

Managerial Motives for Stock Splits: Survey Based Evidence from India

Chhavi Mehta, Surendra S. Yadav, and P.K. Jain

The present field study investigates Indian managers' opinion about stock splits and their motives for issuing them. The empirical findings of the survey reveal that management views stock splits as a tool that enhances trading liquidity. It brings the share price down to a preferred trading range, making the stock more attractive to investors. This results in increased share liquidity. The issuance of stock splits prior to a public offer also improves the marketability of the shares. However, the respondents do not believe that stock splits provide any positive signals about the future prospects of a firm. The major motives for issuing stock splits in India is to improve liquidity of a firm's shares, to bring the share price down to a popular trading range, and to attract new investors. The results also show that around 90% of managers prefer their shares to trade below Rupees (Rs.) 400 (approximately \$9, as per the exchange rate in August 2010).

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Chhavi Mehta is an Assistant Professor of Finance at Bharatiya Vidya Bhavan's Usha and Lakshmi Mittal Institute of Management (BULMIM). She is pursuing her Doctorate from Department of Management Studies, Indian Institute of Technology, Delhi (IIT Delhi). Surendra S. Yadav is a Professor of Finance at Department of Management Studies, Indian Institute of Technology Delhi (IIT Delhi). P.K. Jain is a Professor of Finance at Department of Management Studies, Indian Institute of Technology Delhi (IIT Delhi).

■ Stock splits have been prevalent in many markets for decades now. However, they have only recently gained popularity in the Indian stock market since 1999.¹ Theoretically, stock splits are just cosmetic corporate events. When stocks are split, neither the amount of share capital nor reserves are affected; instead, there is a change in the par value of the shares. This increases the number of outstanding shares without increasing any claim on assets by the shareholders.

This then raises a question — what motivates companies to issue stock splits, when *prima-facie*, they are of no benefit to shareholders? Specific surveys in the US have attempted to seek answers to why companies issue stock splits (Dolley, 1933; Baker and Gallagher, 1980; Baker and Powell, 1993). The objective of this research paper is to ascertain the opinions of the Indian corporate managers regarding stock splits and their motives for issuing them. The paper also makes a modest attempt to find the similarities and dissimilarities, if any, between managerial perspectives in the US and India by comparing the results of this survey with ones conducted earlier.

This paper has four sections. Section I consists of literature review of stock splits and the existing hypotheses for issuing them. Research design and respondents' profiles are delineated in Section II. The survey results are presented

¹Even though 'The Companies Act 1956' empowers a limited company to alter its share capital using stock splits decisions, these decisions were not very common in the Indian stock market as the listed shares had a fixed face value of Rs.100 or Rs.10. The usage of stock splits increased after the Securities and Exchange Board of India (SEBI) vide circular no. SMDRP/POLICY /CIR- 16 /99 dated June 14, 1999 which allowed companies to choose any face value for their equity shares provided it is not issued as a fraction of a rupee.

in Section III; they are also compared with earlier surveys, wherever deemed appropriate. Finally, Section IV contains concluding observations.

I. Literature Review

The question of why stock splits are issued, given that they are purely cosmetic accounting changes, has been raised by various researchers across several countries. Two complementary approaches have been followed to learn about what motivates the stock split decision. The first approach is to get an insight into managements' view regarding stock splits and the second is to study how the issuing company's stock reacts to stock splits in terms of returns, liquidity, and volatility.

Management surveys have been conducted to gain insight about stock splits and manager's motives for issuing them. The survey research on stock splits dates back to the early twentieth century. Dolley (1933) surveyed managers of eighty-eight companies issuing stock splits; the finding of the survey was that the main motive for issuing stock splits is to widen the distribution base among the shareholders. This leads to increased marketability of the share and enhanced advertising value of the company. Corporate managers believe that a wider distribution of shares leads to a steadier volume of trading. The other reasons for issuing stock splits are to receive higher effective dividend rates, to facilitate the sale of stocks, to permit listing of the stocks, and to create goodwill in the stock market.

Baker and Gallagher (1980) surveyed 100 chief finance officers on their perceptions about stock splits. The conclusion drawn from the 63 responses received was that stock splits serve to keep the stock price in an optimal range, thereby, increasing liquidity and the number of shareholders.

Baker and Powell (1993) surveyed 251 New York Stock Exchange and American Stock Exchange listed firms that issued stock splits. The responses of 136 firms reveal that the primary motive for issuing a stock split is to move the share price to a better trading range, resulting in improved trading volumes. Some other important motives include signaling better future prospects to attract potential investors. The respondents also expressed the view that the preferred trading range for their stocks is \$20 to \$35.

Empirically, the market reaction to these decisions, in the form of changes in stock returns, trading volumes

and volatility of stock prices, has been investigated by various researchers (Fama, Fisher, Jensen, and Roll, 1969; Copeland, 1979; Reilly and Drzycimski, 1981; Murray, 1985; Ohlson and Penman, 1985; Lakonishok and Lev, 1987; Dravid, 1987; Sloan, 1987; Brennan and Copeland, 1988; Dubofsky, 1991; Kryzanowski and Zhang, 1991; Wiggins, 1992; Masse, Hanrahan, and Kushner, 1997; Wulff, 2002; Dennis and Strickland, 2003; Reboledo, 2003; Ariff, Kahn, and Baker, 2004; Mishra, 2007; Kalotychnou, Staikouras, and Zagonov, 2008).

On the theoretical front, three major hypotheses have been put forward to explain the motives for and the impact of issuing stock splits. They are the signaling hypothesis, the trading range hypothesis, and the liquidity hypothesis. These hypotheses are not mutually exclusive (Baker, Philipps, and Powell, 1995), and are summarized below.

The signaling hypothesis (Fama et al., 1969; Grinblatt, Masulis, and Titman, 1984; Lakonishok and Lev, 1987; Brennan and Copeland, 1988; McNichols and Dravid, 1990; Ikenberry, Rankine, and Stice, 1996; Mohanty and Moon, 2007) suggests that the announcement of stock splits provides signals about the optimistic future of the splitting firm to the market. The signaling model assumes managers, as company insiders, usually have better estimates about the future prospects of their company than current and prospective shareholders (Baker et al., 1995).

