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Editorial Board

Editorial Comment

Empirical research methods applied to social science enquiry highlight the centrality of practice as an established route to justified knowledge. No *a priori* theory of knowledge or metaphysical underpinning is needed; only inter-subjective agreements within any appropriate community of practice. This shifts the focus of knowledge-seeking from correspondence to reality truth-finding to a more modest but functional problem solving. It is a move from copying to coping; less reproductive, more productive.

Research, thus viewed, is a form of tool-using to help us to better predict and cope with the contingencies of human existence and to make progress towards what any community inter-subjectively agrees is good for human well-being.

The Singapore Management Journal (SMJ) seeks to create a platform of an ideal communicative situation of sorts, to be a forum for an enlightened educated community of practitioners to converse on issues that matter to them. It can also serve as a bridge to bring readers to the other side for a different view of things that might point to a more useful way of understanding and coping.

We encourage intellectual interactions between readers and authors in this spirit of conversation, via the emails listed in the biodata section towards the end pages of SMJ.

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“Business only has two functions — marketing and innovation”

– Peter Drucker

Firm Export Performance in SMEs: The Role of Government Export Promotion Programmes

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Abstract

Trade provides numerous tangible and intangible benefits to a country's economic development. In order to promote trade activities, governments have developed export promotion agencies (EPAs) in order to provide opportunities for potential exporters to meet and interact with importers from foreign markets. Studies have shown that EPAs can positively impact export performance, partly through offering export promotion programmes (EPPs). This study was designed to examine the relationship between EPPs and export performance, and specifically to provide an understanding of the correlation between the usage of EPPs and their impact on the export performance of the small and medium enterprise (SME) in Singapore. This study employed a survey of 41 professionals from companies that have exported products from Singapore. Hierarchical multiple regression analysis was employed to quantify the impact of EPPs on firm export performance. The dependent variable in the research was the survey participants' perceptions of their organisations' export performance. The survey results did indicate that the use of market development-related EPPs positively predicted export performance, while the use of finance-related EPPs did not. The survey findings also underscored the fact that there are many uncontrollable variables in international marketing, and that even seemingly controllable factors, such as cost and price structures, can contribute to challenges and complexities in programme implementation. The results of this study demonstrated the need for improvements to export promotion programme deployment. More research is definitely warranted.

Keywords: Export Promotion Programmes, Export Promotion Agencies, international trade, market development, economic development, export performance, Singapore economy

Introduction

Export promotion is an integral part of the foreign trade policy of federal governments. In order to facilitate international trade, many countries have set up export promotion agencies, or EPAs, as part of overall trade promotion policy. These programmes can often serve as catalysts to boost the exporting activities of small and medium enterprises (Gil, Llorca, & Serrano, 2008). Hence in the majority of countries, the purpose of putting in place an EPA is to enable potential exporters to find markets for their products, as well as to provide them with a better understanding of products and services that are required in different export markets. The services offered by EPAs to exporters generally encompass a broad spectrum, ranging from export counseling, business matching of potential exporters with importers or collaboration partners, to financial assistance through grants and sponsorship of participation in international trade missions and overseas exhibitions. These services may have heterogeneous effects, resulting in differing but nonetheless positive export outcomes for participating firms (Volpe Martincus & Carballo, 2010).

Feenstra & Taylor (2011) divide services offered by EPAs into four categories. The first is the creation of a country's branding; researchers have suggested that through intensive advertising campaigns and other promotional ventures, EPAs enable a country to raise its profile and project a positive international image. Next, EPAs offer export support services, ranging from training on various aspects of exporting, to assistance in technical issues associated with export and support services such as financing options and logistical support. A third category of services offered by EPAs is in the area of marketing. These include support of participation at trade fairs and facilitating overseas exchange programmes for exporters, largely aimed at providing the platform for firms to showcase their goods and services. The fourth category of services is market research and production of industry publications for the benefit of exporting firms. The export promotion programmes (EPP) available in each country can thus be said to be a conglomeration of the above categories of services offered by respective EPAs.

This study is centred on the impact of EPPs on Singapore-based small and medium enterprises, focusing on firm export performance. Several impact studies have also looked into this topic and shown that there is increasing interest amongst

SMEs to utilise EPPs to support growth and export expansion plans for their firms (Brouthers, Nakos, Hadjimarcou, & Brouthers, 2009; Wilkinson & Brouthers, 2006). It is therefore important to better understand the relationship between EPPs and their impact on SMEs in Singapore. Did different types of EPPs influence the export performance of firms? In order to examine this question, two sets of hypotheses were developed to test the influence of the EPPs on study participants' firms. The two sets of hypotheses are:

Hypothesis 1

H_0^1. The usage of market-development-related EPPs does not predict SMEs' export performance, when controlling for practises, firm, and environment factors.

H_1^1. The usage of market-development-related EPPs is a positive predictor of SMEs' export performance, when controlling for practises, firm, and environment factors.

Hypothesis 2

H_0^2. The usage of finance-support-related EPPs does not predict SMEs' export performance, when controlling for practises, firm, and environment factors.

H_1^2. The usage of finance-support-related EPPs is a positive predictor of SMEs' export performance, when controlling for practises, firm, and environment factors.

A survey on export behavior and Singapore EPPs was sent to four hundred and eighty nine professionals from companies that have exported products from Singapore. Participants were administered an online survey hosted by QualtricsTM (Qualtrics). Most respondents were drawn from the online database of the publication, "Singapore SME 1000", 2011 edition, (DP Group, 2011). The survey questions were mainly adapted from Shamsuddoha & Ali (2006). Other EPP studies, including Wilkinson (2006), Crick & Chaudhry (2000), Hajiagha, Zavadskas & Hashemi (2013), and Francis & Collins-Dodd (2004), were reviewed, but the decision to "adopt and adapt from the Shamsuddoha & Ali study (2006) was made on the basis that the questions and the context were culturally similar to the Singapore study" (Pang, 2015, p. 13). The study questions were combined to form an export performance scale that was the dependent variable for the study. Two EPP scales were also created, as well as scale variables that controlled for the practises, firm, and environment factors. The hypotheses were tested using hierarchical regression models.

Literature Review

Several studies have looked at the topic of EPPs and shown that there has been increasing interest amongst small and medium enterprises (SMEs) to utilise EPPs for supporting growth and export expansion plans in their respective firms (Brouthers, Nakos, Hadjimarcou, & Brouthers, 2009; Wilkinson & Brouthers, 2006). The findings have been varied. Some researchers found significant impacts of export assistance on growth of national exports (Lederman, Olarreaga, & Payton, 2010; Wilkinson & Brouthers, 2006), while others were not convinced that the outcomes have been significantly positive (Gencturk & Kotabe, 2001).

In a study of 162 firms, Gencturk & Kotabe (2001) found that while government export assistance programmes contributed to export success, the extent of that contribution was dependent upon the export performance dimension being investigated. The study did yield the finding however, that while services offered by EPAs did not contribute significantly to firms' sales, the competitive position of the firms was enhanced as a result of using EPA services, i.e., the EPPs. The researchers also asserted that cost-saving benefits of EPAs were best leveraged by companies that had a commitment to exporting. The limitations and problems faced by researchers in establishing the causal relationship between EPPs and macro-level outcomes has thus resulted in an academic focus towards performance of the individual firm or venture (Gillespie & Riddle, 2004).

Researchers have observed that firms tend to require different forms of assistance at differing stages of their life cycle and this is reflected in the documentation of heterogeneous effects by firm and product types in various studies (Munch & Schaur, 2015). For example, smaller firms, such as suppliers of hand-made consumer items with limited exposure to international markets, are likely to face greater difficulties in obtaining market information and working out requirements in trade documentation, and hence would report strong levels of perceived benefits from receiving export assistance in handling these matters. Firms that are larger and exporting more complex manufactures, however, may encounter a different set of export challenges, and may likewise also see value and benefit in availing themselves to the EPPs applicable to their respective industry sectors (Volpe Martincus & Carballo, 2012). There is also evidence that suggests that EPPs designed to support firms

throughout their export journey are likely to be more effective than those targeting isolated outcomes (Volpe Martincus and Carballo, 2010). As an example, EPPs that incorporate milestone achievements over a period of time would be perceived as being more effective versus those EPPs which provide a one-time subsidy for travel expenses to an overseas trade exhibition.

Overview of the Sample and Methodology

Out of the pool of potential participants, 41 completed the survey. Table 1 shows the descriptive statistics of the sample participants. Participants had worked at their current organisation an average of 10 years. Each participant was also asked questions about his or her current organisation. The average organisation in the sample had 53.57 employees, had been exporting for 17.78 years, and was established in 1986. The oldest firm in the sample was established in 1903 while the youngest firm was established in 2007.

Table 1: Descriptive Statistics of Sample Participants

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Years Working with Current Organisation	40	1	30	10.02	7.77
Number of Employees	40	3	350	53.57	74.98
Years Firm has been Exporting	40	2	50	17.78	13.26
Year Firm was Established	41	1903	2007	1986	21.17

Survey participants were also asked to directly rate the export performance of their firms. Each respondent was asked to what extent (on a 0-100 scale) his or her firm achieved the expected result over the last three years in five areas: export sales, export profit, new market entry, and export sales growth. The answers from each participant were then averaged to form a single 0 – 100-scale variable called export performance. It should be noted that these measures were a subjective, rather than objective, measure of export performance. Participants were not asked any questions relating to actual export sales or profit figures. The export performance variable created for the study

can therefore be considered a type of scale. The reliability of scales should be tested using Cronbach's alpha. For the export performance scale, $\alpha = .898$, thereby indicating a high degree of reliability or internal consistency. An alpha value of 0.70 or higher is generally considered to be desirable, although lower thresholds are often considered acceptable (Santos, 1999; Tavakol & Dennick, 2011). The descriptive statistics for the export performance scale and its component variables are shown in Table 2.

Table 2: Descriptive Statistics of Export Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Export Performance Scale	40	1.33	79.75	41.40	18.94
Export Sales	41	0	88	46.34	19.83
Export Profit	41	0	95	43.90	21.73
New Market Entry	40	1	83	36.20	21.89
Export Sales Growth	41	2	90	40.02	21.50

The means for all of the export variables were below 50. These results indicate that the participants were not very satisfied with their firms' export performance. Considering that each of the export categories were rated on a 0-100 scale, survey participants rated their firms' export performance at only a 30% to 40% level overall.

The export performance scale became the dependent variable for the analyses used to test the research hypotheses. Please note that these measures are a subjective, rather than an objective, measure of export performance. Participants were not asked any questions relating to actual export sales or profit figures. In order to determine the influence of EPPs on export performance, the EPPs were sorted into market development-related and finance-related EPPs. Survey participants were asked questions about the effectiveness of each EPP programme attended. Participants answered the EPP questions on a 1 – 7 scale, with 7 representing a very effective programme and 1 representing a very ineffective programme.

A market development EPP scale was created by taking the mean of the ratings for the top six market development-related EPPs. Of the 11 market development-related

programmes offered by the Singapore government, five of the programmes were rarely used and hence not included in the analysis. A finance EPP scale was created by taking the mean of the rating for the top two finance-related EPPs. Four finance EPPs were offered; two were rarely used by the survey participants. The EPPs used in the analysis and the number of participants who utilised them are shown in Table 3.

Table 3: Most Utilised EPPs by Study Participants

EPP Title	Type of EPP	N
Participation in international trade fairs and missions	Market Development	29
Inclusion in trade missions	Market Development	23
Export workshops and seminars	Market Development	23
Assistance in establishing contact with foreign buyers	Market Development	23
Marketing assistance for exporting new products	Market Development	21
Income tax rebate on export earnings	Finance	21
Grants to help defray developmental costs related to external consulting, airfare, and accommodation	Finance	19
Programmes for overseas promotion of the company's products	Market Development	17

In order to more directly determine the influence of the Singapore EPPs on export performance, other firm and environment factors needed to be controlled or held constant. Survey participants were asked a number of questions about their organisations' export practises, questions about the export environment in which they operated, and questions directly about their firms. These questions were grouped together into a practises scale, an environment scale, and a firm scale. Each scale was created by taking the mean of the answers to the survey questions in each of the three areas. Factor analysis was used to determine if any questions did not belong in their category. Through this method, three environment questions were eliminated leaving four questions to comprise the environment scale. Cronbach's alphas were calculated for all scale created for the study. All alphas were high or acceptable, and although the environment scale alpha was somewhat low, it was not that much lower than the generally accepted threshold of .70, and should be close enough to be considered acceptable (Santos, 1999; Tavakol & Dennick, 2011). The descriptive statistics for the two EPP scales and for the three control scales are shown in Table 4.

Table 4: Descriptive Statistics for EPP Scales and Control Scales

	Number of Items in Scale	Minimum	Maximum	Mean	Std. Deviation	Cronbach's Alpha
Market Development EPP Scale	6	4.00	6.20	5.46	.52	.744
Finance EPP Scale	2	3.00	7.00	5.62	.86	.806
Practises Scale	6	8.39	100.00	68.25	22.42	.930
Environment Scale	4	16.52	75.45	45.21	14.49	.649
Firm Scale	7	17.88	100.00	61.04	20.93	.927

Results

Multiple regression analysis was employed to allow the researcher to determine the relative contribution of multiple predictors to a single dependent variable, export performance. In order to test relationship between export performance and the effectiveness of EPPs, a two-step or hierarchical regression was run with export performance as the dependent variable. A hierarchical regression was used because the order of variable entry in a hierarchical regression is based on theory and can impart information about the specific influence of the variable of interest (Lewis, 2007). For the current model, the control variables were entered first to yield a general description of the determinants of perceived export performance. This first iteration of the model included three predictor variables – practises scale, environment scale, and firm scale. One of the two EPP scale variables was subsequently added to the second iteration of the model. A significant coefficient on the EPP scale variable would indicate a statistically significant influence of EPPs on export performance. The implication was that a low satisfaction with a given programme would contribute less to export performance than a programme that the client felt was beneficial. For all hypotheses, a significance level of .05 or 5% was set as the level for rejection of the null hypotheses. Therefore any test yielding a p-value $\leq .05$ was determined to demonstrate a statistically significant relationship between the variables in question.

