What Factors Influence Pioneering Advantage of Companies?

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Rapid rate of change in technologies, markets, and other environmental factors makes order of entry as one of the most crucial decisions for business survival and performance in today’s world. Pioneering (first-mover) is an important strategy for a firm in today’s dynamic and competitive environment. Researchers have shown that, in the developed markets of the world, the pioneers have better performance and profitability than the followers. In this paper, the authors develop a conceptual framework to explain the various factors that might influence a firm’s pioneering efforts in the Indian market. They propose specific hypotheses regarding the effect of order of entry on performance (market share, sales, return on investment, and profit before tax) and strategic components (R&D, advertising, promotion, and distribution). They also propose additional hypotheses to examine the association between the strategies and performance, variations within the pioneers group, and the moderating effect of competitive environment on the other relationships.

The authors use secondary data from the CMIE PROWESS database to test the various hypotheses. The sample consists of 394 companies across 32 industry segments which include consumer goods industries such as fast-moving consumer goods, beverages, and consumer durables and industrial goods industries such as cables and mining. They have used the same sample of companies at three different points of time (1993, 1997, and 2001) to test the various hypotheses. The sampling frame is the list of Top 500 Indian companies (Business World, October 7, 2002).

The results confirm the following aspects:

- In general, the pioneers perform better than the followers and firms which enter early into the market have larger sales, market share, and profit than followers.
- Firms which enter first into the market are generally more aggressive in pursuing various strategies such as R&D, advertising, promotion, and distribution.
- Investments in strategies create entry barriers for competitors who may find it difficult to compete with existing firms as resource requirements are quite high in this scenario.
- Pioneering advantage seems to be a long-term competitive advantage for businesses as pioneers’ performance is consistently better than that of the followers over the years.
- Although the pioneering effect starts reducing over time in terms of market share, profit margins for pioneers are higher even after considerable length of time.

The authors find that there are large variations in the performance within the pioneers group itself which indicates that there are other factors also, apart from order of entry, with potential bearing on firm’s performance. The results show that performance (market share) and strategic variables are closely related and dependent upon each other. Further, they find that the effect of order of entry on performance is stronger for those firms that operate in less intense competitive environment than those that operate in more intense competitive environment.

*This research article is dedicated to the memory of my co-author, my student, and, in many ways, my ‘teacher,’ Sharad Mittal, who did not live long enough to see his article published. To my deep regret, he passed away on April 12, 2004.
Rapid rate of change in technologies, markets, and other environmental factors makes order of entry as one of the most crucial decisions for business survival and performance in today’s world. Several studies have shown that pioneers (or early entrants) have long lived market share advantages and are likely to be market leaders in their product categories (Robinson and Fornell, 1985; Lieberman and Montgomery, 1988; Robinson, 1988, Kerin, Varadarajan and Peterson, 1992; Lambkin, 1992; Golder and Tellis, 1993). For managers, the decision of timing of entry into the market is crucial for the firm’s survival as well as for its long-run performance.

BACKGROUND

With sluggish growth in the developed markets of the world, companies are turning to newly emerging markets such as India for business expansion (Nakata and Sivakumar, 1997). Emerging markets are attractive for several reasons. One is the enormous potential for sales. Firms that have strong reputations can quickly gain new customers due to brand name effect and ensuing word-of-mouth effect. Another reason is the maturation of developed markets. A third reason is the rising strength of emerging market economies. A comparative analysis in 1996 suggests that these economies grew by 6.3 per cent in 1995 compared to just 3 per cent among the industrialized nations (US Department of Commerce, 1996). In the era of globalization, India has become a lucrative market for many major companies in the world; examples include soft drink majors such as Pepsi and Coca-Cola, Japanese automakers such as Honda and Suzuki, and consumer electronic companies such as LG and Samsung.

The Indian industrial environment can be divided into two distinct periods: pre-liberalization (period before 1991) and post-liberalization (period after 1991). The pre-liberalization era was the time of regulatory framework and many restrictions were imposed on the private sector due to various economic and political reasons by the then respective governments. The resulting restrictions had severely hampered the growth of industry in the country. After 1985, the government gradually started removing some restrictions from the private sector, and after 1991, the Indian economy significantly opened up because of economic reforms (refer Vikalpa’s Special Issue on India’s Economic Reforms, 1998, for an excellent review of economic reforms). As the economy liberalized, entry into the product markets became easier for Indian as well as foreign companies. Due to opening up of the economy, a large number of firms entered into various product categories and competition intensified. The relevance of order of entry has thus become increasingly important in such an environment for the firms seeking to operate profitably.

Previous researchers have shown that order of entry significantly affects the firm’s performance in the market. They suggest that early entrants (pioneers) enjoy enduring competitive advantages over followers (early followers and later entrants) which translate into higher level of market share and profitability (Robinson and Fornell, 1985; Robinson, 1988; Bond and Lean, 1977; Lambkin, 1992; Whitten, 1979). However, first-mover need not always be the ultimate winner nor its pioneer status need be ever lasting. In the context of internet, the example of the now ubiquitous Hotmail is usually given which was not the first company to offer free e-mail. In fact, when the dotcom bubble burst, frustrated dotcom managers usually referred to the saying ‘the first to market is the first to fail’ (Robinson and Min, 2002). Other similar examples of this follower advantage can be given for the categories in which the pioneer was not a winner such as diet cola (RC Cola), scanners (EMI), calculators (Bowmar) or office computer (Xerox); or the cases in which the follower was a winner such as personal computers (IBM), VHS VCR (Matsushita) or quartz watch (Siekko).

In the context of emerging countries, Park and Bae (2003) develop an integrative framework to classify competitive strategies of new ventures and identify key dimensions such as target market (local vs. global), product/market maturity (existing vs. emerging), and level of technological capability (follower vs. pioneer). Kabuth (2003) argues that since existing evidence on pioneering research is derived exclusively from developed countries, particularly the US and Europe, new insights could be generated by investigating order of entry advantages in important emerging markets such as China and Brazil in the case of automotive industry. His unique findings regarding emerging markets suggest that the first-movers particularly benefit from fewer bureaucratic hurdles concerning production licenses and pre-emptive occupation of the relatively best intermediaries. Several important pioneering advantages that can be observed in the developed or mature markets are not distinct in the emerging markets like China or Brazil.
because of strong market protectionism and a lack of input factors. Moreover, the rapidly changing emerging market conditions (e.g., economic instability, political volatility, market deregulation) favour followers in many cases. Followers benefit from contracting suppliers and employee staff trained by the pioneers. They can also benefit from the infrastructure developed by the pioneers and the increasingly supportive government’s attitude due to its experience of having dealt with pioneers. Thus, followers could learn from incumbents’ mistakes and apply better technology and processes. However, Kabuth (2003) draws no specific conclusions regarding the central question of whether it pays to be a pioneer or not in an emerging market because it is based on a number of environmental conditions in addition to the order of entry effect.