The trading Range hypothesis suggests that stock splits realign share prices to a preferred price range (Lakonishok and Lev, 1987). This makes the shares more affordable to small investors enabling them to trade in the shares. Management also prefers such a situation as it creates a more controllable ownership mix (Powell and Baker, 1994). The empirical literature also suggests that the ownership base is enlarged after stocks are split (Easley et al., 2001; Dhar, Goetzmann, Sheperd, and Zhu, 2003). Thus, stock splits are justified if stock prices are at high levels (McNichols and Dravid, 1990).

The trading range hypothesis leads to another hypothesis called the liquidity hypothesis (Lakonishok and Lev, 1987). When the trading price of a share is very high, its liquidity may decline. In such a situation a stock split brings the share price into an optimal trading range, making the stock more attractive to investors. This, in turn, enhances liquidity by increasing the volume of shares traded and decreasing the bid-ask spread. An increase in trading activity following

The major motives for issuing stock splits in India is to improve liquidity of a firm's shares, to bring the share price down to a popular trading range, and to attract new investors. The results also show that around 90% of managers prefer their shares to trade below Rupees (Rs.) 400 (approximately \$9, as per the exchange rate in August 2010).

stock splits has been observed in prior studies (Murray 1985; Desai, Nimalendran, and Venkataraman, 1998), providing support to the liquidity hypothesis. Anshuman and Kalay (2002) also present a model that shows that firms split their stocks to create liquidity. However, Conroy, Harris, and Benet (1990) conclude that the shareholders' liquidity, measured by percentage bid-ask spread, is worse after stock split announcements.

II. Research Design and Respondents' Profile

A. Sample

The sample includes companies that issued stock splits during the nine-year period starting January 1st 1999 and ending December 31st 2007. The reason is, even though 'The Companies Act 1956' empowers a limited company to alter its share capital using stock splits, these events were not very common in the Indian stock market as the listed shares had a fixed face value of Rs. 100 or Rs.10.² The usage of stock splits increased after the Securities and Exchange Board of India (SEBI) vide circular no. SMDRP/POLICY /CIR- 16 /99 dated June 14, 1999, allowed companies to choose any face value for their equity share, provided it is not issued as a fraction of a rupee.³ The effect of this change, in terms of the number of stock splits announcements, was immediately visible in subsequent years. Therefore, the choice of this particular period seems appropriate as stock splits have gained in popularity in Indian markets only since 1999, post the SEBI circular. A time period of nine years (1999-2007) has been chosen to provide a large sample size and to avoid any potential bias of a single year which might occur if a shorter sample period is used.

The primary source of information about the firms issuing stock splits and their ex-split date is Prowess (version 2.6), a financial database of Indian companies.^{4,5} In addition, the announcement dates were collected from online archives of the Bombay Stock Exchange and the National Stock

²Unlisted companies did not face any such restriction; they could choose any face value for their shares.

³Security Exchange Board of India (SEBI) is the regulator of securities market in India. The basic functions of SEBI are (i) to protect the interest of the investors in securities, (ii) to promote the development of securities market, and (iii) to regulate the securities market. SEBI is similar to the Securities and Exchange Commission (SEC) in the US.

⁴Ex-split is the date on which the company's shares are traded at the new split-adjusted price.

⁵This database is a product of CMIE (Centre for Monitoring Indian Economy Pvt. Ltd.)

Exchange.⁶

Our sample consists of 517 companies that made 539 stock split announcements during the sample period. In case of multiple stock splits issues by a company, only the latest issue is considered for the analysis. Table I presents the year-wise distribution (1999-2007) of the number of stock splits announcements, the sample companies and the respondent companies.

B. Survey Design

The survey questionnaire is divided into two parts. Part I of the questionnaire contains eighteen statements related to stock splits, which are presented in Table V. The statements are based on the earlier research work and relate to the various hypotheses on stock splits, i.e., signaling hypothesis, trading range hypothesis, and liquidity hypothesis. The respondents are asked to indicate their level of agreement and disagreement with each statement on a five-point scale; from strongly disagree, disagree, no opinion, agree, to strongly agree. These points are later translated into numeric values: 1 for strongly disagree, 2 for disagree, 3 for no opinion, 4 for agree, and 5 for strongly agree. Respondents are also requested to provide additional information which they consider relevant under the 'any other' category.

Part II of the questionnaire contains eight questions. The first two questions are related to the respondent's profile; they are asked to provide their current job title and the industry classification of their firm. The next two questions are about their most recent stock split issue: disclosing the year of the issue and the ratio of old face value to new face value. In addition, they are asked to indicate if they were involved in the stock split decision or not. They are also queried as to the preferred trading range of their firm's stock price.

In Part II of the questionnaire, the respondents are asked to choose the three most important motives from a list of nine motives and a tenth labeled as "Any other" for the stock split issue. For operational purposes and logistical convenience, these nine motives were derived by converging the eighteen statements of Part I of the questionnaire.

The survey questionnaire and the cover letter were sent to the Director (Finance) of the sample companies during July 2008. The CMIE database, Prowess (version 2.6), was used to get the names and addresses of these companies. A follow-up questionnaire was sent to the non-responding companies during November 2008. Further follow-up was done from January 2009 to April 2009 by sending emails to companies where email addresses were available.

Out of the 517 questionnaires mailed, 509 were certified

⁶<http://www.bseindia.com/stockinfo/ann.aspx>

http://www.nseindia.com/content/corporate/corp_introduction.htm

Table I. Stock Splits, 1999-2007

This table presents the year-wise distribution of the number of stock split announcements, the sample companies and the respondent companies between January 1st, 1999 and December 31st, 2007. The sample consists of 517 companies that made 539 stock splits announcements during the sample period. In case of companies having multiple stock splits issues, only the latest issue is considered.