Hypothesis 1: Influence of Market Development EPPs on Export Performance

The equation for the first iteration of the model was as follows:

Export Performance Scale = a + b*(Practises Scale)* + c*(Environment Scale)* + d*(Firm Scale)*.

The practises scale, the environment scale, and the firm scale all served as control variables. For the first set of hypotheses, the market development EPP scale was added to the second iteration of the model, yielding the equation:
Export Performance Scale = a + b(Practises Scale) + c(Environment Scale) + d(Firm Scale) + e(Market Development EPP Scale).

Finally, for the second set of hypotheses, the finance EPP scale was incorporated into the second iteration, hence yielding:
Export Performance Scale = a + b(Practises Scale) + c(Environment Scale) + d(Firm Scale) + f(Finance EPP Scale).

The first null hypothesis, H_0^1, states that the usage of market-development-related EPPs does not predict SMEs' export performance, when controlling for practises, firm, and environment factors. In order to test the hypothesis, a hierarchical regression was run. The regression results are shown in Table 5.

Table 5: Hierarchical Moderated Regression, Dependent Variable = Export Performance Scale

Source	B	SE	t	p
Model 1: Control Variables. Model Fit: $F(3, 26) = 3.950$, $p = .019$, Adj. $R^2 = .234$, F Change $(3, 26) = 3.950$, $p = .019$, R^2 Change = .313				
Constant	11.60	10.00	1.16	.257
Practises Scale	0.18	0.18	0.99	.330
Environment Scale	0.13	0.23	0.57	.577
Firm Scale	0.20	0.22	0.91	.373
Model 2: Control Variables + Market Development EPP Scale. Model Fit: $F(4, 25) = 4.538$, $p = .007$, Adj. $R^2 = .328$, F Change $(1, 25) = 4.641$, $p = .041$, R^2 Change = .108				
Constant	-39.21	25.38	-1.55	.135
Practises Scale	0.20	0.17	1.18	.251
Environment Scale	0.12	0.21	0.58	.569
Firm Scale	0.12	0.21	0.59	.563
Market Development EPP Scale	9.98	4.63	2.15	.041

The export performance scale uses a 0 – 100 scale. This was not an actual measure of export performance, but rather a scale showing the extent to which respondents positively evaluated their firms' export performance. The market development EPP scale was also calculated on a 0 – 100 basis, while the control variables were calculated on a 1 – 7 basis. In the first iteration of the model, the least squares model for export performance with $M = 41.40$ and $s = 18.94$, had an adjusted R^2 of .234, $F(3, 26) = 3.950$, with $p = 0.019$. Thus the model accounted for 23.4% of the variation in the export performance scale. This type of interpretation is explained in more detail in Hazard Munro (2005). The second iteration of the model accounted for 32.8% of the variance in the export performance scale (as shown by the adjusted R^2 values). This is an indication that using the market development EPPs offered by the Singapore government may be a positive predictor of export performance. The change in R^2 (rather than adjusted R^2) was .108, while the change in the F-value was significant at $p = .041$. These statistics all offer support for hypothesis H_1[1]: the usage of market-development-related EPPs is a positive predictor of SMEs' export performance, when controlling for practises, firm, and environment factors.

Hypothesis 2: Influence of Finance EPPs on Export Performance

The equation for the second iteration of the model is as follows:

Export Performance Scale = -39.21 + 0.20(Practises Scale) + 0.12(Environment Scale) + 0.12(Firm Scale) + 9.98(Market Development EPP Scale).

Based on the findings in Table 5, several statements can be made:

- The control variables are not predictors of export performance. Perhaps future studies could control for other factors that could positively or negatively predict export performance.
- Because the control variables are not significant, they cannot be used to predict changes in the export performance scale.
- Statistically significant coefficients can be interpreted to show exactly how a variable predicts changes in the dependent variable (Miller, 2008). A one-point increase in the market development EPP scale predicts a 9.98 point increase in the export performance scale. Attending and perceiving that a market development EPP is effective is thus a positive predictor of export performance.

The second null hypothesis, H_0[2], states that the usage of finance-support-related EPPs does not predict SMEs' export performance, when controlling for practises,

firm, and environment factors. As with the first set of hypotheses, a hierarchical regression was run to test the second set of hypotheses. The regression results are shown in Table 6.

Table 6: Hierarchical Moderated Regression, Dependent Variable = Export Performance Scale

Source	B	SE	t	p
Model 1: Control Variables. Model Fit: $F(3, 22) = 5.589$, $p = .005$, Adj. $R^2 = .355$, F Change $(3, 22) = 5.589$, $p = .005$, R^2 Change = .432				
Constant	0.26	11.16	0.02	.98
Practises Scale	0.06	0.22	0.27	.79
Environment Scale	0.41	0.26	1.62	.12
Firm Scale	0.34	0.24	1.41	.17
Model 2: Control Variables + Finance EPP Scale. Model Fit: $F(4, 21) = 4.707$, $p = .007$, Adj. $R^2 = .372$, F Change $(1, 21) = 1.601$, $p = .220$, R^2 Change = .040				
Constant	-22.02	20.769	-1.06	.301
Practises Scale	0.10	0.22	0.44	.662
Environment Scale	0.38	0.25	1.51	.147
Firm Scale	0.33	0.24	1.36	.189
Finance EPP Scale	3.92	3.10	1.27	.220

The finance EPP scale was calculated on a 0 – 100 basis, as was the export performance scale. In the first iteration of the model, the least squares model for export performance with $M = 41.40$ and $s = 18.94$, had an adjusted R^2 of .355, $F(3, 22) = 5.589$, with $p = 0.005$. Because fewer participants used the finance EPPs than the market EPPs, the N was slightly lower in this model, accounting for the slight differences in the regression statistics. This model accounted for 35.5% of the variation in the export performance scale. The second iteration of the model accounted for 37.2% of the variance in the export performance scale (as shown by the adjusted R^2 values). This is an indication that the finance EPP scale may not exert a positive influence on the export performance scale. The change in R^2 (rather than adjusted R^2) was only .040. This represented another indication that the finance EPP scale was not a valid predictor of export performance. The change in the F-value was not significant with $p = .220$

which further emphasised the lack of a positive influence from the finance EPP scale variable. These statistics all offer support for hypothesis H_0^2: the usage of finance-support-related EPPs does not predict SMEs' export performance, when controlling for practises, firm, and environment factors.

The equation for the second iteration of the model with the finance EPP scale is as follows:

Export Performance Scale = -22.02 + 0.10(Practises Scale) + 0.38(Environment Scale) + 0.33(Firm Scale) + 3.92(Finance EPP Scale).

Based on the findings in Table 6, several statements can be made:

- As with the market development EPP model, the control variables are not predictors of export performance.
- Because the control variables are not significant, they cannot be used to predict changes in the export performance scale.
- The finance EPP scale is also not a predictor of export performance. If the variable had been statistically significant, then a one-point increase in the finance EPP scale variables would have predicted a 3.92 point increase in the export performance scale. However, because of the insignificance of the variable, this claim cannot be made.
- Although all variables were insignificant, the model including the finance EPP scale accounted for more of the variance in the export performance scale than did the model with the market EPP scale. Sometimes multicollinearity between predictor variables can cause a model to have relatively high adjusted R^2 and F values, but little significance of the individual predictor variables (Alauddin & Nghiem, 2010; Hirsch & Riegelman; 1992). Testing of the model for multicollinearity using VIF and tolerance factors did not indicate a problem, however.

Discussion and Conclusions

Based on the evidence resultant from this study, the assertion can be made that market-related EPPs did positively impact the export performance of the firms surveyed. The lack of significance of the control variables may be partially due to the small sample size. This result may be mediated by (a) export commitment, (b) export strategy, and (c) export knowledge; this is a subject for a future study. The current study does present some evidence leading to the conclusion that actions by the Singapore

government to improve the utilisation of market related EPPs may lead to improved effects of these EPPs on export performance. In contrast, no causal assertions can be drawn about the effects of finance-related EPPs on export performance. The small sample size may have influenced these results. The small number of finance-related EPPs included in the sample and actually utilised by the study participants was also very low. This may have been a contributing factor to the lack of influence from the finance EPPs.

The objective for governments in developing and offering EPPs is to render support to strengthen the competitive standing of exporters from their respective countries, and to augment the commitment of governments to export promotion. There may thus be a need for a more in depth and qualitative look at the impact of individual EPPs to ascertain if they are suited to particular industries, and if there is a need for export coaching for these organisations. This may help to raise awareness of the range of programmes within the broad category of the market development group of EPPs. Conversely, an in-depth study would enable firms to provide feedback to the developers of the EPPs on the peculiarities of their particular sector and enable design of more practical and user-friendly programmes for the firms.

The findings also show that finance-related EPPs have little impact on export performance. This lack of influence could be a function of a lack of awareness of how these programmes can support the SMEs. Alvarez (2004) affirms that a positive contribution to export performance can be realised if SMEs expound greater effort in international business, process innovation, and complement these with utilisation of EPPs. Hence, the implication is that while EPPs have a place in supporting the export marketing efforts of SMEs, there may be value for researchers to explore firms' commitment to developing their own resources and capabilities, apart from utilising EPPs, to meet the challenges of the international marketing environment.

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“Great ideas often receive violent opposition from mediocre minds”

– Albert Einstein

Technological and Management Innovation in Chinese Start-ups.

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Abstract

Innovation is one of the most important factors required for a successful entrepreneurship. This explorative study will examine the correlation between technological innovation and management innovation in Chinese start-up entrepreneurships. This study assumes a post-positivistic ontological epistemological, and methodological perspective. Following an extensive literature review, a research model was developed around six hypotheses. Questionnaires were distributed to 400 Chinese entrepreneurs in Beijing and Tianjin, China. 152 valid responses were received and analysed.

Correlation analysis was used to examine the relationship between technological innovation and management innovation. Results revealed a statistically significant relationship between the two concepts. An appreciation of this relationship is useful for entrepreneurs to understand the characteristics of innovation in their enterprises and help them succeed in their entrepreneurial contributions towards social and economic development.

Keywords: Entrepreneurship, Start-up entrepreneur, Innovation, Technological Innovation, Management Innovation

1. Introduction

There has been increasing interest in entrepreneurship and innovation in the recent years yet little empirical research has been done to understand the nature of, and relationship between, these two concepts. This study investigates the correlation between technological innovation and management innovation, based on a sample of 152 Chinese entrepreneurs. A post-positivist approach was adopted as the most appropriate way of investigating this link in social science research.

2. Literature review

Scholars agree that entrepreneurship is a form of creative activity (Wood & Mckinley, 2010) and an important factor accounting for individual success (Antoncic and Hisrich, 2003; Davidson 2005). Parker (2005) pointed out that small and medium companies can be a good source of job creation and economic growth. These are able to push structural integration, regional development (Morris, Kuratko, Schindehutte, 2001), encourage job creation, innovation, win competitions, and stimulate economic growth (Chiles et al., 2007).

Without a doubt, the entrepreneur is the key to successful entrepreneurship. Cook (1986) claims that the entrepreneur would be the best guide for the enterprise's success. Shane et al. (2003) defines a start-up entrepreneur as one who starts a business. There is an important relationship between entrepreneurship and innovation. Entrepreneurship is a procedure which looks out for new opportunities (Kirzner, 1979) to start a new business or organisation (Gartner, 1985); and through which new knowledge is converted into products and services (Shane & Venkataraman, 2000). All of these new businesses, organisations and knowledge can benefit from innovation. Entrepreneurship drives innovation and technical changes, thus bringing about economic growth (Schumpeter, 1934). Schumpeter (1934) claimed that entrepreneurs (individuals who start the new business or organisation) are innovators because they can reform the mode of production.

Innovation is important to value creation. It has an enormous effect on firms' survival and success (Damonpour, 1991; Dougherty & Hardy, 1996; Nohria & Gulati, 1996). Drucker (1985) and Schumpeter(1934)pointed out that innovation has a profound

influence on entrepreneurship such that it can affect the success or failure of a new enterprise. Schumpeter (1934) points out that innovation involves new combinations of means of production and includes the following five cases: the introduction of new goods, the introduction of a new method of production, the opening of a new market, the conquest of a new source of supply of raw materials and set-up of a new organisation in any industry.

Technological Innovation

As an enterprise, technological innovation is an essential tool to increase the productivity and competitiveness of an enterprise (Marcela & Francisco et al., 2010). Technological innovation is defined as the process through which new (or improved) technologies are produced for widespread use (Sagar, 2013). In its simplest form, technological innovation involves research, development, demonstration and distribution – though not necessarily following a linear trajectory. There are two broad types of technological innovation intensity: incremental innovation and radical innovation (refer to Figure 1) (Ettlie, 1984; Dewar & Dutton, 1986; Hill 2003; Sheremata, 2004). Incremental innovation can improve existing product features and properties, with a low requirement for technical capacity and the resources of the enterprise (Nelson & Winter, 1982; Tushman & Anderson, 1986; Ettlie & Bridge & O'Keefe, 1984). An incremental innovation builds upon existing knowledge and resources in an enterprise via a process of competence-enhancement. Incremental innovation may trigger off a revolutionary innovation through a series of small, continuous and substantial innovation.

Radical innovation, on the other hand, is competence-destroying, requiring completely new knowledge and/or resources. It is based on major technological changes and a different set of principles of technology. It usually opens up new markets and potential applications (Dess & Beard, 1984; Dewar & Dutton, 1986). Radical innovation may bring about enormous changes to existing enterprise at times (Daft, 1982), and is often the basis for new enterprises to create markets that may cause major changes in the whole industry (Henderson & Clark, 1990). Radical innovation can lead to unprecedented performance characteristics, products, processes or services, creating changes in its wake that transform existing markets or industries or create new ones (Kotelnikov, 2001).