The above view of specificity of pioneering advantage according to the environment faced by a company has also been corroborated by Covin, Slevin and Heeley (2000). They argue that certain types of environments are more conducive to reaping pioneer advantages while the same may not work in other environments. Nakata and Sivakumar (1997) list some of these challenging environmental conditions in the emerging markets as political risk, narrow profitable market segments, and lack of adequate infrastructure. Their synthesis of literature provides an inconclusive view regarding whether or not pioneering is a good strategy to follow in the emerging markets.

In the Indian context, while some authors have explored the linkages between strategic orientation of companies and their performance (e.g., Kakati and Dhar, 2002), studies examining the important issue of pioneering advantage are virtually non-existent in the academic literature. An exception is the research work by Thakur (1987) which focuses on technology entry strategies. Thakur examines the questions regarding why firms choose different technology entry strategies and how a set of variables changes systematically with a change in market entry strategy and the level of technology used by the firm. His results show that early entrants pursue a skimming pricing policy, enter new market segments or position their products distinctively, while later entrants closely monitor competitors’ activities, control inventories tightly, and implement strong cost-cutting measures through development of specialized raw materials.

Some earlier studies from popular press have attempted to explain the reasons behind the ability of large companies such as HLL and ITC to sustain growth rates for a long period of time (The Rational Investor, March 1998). The important reasons listed in favour of HLL and ITC are brand image, market share leadership, distribution strength, and technology. However, it is not clear that being the biggest or earliest to enter in the market will necessarily mean that a company will always be a leader. For example, the study considers the case of Bajaj Auto Ltd. Though it was one of the earliest ones to enter the scooter market and appeared invincible for a number of years, it lost considerable market share in the two-wheelers market in the years after 1993. The reason for this is attributed to its inability to anticipate the dramatic growth in motorcycles and premium vehicles markets. Similarly, the study considers ShriRam Honda as a favourite among investors. Though it is a small company, it exhibited clear competitive advantages over its rivals and has majority of market share. Its success is attributed to the parent company’s (Honda) brand name and its technology advantage.

Examples of the pioneering efforts are also emerging in other sectors of the Indian economy which are only recently opening up. For example, the petroleum retail sector in India has moved away from being government-controlled with its deregulation in 1999 (Mittal, Sandeep, 2003). In the wake of ensuing competition, the smarter players realized that the best way to create an early advantage would be to lock customers through loyalty and reward programmes. A pioneering effort in this direction has been the smart card-based ‘PetroBonus’ programme, introduced by BPCL, which virtually created the market for loyalty programmes in the sector.

From the above perspectives of the literature, it appears that there is a need for a systematic study for investigating the impact of pioneering advantage on a company’s performance and strategies in the Indian context. The current study is aimed at addressing this need. While a number of researchers has shown positive associations between a company’s pioneer status and its performance in the case of developed countries, it would be difficult to predict a priori the nature of this relationship in the Indian context. On the one hand, one may expect the early entrants of the pre-1991 period to benefit from the protectionist era (‘license raj’) because of the experience gained, the ability to develop distribution networks, and the resulting brand image. On the other hand, it is equally probable that the early entrants were
complacent in the protectionist era and were stuck with old processes/technologies. In the latter case, the emerging market conditions such as market deregulation, better infrastructure, and availability of suppliers, raw materials, and skilled workforce may have significantly favoured the followers (e.g., post-1991 entrants). Thus, it would be interesting to examine conceptually and empirically the direction of relationship between pioneering advantage, performance, and strategies in the Indian context.

To summarize, our objective in this paper is to first present a broad perspective of the pioneering advantage for businesses in the Indian context. Towards this end, we present a conceptual framework to understand the environment and its implications on the strategic options available to businesses. We then conceptualize several factors as reasons of pioneering advantage. Based on the insights generated, we formulate several hypotheses regarding the effect of order of entry of a firm into market on its performance (in terms of market share, sales, return on investment, profitability) and investment in component of strategies (e.g., advertising, R&D, promotion, and distribution). By collecting empirical data for Indian environment, we then examine whether order of entry has really played a significant role in the Indian market conditions. We also examine the moderating effect of competitive environment on the hypothesized relationships.

REVIEW OF LITERATURE

Pioneering Advantage

In literature, the researchers have explained the theory of pioneering advantage in the following two broad ways:

- theoretical-analytical perspectives
- empirical documentation.

Theoretical-Analytical Perspectives

Two broad categories of the theoretical-analytical perspectives have been used to explain pioneering advantage:

- Economic theories and associated analyses using barriers-to-entry concept.
- An amalgamation of behavioural theories describing likely consumer responses to pioneer and follower brands.

The economic-analytical perspective: The entry barriers approach: Economists approach the pioneering concept from the perspective of sequential market entry by firms and business units and offer several reasons of competitive advantage due to entry barriers (e.g., Lane, 1980; Nti and Shubik, 1981). Von Weizsacker (1980) describes barrier to entry as “a cost of producing which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry” [p 400]. In reference to market pioneering, an entry barrier implies that additional resources must be expended by a non-pioneering firm (beyond those required under conditions of simultaneous entry) to compete effectively in the marketplace relative to the early movers. In literature, several entry barriers have been proposed as contributors to the pioneer advantage (Kerin, Varadarajan and Peterson, 1992) such as cost advantage (Bain, 1956; Day, 1984), product differentiation (Bain, 1956, 1962; Bass, Cattin and Wittink, 1978), access to distribution channel (Porter, 1980), advertising (Brozen, 1971; Camanor and Wilson, 1967), R&D (Harrigan, 1981; Schmalensee, 1982), number of competitors (Harrigan, 1981), selling expenses (Williamson, 1963), and so on.

Porter (1980) stresses that the barriers to entry provide incumbents inherent advantages over potential entrants. Entry barriers lengthen the lead time between a firm’s head start and the response by followers. This lead-time enables the first mover to benefit in two ways (Von Hippel, 1984). First, during the time when there is no competition, the first mover is, by definition, a monopolist and may use this position to gain higher profits than would be possible in a competitive market and could also increase the size of the total market. Second, after the entry of the competitors, the first mover has established market position and learning curve economies which may allow it to retain a dominant market share and higher margins than those of the followers.