Year	Number of Stock Splits Announcements	Percentage	Number of Sample Companies	Percentage	Cumulative Percentage	Number of Respondent Companies	Percentage	Cumulative Percentage
1999	6	1.1	6	1.2	1.2	1	0.7	0.7
2000	42	7.8	39	7.5	8.7	7	5.2	5.9
2001	34	6.3	34	6.6	15.3	4	3.0	8.9
2002	38	7.1	33	6.4	21.7	4	3.0	11.9
2003	31	5.8	30	5.8	27.5	3	2.2	14.1
2004	37	6.9	37	7.2	34.6	12	8.9	23.0
2005	172	31.9	164	31.7	66.3	42	31.1	54.1
2006	93	17.3	91	17.6	83.9	34	25.2	79.3
2007	86	16.0	83	16.1	100.0	28	20.7	100.0
Total	539	100.0	517	100.0	100.0	135	100.0	100.0

as having been received by the companies. The remaining eight were returned unopened; these companies had wound up their operations. From this sample of 509 companies, 135 companies responded resulting in a response rate of 26.5%. Some of the responses received through questionnaires were not complete. Certain queries were sent again through email in order to seek responses to the unmarked questions. Though the response to the emailed queries was encouraging, it did not allow for the completion of all the questionnaires.

C. Reliability and Validity Analysis

To check the reliability of the questionnaire, Cronbach Alpha was calculated. The alpha value is 0.742, which is considered quite high. Therefore, the designed instrument could be used with confidence.

The questionnaire was validated by five finance experts — including academicians and practitioners. Based on their evaluation, the questionnaire had high face validity. Thus, the questionnaire maybe deemed suitable for further analysis.

D. Respondents' Profile

As shown in Table I, nearly nine-tenths (88.1%) of the companies that participated in the survey issued stock splits during the last five years of the study period (2003-2007), while around one-tenth (11.9%) issued stock splits during the first four years of the study period, 1999-2002. It is evident from Table I that the respondent companies are fairly representative of the sample companies.

Out of the above respondents, three-fourths (76.3%) are from the manufacturing sector and one-fourth (23.7%) are from the services sector (depicted in Figure 1). To determine whether the responses of the two groups can be utilized for

analysis, an independent samples *t*-test (presented in Section III A) is conducted to determine if there is any significant difference between the two groups in their views regarding stock splits.

The respondents' profile is presented in Figure 2. The respondents are primarily executives who hold top-level management positions in their respective companies. They include: more than two-fifths (43.7%) company secretaries, nearly one-third (32.6%) managing directors, chief executive officers and finance directors, 4.4% finance vice-presidents and general managers, and the remaining 17.8% are legal heads, deputy general managers, and managers (finance).⁷ Only 1.5% of the respondents did not disclose their designation.

It is observed that nearly two-thirds (68.9%) of respondents are directly involved in the decision for issuing stock splits in their respective companies, while around one-third (31.1%) are identified as not being involved in the decision making process. To justify the inclusion of the non-involved respondents in the survey, another independent samples *t*-test (depicted in Section III A) is conducted to determine if there is a significant difference between the two groups in their views regarding stock splits.

Figure 3 exhibits frequency distribution of the pre-split face value to the post-split face value of the shares of the sample firms. The X-axis represents the pre-split face value to post-split face value of the shares and the Y-axis represents the percentage of companies. Nearly half of the respondent companies (50.4%) split the face value of their share from Rs.10 to Rs.2, followed by one-fifth (20.0%) changing their face value from Rs.10 to Rs.1, 14.8% from

⁷Company Secretary in India is referred to as Corporate Secretary in the US.

Figure 1. Sector-wise Distribution of the Respondent Companies

Figure 1 presents the percentage of respondents belonging to manufacturing or service sector.

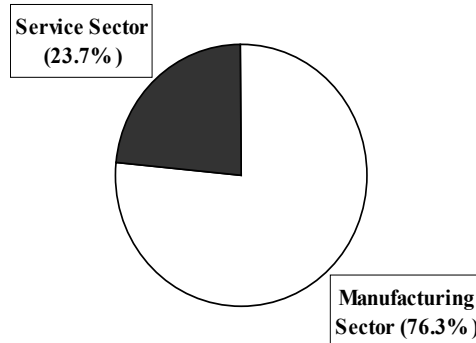


Figure 2. Respondents' Profile, 1999-2007

Figure 2 displays the respondents' profile in terms of their designations. It depicts the percentage of respondents belonging to a particular category of designation.

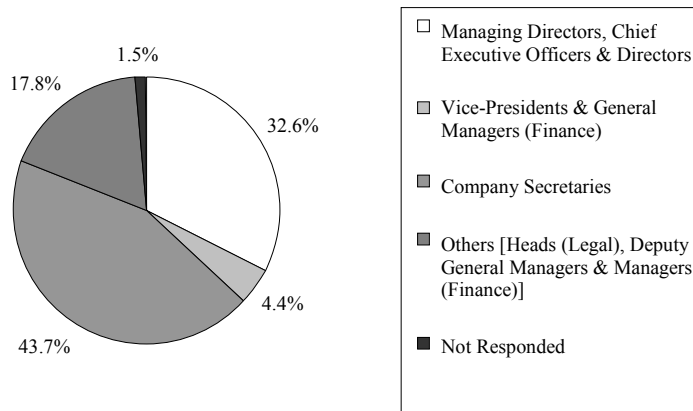
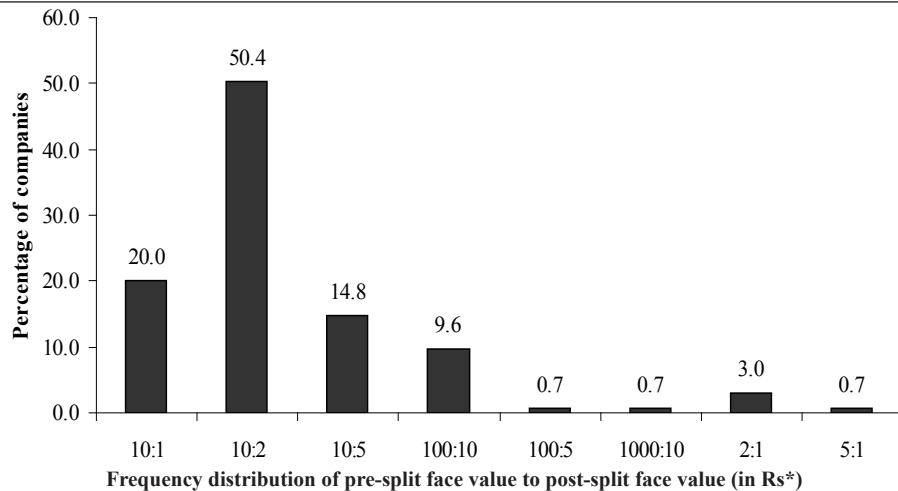


Figure 3. Frequency Distribution of Pre-split Face Value to Post-split Face Value

Figure 3 displays frequency distribution of the pre-split face value to post-split face value. For example, 10:1 (first bar) in the figure denotes that 20% of the respondents changed the face value from Rs.10 (\$0.2155) to Rs.1 (0.02155) using stock splits. The value 10:1 does not depict a ratio.



