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**Order of Market Entry and
Competitive Strategy in Financial
Services Innovations**

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Abstract

We estimate order of market entry effects when moderated by the strategic characteristics of the entering firm. Although the main effect of order of market entry on market share is remarkably strong, we find, when we control for firms' strategic inclinations, that certain strategic types appear to fare better than others when pioneering new financial services. Such differences could help explain situations in which later entrants outperform pioneers.

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This essay examines the relationship between order of market entry, competitive strategy, and performance in financial services. We attempt to answer one question: Are there variations in the relationship between order of market entry and long term market share and performance for financial service firms that exhibit different strategic behaviors? To do so, we first review extant literature on the subject. Thereupon, we formulate hypotheses and propose a model. The model is empirically tested and followed by a summary of results and a discussion. Our results reveal that the effects of early entry are stronger for strategic types which are typical early entrants.

Introduction and Research Background

As reviewed in Lopez and Roberts (1997), first-movers have been shown to enjoy important long-term market share advantages. A negative relationship between order of market entry and market share has been found to be consistent across many and different product lines.

Aside from this relationship, two other generalizations are fairly well established (Kalyanaram et al., 1993). First, "...in the case of consumer packaged goods and prescription anti-ulcer drugs, the entrant's market share divided by the first entrant's share roughly equals one divided by the square root of order of market entry" (Kalyanaram et al., 1993:1). Second, "...the advantage of pioneers in mature markets slowly declines over time" (Kalyanaram et al., 1993:1).

In services Tufano (1989) found, for a sample of 58 financial innovations, that pioneering investment banks did gain larger market shares than later entrants. Tufano

(1989) showed that pioneers capture shares which are "...almost 2.5 times as large as the followers in those markets" (Tufano, 1989: 231). Such advantage seems to remain consistent in subsequent years of the life of the product. The same firm is shown to capture substantially less share with imitations than with innovations. Another empirical study by Lopez and Roberts (1997) also suggests that pioneers of financial services innovations tend to capture larger market shares than later entrants. However, whether such proclivity to innovate is associated with particular strategies is not directly tested in these studies. Despite the remarkable consistency of the relationship between order of entry and market share, the question remains whether certain strategies are associated with better performance for a given timing of entry decision. Schnaars (1994) argues that later entrants can seize markets from pioneers through the management of adequate imitation strategies. Yet, other authors (for example Zahra, et al., 1995) support the opposing notion: that pioneering, if properly managed, can provide competitive advantage. In general, there is evidence that indicates that some firms might be good at pioneering while others probably perform better as imitators. Given that imitating a financial product is considerably less expensive than creating it,¹ it is plausible that some firms find it more profitable to become perennial imitators. Hence it becomes important to examine not only entry per se, but the alignment of firms' strategic intentions in regard to entries into new markets. Both variables in conjunction should provide us with a more complete view of factors that mediate the well-known relationship between order of market entry and market share.

We shall not repeat here the main findings of the literature on order of market entry, which have been reviewed elsewhere (Lopez and Roberts, 1997; Robinson et al., 1994, Szymanski et al., 1995; Kerin et al., 1992), but will concentrate on the much

¹Tufano (1988) indicates that imitating a financial product can cost only 25% to 50% of the cost involved in creating it.

smaller subset that examines concepts that might somehow be related to competitive strategy and order of market entry.

Some studies have shown that pioneering doesn't necessarily result in larger market shares. Golder and Tellis (1993), using an historical approach, found that not all pioneering efforts end in success. In fact they report a 47% failure rate for pioneers. Such results are different from the findings of other authors, and the discrepancies may be attributed to differences in the operational definition of the pioneer. While some authors in the marketing area define pioneers as those which first achieve national distribution (Urban et al., 1986) or as "... the first business to develop such product or service" (Robinson and Fornell, 1992), Golder and Tellis define the pioneer as the first to enter a market. Golder and Tellis, however, do find that "early leaders", defined as firms which are the market share leaders during the early growth phase of the product life cycle, are very successful. Their findings indicate that these early leaders retain a large market share (28% on average) and have low failure rates. These "early leaders" are not necessarily the pioneers. Some enter the market several years after the pioneer, and Golder and Tellis (1993) speculate that they are successful because have developed particular traits and abilities which condition such success. In their words (Golder and Tellis, 1993:167):

Why are early leaders so successful? The reason may be their ability to spot a market opportunity and their willingness to commit large resources to develop the market. Indeed, in many of the categories we studied, the start of the growth phase in the product life cycle may well be attributed to the market-building efforts of these early leaders. Our finding is similar to Chandler's (1990) for industrial goods, where long-term survival and success were due more to the commitment of adequate resources to large-scale production than to entering first.