Management Innovation

Management innovation has been widely adopted, , but its influence on organisational performance is still not well researched. (Richard et al., 2010). Birkinshaw, Hamel and Mow (2008) defines management innovation as the invention and implementation of a new management practice, process, structure, or technique that is new to the state of the art and is intended to further organisational goals. Management innovation is an overarching concept with multiple subsets of innovation strategies. Rui (1994) sees "management innovation" as encompassing five dimensions: idea innovation, structure innovation, style innovation, partner innovation and system innovation. Li (2004) classified management innovation into the following four types:

1. Idea innovation is a thought process which includes innovation of a developmental idea, strategy innovation and innovation of the method of production and management services. Synek (2011) sees idea innovations as playing a considerable role in the success of innovations.
2. Structure innovation is a kind of innovation relating to the resetting of organizations, departments, adjustment of status and responsibilities and sector relationships.
3. System innovation refers to internal management systems of innovation, which includes management tools, workflow, specific management system innovation.
4. Style innovation refers to management innovation, which includes specific management methods for resources and innovation of leadership style.

The four innovation types are interrelated. To illustrate, a start-up needs to first consider how to design innovation and realise it (idea innovation), then move on to focus on the structure of the enterprise, resetting and making the necessary adjustments (structure innovation); which in turn will facilitate changes in the enterprise system (system innovation). These innovations will lead to a new business managerial style, encompassing new methods and a new leadership style (style innovation).

3. The research model

This study will deal with the following considerations:

1. The philosophical underpinnings of a post-positivism framework around which ontology, epistemology and method to adopt
2. The approach, strategies and methods of research
3. The collection and analysis of reliable and valid data

Specifically the research will explore the correlation between technological innovation and management innovation.

A model was created to investigate the correlation between technological innovation and management innovation adopted in Chinese start-ups. The figure below charts the way in which this study will explore the correlation between these two categories.

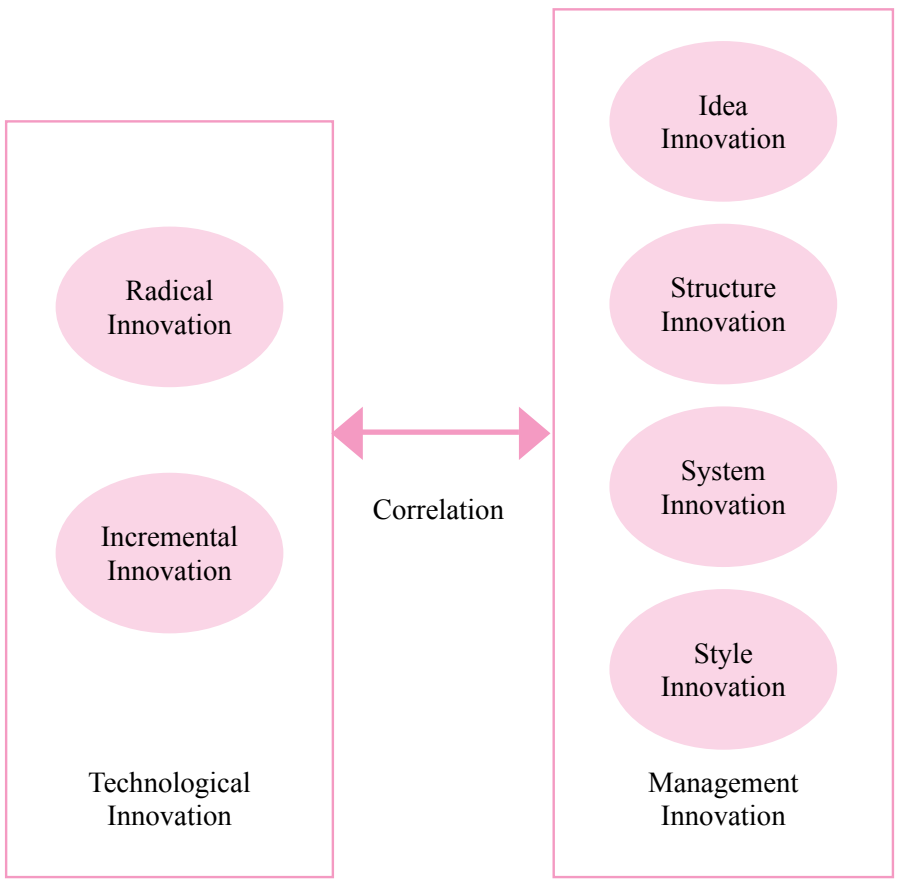

Figure 1. Basic Model of Study
Source: research summary

4. The research hypotheses

As this is an explorative study, all the hypotheses will predict a positive relationship between the subsets of technological innovation, and the subsets of management innovation.

H1: There is a positive correlation between radical innovation and idea innovation.
H2: There is a positive correlation between radical innovation and structure innovation.
H3: There is a positive correlation between radical innovation and system innovation.
H4: There is a positive correlation between radical innovation and style innovation.
H5: There is a positive correlation between incremental innovation and idea innovation.
H6: There is a positive correlation between incremental innovation and structure innovation.
H7: There is a positive correlation between incremental innovation and system innovation.
H8: There is a positive correlation between incremental innovation and style innovation.

5. Methodology

Philosophically, the researchers make claims about the nature (ontology) of innovation, how we know it (epistemology), what values go into it (axiology), how we write about it and the processes for researching it (methodology) (Creswell, 1994).

The phenomenon of innovation is viewed as an accepted reality in the objective world. An innovative idea is a precondition to realise innovation, affecting all phases of the innovative process from the start-up stage. Start-up entrepreneurs will usually need to ponder over a suitable style to realise their innovative behavior. When we research human behavior and actions, our concepts of knowledge cannot be obtained purely via statistical means (Creswell, 1994). This study will investigate the validation and reliability of technological innovation and management innovation through surveys and interviews. The following diagram summarises the stages of the research process:

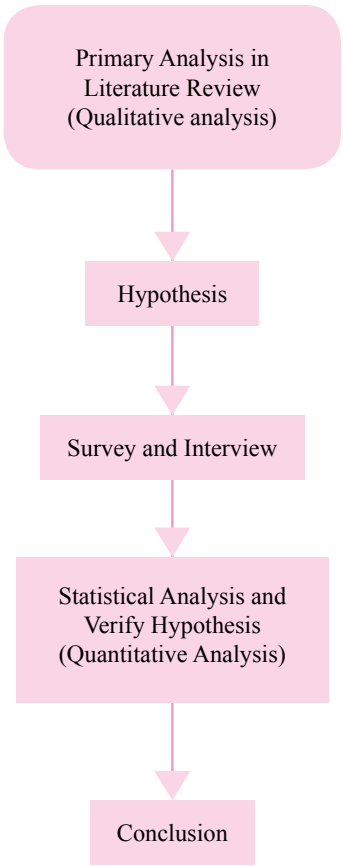

Figure 2. Figure of Research Processing

Source: Research summary

The study employed two questionnaires. One pertained to technological innovation and its two subsets (Dewar & Dutton, 1986) and the other pertained to management innovation and its four subsets (Hill, 2003; Sheremate, 2004; Li, 2004). Both questionnaires were analysed for their internal reliability and validity, and subsequently sent out to 400 start-up entrepreneurs in China. A total of one hundred and fifty two (152) valid responses were received and used for statistical analysis.

6. Finding and Discussion

a. Statistical analysis techniques

The reliability and validity of the questionnaires were analysed. Pearson's correlation analysis was employed to analyse the relationship between technological innovation and management innovation.

The formula for the coefficient of correlation "r" is as follows:

$$\gamma = \frac{\sum_{n=1}^{n}\left(x_i - \bar{x}\right)\left(y_i - \bar{y}\right)}{\sqrt{\sum_{i=1}^{n}\left(x_i - \bar{x}\right)^2 \sum_{i=1}^{n}\left(y_i - \bar{y}\right)^2}}$$

The Coefficient of correlation "r" measures the strength of the correlation between two variables (Pallant, 2005). Colton (1974) pointed out that Pearson correlation coefficient values from 0.75 to 1.00 or from -0.75 to 1.00 are deemed strong; values from 0.5 to 0.75 or from -0.5 to -0.75 are deemed moderate; values from 0.25 to 0.5 or -0.25 to 0.5 are deemed fair; and values from 0 to 0.25 or 0 to -0.25 are deemed weak. (Colton, 1974)

b. Construct validity analysis

To test the construct validity of the questionnaire, factor analysis using SPSS was carried out. Results from the factor analysis of both the questionnaire items on technological innovation and management innovation are as follows:

Table 1. KMO and Bartlett's Test (1)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy:	.873	
Bartlett's Test of Sphericity	Approx. Chi-Square	836.873
	df	21
	Sig.	.000

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.654	66.480	66.480	4.654	66.480	66.480	3.422	48.885	48.885
2	1.075	15.358	81.838	1.075	15.358	81.838	2.307	32.953	81.838
3	.379	5.416	87.254						
4	.310	4.422	91.676						
5	.267	3.816	95.492						
6	.210	2.997	98.490						
7	.106	1.510	100.000						

Extraction Method: Principal Component Analysis.

Table 2. Factor Analysis Testing of Technological Innovation

Dimension	Variable (Item)	Rotated Factor Loadings	
		Radical innovation	Incremental innovation
Radical innovation	RINN01: New functional products	**.872**	-.271
	RINN02: New technological ideas	**.862**	-.304
	RINN03: New technologies in the industry	**.834**	-.259
	RINN04: Based on breakthrough concept	**.896**	-.265
Incremental innovation	IINN01: Based on style and services	-.111	**.894**
	IINN02: Improve technologies gradually	-.460	**.747**
	IINN03: Improve products and processes gradually	-.379	**.807**

The obtained KMO value is 0.873, greater than 0.5(Kaiser, 1974; Fred, 2005), and the Bartlett's test implies suitability for factor analysis with significance level less than 0.05 (Qiu, 2005). As shown in the table above, the significance level of KMO is $p<0.05$. The table above shows that the total eigenvalues of the two factors explained 81.838% of variance. The factor analysis is appropriate in this study.

Table 3. KMO and Bartlett's Test (2)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy:			..890						
Bartlett's Test of Sphericity			Approx. Chi-Square	900.271					
			df	66					
			Sig.	.000					
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.585	66.480	46.544	5.585	46.544	46.544	3.679	30.660	30.660
2	1.630	15.358	13.587	1.630	13.587	60.131	2.464	20.532	51.192
3	.954	5.416	7.948	.954	7.948	68.079	2.026	16.887	68.079
4	.758	4.422	6.318						
5	.586	3.816	4.881						
6	.513	2.997	4.272						
7	.447	1.510	3.727						
8	.386		3.220						
9	.352		2.937						
10	.315		2.626						
11	.249		2.078						
12	.223		1.861						

Extraction Method: Principal Component Analysis.

Dimension	Variable (Item)	Rotated Factor Loadings		
		Structure innovation	Style	Idea innovation
Idea innovation	IDI01: Propose a new concept of development	.061	.006	**.784**
	IDI02: Proposed new development strategy	.101	.269	**.791**
	IDI03: Innovative production and management ideas	.192	.062	**.800**
Structure innovation	STRI01: Reform institutions	**.757**	.339	.143
	STRI02: Adjust job responsibilities	**.782**	.256	.161
	STRI02: Adjust sector relationships	**.803**	.245	.140
Style innovation	STYI01: Improved management style	.389	**.784**	.058
	STYI02: Improvement of personnel management	.277	**.816**	.162
	STYI03: Innovation of internal management	.334	**.788**	.125
System innovation	SYSI01: New management techniques.	**.605**	.409	.133
	SYSI02: Improved management processes	**.741**	.211	.125
	SYSI03: Management system of innovation	**.737**	.180	.020

Data Source: In statistical table by SPSS 13.00

As shown in the above table on management innovation, the obtained KMO value is 0.890, greater than 0.5(Kaiser, 1974; Field, 2005), and the Bartlett's test implies suitability for factor analysis with significance level less than 0.05(Qiu, 2005). Significance level of KMO is less than 0.05. The total eigenvalues of the three factors explained 68.079% of variance. The use of factor analysis in this study is appropriate.

c. Internal reliability testing

Cronbach's Alpha test was carried out to estimate the reliability of the questionnaire. Results from the internal reliability testing of both the questionnaire items on technological innovation and management innovation are as follows:

Table 5. Internal Reliability Statistics of Management Innovation

Dimension	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Cronbach's Alpha if Item Deleted	
Radical Innovation	.936	.937	RINN01 RINN02 RINN03 RINN04	.917 .935 .905 .906
Incremental Innovation	.847	.850	IINN01 IINN02 IINN03	.840 .761 .741
Idea Innovation	.734	.737	IDI01 IDI02 IDI03	.711 .597 .622
Structure Innovation	.884	.885	STRI01 STRI02 STRI03 SYSI01 SYSI02 SYSI03	.854 .856 .853 .876 .868 .875
Style Innovation	.849	.849	STYI01 STYI02 STYI03	.767 .788 .811

Data Source: In statistical table by SPSS 13.00

The table shows that all Cronbach's Alpha values are within the range of Nunnally (1978)'s acceptable reliability coefficient. This remains so, when analysis of the item-total of the statistics (after deleting specific questions in the questionnaire) reveals values lower than the original Cronbach's Alpha. Thus, retaining all the items in the questionnaire would ensure that internal reliability is optimal. Additionally, all of the questionnaires have an acceptable reliability of Cronbach's alpha value of 0.7 and above.

d. Updated hypotheses in research

Based on the analysis above, the updated hypotheses are as follow:

H1: There is a positive correlation between radical innovation and idea innovation.
H2: There is a positive correlation between radical innovation and structure innovation.
H3: There is a positive correlation between radical innovation and style innovation.
H4: There is a positive correlation between incremental innovation and idea innovation.
H5: There is a positive correlation between incremental innovation and structure innovation.
H6: There is a positive correlation between incremental innovation and style innovation.

e. Statistical research based on the Pearson's correlation analysis

Pearson's correlation analysis was carried out, based on 152 effective questionnaires to test the correlation between each factor of technological innovation and management innovation.