The behavioural perspective: Skimming effect: Peterson (1982) posited that a pioneer will find less resistance among potential customers, especially those considered early adopters (or innovators) of a product or brand, than later entrants. Because a pioneer would be able to ‘skim off’ early adopters, the followers would be left with only potential customers less predisposed to purchasing new brands.

The behavioural perspective: Consumer preference formation: This view holds that the process by which consumers learn about brands and form preferences
plays an important role in creating a pioneer advantage (Carpenter and Nakamoto, 1989). When the consumers know little about the importance of product attributes or their ideal combination, a pioneer may be able to influence how attributes are valued, define the ideal attribute combination, and ultimately influence consumers’ preferences to its benefit over later entrants. In effect, through its marketing efforts, the pioneer may be able to establish the perceptual structure of the market to its advantage.

Other behavioural advantages are also believed to accrue to the pioneer. For example, being the first in the marketplace suggests a high degree of consumer awareness in turn leading to product trial, which, given favourable use or consumption experience, results in ongoing repurchase behaviour to minimize consumer perceived risk and information costs (Schmalensee, 1982). Once this pattern is established, the consumers may be reluctant to switch brands upon later entry of the other brands (Hoch and Deighton, 1989).

**Empirical Documentation**

Empirical documentation on the pioneering advantage can be divided further into two distinct parts according to the focus of the study and data used. Several studies were performed at the business-unit level with the PIMS (Profit Impact of Market Strategy) database. The other studies focused on products or brands employing sample surveys or archival records. These studies empirically demonstrate a positive entry order-market share relationship (Mittal, Sharad, 2003).

**Follower Advantage**

Devinney (2000) suggests that the followers may win when they hold complementary assets, cost/experience advantages are not relevant, and process standards are in a flux, product is a commodity, customers have low switching costs or the market is evolving slowly. Knuutila (2003) examines the conditions that are risky or unfavourable for first-mover such as major technology issues to be resolved, inadequacy of infrastructure or change required in customer behaviour. Boulding and Christen (2001) argue that the first-mover advantage may not exist in the long run. Their research, based on the average profits of the companies studied, shows that even though the revenues generated by the first movers are higher than those of the later entrants, the costs incurred to pioneers eventually outweigh the revenue side. A probable reason for this conclusion is that the first movers are probably stuck with their original processes and customer images and are unable to adapt to the changing environment.

**CONCEPTUAL FRAMEWORK**

We provide a conceptual framework for a firm’s performance (Figure 1) adapted from Mittal and Swami (2003). The framework identifies the principal factors that could affect a firm’s performance in the prevailing market conditions. We propose that the firm must make a strategic decision about the timing of entry into the market after analysing these factors. Business performance is affected largely by the following four factors:

- business environment
- competition
- consumers
- company.

The first three factors are external factors in the sense that the firm has very little or no control over them. The last factor is primarily based on the firm’s internal factors which also impact its business performance.

In the following sub-sections, we discuss these factors with specific reference to the Indian context.

**Business Environment Factors**

Business environment comprises of various elements such as political, economic, social, natural, and technological. These elements jointly determine the obstacles and favourable factors present in the market. The political situation of the region determines the long-term viability of the firm. Stable political conditions create conducive environment for business and attract investments. The Indian economy has been growing fast and its GDP has shown impressive growth in the last few years (Parasuram, 2001). In 2003, World Bank’s analysis suggested that India has the potential to grow at 8 per cent (rediff.com, December 19, 2003). More recently, according to the World Bank’s World Development Indicators 2004, released on May 21, 2004, India has consolidated its position as the world’s fourth largest economy in Purchasing Power Parity (PPP) at $2,778 billion behind only US ($10,414 billion), China ($5,792 billion), and Japan ($3,481 billion) (expressindia.com, May 22, 2004). In such a scenario, pioneers could benefit from increased economies of scale as production rises to meet growing demand in the market. Social/cultural fragmentation has a potential bearing on firm’s performance in the market (Hill, 1984). In markets of considerable...
consumer heterogeneity such as India, advertising and promotional campaigns must reach highly diverse populations. Successful companies must execute customized programmes for individual segments accounting for language and cultural value differences. The technological aspects of a market like India are manifested, on the one hand, in hi-tech industries such as computers, automobiles, and heavy engineering, and, on the other hand, in poor, inadequate or rapidly deteriorating infrastructure. The essential services required for commercial activity, ranging from electric power to water supplies, highways, transportation, telecom or banking services, are often inadequate or unreliable. For firms, these infrastructure inadequacies result in widespread production and distribution bottlenecks which, in turn, raises costs. The deterioration of natural environment should also be a major concern for firms. As pollution (air, water) reaches dangerous levels, new legislations are likely to be in place which might affect certain industries quite adversely. The firms might have to invest huge amount of money in pollution control equipments and more environment friendly fuels. In short, the firms
must be aware of the threats and opportunities associated with the following four trends in the natural environment:

- shortage of raw material
- increased cost of energy
- increased pollution levels
- the changing role of the government (Kotler, 2000).

**Competitive Factors**

Competitive environment in the industry sector to which a firm belongs significantly influences the firm’s performance. The competitive environment consists of various elements such as number of competitors, size of the competitors, and intensity of rivalry. The greater the number of competitors in a market, the lower the average market share (Robinson and Fornell, 1985). The presence of a large number of firms in the market lowers the attractiveness of the market as profitability declines with the increase in the number of firms in the market. Before liberalization, there were few competitors in most of the sectors in India but, gradually, due to liberalization, many companies (domestic as well as foreign) have entered into the market and the competition has intensified.

**Consumer Factors**

Companies need to understand the price sensitivity and trade-offs customers make between price and product characteristics. The companies also need to understand the important aspect of consumer heterogeneity and purchasing power differences in the Indian market. The growing middle class in the Indian market provides greater opportunity to the firms to increase sales and take advantage of the economies of scale to reduce the cost of their products. Before introducing new products into the market, the firms need to assess product-related knowledge of the Indian consumers.

**Company Factors**

These factors are largely internal and hence in the control of the firm’s management. Resources (personnel, capital, and technology) are important in pursuing the firm’s market strategy successfully. Firms with sufficient resources can develop and sustain large-scale production and distribution. Experience in the market may also help firms to reduce cost and create economic advantage. Similarly, scale of production adds to experience as additional sales may help the firm become more knowledgeable about the process as well as the market.

