observed as a poor predictor of market readiness ($Adj.R^2 = 18.4$ percent) in model specification VII. Overall, their effects have been subsumed by regulatory capacity and intermediary capacity in a full model of multiple regressions resulting in they became inconclusive. As such, regulatory capacity followed by intermediary capacity and issuers' concern has become the major determinants of market readiness for implementing book building pricing in Nepal which is consistent with the findings of Vaidya (2012).

Using a Kolmogorov-Smirnov ($K-S$) test of standardised residuals, an insignificant result was found ($K-S Z = 1.144, p = 0.146$), indicating that the standardised residuals or regression are normally distributed. Similarly, scatter plots of standardised residuals in all the model specifications depicted that there is no pattern observed in the plots. In contrast, data points are scattered around the reference line i.e., $y = 0$ indicating data used in the study appear to be homoscedastic. The variance inflationary factor (VIF) is less than 10 and tolerance (TOL) is ≤ 1.0 of all the explanatory variables in the regression model specifications implying there is no evidence of multicollinearity in the regression models. Thus, the regression models used in this study fulfill all the regression assumptions so that the validity of the results is more prone and ensure that these results could have a significant policy implication of concerned authorities of Nepalese primary market.

IV. Conclusions

The major conclusion of this study is that the Nepalese primary market is yet to be ready for book-building pricing since there is a poor level of awareness among general investors followed by inadequate regulatory frameworks in the primary market, the inadequate platform of online system for bidding public issue and poor credibility of information disclosure system in the capital markets. Another conclusion of this study is that the regulatory capacity for supervision followed by intermediary capacity like merchant bankers, stock exchange, credit rating agencies, etc. and issuer's concerns, has become the most dominant factors of market readiness for implementing book building pricing in the context of Nepal. It indicates that when these factors become influential then the market could be efficient to adopt a book building pricing mechanism. The impact of potentials of institutional investors and general investors' sentiment seems inconclusive because their effects have been found weak rather subsumed by the regulatory capacity and intermediary

capacity. The inconclusive support of potentials of institutional investors and general investors' sentiment on market readiness generated a serious question of why the Nepalese stock markets is still not investors-sensitive as they are considered crucial for developing capital markets and also implementing book building pricing in the developed and emerging markets.

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