1. Correlation between radical innovation and management innovation (Related hypotheses: *H1, H2, H3*)

Table 6. Pearson's Correlation Analysis: Correlation between radical innovation and management innovation

Technological Innovation	Management Innovation		
	Idea Innovation	Structure Innovation	Style Innovation
Radical Innovation	.334**	.692**	.605**
Sig. (2-tailed)	.000	.000	.000
N	152	152	152
**p<.01			
*p<.05			

Table 6 exhibits the correlation between radical innovation and management innovation in the study. It shows a fair and positive relationship between radical innovation and idea innovation with Pearson's 'r'=0.334. 'H1' is accepted. Radical innovation is also positively associated with structure innovation and the relationship is moderate; Pearson's 'r'=0.692 and 'H2' is accepted. There is a moderate association between radical innovation and style innovation which had a Pearson's 'r'=0.605. 'H3' is accepted.

2. Correlation between incremental innovation and management innovation
(Related hypotheses: *H4, H5, H6*)

Table 7. Pearson's Correlation Analysis:
Correlation between incremental innovation and management innovation

Technological Innovation	**Management Innovation**		
	Idea Innovation	**Structure Innovation**	**Style Innovation**
Radical Innovation	-.124	-.516**	-.459**
Sig. (2-tailed)	.128	.000	.000
N	152	152	152
** $p<.01$			
* $p<.05$			

Table 7 exhibits the correlation between incremental innovation and management innovation in the study. At P>0.05, there is not a significant correlation between incremental innovation and idea innovation, indicating no association between both the variables. 'H4' is not accepted. Incremental innovation is negatively associated with structure innovation, in a moderate relationship. Pearson's 'r'=-0.516 and 'H5' is not accepted. The acceptable conclusion is that there is a negative correlation between incremental innovation and structure innovation. There is negative association between incremental innovation and style innovation which has a Pearson's 'r'=-0.459. 'H6' is not accepted. . The acceptable conclusion is that there is a negative correlation between incremental innovation and style innovation.

7. Conclusions, Limitations and Suggestions

This study combines structure innovation and system innovation in entrepreneurs' start-up phase based on the results of factor analysis – loading to the combined form of "structure innovation". This indicates that structural adjustments within organisations and department would include aligned changes to the management system, management tools and workflow.

The study also shows that the adoption of radical innovation by start-up entrepreneurs typically involves management innovation with significant positive correlations between radical innovation and the three management innovation subsets: Idea innovation, Structure innovation and Style innovation. However, a negative correlation was found between structure innovation and style innovation for start-up entrepreneurs who preferred to adopt incremental innovation in technological innovation. This finding reflects a degree of disinclination among such entrepreneurs to make large-scale changes to their structure and style. Further study will be useful in deriving a more definitive reason.

The biggest limitation of this study would be the complicated and diverse environment within which entrepreneurship activities are carried out. Any of these factors can support, inhibit or moderate the nature and extent of innovations. These include the trends of economic development, national policies, business conditions, regional differences and the conditions of competitive market. Further research can examine how different environmental variables influence the different types of innovation, with consequent effects on the performance of start-up entrepreneurs.

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“It is not how many ideas you have, it is how many you make happen”

– Advertisement of Accenture

Determinants of Under-pricing of Graded IPOs in the Indian Capital Market

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Abstract

This research paper reports on the company specific and market sentiment related factors that influence under-pricing of Graded Initial Public Offerings (IPOs) between 2007 and 2013, in the context of the Indian capital market. Company specific factors include the pre-issue financial position, corporate governance, and post issue promoter holding, firm age at the time of the issue, reputation of the lead manager of the issue, reputation of the credit rating agency, IPO Grade, and the appetite of the retail and institutional investors. Market sentiment related factors are the change in the money supply, Foreign Institutional Investor's (FII) inflow, Price to Earnings (PE) ratio of the market, and market return. Of these factors, only the reputation of the credit rating agency, appetite of the retail and institutional investors, Foreign Institutional Investor's (FII) inflow, post issue promoter holding, board size, issue size have no bearing on the listing day returns. The all other factors have either, positive or negative influence on it.

Keywords: Under-pricing, IPO Grade, Market Sentiment, Corporate Governance

Introduction

Business expansion in corporate entities results in a change in their capital structure, which may result in a change of ownership structure (Rani & Kaushik, 2015). Pecking order theory, as propagated by Myers (1984), and subsequently supported by the other researchers (Graham and Harvey, 2001; and Zhao et al., 2004), states that corporate entities first use retained earnings, then debt instruments, followed by raising equity capital. Raising equity capital from the public in turn leads to change in ownership structure; subsequently resulting in the change in performance of companies (Mayur and Kumar, 2009).

Existing literature reveals that, immediately after listing, companies show positive returns, with respect to issue price (Rock, 1986; Ritter, 1991; Ghosh, 2005; and Hasan etal.,20l3).

Salient Features of Indian Capital Market:

Grading of fixed-income instruments is a universally accepted feature. The Indian capital market regulator, the Security Exchange Board of India (SEBI), has coined a new concept that involves the grading of equity instruments.

At the time of the Indian independence in 1947, the country probably had the best formal financial markets in the developing world (Allen, Chakrabarti, & De, 2007). The Indian equity market had since seen a complete transformation, after the formation of SEBI in 1988. Post 1991, India's liberalisation of the economy also gave impetus in that direction.

Under the reforms initiated by SEBI, centralised power to determine pricing of equity issues gave way to information dissemination in the public domain. These led to stricter information disclosure norms, Book Building (BB) of Issues, IPO Grading, Applications Supported by Blocked Amount (ASBA), etc.

According to SEBI guidelines, a book built issue has to be allocated to Retail Institutional Investors (RII), Non Institutional Investors (NII), and Qualified Institutional Bidders (QIBs) in the ratio of 35 :15 :50 respectively. Retail investors, by definition refer to investors who put in less than Rs.200,000 in an issue.

QIBs are large institutional investors such as scheduled commercial banks, mutual funds, venture capital funds, and insurance companies who are registered with the SEBI. NIIs are those who bid for an amount greater than Rs.200,000 in an IPO.

IPO Grading

SEBI introduced IPO grading in April 2006, on a voluntary and optional basis for one year, until 30th April, 2007. The experiment was not successful. During this period, out of the 40 companies which tapped the primary market, only 4 approached the Credit Rating Agencies (CRAs) for Grading. Eventually, none of these 4 companies accepted the Grade assigned. SEBI made IPO Grading mandatory with effect from May 1, 2007, only to make it optional again in December, 2013.

IPO grading framework

Table 1. SEBI IPO Grading Scale.

Grade / scale	Grading Definition
5/5	Strong Fundamentals
4/5	Above Average Fundamentals
3/5	Average Fundamentals
2/5	Below Average Fundamentals
1/5	Poor Fundamentals

Credit Rating Agencies (CRAs) use the guidelines to grade companies on the following parameters:

a. Business Prospects and Competitive Position

i. Industry Prospects
ii. Company Prospects

b. Financial Position
c. Management Quality
d. Corporate Governance Practices
e. Compliance and Litigation History
f. New Projects—Risks and Prospects

Although the costs of the Grading are to be borne by the IPO bound firm, the rating agency is aware of its reputational stake in the longer term, as the post listing relative performance of the companies, with respect to their Grade, would be tracked by investors and analysts alike.

In the Indian context, book built IPOs were found to be less under-priced compared to non-book built IPOs (Bubna and Prabhala , 2007). Research has further shown that under-pricing was not dependent on IPO Grades (Banerjee, 2014; Khurshed et al., 2011).

This present research endeavour is an attempt to understand whether certain company specific and market sentiment related variables affect under-pricing of Graded IPOs, in the context of Indian capital market.

Literature review

The IPO is considered to be one of the most significant events in the life cycle of a company (Celikyurt, Selvilir, & Shivdasani, 2010; Latham, &Braun, 2010).

Various explanations have been offered to explain under-pricing, including the most popular theory, which is that of information asymmetry, among the issuer, investment banker, and various types of investors (like informed and uninformed investors) (Baron, 1982; and Rock, 1986). Under-pricing can act as a signal to prospective investors (Allen and Faulhaber, 1989; Grinblatt and Hwang, 1989), and as a hypothesis with respect to certification (Beatty, 1989; Megginson and Weiss, 1991; and Marisetty and Subrahmanyam, 2006). According to Gulati (2009), information available in the public domain can explain the extent of under-pricing in the IPOs, a conclusion he reached, on the basis of book built IPOs in India, from the 2005 to

2009 period. According to Bakke et aI. (2011), rational investors use firm specific information, to gain (through under-pricing) in bear market conditions. This was also corroborated by Murugesu and Santhapparaj (2010).

In the literature related to IPO listing, short term positive return is found to be due to 'overreaction', termed as 'mispricing'. Mispricing can be explained as bubbles created due to speculation, and the noise trading hypothesis (Rani & Kaushik, 2015). Also under-pricing occurs in the short run, as post listing and mispricing arises in the initial trading, i.e. on the listing day (Tinic, 1985).

Although there is no precedence of formal certification in the equity market, informal certification comes in the form of past performance by the company, the reputation of the lead banker, and analysts' recommendations. Informal certification has an effect on a company's role and thus is important as a signal for investors. For example, there is a vast body of research in the developed countries regarding underwriter reputation. Among the prominent studies are those of Logue (1973), Beatty and Ritter (1986), Titman and Trueman (1986), Masksimovic and Unal (1993) and Cater, Dark, and Singh (1998). They found that the under-pricing of IPOs brought to the market by reputable underwriters is lower than those brought by non-reputable underwriters. However, according to some researchers, informal certification does not work in the Indian context (Khurshed, Paleari, Pande, & Vismara, 2011).

There are evidences that investors often fail to objectively assess IPOs as they suffer from behavioral biases (Ljungqvist, Nanda, & Singh, 2006). Therefore, IPO grading should be aimed at making the job easier for the investors, as the grade categories reduce the fundamental quality of a company into " easy-to-use " symbols, from 1 to 5 (Jacob & Agarwalla, 2012).

On the impact of IPO Grading on investor demand, Deb and Marisetty (2010), based on a small sample of 48 companies, were of the view that retail investors show greater affinity to higher graded issues,. Khurshed et al. (2011) argued that grading positively influences the subscription pattern of the institutional investors, which in turn, positively impacts the retail subscription level. Banerjee, Rangamani, & Banerjee (2013) concluded, on the basis of a sample size of 162 companies, that the differences in retail investor's subscription level of IPOs of different grades are not statistically significant.

Poudyal (2008) and Sharma et al. (2011) analysed graded IPOs, and concluded that higher Graded IPOs had lower under-pricing, lower liquidity, and higher subscription.

The market timing of IPOs has also been studied quite extensively. According to a study on IPOs, they create clusters, to give the impression that they are taking advantage of windows of opportunity (Ibbotson & Jaffe ,1975). Scharfstein and Stein (1990), Bikhchandani, Hirshleifer, and Welch (1992), as well as Welch (1992) showed that some investors may ignore their own information and follow the decisions of other investors.

Pastor and Veronesi (2005) argued that the number of IPOs change over time in response to time variations in market conditions. The IPO market served as an economic indicator in both practice and academia due to its proven pro-cyclical nature (Lowry, 2003). During an economic expansion, IPOs experienced a boom market, characterised by an increased number of firms tapping primary markets to raise resources. Bear markets occurring during a recession exhibited low levels of IPO activity (Blum, 2011). Lowry (2003) and He (2007) were of the view that variation in IPO volume over different time periods cannot fully be explained by financing requirements. Burgstaller (2009) suggested that firms issue equity following periods of high stock market valuations to benefit from the accompanying low cost of equity. Loughran, Ritter, and Rydqvist (1994) concluded that issuers " timed " their IPOs by floating the issue when market sentiment was positive. This was consistent with the findings of Lee, Shleifer, and Thaler (1991) that more companies get listed when investor sentiment was higher. Brau and Fawcett (2004), in a survey of 336 Chief Financial Officers, found that while considering an IPO, the timing of the issue was uppermost in their mind. Rosen, Smart, and Zutter (2005) found that firm quality did not differ significantly among firms that accessed primary market at the boom or the bust time.

There is also ample literature available on the relationship between money supply and equity market cycles. According to Sprinkel (1964), a bear stock market was predicted 15 months after each peak in monetary growth, and a bull market was predicted 2 months after each monetary trough was reached. Homa and Jaffe (1971) in their research concluded that the average level of stock prices was positively related to the money supply. However, Pesando (1974) was of the opinion that a structural

and stable relationship between money supply and common stock prices was not there. Similarly, Kraft and Kraft (1977) used time series analysis and found no causal relationship from money supply to stock prices. Pearce and Roley (1983) examined the effects of money supply news on stock prices, and found a negative relationship between unanticipated increases in the money supply and stock prices. Jain (1988) also noted that announcements about money supply were significantly associated with stock price changes. Karamustafa and Kucukkale (2003) showed that money supply was co-integrated with stock returns with respect to the Turkish equity market.

Jiranyakul and Brahmasrene (2007) showed, in the context of the equity market of Thailand, that money supply had a positive impact on the Thai stock market. Based on the studies we can hypothesise that the quantum change in the money supply (M3) can be taken as a factor that determines market condition. Similarly, the market return of the benchmark index of the equity market can be taken as a proxy factor for the market condition (Cosh, Guest & Hughes, 2006).