*The corresponding face values in Dollar are \$0.2155:\$0.02155, \$0.2155:\$0.04310, \$0.2155:\$0.10755, \$2.155:\$0.02155, \$2.155:\$0.10755, \$21.55:\$0.2155, \$0.04310:\$0.02155, and \$0.10755:\$0.02155.

Rs.10 to Rs.5, while nearly one-tenth (9.6%) changed from Rs.100 to Rs.10. The majority of the respondent companies that split their share from Rs.100 face value to Rs.10 did so prior to their (initial) public offer. A small percentage (3.0%) of the respondent companies split their face value from Rs.2 to Re.1; while a meager 0.7% of the sample changed from Rs.100 to Rs.5, from Rs.1000 to Rs.10 and Rs.5 to Re.1 each.

III. Survey Results and Discussion

A. Group-wise Independent Samples *t*-Test

1. Independent Samples *t*-Test for Manufacturing Sector and Service Sector Groups

The respondents are divided into two groups based on the industry they belong to, manufacturing and services. An independent samples *t*-test is conducted to observe if there is a significant difference between these groups regarding the views related to stock splits.

As per the Levene's test (depicted in Table II), the variances of the two groups are equal for all the statements except for the fourteenth statement that 'A stock split enables the small investors to buy shares as a result improving the marketability of shares' (p -value = 0.018 < 0.05).

Due to the violation of the pre-condition for an independent samples *t*-test, a Mann-Whitney U-test is conducted for further investigation. As per the results of this test, shown in Table III, it is observed that there is no significant difference between views of the two groups regarding the fourteenth statement (p -value = 0.067 > 0.05).

Further, the *t*-statistics for the remaining seventeen statements exhibit that there is no significant difference between the means of the two groups for all the statements except for the seventh statement that 'A stock split has a favorable market reaction on a firm's share price' (p -value = 0.032 < 0.05, presented in Table IV). This clearly indicates that managers of the manufacturing sector and the service sector think alike in all aspects except regarding the price reaction due to stock splits. The mean values (3.72 versus 3.31) indicate that even though both sector respondents believe that the stock split is associated with a favorable market reaction on the firm's share price, the belief of the manufacturing sector respondents is stronger compared to the service sector respondents.

2. Independent Samples *t*-Test for Involved and Non-involved Groups

Since some of the respondents are involved in the stock split decision and some aren't, another independent samples *t*-test is conducted to observe if there is a significant difference between these groups regarding their views related to stock splits.

The result of the Levene's test in Table II indicates that the variances of both the groups are equal for all the statements except for the fifth statement that 'A stock split sends a positive signal about a firm's future prospects' (p -value = 0.026 < 0.05) and the fifteenth statement that 'A stock split improves the upside potential of a firm's share price' (p -value = 0.008 < 0.05).

Due to the violation of the pre-condition for an independent samples *t*-test, another Mann-Whitney U-test is conducted for further investigation. As exhibited in Table III, it is observed that there is no significant difference between the two groups regarding the view that 'A stock split improves the upside potential of a firm's share price' (p -value = 0.306 > 0.05). On the other hand, the two groups hold a different view concerning the signaling hypothesis depicted in the fifteenth opinion statement that 'A stock split sends a positive

...managers who are involved in the stock split decision consider these decisions as cosmetic corporate events. Hence, the involved managers believe that stock splits do not provide any positive signals about the firm's future prospects.

signal about a firm's future prospects' (p -value = 0.045 < 0.05).

A close investigation of means of the involved group and non-involved group (2.69 versus 3.07) shows that the managers who are involved in the stock split decision

consider these decisions as cosmetic corporate events. Hence, the involved managers believe that stock splits do not provide any positive signals about the firm's future prospects.

For further analysis, the values of the *t*-statistics of the remaining sixteen statements are considered. The results show that there is no significant difference between the means of the two groups for all the statements except for the eighteenth statement that 'The cost of a stock split issue is an important factor in the stock split decision' (p -value = 0.001 < 0.05, reported in Table IV). This is again due to the fact that managers who are involved in the stock split decision are more aware of the cost aspect of the decision than managers who aren't involved in the decision.

B. Opinion on Stock Splits

In Part I of the questionnaire, the respondents provided their general opinion on the eighteen closed-ended opinion statements concerning stock splits using a five-point Likert

Table II. Levene Test for Independent Samples t-Test

Levene's test, a pre-requisite for independent samples *t*-test, is used to check the equality of the variance for the two groups. This table presents the results of Levene test only for the statement for which a significant difference is observed between the variances of the two groups at .05 significance level.

Groups Based on	Statement Number	Statement	F-Value	Significance Level
Nature of Business (Manufacturing Sector and Service Sector)	14	A stock split enables the small investors to buy shares, as a result improving marketability of shares.	5.783	.018**
Involvement in Stock Splits Decision (Involved Respondents and Non-involved Respondents)	5	A stock split sends positive signal about a firm's future prospects	5.092	.026**
Involvement in Stock Splits Decision (Involved Respondents and Non-involved Respondents)	15	A stock split improves the upside potential of a firm's share price.	7.230	.008**

** Significant at .05 level.

Table III. Mann-Whitney U-test Statistics

Mann-Whitney U-test is applied to the statement for which the Levene test has indicated a significance difference between the variances of the two groups at .05 significance level. It is used to determine if there is a significant difference between the means of the two groups at .05 significance level. This table presents the results of Mann-Whitney U-test

Groups Based on	Statement Number	Statement	Mann-Whitney U Value	Asymp. Sig. (2-tailed)
Nature of Business (Manufacturing Sector and Service Sector)	14	A stock split enables the small investors to buy shares, as a result improving marketability of shares.	1343.500	.067
Involvement in Stock Splits Decision (Involved Respondents and Non-involved Respondents)	5	A stock split sends positive signal about a firm's future prospects.	1549.500	.045**
Involvement in Stock Splits Decision (Involved Respondents and Non-involved Respondents)	15	A stock split improves the upside potential of a firm's share price.	1714.500	.306

** Significant at .05 level.

Table IV. Independent Samples t-Test

This table reports the findings of the independent samples *t*-test only for the statement for which a significant difference is observed between the means of the two groups at .05 significance level.