This indicates that firms may be conditioned by their strategies to reap different market shares for different times of entry. Pioneering, hence, may exert an important main effect upon market share, but interactions with other variables, particularly variables that are associated with firms' skills, resources, and abilities to deploy such resources, is plausible.

Several authors have advocated the need to study these interactions and to specifically model the effect of pioneering on market share in combination with strategic variables (Kerin et al., 1992; Moore et al., 1991; Kalyanaram and Urban, 1992) and not only the main effect caused by pioneering. For instance, Robinson et al., (1992) explored whether entering a market at various times was coupled to different skill and resource profiles. They discussed "two conflicting patterns": on the one hand, if pioneering results in market share advantages, then all firms will want to enter markets first. It will only be those competitors with intrinsic strengths that will force themselves into the market, thus resulting in an "absolute pioneering advantage." On the other hand, the "comparative pioneering advantage hypothesis" would stress that "strategic windows" open during the course of market evolution for certain strategic types. As these authors indicate (Robinson et al., 1992:1-2), "...the market pioneer-type will realize greater performance if both it and the later entrant-type attempt to be market pioneers. The later entrant-type will realize greater performance if both it and the market pioneer-type attempt to be later entrants." Their findings indicate that market pioneers, early followers, and late entrants tend to have different skills and resource profiles, and "...the 'strategic window' for market entry tends to open at different times for different entrant types" (Robinson et al., 1992: 622). Szymanski et al. (1995: 30) also argue, utilizing data from several studies, that "...modeling order of entry as an interaction effect appears to capture best the relationship between order of entry and market share." Success, hence,

doesn't immediately follow from pioneering, and this, in turn, might be a function of the way in which skills and resources are deployed by pioneering and follower firms. Lilien and Yoon (1990), for instance, model entry as a strategic decision (in this case defined as the choice between being a pioneer or a follower) influenced by the competition of other entrants in R&D, product, market, and the like. These authors found that the likelihood of success for first and second entrants was lower than the likelihood of success for the third and fourth entrants in a sample of 112 new industrial products from 52 French firms. This could suggest that later entrants can overcome pioneer advantages through a more apt deployment of resources and skills. Along these lines, Moore et al. (1991) developed a model in which pioneering was considered to be endogenous, (that is, they assigned the advantage earned by first-movers to firm proficiency rather than solely to pioneering). The authors found that the relationship between market share gains and entry times is partially based on "...unobservable determinants of success such as management skills and resources" (Moore et al., 1991: 103). Murthi, Srinivasan and Kalyanaram (1996) reexamine the relationship between pioneering and market share controlling for managerial skills. Their analysis shows that the strength of the relationship between order of market entry and market share is not diminished or altered in any important way when such controls are introduced. Perhaps such unobservable determinants should encompass managerial skills and a combination of additional organizational variables.

In all, this suggests that the relationship between order of market entry and market share should be treated in conjunction with environmental and organizational factors. Firms have different strategic inclinations in terms of innovation and entry order, and these different inclinations should be taken into account when studying pioneering advantages.

Kerin et al. (1992), for instance, stress the need to link organizational and environmental variables to the research on pioneering advantages. Such link is needed because (Kerin, et al., 1992: 48):

...environmental change presents opportunities to all firms, but a particular firm must have certain competencies and capabilities, such as technological foresight, perceptive market research, skillful product and process development capabilities, marketing acumen, and possibly luck to be a successful market pioneer. Indeed, depending on their unique strategic posture, some firms might benefit from early entry and others might benefit from following.

Studying the interaction between entry and different business strategies could help explain different patterns of performance for a given entry order and some of the mixed results that are observed in the literature about pioneering (Szymanski, et al., 1995). The relationship between pioneering and market share is consistent across studies² but the possibility of a follower outperforming an early entrant exists, and it could correspond to the different strategies that firms follow. As Kerin et al. (1992:40) indicate,

Though environmental change provides an opportunity for a firm to be a first mover, the likelihood of a firm benefiting from being a first mover depends on several organizational factors, including the degree of fit between the (1) skills and resources necessary to capitalize on an environmental opportunity and the skills and resources possessed by the firm and (2) skills and resources necessary to capitalize on mechanisms for enhancing a first-mover advantage and skills and resources possessed by the firm to convert these mechanisms into a first-mover advantage.