According to Shrivastav (2013), FIIs played a big role in shaping the sentiments of the Indian equity market and in wielding significant influence on its movement. Raj (2003), discussed the FII investment inflow and its impact on the Indian economy. Analysing the daily flow data, he concluded that the stock market performance had been the sole driver of FII flows, though monthly data in the pre-Asian crisis(1998) period suggested some reverse causality. Kumar (2001) concluded that Indian Mutual Funds and FIIs were the most powerful forces driving the Indian equity market. According to Chittedi (2009), FIIs were responsible, to a great extent, for the liquidity as well as the volatility of stock prices in India. According to Sehgal and Tripathi (2009) FIIs displayed strong herding behaviour based on quarterly shareholding pattern. Pal (2004), said that foreign institutions with their huge volume of investment, could act as the market makers. So, it was evident that FII inflows affected market sentiment. Banerjee (2013) showed that although there was a significant difference in terms of prior market return in the time frame when fundamentally different companies accessed the primary market, there was no such proof in terms of the change in the money supply in the economy in the post mandatory IPO Grading regime in the Indian capital market.

Similarly, some of the factors that determined investor interest included Return on Net Worth (RONW) of the IPO bound companies, issue size, and post issue promoter holding (Jacob et. al., 2012). An important factor in the success of an IPO was whether

the grading was done by an international agency or a domestic agency (Khurshed et. al., 2011). The financial performance of the company preceding the issue played an important role, to signal to the prospective investors regarding the quality of the issue.

According to Bhushan (2013), Credit Rating Agencies (CRAs), existed primarily to evaluate the creditworthiness of corporate borrowers. Investment bank reputation played a positive role in the subscription level of institutional investors in the IPOs in the Indian context (Khurshed et. al.,2011).

Corporate Governance in the Listed Companies

In most of the publicly listed companies, there is a clear division between the shareholders, the board of directors, and the management. Even then, certain functions overlap between these three stakeholder groups. Therefore, it is important to appreciate why these distinctions between the three groups are necessary.

From a non- promoter investor's point of view, the decision to participate in the stock exchange requires the knowledge and awareness of the available financial instruments, an assessment of the risk-return trade off, and an act of trust, that the overall system is fair (Guiso & Jappelli, 2005). Many prospective investors shy away from the stock market because they have limited knowledge of stocks, of how the stock market works, and of asset pricing (Van Rooij, Lusardi, & Alessie, 2011). The decision to invest in stocks requires not only an assessment of the risk-return and trade-off, given the available data, but also an act of faith (trust) that the data in the possession of the investors are reliable, and that the overall system is fair (Guiso, Sapienza,& Zingales,2008).

Corporate governance of IPO bound firms is important in this context. The presence of qualified independent directors, in the board of directors, is one of the cornerstones of good corporate governance practices. The independent directors should bring to the table, the relevant expertise and experience to advise the management on the future course to be taken. Since the independent directors are not expected to have any conflict of interest, their advice should strengthen the management and benefit all the shareholders, especially the non-promoter share-holders (Weisbach, 1988; Warner, Watts, & Wruck, 1988). There is a plethora of literature available on the presence of independent directors in the board and the firm quality. For example, companies with

more independent directors recognize bad news in their financial reporting earlier.

(Ahmed & Duellman,2007). Certain studies concentrating on the emerging economies showed that greater representation of the independent directors in the board increased the quality of financial data disclosures (Peasnell, Pope &Young, 2000; Klein, 2002; Davidson, Goodwin-Stewart, & Kent,2005).

Similarly, there is literature available on the size of the board and its relationship with the functioning of the companies. A larger board leads to issues of coordination and communication, and it affects the functioning of the board, resulting in the poor performance of the companies (Lipton & Lorsch, 1992; Jensen, 1993). This view has also been empirically demonstrated, by Yermack (1996) as well as Eisenberg, Sundgren, and Wells (1998).

One of the salient features of Indian society is that the family continues to be one of the basic units (Chokkar, 2009). A family-owned enterprise is a phenomenon that transcends national boundaries. According to some previous studies, more than half of the businesses worldwide are family-owned (Timmons & Spinelli,2007). In the Indian context, the agency problem typically exists between the dominant or majority shareholders (in most of the cases promoter or promoter family, as they are called) and the minority shareholders (i.e. type two of the agency problem). About 70% of Indian firms are family controlled (Piramal, 1996). As seen in most of the Asian countries, like the keiretsus in Japan and the chaebols in South Korea, India is dominated by business groups. In this scenario, it is possible to have independent directors whose appointments are based on their proximity to the promoter group, irrespective of their competencies and exposure to other companies and relevant business models. Such situations would likely to lead to poorer corporate governance standards.

Objectives of the Research

The objective of this research is to understand whether market specific and firm specific factors affect graded IPOs in the Indian capital market, as far as under-pricing is concerned.

Among the firm specific parameters being considered are (i) Pre issue return on net worth (RONW) of the company, on a standalone basis; (ii) Pre issue debt to equity

(DE) ratio of the company; (iii) Post issue promoter holding of the company; (iv) Firm age of the company, at the time of the IPO; (v) Issue size, in terms of the amount of money (in Indian Rupees) being raised in the IPO; (vi) Whether the IPO is managed by a reputed lead manager; (vii) Whether the IPO is graded by a reputed credit rating agency; (viii) Grade being obtained by the IPO; (ix) The number of directors in the board; (x) Number of independent directors in the board.

Some factors related to the market sentiment are also being considered. They are: (i) Change in money supply (M3), (ii) Change in FII inflow, (iii) Market PE, and (iv) Market return.

Also taken into account is the appetite of (i) Retail investors, and, (ii) Institutional investors.

Hypotheses of the Research

The Null Hypotheses of this research are as follows:

H01 – The IPO Grade being assigned to a company has no effect on the extent of under-pricing of the IPO.
H02– The reputation of the lead manager of the IPO has no effect on the extent of under-pricing of the IPO.
H03 – The affiliation of the Credit Rating Agency has no effect on the extent of under-pricing of the IPO.
H04 – The total number of directors in the board, has no effect on the extent of under-pricing of the IPO.
H05– The number of independent directors in the board, has no effect on the extent of under-pricing of the IPO.
H06 – The size of the issue has no effect on the extent of under-pricing of the IPO.
H07 – The firm's age has no effect on the extent of under-pricing of the IPO.
H08 – The post issue promoter holding (in percentage) has no effect on the extent of under-pricing of the IPO.
H09 – The RONW of a company has no effect on the extent of under-pricing of the IPO.
H010–The DE ratio of a company has no effect on the extent of under-pricing of the IPO.

H011 – The appetite of retail investor's has no effect on the extent of under-pricing of the IPO.

H012 – The appetite of institutional investor's has no effect on the extent of under-pricing of the IPO.

H013 – The change in the inflow of FII investment has no effect on the extent of under-pricing of the IPO.

H014 – The prior market return has no effect on the extent of under-pricing of the IPO.

H015 – There is no effect of the market PE (Price to Earnings) ratio on the extent of under-pricing of the IPO.

H016 – The change in the money supply (M3) has no effect on the extent of under-pricing of the IPO.

Research Methodology

The data were collected from the Capital Market, SEBI and BSE (Bombay Stock Exchange) databases. SPSS version 16.0 was used for data analysis. Under pricing was calculated as the difference between the offer price and listing day closing price, adjusted for the difference in the benchmark index (BSE Sensex, in this paper) between these two dates (Khurshed et al.,2011).

The Lead manager of the IPO is used as a dummy variable. Any Indian merchant banking company featuring in the top ten list (by market share) in India is regarded as a reputed merchant banker. Similarly, any multinational investment bank featuring in the top ten list worldwide, is considered a reputed lead manager.

The Indian merchant bankers, who feature in the top ten list are Kotak Mahindra Capital, Axis Capital (formerly Enam Securities) and SBI Capital, based on the data compiled by Bloomberg in the first seven months of calendar year 2013. Among the multinational investment banks, the top ten investment banks worldwide, based on revenue are considered as reputed investment bankers. Based on data collated by the Financial Times, the UK, for the first three quarters of calendar year 2013, these banks include JP Morgan, Bank of America, Merill Lynch, Goldman Sachs, Citi, Deutsche Bank, Barclays, Credit Suisse, Wells Fargo and UBS. Reputed merchant bankers are assigned 1; other merchant banks are assigned a value of 0.

The RONW (Return on Net Worth) and the Debt to Equity (DE) ratio figures are collected from the RHP of individual companies. RONW is considered for the standalone company only, where as in DE ratio, total debt to equity ratio is considered.

For market return, three months prior (to the IPO process) return of 30 share benchmark BSE (Bombay Stock Exchange) Sensex is considered. Similarly, for market PE, prior three months average PE of Sensex is considered. The change in money supply and FII investment inflow to India are also considered in the same fashion. As the change in both money supply and FII inflow are taken into account, they are stationary data and can be subjected to OLS (Ordinary Least Square) Regression. The post issue promoter holding is taken in percentage form. It is the proportion of the total equity share that is being held by the promoter group post the IPO process.

The data related to the total number of directors and the number of independent directors, as well as whether the majority of the independent directors, have any other board membership, are collected from the RHP of the IPO bound companies. The firm age is calculated, on the basis of its year of incorporation, at the time of its IPO.

The number of times of subscription of the portion earmarked for the retail investors in the IPO is taken as the proxy for the retail investors' appetite. Institutional investor's appetite is taken in the same fashion.

There are five Credit Rating Agencies (CRA) registered with SEBI to grade IPO bound companies. Among these CRAs are, (1) CRISIL an affiliate of Standard & Poor (S&P), a world renowned rating agency, (2) international rating agency Moody's, the largest shareholder of ICRA, and (3) India Rating and Research (earlier Fitch India), the Indian subsidiary of Fitch. S&P, Fitch, and Moody's are recognised as Nationally Renowned Statistical Rating Organisations (NRSRO) of the Securities and Exchange Commission (SEC) in the United States. CARE and Brick Work (BW) are India-based domestic credit rating agencies. In this paper, credit rating agencies are used as dummy variable, for the purpose of regression. The NRSROs are assigned the value of 1,whereas the domestic agencies are assigned the value of 0.

There are seven independent variables, i.e. Firm Age, Number of Directors in the Board, Number of Independent Directors, Return on Net worth(RONW), Debt to Equity(DE) ratio, Issue Size and Market PE. The natural log of base e is taken, to make them normally distributed.

Empirical Results and Analysis

The table below depicts both the unstandardised and the standardised coefficients of regression equation.

Table 2. Regression with IPO Under-pricing as Dependent Variable

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-.502	.187		2.685	.008
Ln_BoardSize	-.069	.041	-.146	1.673	.097
Ln_FirmAge	-.010	.008	-.056	1.285	.001
Ln_Ind_Dir_No	.030	.039	.064	.772	.041
Ln_DERatio	-.003	.003	-.045	-.973	.032
Ln_MktPE	.115	.060	.091	1.910	.058
Ln_Issue_Size	.002	.008	.024	.306	.760
IB Reputation	-.038	.018	-.144	2.096	.038
Retail Subscription	.000	.001	-.034	-.500	.618
FII_Inflow	.000	.002	-.016	-.375	.708
PIPH	.000	.000	.046	.963	.338
Money Supply	.012	.009	.057	1.270	.006
QIB_Subscription	.000	.000	.106	1.525	.130
Ln_RONW	.144	.007	.897	19.609	.000
Credit Rating Agency Affiliation	.015	.012	.058	1.243	.216
Market_Return	.024	.019	.065	2.543	.003
IPO Grade	.014	.009	.103	1.600	.012

a. Dependent Variable: Under-Pricing

As the table above shows, 9 factors, out of the 16 factors examined, have statistically significant effects on under-pricing of IPOs at 5% level of significance. These factors are i) Firm Age, iii) Number of Independent Directors, iii) DE Ratio, iv) Market PE,

v) Market Return, vi) Investment Bank's (IB) Reputation, vii) Money Supply, viii) Return on Net Worth (RONW), ix) IPO Grade.

Out of these factors, based on standardised beta coefficients, RONW has the biggest influence on Under-pricing, followed by Investment Bank Reputation. Other factors in the descending order of influence are IPO Grade, Market PE, Market Return, Number of Independent Directors, Money Supply, Firm Age, and DE Ratio.

The value of unstandardised coefficients of beta determines whether these values have positive or negative influence on Under-pricing. According to these values the following factors have positive influence on under-pricing: Number of Independent Directors, Market PE, IPO Grade, Market Return, RONW, Money Supply. On the other hand Firm Age, DE Ratio, Investment Bank Reputation, have negative influence on Under-pricing.

Conclusions

This study shows that a higher RONW clearly leads to higher under-pricing resulting in better initial day return. This is in accordance with the existing theory that companies with higher RONW, would have higher demand from investors, thus, leading to their increase in price after listing. Similarly higher IPO Grade indicates better fundamentals in a a company, so higher investor interest post listing can be attributed to the increase in price for these companies post listing. Higher representation of Independent Directors in the board indicates a good quality professionally managed company, so increased post listing interest for these companies is also understandable. It is also found that market sentiment related parameters such as Market PE, Market Return, and Money Supply, have positive relationships with Under-pricing. As higher value for these factors indicate a bullish market sentiment, post listing investors show a higher appetite in these conditions, increasing Under-pricing.

Firm Age has a negative impact on Under-pricing, indicating that investors do not seem to favour older companies Similarly, a higher DE Ratio indicates higher risk, so there is less Under-pricing for these companies. Highly reputed investment banks price the issues more aggressively; as a result, Investment Bank Reputation has a negative relationship with Under-pricing. These findings are significant additions to existing literature, especially in the context of the Indian capital market.

Limitations of Study

The present study was done on data collected for a time period of around six and a half years. A study based on data collected over a much longer period of time may yield more useful findings. . Future research undertakings using other company specific parameters such as Return on Asset, Return on Equity etc. can also be undertaken to investigate their impact on Under-pricing. Similarly, market sentiments-related macro-economic parameters like Gross Domestic Product (GDP) growth rate of the country, Current Account Deficit of the country etc. can also be studied for their impact on Under-pricing of IPOs.