**Strategic Options**

We consider two main strategies from the order of entry point of view: (1) pioneer strategy, and (2) follower strategy (Urban *et al.*, 1986). It is expensive and risky to be a pioneering brand. The costs of development are often huge and the first firm to enter a market must make the consumers aware of the product and convince them to buy it. The risk of failure is high because the potential demand is not known with certainty. An alternative strategy is based on being the follower into the market. The costs and risks are lower in this strategy since the early entrant (pioneer) would have created the primary demand and the basic product design would be already existing. If an equal market share can be gained, the follower strategy could be more profitable. If, on the other hand, because of being the early entrant in a market, a dominant market share is achieved and maintained, the pioneer strategy may be superior. Both strategies are followed using strategic components such as advertising, R&D, distribution, and promotion.

**Pioneering and Its Advantages**

Different researchers have used different definitions to identify pioneer firms. There appears to be no consensus in the literature for a unique criterion to classify firms as pioneers or followers. For example, a firm can achieve pioneer status if it

- produces a new product
- uses a new process
- enters a new market (Lieberman and Montgomery, 1990)
- is the first firm to develop and commercialize a new product (Lambkin, 1992)
- is the first firm to sell in a new product category (Golder and Tellis, 1993)
- is the first entrant into a new market (Schmalensee, 1982).

Several studies based on PIMS database define pioneer as ‘one of the first developing such products or services’ (Kerin, Varadarajan and Peterson, 1992). This implies that a pioneer (first-mover) may or may not have been the first to enter the market but is only perceived to be one of the first few firms. In the current study, following Schmalensee (1982), we adopt an order of entry view of pioneering and define it in terms of the
time at which a firm enters into the market. Accordingly, we define a pioneer firm as one of the first few firms to enter a new market. ‘Few’ may be operationalized by median split or top percentiles of the total list of companies in an industry.

Empirical research on timing of entry into the new markets has consistently shown that the pioneers tend to enjoy an enduring competitive advantage over the later entrants which is reflected in a higher level of market share and profitability (Lambkin, 1992). The performance of a firm in the market is also related to the timing of entry into the market. According to the timing of entry into the market, a firm has to decide about various strategic variables (e.g., advertising, R&D, promotion, and distribution) to create entry barriers for the potential entrants. Therefore, the successful pioneers are likely to invest more heavily in those strategies to prevent further entry of firms in the market. Some factors such as competitive environment, number of firms in the market, and intensity of rivalry might moderate the effects of order of entry on performance. The above discussion is summarized in the conceptual framework shown in Figure 2.

**Figure 2: Conceptual Model for Pioneering Advantage**

HYPOTHESES

On the basis of Figure 2, we propose the following hypotheses:

**Effect of Order of Entry on Performance**

Previous researchers have found that, on an average, pioneers have higher market share than their competitors (Robinson, 1988; Robinson and Fornell, 1985; Urban et al., 1986, Whitten, 1979). Robinson and Fornell (1985) analysed consumer goods businesses and found that, on an average, the pioneers (first-movers) had a market share of 20 per cent versus 17 per cent for early followers and 13 per cent for later entrants. Order of market entry has significant effect on the market share for both startup businesses and adolescent businesses (Lambkin, 1988). Researchers on consumer goods found a strong relationship between order of entry and market share (Urban et al., 1986). Thus:

Hypothesis 1a: Pioneers are likely to have greater market share than that of the late entrants.

Hypothesis 1b: Pioneers are likely to have greater sales than that of the late entrants.
Hypothesis 1c: Pioneers are likely to have greater return on investment than that of the late entrants.
Hypothesis 1d: Pioneers are likely to have greater profit before tax than that of the late entrants.

**Effect of Order of Entry on Strategies**

Camanor and Wilson (1979) argue that industries with high advertising-to-sales ratio have substantial barriers to entry. They state that “advertising effectiveness should depend on who came first in the market for these responses are surely influenced by consumer experience with product as well as by the aggregate volume of competing advertising messages” (p. 455). Higher advertising expenses can work in favour of the pioneers as they create barriers to entry for late entrants in the market. The late entrants may face difficulties with consumer response due to (1) a lack of experience with their product and (2) having to ‘shout louder to be heard’ (Robinson and Fornell, 1985). Advertising economies of scale can also favour the pioneers if the market is too small for the late entrants to benefit from economies in purchasing or from economies associated with advertising message generation. In addition, capital costs may be especially high for advertising expenditures because there is no salvage value if a late entrant is unsuccessful. The argument for consumer markets is that if purchasers in a new product category have not yet developed brand loyalties, the pioneer that offers a good quality product supported by an aggressive advertising campaign can gain greater market share and would be able to defend it from competition (Schmalensee, 1982; Carpenter and Nakamoto, 1989). Therefore, to create entry barriers for later entrants, the pioneers might invest heavily in advertising and promotion. Thus:

Hypothesis 2a: Pioneers are likely to invest more heavily in advertising their products than late entrants.
Hypothesis 2b: Pioneers are likely to invest more heavily in promoting their products than late entrants.
Hypothesis 2c: Pioneers are likely to invest more heavily in R&D than late entrants.

Pre-emptive effects can also be achieved through wide distribution coverage and the late entrants can be prevented from securing either physical or perceptual ‘space’ in the market (Lieberman and Montgomery, 1988). The pioneers may create a wide distribution channel before the entry of the followers who, in turn, may find it difficult to acquire enough shelf or channel space to sell their products. The first-mover may gain a differentiation advantage through pre-emption by selecting the most attractive niches in terms of geographic space (locations), perceptual space (product characteristics space), and distribution space (Kerin et al., 1992). Thus:

Hypothesis 2d: Pioneers are likely to invest more heavily in distribution than late entrants.

**Strategies and Performance**

Previous researchers have discussed that, in addition to the mere order of entry effect, other factors are also involved in achieving and sustaining pioneering advantage (Kerin, Varadarajan and Peterson, 1992). Various strategies also affect the firm’s performance. In turn, strategies might also be affected by the performance of the firm in the market (Figure 2). These arguments can be tested by the following hypotheses:

Hypothesis 3a: Those companies which perform better (have higher market share) in the marketplace are likely to invest more heavily in various strategies (R&D, advertising, promotion, and distribution) than their less successful peers.
Hypothesis 3b: Those companies which invest more heavily in various strategies (R&D, advertising, promotion, and distribution) are likely to have better performance (higher market share) than that of their peers.