Groups Based on	Statement Number	Statement	Mean for Group 1	Mean for Group 2	t-Value	Significance Level
Nature of Business (Manufacturing Sector and Service Sector)	7	A stock split has a favourable market reaction on a firm's share price.	3.72 [Manufacturing Sector (N = 100)]	3.31 [Service Sector (N = 32)]	2.171	.032**
Involvement in Stock Splits Decision (Involved Respondents and Non-involved Respondents)	18	The cost of a stock split issue is an important factor in the stock split decision.	2.57 Involved Respondents (N = 93)	3.19 Non-involved Respondents (N = 42)	-3.319	.001**

** Significant at .05 level.

scale. Table V presents descriptive statistics of the responses received. It depicts the percentage of respondents who chose a particular response. In addition, an index is calculated for agreement and disagreement. This is done by summing 'strongly agree' and 'agree' on one side and 'disagree' and 'strongly disagree' on the other. It is observed from Table V that there are five statements for which more than four-fifths (80%) of the respondents have shown their agreement. Table V also provides the ranking for the eighteen statements based on their respective means and standard deviations. The statements are ranked in descending order of their mean; for the statements for which the means are same, the ranking is done based on the ascending order of standard deviation to give due weight to lower variability. The five top ranking statements are listed below in descending order:

- A stock split makes the shares more attractive to individual investors by lowering the share prices.
- A stock split enables small investors to buy shares, thereby improving marketability of the shares.
- A stock split increases the number of shareholders in a firm.
- A stock split brings the share price into a popular trading range.
- The number of shares traded after a stock split issue increases (at a proportion greater than the size of the stock split), thereby increasing liquidity.

As the findings show, 98.5% of the respondents unanimously agree that stock splits enable small (retail) investors to buy shares, thereby improving marketability of their shares. 88.2% believe that the stock split brings the share price into a popular trading range, as the market price of the share decreases after the stock split. They (94.0%) also believe that the decrease in the share price makes the shares more attractive to individual investors. 92.6% agree this leads to an increase in the number of shares traded, thus increasing liquidity. In addition, managers (87.4%) perceive that increased liquidity also means an increase in the number of shareholders holding stock in the firm. Thus, the strong agreement with respect to these five statements gives tremendous support to the trading range and liquidity hypotheses.

Indian corporate managers perceive that stock splits impact the issuing company in many ways — they bring share prices into an affordable range, they attract the attention of potential investors, they improve the marketability of shares, they increase the number of shares traded, they increase the number of shareholders, and ultimately they result in an increased share price.

There is also a high level of agreement (77.6%) to the statement that stock splits attract the attention of the investment community. The managers (71.2%) believe that a stock split has a favorable market reaction on the firm's share price. The reason for this seems to be that a stock split issue brings the share price into a preferred trading range making it more attractive to the investment community. In

turn, this triggers demand for the shares of the issuing company resulting in an increased share price. The increased demand also leads to an increase in liquidity of the shares of the company.

The surveyed managers (62.4%) also agree that a stock split decision often occurs after an upward trend in a firm's share price. This could be due to managements' intention to bring the price into the popular trading range. The

respondents (64.9%) believe that stock splits further improve the upside potential of a firm's share price. The reason for this could be the increased demand for shares. Managers (57.7%) also think that the decision to issue stock splits could be part of a promotional strategy to make it easier to sell new equity shares.

In conclusion, Indian corporate managers perceive that stock splits impact the issuing company in many ways — they bring share prices into an affordable range, they attract the attention of potential investors, they improve the marketability of shares, they increase the number of shares traded, they increase the number of shareholders, and ultimately they result in an increased share price.

Some statements that received very low level of agreement in this survey are listed below:

- A stock split makes the shares more attractive to institutional investors by lowering the share price.
- The cost of a stock split issue is an important factor in the stock split decision.
- A stock split sends a positive signal about the firm's future prospects.
- A stock split increases total cash dividends for shareholders.
- A stock is split because it is fashionable.

The survey reveals that corporate managers (34.8%) have a low level of agreement to the statement that stock splits make shares more attractive to institutional investors by

Table V. Managements' Views on Stock Split Statements

This table presents descriptive statistics reflecting the respondents' opinions on eighteen statements related to stock splits. It depicts the percentage of respondents who have chosen a particular response. An index of agreement and disagreement level is calculated. This is done by summing 'strongly agree' and 'agree' on one side and 'disagree' and 'strongly disagree' on the other. This table also provides the ranking for the above statements based on their respective mean and standard deviation. The statements have been ranked according to the descending order of mean; the statements for which the means are same, the ranking has been done based on the ascending order of standard deviation to give due weight to lower variability.