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“You can’t build a reputation on what you are going to do”

– Henry Ford

Branding Strategies of Management Institutes

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Abstract

Branding as a competitive strategy has gained prominence in the marketing of higher education. Increased competition among prestigious national and international institutes and universities has resulted in an energetic search for uniquely identifiable features. In particular, the management institutions of National Capital Region (NCR) of Delhi endeavour to establish and preserve their reputation and status within the region. The present paper seeks to explore the branding strategies that were deemed to facilitate the development of the brand image of b-schools. Factor Analysis was employed to identify the strategies which can influence the perception of students in the selection of their prospective b-schools. The analysis of demographic profile of students (including their gender, age, and family income) reveals the differences in their preferences based on those strategies.

Keywords: Brand, branding strategies, management institutes, students, preferences, NCR, Delhi.

Introduction

Branding began a thousand years ago "when artisans and tradesmen started putting identifying marks on their products—both as a point of pride and as a sign of quality". Branding assists in reducing the level of effort a consumer must put into assuring a specific, desired level of quality, lowering the perceived risk of making a costly mistake, and providing a certain psychological reward to the consumer such as prestige or status. (Wolpert, 1999). In the 21st-century, marketers of brands must excel at the strategic brand management process. Strategic brand management combines the design and implementation of marketing activities and programs to build, measure, and manage brands to maximise their value. The strategic brand management process has four main steps- 1). identifying and establishing brand positioning; 2). planning and implementing brand marketing; 3). measuring and interpreting brand performance; 4). growing and sustaining brand value with brand positioning (Kotler and Keller, 2013).

Strategy is a long-term plan of an organisation. It defines the overall mission, vision, and direction of the progress of firms. A robust strategy becomes a driving force for organisations to reach potential students at an emotional level and create a long-term relationship. It also helps in the proper channelisation of internal factors which show transparent and value–based messages for the service firms. In the context of this present research, branding refers to those distinctive compelling factors or unique selling proposition (USP) of management institutes which motivate students to join it or be associated with it. Accordingly, branding strategies of management institutes involve long term planning of those exclusive features that signify the differentiation or advantage over other competitive institutes. These strategies assist in maximising the strengths of the organisation and minimising threats from the competitors.

Branding strategies should be precise since it creates a direct impact on the competitors, employees, and stakeholders of the institutions. "Branding isn't just about a single logo or advertisement, it is a series of events that can be put together to form a clear picture. This picture says what you sell, how good you are, and why consumers should buy your services" (enewsline, 2010). At present time, students are greatly inclined towards brands and aspire to graduate from the a b-school which has reputation and recognition. They are net-savvy and seek any information through word-of-mouse rather than conventional word-of-mouth. The increased expectations

of students have encouraged the authors to study current and emerging innovations of branding strategies that have contributed to developing the brand image of b-schools in the NCR.

Literature Review

In the earlier years, branding of management institutes was given scant recognition, given that management education in India was then a new development. Matthai (1980) noted that the Indian Institute of Management, Calcutta, initiated expansion in the field of management and first applied management concepts to the field of population control. Gradually, management education institutes moved on to support industries of various sectors of the Indian economy such as agriculture, banking, transport, and energy. The role and scope of management science expanded from its narrow focus on industrial management to a wider application of its principles to the field of social sciences. Brown and Oplatka (2006) reviewed the literature available on Higher Education Marketing (HEM) and observed that in developed nations, university marketing was seen as a sign of progress, as part of a rapid development of the marketing of services to enhance the importance of relationship marketing and its application in the higher education sector. Chernatony (1999) asserted that brand marketing should be a strategic process that is visionary and integrates cross functional activities in the value-adding process. He suggested a master brand approach for many industrial companies that represented a brand strategy framework, focusing on diversified companies that can also be used in companies in different industries.

Two main variables are suggested for determining brand strategy- degree of fear, uncertainty and doubt (FUD) at the point of the buying decision, as well as the complexity of buying decision (CBD) for the customer. This framework is useful in helping companies determine both their brand strategy and their marketing communications strategies. Upshaw and Taylor (2000) strongly believes that all companies can benefit from adopting a master brand strategy, where the company name becomes the 'umbrella' over all products and services. Kapferer (1992) argued that brand strategy facilitates market segmentation. He suggested that the brand analysis can be defined precisely, in terms of:- 1. What attributes of the product or service will be materialised; 2. What advantages are created; 3. What benefits emerge; and 4. What ideals it represents. The product or service thus constituted must stand out well if it is to be noticed by the potential buyer and if the company wants to reap the benefits of its

strategy before imitation copies emerge. (Kapferer, 2012).

Fombrun (1996) suggested that prolonged existence should be a determining factor in brand strategy, and emphasised the fact that companies last longer than do portfolios of products, and portfolios last longer than do individual products and services. Urde (1999) has presented a conceptual framework which suggested that awareness is the first-step in the brand building process. Tybout and Carpenter (2001) differentiated 'functional brands'(that are bought by the consumers to satisfy functional needs), from 'image brands' (that are distinguished from competitors since customer see them as offering a unique set of associations or image) and 'experiential brands'((that focus on consumers experience when interacting with the brand). Kotler and Keller (2013) viewed branding strategy as brand architecture and found that branding a new product is critical. The authors suggested three popular strategies of branding a product:

1. Individual or separate family brand names; companies often use different brand names for different quality lines within the same product class. A major advantage of individual or separate family brand names is that if a product fails or appears to be of low quality, the company has not tied its reputation to it;
2. Corporate umbrella or company brand name; firms use their corporate brand as an umbrella brand across their entire range of products. In this strategy, development costs are lower with umbrella names. Sales of the new product are likely to be strong if the manufacturer's name is good. Corporate-image associations of innovativeness, expertise, and trustworthiness have been shown to directly influence consumer evaluations. A corporate branding strategy can lead to greater intangible value for the firm;
3. Sub-brand name combines two or more of the corporate brand, family brand, or individual product brand names. The corporate or company name legitimises, and the individual name individualises, the new product.

Rosenthal, (2003) defined branding as a "part of the promotional aspect of marketing and is extremely important to the image, reputation, and success of a product or company". Chapleo (2007) suggested that branding makes the consumer's choice process more effective and constitutes a strong argument for the applicability of branding to higher education. Ideally consumers choose to have a relationship with a brand if they trust it will deliver specific promises (Gathungu & Karoki, 2010; Victoria, 2011). Although the promotion of branding assists in innovative ways to promote

the development of a product or service, the contribution is equally as important as recognising that branding goes beyond the promotion.

The phenomenal growth of management institutions presents students pursuing higher education a wide range of options, thus creating a need for them to understand the selection criteria used by b-schools. Saeed and Ehsan (2010) highlighted the factors in developing b-schools brands in Pakistan. They found that many b-schools there were offering research-led business education and conducting more PhD programmes. The Higher Education Commission of Pakistan recognised both the importance of research in academia, and the universities' on-going need for human resources in the form of qualified faculty with considerable research credentials. The visuals like corporate logo, color schemes used in academic and professional brochure and website design of the business school served as the 'cognitive switch' for brand recall. Fattal (2010) investigated the process of student choice of universities in Syria. Two distinct issues were raised i.e. 'information' and 'criteria' by interviewing students and marketing professionals separately. The analysis revealed that information from friends, family, direct enquiry, media, current students, and ministry of higher education influenced opinions regarding universities. Additionally, teaching, administration, convenience, informal reputation, social, and economic issues have shaped the selection criteria of students.

The research uncovered thirteen motives and factors that stimulated students to pursue higher education. They clustered into three groups, covering career prospects and security, social motives, and personal motives. The author arranged the outcome of all marketing aspects into five thematic groups as- teaching and learning, customer-centered focus, finance, branding, and environment that were common and important factors for all the universities of the country. In another study, Baharun, Awang and Padlee (2010) analysed the criteria of international students' choice regarding their study destination. The analysis revealed that seven factors i.e. quality of learning environment, decision influencer, customer focus, cost of education, facilities, socialisation, and location were influential in supporting the decisions of foreign students about their study destination. However, the quality of education remained the most important factor among others. Tas and Ergin (2012) found that Turkish students selecting US universities for their studies reported that 'post graduation job and career prospects' was the most prominent criterion, followed by 'international recognition', 'accreditation' and 'location'. They believed that internationally recognised and high

ranked American universities provide solid education, high paying job prospects, and competitive careers. Harsha and Shah (2011) advocated that higher education institutions should emphasise on creating the value of its brand to attract highly talented faculty-members and students at both national and international levels. Competition, coupled with declining student enrolments in many b-schools in U.P., Rajasthan, Maharashtra, and Andhra Pradesh has led to a decline of 65 percent in the occupancy rate in b-schools in 2011-12 (Crisil, 2012). Sarkar (2011) found that the Common Admission Test (CAT) has shown a decrease in the number of aspirants between the years 2008 to 2011. Similarly, Kumar and Jha (2012) have also reported a major decline in the number of aspirants for admission tests of MBA in various institutions. They suggested strategic responses for the revitalisation of management education involving the tuning of vision and mission, leadership and governance, holistic development of faculty, pedagogical innovations, and academic industry-interface. Management institutes should conduct a macro-analysis of the environment in the context of the larger socio-economic scene. Through a customer relationship management (CRM) focus, they can then identify and reach out to those customers that enhance their profitability Ryals et al, 2000; Amirhossein et al, 2015).

Studies have been carried out, linking customer retention, customer profitability, and customer lifetime value. The longer a company keeps its customers, the more profits it can gain from them (Kutner and Cripps, 1997; Gupta and Lehmann, 2003; Amirhossein et al, 2015). Shaari and Areni (2009) investigated the 2008 top thirty B-schools listed in Financial Times Global MBA Ranking, classifying them into three categories, on the basis of brand name, URL's, logo, and symbol, as 'School dominant', 'University dominant' and 'mixed'. The analysis concluded that b-schools associated with prestigious universities tended to emphasise the 'University brand' and to take advantage of the brand-equity of its parent University. Those without a known parent university sought endorsements from the other better known universities. Endorsed brands were applicable to b-schools that have prestigious benefactors with long legacies. These formal brands helped to correct negative perceptions and increase international standing. Landroguez, Castro, and Carrion (2013) further created an integrated vision of customer value based on their findings that it is the relationship between customer value from the customer's point of view and customer value from the firm's point of view that really created value. "Branding essentially holds corporations and institutions, such as higher education institutions, accountable for the worth of the product or service they offer" (Victoria, 2011). "For a college or university, the name and

all the symbolism attached to it, either through longevity, reputation, quality, or some other factor, represent its brand" (Rosenthal, 2003). In higher education institutions, branding provides the community and prospective students, an easier way to identify and distinguish them from other schools (Victoria, 2011). As Kapferer, 2012, noted:

Brands are a direct consequence of the strategy of market segmentation and product differentiation. The first task in brand analysis is to define precisely all that the brand injects into the product (or service) and how the brand transforms it.- what attributes materialise?; what advantages are created?; what benefits emerge?; what ideal does it represent?

This research project seeks to examine the importance of branding in management institutions and the strategies which have perceived effects on students. It specifically investigates strategies based on academic attributes (what attributes materialise), services and facilities (what advantages are created and benefits emerged) ,and institutes' brand positioning (what ideals does it represent), and the effect these branding strategies could have on students in the management institutions of NCR.

Scope of the Study

The review of relevant literature on the subject matter (Kumar and Jha, 2012; Crisil, 2012; Sarkar, 2011; Harsha and Shah, 2011) highlighted the need to brand management institutions as effective ways for them to face increased competitiveness, particularly with the rapid decline in the number of aspirants for management education as well as changing corporate demands and student and stakeholder expectations. Management education institutes "need to apply a business-like, formal planning process to respond to both changing market conditions and a new marketing mindset among stakeholders in higher education institutions" (Rosenthal, 2003). "Higher education institutions also have competitors which compete on price, quality, service, and reputation. The image of institutions is largely determined by these constituents" (Black, 2008). Examining the effectiveness of branding strategies based on academic attributes, services and facilities, and institutes' brand positioning within the management institutions of NCR may allow them to determine the important factors of branding in the respective areas and their impact on the students.

Objectives

1.The present paper seeks to identify the strategies of branding specifically related to academic attributes, services and facilities, and institutes' brand positioning in management institutes in the NCR.
2. The study also aims to assess the variation of preference among students of NCR with respect to the strategies of academic attributes, services and facilities, and brand positioning of institutes.

In order to determine the significant differences among branding strategies and their impact on the students the following hypotheses are formulated.

Hypotheses

H_{01}: There is no significant difference among the strategies of academic attributes, services and facilities, and brand positioning of the management institutes of NCR.

H_{02}: There is no significant difference in the preferences of students on the basis of their demographic profile including gender, age, and family income.

Research Methodology

Data from students studying in 50 institutions in the educational belt of Ghaziabad, Greater Noida, and Noida in the NCR were collected and analysed. The sample for the study consisted of 300 BBA, MBA/PGDM, and B.Tech students. These respondents were either undertaking or planning to acquire a management degree in future. A self-administered questionnaire was prepared for the collection of data. The survey instrument was developed to effectively collect feedback from participants. The instrument was created through the following process: (a) A draft of questions was developed in order to measure the variables presented in this study; (b) A review of the questions was completed, including having them arranged in sequential order according to the topics presented (Victoria, 2011); (c) Validation experts reviewed the items in the questionnaire prior to the survey. Three out of five experts of management stream validated the questionnaire and approved its use in carrying out the survey. The data reliability test, using SPSS software indicated a Cronbach's alpha score of 0.917.

Table 1: Reliability Statistics

Cronbach's Alpha	No. of Items
.917	66

Simple random sampling method was employed for selection of the institutes and respondents for the survey. The questionnaire statements were prepared to obtain information on the strategies of academic attributes, services and facilities, and brand positioning of institutes. Factor Analysis was employed to assess if the responses to several statements are highly correlated (Boyd, Westfall, and Stasch, 1998). The statements were evaluated through Likert-type three point scale with options from agreement to disagreement. In order to reveal the significant differences in the preferences of students in relation to branding strategies of institutes Independent Sample T-test and Duncan's Comparison-of-Means Test were employed. The differences in preferences of students were analysed on the basis of their demographic profile including gender, age, and family income.