**Pioneers’ Variation**

Research on pioneer businesses shows a strong relationship between various strategies and the performance of a firm in the marketplace. In particular, it appears that pioneer firms which invest more heavily in promotion, distribution, and advertisement are likely to enjoy higher returns in the long run than other early entrants (Lambkin, 1992). This reasoning leads to the following hypotheses:
Hypothesis 4a: Those pioneers which perform better (have higher market share) in the market are likely to invest more heavily in advertising than the less successful pioneers.

Hypothesis 4b: Those pioneers which perform better (have higher market share) in the market are likely to invest more heavily in R&D than the less successful pioneers.

Hypothesis 4c: Those pioneers which perform better (higher market share) in the market are likely to invest more heavily in promotion than the less successful pioneers.

Hypothesis 4d: Those pioneers which perform better (higher market share) in the market are likely to invest more heavily in distribution than the less successful pioneers.

Moderating Effect

Industrial organization models indicate that while barriers to entry limit the number of firms that enter an industry, the profit levels of those firms that do enter are also influenced by the degree of rivalry that exists within the chosen industry. The most favourable industry environments are those in which there is relatively less number of competitors. Pioneers are likely to obtain the greatest benefit in this situation because of the likelihood that they will capture the market leadership ahead of their rivals (Lambkin, 1992). Thus:

Hypothesis 5: The positive effect of order of entry on performance is likely to be stronger for those companies that operate in an environment characterized by less number of competitors.

RESEARCH DESIGN

Data

Secondary data from the PROWESS database is used to test the various hypotheses proposed in the previous section. The sample consists of 394 companies across 32 industry segments which include consumer goods industries such as fast-moving consumer goods, beverages, and consumer durables and industrial goods industries such as cables and mining. A list of various industry sectors included in the sample is provided in the Appendix. We have used the same sample of companies at three different points of time (1993, 1997, and 2001) to test the hypotheses. This time frame was specifically chosen in the post-liberalization period during which the issues regarding pioneering have gained greater relevance.

The sampling frame is the list of Top 500 Indian companies (Business World, October 7, 2002). Since the data of some companies included in the top 500 list are not available in PROWESS, the final sample size for the analysis was 394 companies. These companies are selected on the basis of revenues and asset base. This criterion allows us to consider the relevance of both the balance sheet and the profit and loss account. These companies are from 32 different industry segments in which the largest number of companies are from the textile industry (47 companies) and the lowest number of companies are from the food processing industry (two companies). The data used for analyses focus primarily on the year 2001. To further support the analysis of enduring competitive advantage due to pioneering, we also collected data for the years 1993 and 1997 of the same sample as for the year 2001. Data for the sample were collected on four strategic variables (R&D expenses, advertising expenses, promotion expenses, and distribution expenses) and four performance variables (sales, profit before tax, return on investment, and market share).

Methodology

The data analysis is performed with SPSS 10.1. The first step is to classify the companies into two categories — pioneers and followers. The firms are classified on the basis of their year of incorporation which is given in the PROWESS database. In each industry segment, median split is used to classify the firms into either the pioneer or the follower category. Therefore, in each segment, one-half of the firms are classified as pioneers and the other half as followers. For the year 2001, we classified 198 firms as pioneers and 196 as followers. The difference in sample size is due to some firms having equal values near the mid-point of the experience range. However, in some cases, data were available for a company in 2001 but not in 1993 or 1997. Due to such cases, the sample sizes were reduced in 1993 and 1997. All the averages were taken on the respective sample sizes corresponding to a particular year. On the basis of a firm’s category in 2001, its data for 1993 and 1997 are also classified. This means that the firms which were classified as pioneers in 2001 were also considered pioneers in 1993 and 1997.
The next step in the data analysis is to test for differences between means of the two groups on each of the four strategic variables and on the four measures of performance. A one-way analysis of variance (ANOVA) is used for this purpose. We then examine the relationship of strategic variables with market share as the performance variable. In literature, market share is considered as representative of a firm’s performance in the marketplace (Lambkin, 1992).

To examine the effect of market share on strategies, the firms are classified into three categories: low market share, average market share, and high market share. We have divided the list of companies into three equal parts for this purpose. ANOVA is used to test for differences between means of the three categories. Similarly, to examine the effect of strategies on market share, the firms are classified into three categories for each strategy: low, average, and high. ANOVA is used to test for differences between the means of these categories.

To test the hypotheses on variation in pioneers’ performance, the pioneer group is classified into two categories: low market share pioneers and high market share pioneers. ANOVA is used to test the differences between the means of two pioneers groups. To test them within the pioneer group itself, market share is considered as the independent variable and strategies are considered as the dependent variable.

Finally, to examine the effect of moderating variable on a firm’s performance, linear regression is used. The firms are classified into two categories as those facing low competition or intense competition on the basis of the number of competitors in the industry segment. The number of years since incorporation of a firm in the market is considered as the independent variable and market share is considered as the dependent variable. One set of regression is carried out for each competitive situation. Further, tests are carried out to examine the difference between the coefficients of regression.

**RESULTS AND ANALYSIS**

**Descriptive Statistics**

Descriptive statistics, shown in Tables 1 and 2 and depicted in Figures 3 to 10, indicate that, in general, the pioneers out-perform the followers, which is consistent with the earlier research in the developed countries (Lambkin, 1992). Pioneers are also found to be consistent over the years in maintaining their superior performance over followers.

Statistics show that, in general, though the pioneers’ average market share is decreasing over the years, they still have higher market share than the followers. This indicates that the pioneers probably enjoy long-term competitive advantage over followers due to being first into the market. However, the followers also appear to be narrowing the gap between them and the pioneers in terms of average market share. On an average, the pioneers have much higher volume of sales than that of the followers. As the market has grown, the pioneers have increased their sales over the last eight years by 202 per cent but the followers’ sales growth rate at 258 per cent over the same period is higher than that of the pioneers.

**Table 1: Average Performance of Pioneers and Followers**

<table>
<thead>
<tr>
<th>Order of Entry</th>
<th>Average Market Share (%)</th>
<th>Average Sales (Rs billion)</th>
<th>Average Profit before Tax (Rs billion)</th>
<th>Average Return on Investment (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pioneers</td>
<td>11.20 10.50 9.28</td>
<td>8.89 17.04 27.66</td>
<td>0.46 1.08 1.72</td>
<td>25.35 15.72 17.46</td>
</tr>
<tr>
<td>Follows</td>
<td>7.50 6.85 6.96</td>
<td>2.97 5.63 10.63</td>
<td>0.12 0.39 0.40</td>
<td>21.40 20.28 15.18</td>
</tr>
</tbody>
</table>

* Sample sizes for the years 2001, 1997, and 1993 were 394 (Pioneers – 198, Followers – 196), 366 (Pioneers – 190, Followers – 176), and 337 (Pioneers – 184, Followers – 153), respectively.