Statement Number	Statement	Agree (4 & 5) (%)	No Opinion (3) (%)	Disagree (1 & 2) (%)	Mean	Standard Deviation	Rank
3	A stock split makes the shares more attractive to individual investors by lowering the share prices.	94.0	3.0	3.0	4.356	0.685	1
14	A stock split enables the small investors to buy shares, as a result improving marketability of shares.	98.5	0.0	1.5	4.291	0.546	2
2	A stock split increases the number of shareholders in a firm.	87.4	1.5	11.1	4.163	0.987	3
1	A stock split brings the share price into a popular trading range.	88.2	3.7	8.1	4.111	0.843	4
16	The number of shares traded after a stock split issue increases (in more proportion than the size of the stock split), thereby increasing liquidity.	92.6	4.4	3.0	4.096	0.597	5
10	A stock split attracts the attention from investment community.	77.6	11.9	10.4	3.784	0.808	6
7	A stock split has a favorable market reaction on a firm's share price.	71.2	10.6	18.2	3.621	0.937	7
15	A stock split improves the upside potential of a firm's share price.	64.9	12.7	22.4	3.507	0.979	8
12	A stock split occurs after an upward trend in firm's share price.	62.4	13.5	24.1	3.481	1.034	9
6	A stock split makes it easier to sell new equity shares by increasing the number of shareholders.	57.7	19.3	22.9	3.422	0.95	10
9	A stock split increases the total market value of a firm's shares.	48.1	14.8	37.1	3.089	1.089	11
11	A stock split increases a firm's share price volatility.	40.0	21.5	38.5	3.037	0.973	12
17	Share prices do not adjust fully after a stock split issue.	43.0	20.0	37.1	3.037	1.025	13
4	A stock split makes the shares more attractive to institutional investors by lowering the share price.	34.8	19.3	45.9	2.911	1.047	14
5	A stock split sends positive signal about a firm's future prospects.	28.9	25.9	45.1	2.807	1.054	15
18	The cost of a stock split issue is an important factor in the stock split decision.	32.1	14.2	53.8	2.761	1.049	16
13	A stock is split because it is fashionable.	10.4	20.1	69.4	2.209	0.91	17
8	A stock split increases the total cash dividends for the shareholders.	10.5	8.2	81.4	2.082	0.893	18

Note: Percentages may not total 100 due to rounding. The sample size is 135 except for Statements 7, 8, 10, 12, 13, 14, 15, and 18 where it is 132, 134, 134, 133, 134, 134, 134, and 134 respectively.

lowering the share price. The reason for this could be that the institutional investors are well read and well informed about such corporate actions. These investors treat such events as cosmetic and do not get excited about stocks of companies that indulge in such decisions. In addition, they do not have any difficulty in investing in large amounts in a company's stock, hence, lowering the share price is of little consequence to them.

There is a low level of agreement (32.1%) for the statement that cost is an important factor in issuing stock splits. The reason for this response could be the dematerialization of shares.⁸ The companies now do not have to incur costs related to stamp duty, printing and posting of the shares; such costs used to be substantial prior to the dematerialization period.

A very low level of agreement (28.9%) to the signaling hypothesis amongst Indian managers seems to be a revealing finding of the survey; they do not think that a stock split sends positive signals about a firm's future prospects. In fact, the mean agreement level of the respondents who are involved in the decision to issue stock splits is even lower than that of the respondents who are not associated with the decision (2.69 versus 3.07). This provides even less support to the signaling hypothesis. The objectives for issuing stock splits perceived by managers involved in the decision of issuing stock splits are to bring the share price into a popular trading range, to increase liquidity and to increase the number of shareholders. These findings are in agreement with Kadiyala and Vetsuypens' (2002), Mishra (2007), and Huang, Liano, and Pan, (2009). Kadiyala and Vetsuypens' (2002) document that weak evidence regarding stock splits conveying positive signal. Mishra (2007) observe that stock returns reduced after splitting rejecting the signaling hypothesis. Huang et al. examine the signaling effect of stock splits and conclude that there is no observed improvement in operating performance in the four years following stock split announcements. Thus, the cheer factors related to stock splits are lowered share prices and improved liquidity, not optimistic signals about the firm's future performance.

A very low level of agreement (10.5%) is observed for the statement that a stock split increases the total cash dividends for shareholders. This finding is contrary to the perception that an increase in the number of shares held will increase cash dividends.

The statement least agreed upon (10.4%) is that issuing stock splits is fashionable. Evidently, corporate managers do not issue stock splits just because other companies are issuing them.

This research shows that Indian managers do not support all of the hypotheses in equal measure as justification for issuing stock splits. Maximum support is shown for

the liquidity hypothesis followed by the trading range hypothesis. On the other hand, very few Indian managers support the signaling hypothesis.

As a matter of interest, some other opinion statements cited by the managers in the 'any other' category are listed below:

- Stock splits can be considered when the market price exceeds Rs.500 per share.
- The Security Exchange Board of India should promulgate adequate regulations to have uniformity in the face value of the shares of all the listed entities, say at Rs.1, to avoid confusion among investors at large.
- Stock splits improve market capitalization of the company.

Comparing the present survey with the survey conducted by Baker and Gallagher (1980), some similarities are observed. Nearly nine-tenths (90%) of the managers in both the surveys support the trading range hypothesis; they believe that stock splits bring the stock price into a popular trading range. There is almost an identical level of agreement (85%) to the statement that stock splits increase the number of shareholders in a firm. Half (50%) of the managers agree that a stock split increases the total market value of the firm's stock. They also condemn the view that stock splits are fashionable and do not believe that cost is an important factor in the stock split decision.

The level of agreement differs substantially for a few statements. The first statement where a noticeable difference is observed relates to the attractiveness of the stock splits. Even though managers in both studies believe that stock splits make it easier for small shareholders to purchase the stock, the level of agreement differs regarding the statement that stock splits make the stock more attractive (94.0% versus 68.3%). The level of agreement regarding the benefit of stock splits for institutional investors also differs. While in the present study 34.8% respondents perceive that stock splits make the stock attractive for institutional investors, 74.6% of the respondents in the study by Baker and Gallagher (1980) believe that stock splits have no adverse effect on institutional shareholders due to the costs involved.

Comparison with another survey by Baker and Powell (1993) also reveals many similarities along with a few dissimilarities with the results of this survey. In fact, many statements have identical results. For example, the level of agreement to the statement that a stock split makes shares more attractive to individual investors by lowering the share price is high and almost the same (around 94%). Managers (around 90%) in both the surveys also believe that stock splits bring the share price into a preferred trading range. Likewise, more than 90% of the respondents of both the surveys agree that the liquidity of the stock improves in the

⁸Dematerialisation is the process of converting the physical form of shares into electronic form.

post-stock split period. In addition, a high level of agreement is observed in both the surveys for the statement that stock splits increase the number of shareholders of a firm. In both the surveys, the level of agreement is similar for the following statements: a stock split occurs after an upward trend in a firm's earnings per share (around 60%), it improves the upside potential of a firm's share price (around 60%) and it increases firms' share price volatility (40%).

The dissimilarity between the two surveys that requires highlighting is with reference to the view that stock splits send positive signals about a firm's future prospects. In the earlier study, the level of agreement was 69.6% while in the present study it is only 28.9%. This gives an indication that Indian managers do not support the signaling hypothesis related to stock splits.