Few studies have explicitly studied competitive strategy and order of market entry together. Lambkin (1988) considered strategy when investigating whether pioneers enjoyed long term advantages from entering first into new markets. She classified

²See for example Szymanski et al. (1995) for a meta-analysis.

entrants into pioneers, early followers, and late entrants, and her results confirm that pioneers perform better than later entrants. For 2 subsamples of 129 start-up businesses (using data for their first four years of operation) and 187 adolescent businesses (data for their second four years of operation), Lambkin found that, generally speaking, pioneers attain an important market share advantage over later entrants (on average 23.96% for pioneers vs. 9.7% for late entrants in the start-up subsample and 32.56% vs. 12.95 in the adolescent subsample). In Lambkin's study, however, strategy is equated to order of market entry.³ As a result, the paper suggests the existence of different strategic typologies moderating the relationship between order of market entry and market share, but such moderating effects are not clearly explicated, particularly because it is assumed that certain strategic typologies are inextricably linked to certain entry categories.

DeCastro and Chrisman (1995), contrary to Lambkin, treat this relationship as an empirical question. These authors start with the premise that it is the combination of an entry strategy and a competitive strategy that gives firms an enduring performance advantage. Strategy is categorized as either low cost differentiation, utility and "stuck-in-the-middle". These categorizations of strategy are an extension of Porter's (1980) low-cost-differentiation dichotomy. In such vein, strategy is operationalized using 13 items such as inventory/sales, receivables/sales, and the like. These authors found that both order of market entry and competitive strategy have a significant effect upon performance. For example, the ROI of pioneers with utility strategies (61.54%) was significantly higher than the ROIs of pioneers with "stuck-in-the-middle" strategies (19.85%). The study does suggest that the relationship between OME and performance (in this case, financial performance measured by ROI) is influenced by the strategic characteristics of firms. The definition of competitive strategy is, however, somewhat

³Pioneers are, ex-post, automatically termed "r-generalists", and late entrants become "k-specialists" (following the terminology of population ecologists).

unclear. Because strategy is defined ex post, based on observed values attained by firms in a number of aspects, the sample ends up containing a disproportionately small number of firms that follow a utility strategy. This notwithstanding, the study is valuable because it clearly establishes that viewing order of market entry in the light of firm strategies can render important insights, and particularly in regard to financial services.

Order of Market Entry and Strategy

We can see from the above that although much literature looks at order of market entry by itself, strategy is inextricably linked to the outcomes of market entry. As Collis and Montgomery (1995: 120) indicate,

Competitive advantage, whatever its source, ultimately can be attributed to the ownership of a valuable resource that enables the company to perform activities better or more cheaply than competitors...Superior performance will therefore be based on developing a competitively distinct set of resources and deploying them in a well-conceived strategy.

Yet, having resources and deploying them in attractive industries is insufficient if adequate policies and consideration of the dynamics of entry are absent. Order of market entry will inevitably require careful assessment, regardless of the uniqueness, abundance, appropriability, or durability of the resources being deployed.

The effects of order of market entry can be analyzed from several perspectives. A first approximation is to treat average order of market entry as a proxy for firm strategy (Lambkin, 1988). Because firms possess unique resources and orientations (Collis and

Montgomery, 1995), deployment of such resources might result in distinctive patterns of entry (i. e., firms could be, characteristically, pioneers, early entrants, late entrants, or laggards). Such first approximation has to be refined by incorporating other, very salient, dimensions of strategy. First, expectations about entry are different at the corporate, multi-business, and business level strategy. Definitions vary at these levels, and one must be careful in identifying the aspects that characterize strategy in all cases. Second, a definition of strategy may be more or less dynamic. Ex post definitions based on Porter's low cost and differentiation categories or modifications thereof, result in conceptualizations that are essentially static. This contrasts ex ante definitions of strategy which seek to understand institutions' strategic behaviors as a series of actions taken through time. These two dimensions, the level of analysis and the dynamism associated to the firm's strategy, interplay differently, rendering categories in which the relationship between order of market entry and market share must be analyzed correspondingly. Such analysis within each of the four categories must be examined in terms of the effects they have upon positioning (where applicable), focus, and the fit of the products with the rest of the product line. Where strategy is viewed as firms seeking to accommodate themselves in an industry with predetermined characteristics, market share might be conditioned primarily by competitive positioning rather than order of market entry. Here the effect of order of market entry would be dwarfed by the effect of the competitive positioning at the business level. The study by De Castro et al. (1995) might be conceptualized as falling within this category. At the corporate level issues of

entry are important also, particularly across international markets (Mascarenas, 1992), but the notions of focus and fit acquire different proportions. At the corporate level decisions of focus and fit (or relatedness) are evaluated in terms of whole businesses. The decision to participate in a market coupled to the extent to which businesses are going to be interrelated determine the degree of focus (or diversification) of the corporation.