** Table 2: Average Expenditure on Strategies by Pioneers and Followers**

<table>
<thead>
<tr>
<th>Order of Entry</th>
<th>Average R&amp;D (Rs million)</th>
<th>Average Advertising (Rs million)</th>
<th>Average Promotion (Rs million)</th>
<th>Average Distribution (Rs million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pioneers</td>
<td>18.00 50.40 60.30</td>
<td>31.20 90.70 156.00</td>
<td>436.80 728.50 224.90</td>
<td>240.00 403.80 763.70</td>
</tr>
<tr>
<td>Follows</td>
<td>2.80 30.20 28.80</td>
<td>18.80 47.50 83.40</td>
<td>36.40 68.10 150.00</td>
<td>62.30 100.70 194.90</td>
</tr>
</tbody>
</table>

* Sample sizes for the years 2001, 1997, and 1993 were 394 (Pioneers – 198, Followers – 196), 366 (Pioneers – 190, Followers – 176), and 337 (Pioneers – 184, Followers – 153), respectively.
PIONEERING ADVANTAGE OF COMPANIES
pioneers. Such trends indicate that though pioneering advantage might be long-term, it may not last forever.

On an average, the pioneers have earned much higher profits than that earned by the followers and their profitability has increased over the years. In 1993, the pioneers' profits were 3.9 times more than the followers and in 2001, their profits were 4.3 times more than the followers' profits. However, the pioneers' return on investment is only marginally better than the followers. This indicates that probably the pioneers' investments are on a much larger scale than the followers to generate higher sales. The pioneers might be earning more profits (profit before tax) but may not be more efficient than the followers.

In 2001, the pioneers' investment in R&D was more than twice that of the followers. However, the followers' spending on R&D has increased by more than ten times in the last eight years in comparison to the pioneers' increase of 3.5 times. In 2001, the pioneers' average investment in advertising was almost twice than that of the followers. The pioneers' spending on advertising has increased five times in the last eight years while the followers' spending has increased by 4.3 times in the same time period. It appears that, in the initial years, the pioneers have been more aggressive in advertising their products. With time, however, the followers seem to have understood the importance of advertising and they too have been quite aggressive in the later years. Similarly, the followers seem to be catching up with the pioneers in terms of spending on promotion. The pioneers' investments in distribution are much higher than the followers which could result in building strong distribution channels.

Effect of Order of Entry on Performance

The hypotheses on effect of order of entry on performance (1a, 1b, 1c, and 1d) indicate that the pioneers are likely to perform better than the followers due to being early into the market. Median split is used to classify firms into two categories: pioneers and followers. Various performance variables (market share, sales, profit before tax, and return on investment) are considered as the dependent variables and order of entry is considered as the independent variable. ANOVA is conducted for each dependent variable. Table 3 shows the average values of performance variables over the years for both pioneers and followers. ANOVA results (in the form of significance based on F-statistic) are shown by asterisk signs.

The results show that these hypotheses have reasonable support on the parameters of market share, sales, and profitability. Hypotheses 1a, 1b, and 1d are strongly supported and both groups are significantly different in their market share, sales, and profit before tax over the years. The results show that the pioneers are able to maintain their superior performance over the years and the effect of pioneer advantage appears to be enduring in prevailing market conditions. However, the difference in the performance of two groups reduces over the years; initially, in 1993, the difference is significant at 1 per cent level, and in 2001, it is significant at 5 per cent level. This implies that the mean followers' performance is improving in comparison to the pioneers over the years. Hypothesis 1c is not supported, which is somewhat surprising, as previous studies have shown that pioneers generally have significantly better return on investment than competitors (Lambkin, 1992). This could be attributed to the fact that in the case of return on investment, the variations within group values might be quite large. In addition, the pioneers might not be significantly more efficient in getting returns on their investment and probably depend on higher investments for generating higher values of sales and market share.

Effect of Order of Entry on Strategies

The hypotheses on effect of order of entry on strategies (2a, 2b, 2c, and 2d) indicate that the pioneers are likely to invest more heavily on strategies (R&D, advertising, promotion, and distribution), which, in turn, deter potential firms from entering into the market by creating

Table 3: Effect of Order of Entry on Performance

<table>
<thead>
<tr>
<th></th>
<th>Pioneers</th>
<th></th>
<th></th>
<th>Followers</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Market share (%)</td>
<td>11.20</td>
<td>10.50</td>
<td>09.30</td>
<td>07.50*</td>
<td>06.85*</td>
<td>06.96**</td>
</tr>
<tr>
<td>Sales (Rs billion)</td>
<td>8.9</td>
<td>17.03</td>
<td>27.66</td>
<td>02.96*</td>
<td>05.63*</td>
<td>10.63**</td>
</tr>
<tr>
<td>Return on investment (%)</td>
<td>25.40</td>
<td>15.70</td>
<td>17.56</td>
<td>21.40</td>
<td>20.30</td>
<td>15.20</td>
</tr>
<tr>
<td>Profit before tax (Rs billion)</td>
<td>0.46</td>
<td>01.08</td>
<td>01.72</td>
<td>00.12*</td>
<td>00.39**</td>
<td>00.40**</td>
</tr>
</tbody>
</table>

* difference significant at 1% level, ** significant at 5% level.
entry barriers. Various strategies are considered as the dependent variables and order of entry is considered as the independent variable. Table 4 shows average spending on various strategies for both the pioneers and the followers over the years with corresponding ANOVA results.

The results show that these hypotheses are strongly supported for the year 2001. These results imply that, with increasing competition in the marketplace, the firms seem to have understood the importance of these strategies for their survival and performance. In the initial years of liberalization, two groups are different in R&D and distribution. Over the years, the pioneers appear to be much more aggressive in pursuing these strategies and are more involved in creating entry barriers for potential entrants. For the year 2001, the pioneers’ investment in all the four strategies is significantly higher than those of the followers.

Performance and Strategies

Effect of Performance on Strategies

Hypothesis 3a indicates that the firms with better performance in the marketplace are likely to invest more heavily in all the four strategies. The performance variable chosen for testing these hypotheses is market share. The sample is divided into three equal parts (high market share, average market share, and low market share). Strategies are considered as the dependent variables and market share category is considered as the independent variable. Table 5 shows the average spending on four strategies by the firms in the three categories of market share for year 2001. ANOVA is conducted for each strategy.