Although respondents in both the studies agree that a stock split enables small investors to buy shares thereby enhancing the marketability of the shares, a substantial difference (98.5% versus 67.1%) is observed in the level of agreement between the two surveys.

C. Motives for Stock Splits

The respondents are asked to select the three most important motives, in order of priority, for the latest stock split decision made by their company. They are provided with nine choices along with a tenth 'any other' option, where they could specify any other motive for issuing a stock split. A weighted index is calculated for each motive for the purpose of ranking. For every statement, the number of respondents choosing it as the primary motive is multiplied by three, as the secondary motive by two, and as the tertiary motive by one. These three numbers are then summed up and divided by six to get the value of the index. Using this weighted index, the statements are then ranked in descending order. Table VI summarizes the choices made by the managers as to their primary, secondary and tertiary

motives for issuing stock splits based on the above index.

Out of 135 respondent companies, 19 split their stock prior to a public offer of shares. A further investigation reveals that from the sample of 517 companies, 91 companies came out with the public offer during the time period studied. Out of these 91 companies, 62 companies (68.1%) issued stock splits before the offer, while 29 companies (31.9%) did so after the offer. The lowering of face value through stock splits prior to public offer seems to be a common practice among companies in India. In-depth telephonic interviews with a sample of eight managers that issued stock splits before their public offer provides additional insight into their rationale for taking up such decisions.

They view that issuing stock splits at this particular stage improves the marketability of their public offer. High face value of the share is associated with a high issue price. The managers we interviewed believe that a high price will lead to reduced number of potential participants, especially retail investors, in the public offer. They prefer a wider distribution of shares as this is likely to lead to increased trading liquidity in the secondary market. The stock splits are also motivated in part by their desire to ensure that the face value of the share and its market price should be comparable with other companies in the same industry. Hence, improving the marketability of the public offer, increasing liquidity of the company's shares in the secondary market, and making the company's share price comparable with the share prices of their peer group companies are the main considerations for issuing stock splits prior to the public offer.

As shown in Table VI, the most important motive for issuing stock splits is 'To improve the liquidity of a firm's shares'; almost two fifths (38.8%) of the respondents chose this as their firm's primary motive. The second ranked motive is 'To bring the share price in a popular trading range' followed by 'To attract more investors.' The ranks clearly

The primary motive for issuing stock splits chosen by Indian managers is to improve the liquidity of a firm's shares, the second ranked motive is to bring the share price into a popular trading range, and the third ranked motive is to attract more investors. Managers believe that although the issuance of a stock split is only a cosmetic corporate event, it brings the share price into a popular range leading to more individual investors trading in the shares; this enhances the trading liquidity of the firm's stock. Post-split enhanced liquidity increases the demand for the shares, which also helps in increasing the wealth of the shareholders. Signaling is not one of the major motives for Indian managers to issue stock splits. They perceive stock splits as a tool to enhance liquidity.

Table VI. Managements' Motives for Issuing Stock Splits

This table summarizes the number of respondent managers choosing a particular motive as primary, secondary or tertiary for issuing stock splits. A weighted index is calculated for each motive for the ranking purpose. It is calculated as $[(\text{Prime Motive} \times 3) + (\text{Second Motive} \times 2) + (\text{Third Motive} \times 1)] \div 6$. For every motive, the number of respondents choosing it as: primary is multiplied by three, secondary by two and tertiary by one. These three numbers are summed up and then divided by six to get the value of the index. Using the index, the motives have been ranked in the descending order.

Motive No.	Motives	Prime Motive	Second Motive	Third Motive	Weighted Index	Rank
2	To improve the liquidity of a firm's shares.	45 (38.8%)	28 (24.1%)	15 (12.9%)	33.8	1
1	To bring the share price in a popular trading range.	16 (13.8%)	23 (19.8%)	26 (22.4%)	20.0	2
5	To attract more investors.	14 (12.1%)	23 (19.8%)	19 (16.4%)	17.8	3
4	To increase the wealth of the shareholders.	20 (17.2%)	9 (7.8%)	5 (4.3%)	13.8	4
6	To improve the marketability of a firm's shares.	10 (8.6%)	17 (14.7%)	17 (14.7%)	13.5	5
3	To signal the positive future prospects.	6 (5.2%)	8 (6.9%)	9 (7.8%)	7.2	6
8	To gain attention from the investment community.	4 (3.4%)	4 (3.4%)	9 (7.8%)	4.8	7
7	To increase the total market value of a firm's stock.	1 (0.9%)	4 (3.4%)	14 (12.1%)	4.2	8
9	To increase the total cash dividends for the shareholders.	0 (0.0%)	0 (0.0%)	2 (1.7%)	0.3	9
10	Any other (<i>specify</i>):	0 (0.0%)	0 (0.0%)	0 (0.0%)		

reflect that the ultimate motive for issuing stock splits is to increase liquidity, which in turn is achieved by bringing the share price into a preferred trading range and attracting new investors. These motives are in line with the opinions shown in Table V, which shows that there is no discrepancy between their opinions and the motives. If the respondents believe that an issue of stock splits increases liquidity by bringing the share price into a preferred trading range and attracting more investors, they follow through and split the stock of their company to achieve these objectives.

The other important motives for issuing stock splits, as chosen by the respondents, are 'To increase the wealth of the shareholders' and 'To improve the marketability of the firm's stock.' An increase in the wealth of shareholders is an outcome of the lowered market price of the share, due to the stock split, leading to an increase in trading activity as percentage changes in lower value shares tend to be somewhat more than the percentage change in the higher value shares. The results also show that signaling positive future prospects is not chosen as one of the main motives by a majority of respondents, as it is ranked at the sixth position; this confirms the opinion regarding signaling hypothesis discussed previously.

Additionally, managers do not believe that increasing the

cash dividends for the shareholders is an important motive for issuing stock splits. In fact, only 1.7% of the respondents chose this as a motive (that too as tertiary motive) for issuing stock splits. Hence, stock splits are not viewed as helping increase cash dividends for shareholders.