Data Analysis and Findings

The factor analytic method employed for extracting the factors was Principal Component Analysis through Orthogonal Rotation with Varimax Method and the number of factors was finalised on the basis of Latent Root Criteria. Each factor showed the initial eigen values greater than one and the loadings of variables were greater than or equal to 0.40, results indicating that they are satisfactory for the study. Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy had tested the sample sufficiency prior to the factor analysis. Additionally, Barlett's Test of Sphericity had revealed the significance of correlation matrices and supported the validity of a Factor Analysis of the data.

The hypothesis examined is:

H_{01}: There is no significant difference among the strategies of academic attributes, services and facilities, and brand positioning of the management institutes of NCR.

Factors Analysis of Academic Attributes

The academic attributes included 13 variables which demonstrated the qualitative academic characteristics of the institutes.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.864
Bartlett's Test of Sphericity Approx. Chi-Square	875.132
df	78
Sig.	0.000

Table 2.1: Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.296	33.047	33.047	4.296	33.047	33.047	2.835	21.811	21.811
2	1.190	9.156	42.204	1.190	9.156	42.204	2.651	20.392	42.204
3	.998	7.677	49.881						
4	.896	6.891	56.772						
5	.844	6.490	63.262						
6	.762	5.863	69.125						
7	.734	5.644	74.770						
8	.691	5.319	80.088						
9	.653	5.025	85.113						
10	.585	4.503	89.616						
11	.517	3.980	93.596						
12	.446	3.431	97.027						
13	.386	2.973	100.000						

Extraction Method: Principal Component Analysis.

Table 2.2: Rotated Component Matrix

	Component	
	1	2
Q3.1	-.002	.559
Q3.2	.467	.496
Q3.3	.730	.064
Q3.4	.098	.687
Q3.5	.682	.258
Q3.6	.398	.460
Q3.7	.345	.537
Q3.8	.647	.025
Q3.9	.622	.246
Q3.10	.294	.512
Q3.11	.629	.272
Q3.12	.151	.584
Q3.13	.146	.558

It is noteworthy that the value of Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.864, indicating high correlation among variables and showing that the data set is highly desirable for factor analysis. Barlett's Test of Sphericity (approx. Chi-Square 875.132 significant at 0.000) shows the validity of data set of academic attributes of the institutions for Factor Analysis. Two sets of variables were extracted which have high correlation and shows common characteristics. Both sets together accounted for 42.31 percent of total variance. They were named as the strategies of 'Interpersonal Relationship Management' and 'Institutional Credentials'.

Table 3: Factors Analysis of Academic Attributes

Label	Strategies	Factor Loadings
F1	**Interpersonal Relationship Management** (33.05 percent variance, eigen value=4.296)	
	Better relationship among students, teachers, and parents	0.73
	Organising faculty development programmes for faculty members	0.68
	More flexible faculty	0.65
	Motivated faculty	0.62
	Improved work environment	0.63
F2	**Institutional Credentials** (9.26 percent variance, eigen value= 1.190)	
	Improved educational services with advanced technology	0.50
	Opportunity provided for increased creativity and innovation to students	0.69
	Arranging Workshops/Seminars/Conferences in the institute	0.46
	Faculty / Students awards and achievements	0.54
	High attraction and retention rate of faculty enhance institute's credibility	0.51
	Diverse language and cultural skills of staff and students	0.58
	University/ Institutes academic results of the current and old students	0.56

a) Interpersonal Relationship Management: Five statements sought to identify the nature of relationships between the faculty-administration, faculty-students, and faculty-parents. The result implied that students were significantly inclined towards the value of relationship.

b) Institutional Credentials: The second strategy comprised eight dimensions. The results showed that improved educational services, advanced technology, historical background had significant impacts on students. In addition, the opportunities for creativity and innovation, workshops, seminars, and conferences in the institute, awards, and achievements for faculty and students, institute's credibility, and academic results were successful ideal traits for institutions branding.

Factors Analysis of Services and Facilities

Brand intangibles transcend physical products and are common means by which marketers differentiate their brands with consumers. (Keller and Lehmann, 2006). The education sector provides several intangible services and amenities to its stakeholders. The variables have been described through twenty-two dimensions through which students express their management institute admission-seeking preferences.

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.863
Bartlett's Test of Sphericity	Approx. Chi-Square	2122.975
	Df	231
	Sig.	0.000

Table 4.1: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.646	30.210	30.210	6.646	30.210	30.210	4.032	18.325	18.325
2	1.714	7.791	38.001	1.714	7.791	38.001	2.898	13.173	31.498
3	1.535	6.978	44.979	1.535	6.978	44.979	1.898	8.625	40.124
4	1.217	5.533	50.512	1.217	5.533	50.512	1.814	8.247	48.371
5	1.065	4.840	55.352	1.065	4.840	55.352	1.536	6.981	55.352
6	.919	4.179	59.531						
7	.861	3.914	63.445						
8	.793	3.604	67.049						
9	.734	3.336	70.385						
10	.728	3.311	73.696						
11	.707	3.214	76.909						
12	.646	2.937	79.846						
13	.600	2.727	82.573						
14	.574	2.609	85.182						
15	.540	2.454	87.636						
16	.522	2.375	90.011						
17	.477	2.168	92.179						
18	.455	2.068	94.247						
19	.376	1.710	95.957						
20	.339	1.541	97.498						
21	.333	1.516	99.014						
22	.217	.986	100.000						

Extraction Method: Principal Component Analysis.

Table 4.2: Rotated Component Matrix

	Component				
	1	2	3	4	5
Q4.1	.094	.756	.175	.152	-.153
Q4.2	.099	.696	.034	.174	.260
Q4.3	.284	.021	-.016	.662	.236
Q4.4	.004	-.033	.274	.735	.223
Q4.5	.646	.388	.135	.273	-.242
Q4.6	.625	.293	.230	.137	-.156
Q4.7	.430	.393	.030	.206	.114
Q4.8	.341	.322	.138	.484	-.057
Q4.9	.032	.118	.268	.127	.635
Q4.10	.580	.270	-.044	.297	.009
Q4.11	.651	.128	.047	.186	.235
Q4.12	.481	-.073	.323	.160	.260
Q4.13	.136	.108	.773	.117	.166
Q4.14	.331	.285	.685	.140	-.073
Q4.15	.516	.240	.358	.168	.022
Q4.16	.704	.046	.282	-.014	-.030
Q4.17	.656	.013	.309	-.028	.180
Q4.18	.622	.150	-.094	-.029	.173
Q4.19	.155	.155	-.110	.289	.658
Q4.20	.161	.670	.045	.013	.041
Q4.21	.162	.531	.345	-.182	.340
Q4.22	.215	.553	.083	-.260	.259

The analysis revealed the value of KMO is 0.863. Barlett's Test of Sphericity (approx. Chi-square 2122.975 significant at 0.000) supported the validity of the data set of services and amenities available to students for Factor Analysis. The outcome revealed five strategies that had close relationships and described 55.35 per cent of total variance.

Label	Strategies	Factor Loadings
F1	**Services Delivery** (30.21 percent variance, eigen value=6.646)	
	Experienced faculties	0.63
	Variety of curriculum offered by the institute	0.43
	Specialisations as per preference	0.48
	Placement records of Students	0.58
	Educational loan available to students	0.65
	Convenient timings/shifts	0.48
	Extremely supportive administration staff	0.52
	Easily accessible faculty	0.70
	Students' aid (like Scholarships, Concessions)	0.66
	Fee structure	0.62
F2	**National and International Status** (7.79 percent variance, eigen value= 1.714)	
	Published rankings by the media	0.70
	International Conferences and Seminars by well-known social leaders	0.67
	Diverse backgrounds of the students and experienced faculty-members	0.53
	Addition of newly developed courses in curriculum (as per corporate demand)	0.55
F3	**Academic Progression** (6.98 percent variance, eigen value =1.535)	
	Academic history	0.77
	Academic result	0.69
F4	**Convenient Location** (5.53 percent variance, eigen value =1.217)	
	Location of the institution	0.66
	Connectivity from college to home	0.74
F5	**Corroborating Factors** (4.84 percent variance, eigen value =1.065)	
	Local recognition	0.64
	Building of the institute	0.66

Five features were identified.

a) *Service Delivery*: This strategy included 11 statements covering career options, variety of curriculum, and specialisations in accordance with corporate expectations, providing experienced and easily accessible faculty, appropriate placement record of students, convenient timings and shifts, support of administration staff, provisions for students aid like educational loan, scholarships, concessions, and fee structure. These dimensions represented the services that students expected. It is evident from the result that the services delivered by the management institutes created a positive impact on the students.

b) *National and International Status*: This strategy included five statements related to the national and international recognition of the institutes. Global recognition, media rankings, and international seminars, and conferences played a significant role in enhancing the reputation of institutions. Additionally, newly developed curriculum as per corporate demand and the diverse background of students and faculty members may contribute to the employability of students.

c) *Academic Progression*: This third strategy displayed two statements on the academic evolution of the institute. The analysis revealed the impression of academic history and results on students during the selection of their prospective institutions. In order to enhance the prospects of student admission several b-schools utilised these variables for their tangible effects.

d) *Convenient Location*: The fourth strategy exhibited two statements including the accessibility of location of institutes from the vicinity area of the home-town of students. The result indicated that students preferred institutes located near to their homes.

e) Corroborating Factors: The fifth strategy had two statements that influenced the students through local respect and attractive institute buildings. The analysis indicated that both strategies assisted in developing the brand image of the institutions (Sinha and Sharma 2014).

Factors Analysis of Institutes' Brand Positioning

According to Keller, Parameswaran and Jacob (2008), positioning means finding the proper location in the mind of a group of consumers or market segment, so that they think about a product or service in the right or desired way to maximise potential benefit to the firm. Etzel, Walker and Stanton (2006) explained, "The reputation of a brand also influences customer loyalty among buyers of services as well as business and consumer goods". If a brand is favorably recognised, customers are likely to strengthen the longevity and prominence of products and/or services by showing their dedication.

Positioning of the institutions was identified through 31 statements which formed the ground for building the institute as a brand in this competitive edge.

Analysis of Brand Positioning Dimensions

Table 6: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.901
Bartlett's Test of Sphericity	Approx. Chi-Square	3528.262
	Df	465
	Sig.	0.000

Table 6.1: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.550	30.807	30.807	9.550	30.807	30.807	4.079	13.159	13.159
2	1.982	6.394	37.201	1.982	6.394	37.201	2.772	8.943	22.102
3	1.697	5.474	42.675	1.697	5.474	42.675	2.706	8.730	30.831
4	1.279	4.127	46.802	1.279	4.127	46.802	2.505	8.081	38.912
5	1.190	3.838	50.640	1.190	3.838	50.640	2.497	8.054	46.966
6	1.174	3.789	54.428	1.174	3.789	54.428	1.838	5.928	52.894
7	1.094	3.528	57.956	1.094	3.528	57.956	1.569	5.062	57.956
8	.899	2.901	60.857						
9	.845	2.725	63.582						
10	.830	2.678	66.260						
11	.777	2.508	68.767						
12	.743	2.397	71.164						
13	.728	2.347	73.511						
14	.691	2.229	75.740						
15	.681	2.196	77.936						
16	.652	2.104	80.040						
17	.595	1.921	81.960						
18	.573	1.848	83.808						
19	.550	1.775	85.583						
20	.498	1.605	87.188						
21	.490	1.580	88.768						
22	.448	1.444	90.212						
23	.442	1.427	91.639						
24	.415	1.339	92.978						
25	.390	1.257	94.235						
26	.365	1.178	95.413						
27	.355	1.145	96.558						
28	.311	1.003	97.561						
29	.289	.932	98.493						
30	.240	.775	99.268						
31	.227	.732	100.000						

Extraction Method: Principal Component Analysis.

Both the value of Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.901 and Barlett's Test of Sphericity (approx. Chi-square 3528.262 significant at 0.000) implied the validity of positioning strategies for Factor Analysis. The analysis revealed seven strategies which accounted for 57.96 per cent of total variance.