Results show that the firms with higher market share are significantly different in pursuing various strategies than the less successful firms. They imply that these firms are engaged in acquiring wider distribution channel, promoting their products heavily, creating new and quality products for their customers, and advertising their products.

<table>
<thead>
<tr>
<th>Table 4: Effect of Order of Entry on Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Rs million)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>R&amp;D</td>
</tr>
<tr>
<td>Advertising</td>
</tr>
<tr>
<td>Promotion</td>
</tr>
<tr>
<td>Distribution</td>
</tr>
</tbody>
</table>

* difference significant at 1% level. ** significant at 5% level.

Table 5: Effect of Market Share on Strategies

<table>
<thead>
<tr>
<th>(Rs million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Market Share</td>
</tr>
<tr>
<td>R&amp;D*</td>
</tr>
<tr>
<td>Advertising*</td>
</tr>
<tr>
<td>Promotion*</td>
</tr>
<tr>
<td>Distribution*</td>
</tr>
</tbody>
</table>

* difference significant at 1% level.

Effect of Strategies on Performance

Hypothesis 3b indicates that those firms which invest heavily in strategies are likely to perform better in the marketplace. The sample is divided into three equal parts (low, average, and high) for each strategy. ANOVA is conducted for each strategy considering market share of the firms as dependent variable and strategies as independent variable. Tables 6 (a), (b), (c), and (d) present the average market share for three categories of each strategy for the year 2001 with results of ANOVA.

The results show that the firms that invest heavily in strategies also perform better (i.e. have higher market share).

Variation in Pioneers’ Performance

The initial statistics show that, in general, the pioneers perform better than the followers. However, this general tendency might conceal variations in the performance of individual companies within the pioneer group. The
variations in pioneers’ market share and return on investment are shown in Table 7.

Table 7 shows that the variation in the pioneers’ group is quite high as standard deviations for both market share and return on investment are quite large for the sample. The market share of the pioneers ranges from 0 per cent to 81.82 per cent with standard deviation of 11.59 per cent. Similarly, the range of return on investment is from -46.35 per cent to 317.98 per cent with standard deviation of 35.26 per cent.

Hypotheses 4a, 4b, 4c, and 4d propose that those pioneers which perform better in the marketplace are likely to invest more heavily in various strategies than the less successful pioneers. Median split is used to divide pioneers themselves into two groups — high market share pioneers and low market share pioneers. To examine the difference between the two groups in expenditures on the strategies, ANOVA is conducted. Various strategies are considered as the dependent variables and the two groups of pioneers as the independent variable. Table 8 shows the average spending of the two groups of pioneers for each strategy with results of ANOVA.

The results show that successful pioneers differ considerably from less successful pioneers. Pioneers with higher share in the market are engaged more aggressively in R&D, promotion, and distribution. Although successful pioneers invest more in advertising than their less successful peers, this difference is not statistically significant.

Moderating Effect

Hypothesis 5 regarding the effect of moderating variable proposes that the effect of order of entry on performance is stronger for those firms that operate in low competitive environment. The sample of companies was divided into two parts — those under low competition and those under high competition — on the basis of number of competitors in the industry in which a particular company competes. Simple linear regression is carried out for both sets of data. Market share is considered as the dependent variable and the years of experience as the independent variable in the regression equation. The results of linear regression are given in Table 9.

The results show that the order of entry effect is stronger in the case of low competition than intense competition. This is evident from the respective coefficients of regression equation which are 0.146 for low competitive environment and 0.046 for intense competition. The regression results show that the experience of a firm in the marketplace explains 4.3 per cent variation in market share for low competitive environment and 3.5 per cent for intense competition. These results are similar to previous works which show that the order of entry factor explains around 8 per cent variation in the market share (Lambkin, 1992).

As coefficients of independent variable (experience) for the two regression equations are different, we performed a hypothesis test to examine the significance of this difference. Thus, we test null hypothesis $H_0: \beta_1 = \beta_2$ versus alternative hypothesis $H_1: \beta_1 \neq \beta_2$, where $\beta_1$ and $\beta_2$ are regression coefficients in case of low and intense competition, respectively. The test was performed to check the homogeneity of a group of regressions coefficients using ANOVA approach with the following expressions (Goon, Gupta and Dasgupta, 2001).

$$S_1^2 = \sum_i \sum_j [y_{ij} - \bar{y}_i - b_i (x_{ij} - \bar{x}_i)]^2$$

$$S_2^2 = \sum_i \sum_j [y_{ij} - \bar{y}_i - b (x_{ij} - \bar{x}_i)]^2$$

$$b = \frac{\sum_i \sum_j (x_{ij} - \bar{x}_i)(y_{ij} - \bar{y}_i)}{\sum_i \sum_j (x_{ij} - \bar{x}_i)^2}$$

Test statistic $= \frac{S_2^2 - S_1^2}{S_1^2} \times \frac{n_1 + n_2 - 4}{1}$ with degrees of freedom $= (1, 390)$
As the calculated value of F-statistic is greater than the critical value of F-statistic at 5 per cent significance level with 1, 390 degrees of freedom, we reject the null hypothesis that the two regression coefficients are equal. This result indicates that competitive environment significantly moderates the order of entry-performance relationship.

MANAGERIAL IMPLICATIONS

The results emphasize the significance of fundamental marketing and competitive strategy concepts and practices employed by market pioneers and followers. They indicate that, if the timing of market entry and competitive strategies variables are properly planned and executed, then enduring performance can be achieved. We show that the order of entry affects both performance and strategies of a firm in prevailing market conditions and has long-term effect on a firm’s performance. The firms which enter early into the market perform better than their competitors over a period. These firms invest heavily in various strategies to create entry barriers for potential entrants. In addition, both performance and strategies have an impact on each other. Firms with higher market share invest more in strategies and vice-versa. Effect of order of entry is stronger in low competitive environment; firms which enter early in low competitive environment have significant market share advantage.

Market pioneering is not a normative strategy conducive to superior performance for all the firms. Environmental change presents opportunities to all the firms but a particular firm must have certain competencies and capabilities such as technological foresight, unique R&D capabilities, promotion acumen, and widespread distribution channels to be a successful market pioneer. Indeed, depending on their unique strategic postures, some firms might benefit from an early entry while others might benefit by following.