Comparing the findings of this study with the findings of the earlier studies by Baker and Gallagher (1980) and Baker and Powell (1993), it is observed that the differences are of 'degree and not of kind.' In earlier studies the prime motive for issuing stock splits is to bring the share price into a preferred trading range whereas in our study it is ranked as the second most important motive. Further, increasing liquidity is ranked as the number two factor in the earlier studies while it emerges as the top ranked factor in our study. However, this difference may be ascribed more to semantics than to real perception as the objective of bringing the price into the preferred trading range is to increase liquidity. Therefore, in operational terms, the ultimate motive of issuing a stock split remains virtually the same among the surveys referred to.

D. Preferred Trading Range

As presented in Table V, the Indian corporate managers

Table VII. Frequency Distribution of Preferred Trading Range of the Respondents

This table presents frequency distribution of the preferred trading range of the respondent companies. The managers are asked to mention their preferred trading range with the lower and the upper boundary of the share price. The midpoint, as an average of the lower and upper boundary, is then calculated. A frequency distribution is drawn based on the range of midpoints in order to assess the preferred trading range by the respondents.

Range of Midpoint (Figures in Rupees)	Range of Midpoint (Figures in Dollars*)	Number of Respondents	Percentage	Cumulative Percentage
< 200	<4.31	66	71.0	71.0
200.01 – 400	4.31 – 8.62	17	18.3	89.3
400.01 – 600	8.62 – 12.93	3	3.2	92.5
600.01 – 800	12.93 – 17.24	0	0.0	92.5
800.01 – 1000	17.24 – 21.55	1	1.1	93.6
> 1000	>21.55	6	6.4	100.0
Total	Total	93	100.0	

* Rs.1 = \$0.02155 or \$1 = Rs.46.40, as per the exchange rate on the August 10th, 2010.

(88.2%) believe that a stock split brings the share price into a popular trading range. Table VI also indicates the third most important motive for issuing stock splits is to bring the share price into a specific range that is preferred by the shareholders. A question regarding management's preferred trading range, hence, seems to be a valid one. In Part II of the questionnaire, such a question is raised.

The managers are asked to mention their preferred trading range with lower and upper boundaries for the share price. Out of 135 respondents, 93 (68.9%) indicated their choices. To analyze the response, the midpoint, an average of the lower and upper boundaries, is calculated. A frequency distribution is drawn based on the range of midpoints in order to determine the preferred trading range of the respondents.

The results presented in Table VII show that nearly three-fourths of the respondents (71.0%) preferred their share to trade below Rs.200⁹ (\$4.31) and around one-fifth of the respondents (18.3%) preferred the trading range to be Rs.200 (\$4.31) to Rs.400 (\$8.62). The cumulative percentage of these two ranges is 89.3% leading to a conclusion that almost nine-tenths (90%) of the respondents prefer their share to trade below Rs.400. As a matter of fact, one of the respondents also mentioned that a stock split should be considered after the share price exceeds Rs.500 (\$10.78). Around 4% of the respondents preferred a range of Rs.400 (\$8.62) to Rs.1000 (\$21.55) and 6.4% preferred a trading range above Rs.1000 (\$21.55). The results clearly demonstrate that management prefers a low trading price for their shares in order to enhance liquidity and thereby making shares more accessible to common investors.

IV. Concluding Observations

The rationale for issuing stock splits is a puzzling question in the area of finance. The present study captures managements' views about stock splits and motives for issuing them, in the Indian context.

While interpreting the findings, two major points should be borne in mind. First, this research study does not directly test the hypotheses about stock splits; it simply presents the results of the questionnaire survey conducted in order to find out managers' opinions about stock splits and motives for issuing them. Although a consensus does not make a hypothesis true or false, it does provide insight about how managers view certain hypotheses (Baker and Phillips, 1993). Second, survey research methodology is subject to non-response bias; however, the reasonably good response rate found in this study mitigates this concern.

This survey provides insight into the stock splits question in the context of India. The following conclusions can be drawn from the results of this field study. Indian managers nearly unanimously believe that stock splits are beneficial for a company when share prices are high. Issuing stock splits brings down the share price of the issuing company to a preferred trading range making the shares more attractive to investors, especially individual investors. It enables them to trade in the company's stock as share prices (following the stock split) are within their reach. This also helps in increasing the number of shareholders, thereby enhancing liquidity of the shares. Therefore, managers strongly support the trading range and liquidity hypotheses related to stock splits. Such strong support has not been observed for the signaling hypothesis. The managers, especially, those directly involved in the stock split decisions believe that stock splits do not provide any positive signals related to the future performance of the company.

⁹Rs.1 = \$0.02155 or \$1 = 46.40, as per the exchange rate on August 10th, 2010.

The views of the Indian managers regarding stock splits are very similar to those of the US managers. Both groups believe that the stock splits bring the share price into a preferred trading range, make the stock more attractive to individual investors, increase the number of shareholders in a firm and improve the liquidity of the shares. However, a noticeable difference of opinion is observed between the groups regarding the signaling hypothesis. US managers believe that stock splits send positive signals about a firm's future prospects while Indian managers do not support this view.

The primary motive for issuing stock splits chosen by Indian managers is to improve the liquidity of a firm's shares, the second ranked motive is to bring the share price into a popular trading range, and the third ranked motive is to attract more investors. Managers believe that although the issuance of a stock split is only a cosmetic corporate event, it brings the share price into a popular range leading to more individual investors trading in the shares; this enhances the trading liquidity of the firm's stock. Post-split enhanced liquidity increases the demand for the shares, which also

helps in increasing the wealth of the shareholders. Signaling is not one of the major motives for Indian managers to issue stock splits. They perceive stock splits as a tool to enhance liquidity. Thus, the opinions and motives of managers are in conformity with each other. The motives for issuing stock splits chosen by the Indian managers and those chosen by the US managers are virtually the same.

The motives expressed by the companies that issued the stock splits prior to their public offer are to improve marketability of their public offer, to increase liquidity of their stock in the secondary market and to make the company's share price comparable with the share prices of its peer group companies.

Indian managers also believe that a lower share price due to the issue of stock splits enhances liquidity of the firm's stock. To maintain high liquidity in the stock market, the vast majority of the managers prefer their shares to trade below Rs.400 (\$8.62). A lower share price is viewed as appealing to investors thereby attracting the widest participation in a firm's stock with concomitant benefits to the firm. ■

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