Table 7: Factors Analysis of Brand Positioning Dimensions

Label	Strategies	Factor Loadings
F1	**Level of Collaboration** (30.81 per cent variance, eigen value= 9.550)	
	Guest lectures by professionally acclaimed	0.76
	Foreign collaborations	0.77
	Corporate house alignment	0.60
	Initiative taken by the institute for international recognition of courses	0.66
	Launching of international courses of foreign university	0.70
	Arranging foreign tours	0.59
	Arranging experts' sessions for overall personality development programmes for students	0.44
F2	**Procedural Aspect** (6.39 per cent variance, eigen value= 1.982)	
	Admission process	0.61
	Wide choice of subjects or courses	0.62
	Campus discipline	0.71
	Screening of students	0.53
	Placement track record	0.54
F3	**Informative Prospectus** (5.47 per cent variance, eigen value= 1.697)	
	Creating awareness brings different recognition at national and international media	0.48
	Owners Trustworthiness	0.55
	Faculty profile of institute (PhD's, Post doctoral Degrees)	0.49
	Publications (journals and magazines)	0.68
	Infrastructure of the institute (including facilities of Campus area, Accommodations, Medical, Recreational, Internet, Wi-Fi, Library)	0.65
F4	**Accreditation and Academic Alliances for Global Exposure** (4.13 per cent variance, eigen value= 1.279)	
	UGC Degree from NAAC accredited A grade University full time programme	0.64
	Economical fee of the programmes inclusive of laptop and study material	0.58

	Global Exposure including Foreign tours, Foreign language certification, Guest lectures by Industry experts	0.61
	Highly experienced faculty from reputed National and International institute	0.46
	Provision of internship and corporate training	0.51
	ISO certification and Six Sigma certification	0.58
F5	**Unique Association** (3.84 per cent variance, eigen value= 1.190)	
	Matching brand name with expectations of people	0.56
	Brand distinctiveness	0.63
	Building the institute as people centric	0.69
	Focus on training and development sessions for faculty and staff	0.44
F6	**Societal Contribution** (3.79 per cent variance, eigen value= 1.174)	
	Extra-curricular activities undertaking social causes	0.65
	Community Participation	0.71
	Corporate social responsibility undertaken by the institute	0.56
F7	**Promotional Expenditure** (3.53 per cent variance, eigen value= 1.094)	
	High Promotion expenses	0.66

a) Level of Collaboration: This comprised seven statements related to the development of a culture of collaboration with corporate and foreign institutions that helped in accomplishing international standards. The outcome showed the inclination of students towards foreign collaboration, professionally acclaimed guest lecturers, international courses of foreign universities, and corporate house alignment. Initiatives pertaining to international competitiveness and collaborations strategies helped in developing institute brand.

b) Procedural Aspects: Here, five statements covered the process from admission to placement. The analysis indicted that the maintenance of discipline in the campus environment and screening process helped in bringing the right talent to the right place for the right future of both the students and the institute. Interestingly, in this relation Gupta et al. (2006) stated that in order to stay in league, institutions should focus on and invest in the intake of quality of students.

c) Informative Prospectus: This strategy comprised five statements. The analysis revealed that an informative institutional prospectus facilitated improved perceptions of institutions recognition, owners trustworthiness, faculty profile, infrastructure, and publications. It assisted in providing tangibility to the offerings of the b-schools.

d) Accreditation and Academic Alliances for Exposure: It is noted that seven statements covered the issues related to accreditation and provisions for academic exposure to students. The outcome revealed that the students were interested in experienced faculty from reputed national or international institutes, provision of internship corporate training, ISO certification and Six Sigma certification, foreign exposure, and UGC degrees from NAAC accredited institutes.

e) Unique Association: The analysis showed that four statements, namely distinctive reputation, people centric campus environment, and faculty training and development programmes played an integral part in developing the band image of the b-schools. Researchers generally acknowledged the importance of b-schools branding and suggested that the faculty must be given support in training, research methods and collaboration and encouraged to carry out research work.

f) Societal Contribution: Three statements focused on the expectations of society from higher education institutions. They identified the role societal contributions played in developing institutional distinctiveness; community development through internationalisation, to create professionally committed and responsible youth to society; extra-curricular activities carried out for social causes and corporate social responsibilities (CSR) undertaken by the management institutes. Students gained a sense of pride in belonging to such institutions (Victoria, 2011).

g) Promotional Expenditure: Branding is defined as "part of the promotional aspect of marketing and is extremely important to the image, reputation, and success of a product or company" (Rosenthal, 2003). "Like corporations, universities need to think about their sustainability, they need to please a demanding public, they face stiff competition" (Muntean et al. 2009). In this study, promotional expenditure included the variable of high promotional expenses, indicating the importance of high disbursement on promotional activities in developing institute brand strategy.

Given that the variables are highly correlated with each other, the first hypothesis (H_{01}) is rejected and significant differences have been found among the strategies of academic attributes, services and facilities, and brand positioning of the management institutes of NCR.

Assessment of Students Preferences on the Basis of their Demographic Profile

In this part of the study, the preferences of students were analysed through Independent Sample T-test to identify the different effects of branding strategies under the three proposed areas considered. The following hypothesis was tested.

H_{02}: There is no significant difference in the preferences of students on the basis of their demographic profile including gender, age, and family income.

Assessment Based on Gender

Strategies of Academic Attributes

Analysis was carried out to ascertain whether there were differences in the perceptions of male and female students. 54 percent male and 46 percent female responded.

Table 8: Independent Sample T-test of Academic Attributes

Strategy	Male (N=161)		Female (N=139)		t-value
	Mean	S.D	Mean	S.D	
Interpersonal Relationship Management	2.56	0.50	2.55	0.50	0.36
Institutional Credentials	2.55	0.43	2.59	0.43	0.90

There was no significant difference found between the opinions of male and female students on the strategies of academic attributes.

Strategies of Services and Facilities

Table 9: Independent Sample T-test of Services and Facilities

Strategy	Male (N=161)		Female (N=139)		t-value
	Mean	S.D	Mean	S.D	
Services Delivery	2.36	0.52	2.44	0.55	1.39
National and International Status	2.26	0.62	2.37	0.58	1.57
Academic Progression	2.27	0.77	2.40	0.73	1.44
Convenient Location	2.18	0.74	2.26	0.71	0.98
Corroborating Factors	2.22	0.65	2.39	0.65	2.24*

Note-*Significant at 0.05 level

Out of the 5 features in services and facilities, 'corroborating factors' stood out as having significantly different impacts. This possibly arose because of differences in family culture, influence of society, lack of resources for approaching other dimensions, and fear from being cheated by various fraudulent institutions that promised fake services and degrees.

Strategies of Institutes' Brand Positioning

Table 10: Independent Sample T-test of Brand Positioning Dimensions

Strategy	Male (N=161)		Female (N=139)		t-value
	Mean	S.D	Mean	S.D	
Level of Collaboration	2.42	0.57	2.45	0.56	0.46
Procedural Aspects	2.52	0.53	2.62	0.45	1.78
Informative Prospectus	2.47	0.58	2.56	0.49	1.40
Accreditation and Academic Alliances	2.49	0.55	2.52	0.48	0.58
Unique Association	2.29	0.61	2.45	0.52	2.53 **
Societal Contribution	2.43	0.59	2.53	0.55	1.57
Promotional Expenditure	2.37	0.76	2.45	0.80	0.88

Note-**Significant at 0.001 level

Here the results indicated that 'unique association' had significantly different impacts between the two genders, appearing as different levels of satisfaction. This may indicate that there were different gender outlooks for the same things.

Assessment Based on Age

The sample of students was grouped into two age categories, namely 1) less than 21 years and 2) 21 years and above. 74 per cent were under 21 years of age.

Strategies of Academic Attributes

Table11: Independent Sample T-test of Academic Attributes

Strategy	A1*(N=221)		A2**(N=79)		t-value
	Mean	S.D	Mean	S.D	
Interpersonal Relationship Management	2.57	0.51	2.57	0.48	0.07
Institutional Credentials	2.61	0.41	2.45	0.46	2.85**

Note-*A1- less than 21 years and **A2- 21 years and above, **Significant at 0.001 level

The analysed result for 'institutional credentials' showed a significant difference between the two age categories. The more mature students (those 21 years and above) probably had a better appreciation of the importance of this institutional attribute.

Strategies of Services and Facilities

Table 12: Independent Sample T-test of Services and Facilities

Strategy	A1		A2		t-value
	Mean	S.D	Mean	S.D	
Services Delivery	2.41	0.53	2.36	0.55	0.74
National and International Status	2.34	0.62	2.24	0.54	1.26
Academic Progression	2.34	0.76	2.28	0.74	0.60
Convenient Location	2.24	0.71	2.15	0.77	1.04
Corroborating Factors	2.31	0.66	2.28	0.65	0.27

The analysis revealed that strategies of services and facilities have no significantly different impact between the two age groups.

Strategies of Institutes' Brand Positioning

Table 13: Independent Sample T-test of Brand Positioning Dimensions

Strategy	A1		A2		t-value
	Mean	S.D	Mean	S.D	
Level of Collaboration	2.46	0.55	2.37	0.61	1.21
Procedural Aspects	2.58	0.50	2.54	0.50	0.60
Informative Prospectus	2.56	0.49	2.37	0.59	2.86**
Accreditation and Academic Alliances	2.52	0.51	2.50	0.55	0.33
Unique Association	2.38	0.57	2.32	0.59	0.86
Societal Contribution	2.49	0.56	2.45	0.62	0.57
Promotional Expenditure	2.44	0.76	2.29	0.83	1.50

Note-**Significant at 0.001 level

The result showed that the constituents of 'informative prospectus strategy' created significantly different impacts between the two age categories of students. Older students probably paid closer attention to the information provided in the institutes' prospectus.

Assessment Based on Annual Family Income

Duncan's Comparison-of-Mean Test was used to determine the variation in preferences among students regarding branding strategies related to different family income levels. The family incomes of students have been classified into three levels as I_1 - less than Rs.3 lakhs, I_2 - Rs.3 lakh to Rs.5 lakhs and I_3 - Rs.5 lakhs and above. 28 percent belonged to the first category (I_1), 51 percent to the middle category (I_2) and 21 percent were from the last category (I_3).

Strategies of Academic Attributes

Table14: Duncan's Comparison-of-Mean Test of Academic Attributes

Strategy	I_1* (N=83)		I_2**(N=153)		I_3***(N=64)		I_1 Vs I_2	I_1 Vs I_3	I_2 Vs I_3	F-Value
	Mean	S.D	Mean	S.D	Mean	S.D				
Interpersonal Relationship Management	2.52	0.59	2.58	0.48	2.60	0.43	___	___	____	0.59
Institutional Credentials	2.50	0.50	2.59	0.41	2.59	0.37	___	___	____	1.32

Note- *I_1=Less than Rs. 3 lakhs, **I_2= Rs. 3-5 lakhs, ***I_3= Rs. 5 lakhs and above

Analysis showed that variations of income levels have no significant impact on student preferences relating to the institutes' academic attributes.

Strategies of Services and Facilities

Table 15: Duncan's Comparison-of-Mean Test of Services and Facilities

Strategy	I_1* (N=83)		I_2**(N=153)		I_3***(N=64)		I_1 Vs I_2	I_1 Vs I_3	I_2 Vs I_3	F-Value
	Mean	S.D	Mean	S.D	Mean	S.D				
Services Delivery	2.52	0.48	2.40	0.54	2.24	0.56	___	*	*	5.45**
National and International Status	2.31	0.59	2.33	0.62	2.28	0.59	___	__	___	2.15
Academic Progression	2.50	0.72	2.34	0.74	2.07	0.78	___	*	*	6.10**
Convenient Location	2.35	0.68	2.17	0.75	2.16	0.72	___	__	___	1.90
Corroborating Factors	2.36	0.62	2.28	0.66	2.28	0.69	___	__	___	0.38

Note- *Significant at 0.05 level, **Significant at 0.001 level

The results showed that there is a significant difference between the income levels of I_1 versus I_3 and I_2 versus I_3 in respect to 'services delivery' and 'academic progression'. Students who come from families with I_3 level incomes were more specific about the services delivered and academic productivity of their selected institution in comparison to those at I_1 level (less than Rs.3 lakhs) annual family income. Variations in social reputation and standard of living seemed to be differentiators. For these dimensions, there was a marked difference between I_2 (Rs.3-5 lakhs) and I_3 (above Rs. 5 lakhs) level students.

Strategies of Institutes' Brand Positioning

Table 16: Duncan's Comparison-of-Mean Test of Brand Positioning Dimensions

Strategy	I_1		I_2		I_3		I_1 Vs I_2	I_1 Vs I_3	I_2 Vs I_3	F-Value
	Mean	S.D	Mean	S.D	Mean	S.D				
Level of Collaboration	2.40	0.65	2.46	0.54	2.43	0.53	__	__	__	0.25
Procedural Aspects	2.61	0.45	2.57	0.50	2.52	0.56	__	__	__	0.60
Informative Prospectus	2.56	0.49	2.51	0.55	2.47	0.49	__	__	__	0.50
Accreditation and Academic alliance	2.56	0.53	2.53	0.51	2.40	0.51	__	__	__	1.92
Unique Association	2.37	0.58	2.39	0.59	2.30	0.53	__	__	__	0.65
Societal Contribution	2.49	0.59	2.47	0.57	2.48	0.58	__	__	__	0.02
Promotional Expenditure	2.43	0.75	2.43	0.78	2.30	0.83	__	__	__	0.76

Analysis of the institutes' strategies of brand positioning indicated that the students' income levels did not have any bearing on their assessment of institute positioning.

Branding also provides students a sense of pride and belonging to an institution. Higher education is comparable to businesses and would benefit if viewed from a corporate lens in order to focus on the unique attribute an institution provides, while potentially increasing the interest of prospective students and enrollment. The implementation of branding initiatives directly affects student demand, the character of an institution, and continued involvement with an institution (Victoria, 2011).

Based on this analysis, the second hypothesis (H_{02}) is rejected. There is a significant difference in the preferences of students on the basis of their demographic profile, particularly their gender, age and annual family income levels. Management institutions seeking to differentiate themselves from their competitors will be well-advised to note student preferences related to differences in their demographic profile.

Conclusion and Policy Implications

The present research sought to investigate the branding strategies of management institutes with the view to recommending a review of those strategies which assist in developing and maintaining the brand reputation of b-schools in the NCR.

Globalisation, with its multi-dimensional effects on educational systems, is creating pressures towards their greater efficiency and professionalism. In India, increased competition among b-schools for good students will inevitably lead to stepped-up demand for quality management education. NCR b-schools are increasingly turning to institutional branding as a strategic response to differentiate themselves from the competition.

This study identified 14 major factors under the three specific areas of academic attributes, services and facilities, and brand positioning dimensions. The research identified specific underlying branding strategies which can be effectively implemented by management institutes in the NCR. Branding strategies influenced the preferences of students. Students respond differently, linked to variations in their demographic profile. These include family and social influence, lack of resources, and cautiousness towards institutions making fraudulent claims or promises.

Specifically, the study revealed that students were attracted towards tangible

services. Financially strong students preferred service excellence in comparison with those coming from homes with lower income levels.

How the institutes' faculty and administration interact with, and relate to, the students is of great importance. In general, they have to pay close attention to improve in this area.

In the area of 'institutional credentials' the institutions should consider looking into changing the modes of delivery of their curricula, in response to feedback from the corporate sector. These include considering the use of workshops, seminars, and conferences. Also, institutes should consider widening the range of specialisations offered, internationalisation of the student population and student industry placements to increase their exposure to new and real work-place experiences. These measures will bring together a variety of talent and promote innovation among students and faculty members.

Finally, regular development programmes for faculty members should be initiated, during which there should be opportunities for them to interact with industry experts. This will certainly help them to better understand the corporate world and appreciate its needs and demands.

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Guide for Authors Submitting Articles to Singapore Management Journal

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