Our results present evidence that pioneering advantage exists in the Indian economic environment but these advantages may not solely be due to order of entry as other factors such as strategies and competitive environment also affect a firm’s performance. Though certain advantages might accrue to or be endowed on the pioneer, being a market pioneer alone may not directly produce enduring competitive advantage and dominant market share. Market pioneering only provides opportunities for achieving positional advantages and market share dominance. Unless a firm has the expertise, resources, and creativity necessary to exploit these opportunities, being first to market will produce neither sustainable competitive advantage nor desired performance outcomes.

For decision makers, one clear implication is that consideration of a pioneering strategy in the prevailing Indian economic scenario should be accompanied by an understanding of the market’s economic, technological, political, social, and competitive conditions. These conditions present a wide range of potential influences on business performance. By weighing these influences, firms can better evaluate the viability of early entry rather than assuming that first is always the best.

CONCLUSIONS

The notion of pioneering advantage is a multi-dimensional concept that depends on an array of factors. The combined effect of these factors determines the firm’s performance in the marketplace. Knowledge of these factors would help the firms to differentiate their products from the competitors and remain competitive in the market for a longer period. In this paper, we have proposed a conceptual framework for strategic decision regarding timing of entry into the market under prevailing environmental conditions. We have also proposed two basic strategies, namely, pioneering and following, and discussed various strategic components under both the strategic options. This framework renders insights regarding the performance of a firm in the market.

We have attempted to examine in the Indian context the widely accepted belief that pioneers out-perform later entrants. Researchers have shown that, in the developed markets of the world, the pioneers have better performance and profitability than the followers (Lambkin, 1992; Robinson and Fornell, 1985; and Robinson, 1988). Our results confirm that, in general, the pioneers perform better than the followers and firms which enter

### Table 9: Regression Results Regarding Effect of Competition

<table>
<thead>
<tr>
<th>Competition</th>
<th>Coefficient</th>
<th>R²-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low competition</td>
<td>0.146</td>
<td>0.043</td>
<td>0.002</td>
</tr>
<tr>
<td>Intense competition</td>
<td>0.046</td>
<td>0.035</td>
<td>0.005</td>
</tr>
</tbody>
</table>

Based on empirical data,

$b_1 = 0.146$, $b_2=0.046$, $S_1^2 = 41775.49$, $S_2^2 = 42245.24$

Calculated statistic is $F_{calculated} = 4.39$, and critical $F_{1, 390, .05} = 3.84$. 

**PIONEERING ADVANTAGE OF COMPANIES**
early into the market have larger market share and profit than the followers. In our sample for the year 2001, the pioneers had an average market share of 9.3 per cent, while the followers had 6.9 per cent. We also find that firms which enter first into the market are generally more aggressive in pursuing various strategies such as R&D, advertising, promotion, and distribution. Investments in strategies create entry barriers for competitors which may find it difficult to compete with existing firms as resource requirements are quite high in this scenario. Pioneering advantage seems to be a long-term competitive advantage for businesses as pioneers’ performance is consistently better than followers over the years. Although pioneering effect starts reducing over time in terms of market share, profit margins for pioneers are higher even after considerable length of time.

The results show that performance (market share) and strategic variables are closely related and dependent upon each other. They also confirm that strategies have a differential impact on the performance chances within market pioneers group. Further, modifying variable, competitive environment, alters the relationship between order of entry and firm’s performance in the market.

Limitations and Directions for Future Research

Certain limitations of this study should be recognized. First, this is a preliminary study of the pioneering advantage in the Indian context which tests a limited set of hypotheses. It uses a database that may not be representative of all types of businesses. It is likely, for example, that there is an upward bias in the performance of the businesses studied here because they are all large successful firms reported in the Top 500 list. Consideration of additional strategies and competitive environments would provide attractive avenues for future research. Similarly, analysis of each industry segment completely will give more understanding about the order of entry effect in the different segments. Also, if data could be available at a more detailed level, then a divisional level view of parameters such as advertising or profitability would provide a more refined analysis of the pioneering advantage. Studies could be conducted to examine the difference between the consumer goods businesses and the industrial goods businesses. Effect of several other strategies such as product line width, product quality, pricing and so on can be included to examine the effect on firm’s performance and profitability. Interaction of the order of entry variable with the other variables can also be considered for future work. The results found in this paper could be further substantiated by collecting primary data and self-assessment data such as PIMS.

Appendix: List of Industry Sectors Included in the Sample

| 1. Auto ancillaries | 17. Hotels          |
| 2. Automobiles     | 18. Iron and steel |
| 5. Capital goods   | 21. Mining         |
| 6. Cement          | 22. Oil and gas    |
| 7. Chemicals       | 23. Paints         |
| 11. Diversified    | 27. Power          |
| 12. Electronics, Engineering | 28. Shipping     |
| 14. Fertilisers    | 30. Textile        |
| 15. Food processing | 31. Tyres         |
| 16. Gems and jewellery | 32. Others      |

ENDNOTES

1. PROWESS is the corporate database service provided by the Centre for Monitoring Indian Economy (CMIE). It contains a financial database on over 8,000 companies starting from the year 1990. PROWESS provides the raw data for various purposes and further analyses can be performed with the use of command functions provided in PROWESS.

2. If sales are the only criterion used to include a company, then companies which have huge investments in building asset base but whose sales are yet to pick up, would not be in the list. If only asset base is used to include a company, then asset-poor and knowledge-rich companies such as Infosys, Wipro, and Satyam Computers would not be in the list.

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3. Several previous researchers (e.g., Schmalensee, 1982; Robinson and Fornell, 1985; Golder and Tellis, 1993; Tellis and Golder, 1996; and Lambkin, 1988, 1992) have used the order of entry view to define pioneers vs. followers. Tellis and Golder (1996) suggest that order of entry might be the only reasonable measure to determine if being first itself has any enduring advantages. They argue that definition based on “pioneered a new concept or a new market segment … is circular: if successful firms are labeled pioneers, the pioneers must be successful. When a firm enters a market, the only certainty is its order of entry, whether first, second, etc.” [p 66]. Further, some researchers (e.g., Brown and Lattin, 1994) have specifically argued for including the experience or time-in-market, besides order of entry, as an additional measure of pioneering advantage. On the basis of the above research works, it is reasonable to assume year of incorporation as a surrogate for order of entry.

REFERENCES


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Perception is strong and sight weak. In strategy it is important to see distant things as if they were close and to take a distanced view of close things.

Miyamoto Musashi