At the business level, scope will be determined in the amplitude of product offerings and focus in the degree of interrelatedness of subsequent product offerings with the rest. At this level, therefore, we can evaluate order of market entry and strategy directly, by studying how one particular entry fits with the rest of the product portfolio. Lopez and Roberts (1997) devised a methodology for calculating product interrelatedness by categorizing products into client-product matrices and estimating a value for the dispersion of the data points. Subsequent product offerings will be of three kinds: a) entries that reduce the variability, b) entries that increase variability, or, plausibly, c) entries that do not affect variability. These entries can be conceptualized as strategic decisions related to business scope and focus, hence establishing a direct link between order of market entry and strategy. By establishing characteristic orders of market entry for certain players and, in particular, by establishing the relationship between order of market entry with the strategic effect in terms of greater or less focus or fit, we can then directly observe the effect of strategy on the relationship between order of market entry and market share.

In this study we seek to operationalize the strategy variable by characterizing institutions into prototypical categories using extant measures. One widely used classificatory scheme is Miles and Snow's strategic typology. This typology has originated a large amount of research interest and support (Conant, et al., 1990; Zahra, 1987; MacDaniel and Kolari, 1987). Miles and Snow (1978) proposed that firms develop patterns of behavior through a process that involves three multidimensional collections of problems and solutions: an entrepreneurial problem set which focuses upon an organization's product and market scopes; an engineering problem that is centered around the choice of technologies and processes which will be used for production and distribution; and an administrative problem that has to do with the selection and development of processes and organizational structures. Miles, Snow et al., (1978) proposed a theoretical framework that classified behavioral patterns used by organizations to coalign with their environments. This framework defined three strategic types of organizations: Defenders, Analyzers, and Prospectors. A fourth type, the Reactors, is composed of firms that exhibit inconsistencies in their strategies, technologies, structures, and processes. The characteristics of these typologies are established along several dimensions associated with the entrepreneurial, administrative, and engineering problems. One important dimension that differentiates these strategic types is the rate of product innovation and the definition of product-market domains. Prospectors actively engage in continuous expansion into new markets with new products. Analyzers tend to carefully look for product-market opportunities and to

embrace those which minimize risks and maximize profit opportunities. Defenders remain narrowly focused trying to create a stable set of products and customers. Reactors exhibit uneven and transient behavior with "...opportunistic thrusts and coping postures." (Conant, et al., 1990). For instance, McDaniel and Kolari (1987) found that the importance ascribed by executives to various marketing elements in a large sample of financial institutions was significantly different among strategic types. They found that the most significant differences were found among Defenders and either Prospectors or Analyzers. These different manners of strategic coalignment appear to be stable over time. Given the different ways in which the entrepreneurial problem is solved, one should expect to see different results from pioneering for each of the typologies. Kerin et al. (1992) argue that:

It is significant that the Miles and Snow strategy typology does not explicitly advocate market pioneering as the normative strategic behavior conducive to superior performance for all organizations, nor does it impute insurmountable competitive advantages to the first mover. It suggests that though some organizations might be inclined to enter a market first (prospector firms) because of a distinct set of organizational competencies, others influenced by a different set of distinct organizational competencies may be more inclined to enter a market after its viability has been proven, and yet achieve performance levels comparable or superior to those of the pioneer.

Despite the abundance of research about this typology, systematic classificatory schemes are scarce. Zahra et al. (1990) review in detail several studies on the Miles-Snow typology and conclude that most of this research doesn't take into account many of the dimensions that comprise each of the typologies originally proposed by Miles and

Snow (1978). Conant et al. (1990), in another study, reach similar conclusions, but they offer a multi-item scale which does take all the underlying dimensions into account and helps in the determination of pure strategic types. In this work we are using the scale provided by Conant et al. (1990) with slight adaptations. Moreover, Shortell and Zajac (1990) provided evidence that strongly support the validity of CEO assessment of the firm's strategic orientations. These authors found that the use of knowledgeable key informants within organizations was a valid approach for measuring strategy.

Another approach, and perhaps one of the most complete empirical analysis, is that of Venkatraman. Venkatraman (1989) argues that,

...in spite of several discussions on alternate approaches to operationalizing strategy (Ginsberg, 1984; Hambrick, 1980; Pitts and Hopkins 1982; Snow and Hambrick 1980), the linkage between theoretical definitions and their corresponding measures has been generally weak. Most existing measures for the strategy constructs are either nominal (and/or single-item) scales that have questionable measurement properties or multi-item scales whose measurement properties (such as reliability, and unidimensionality, convergent and discriminant validity as well as nomological validity) have not been systematically assessed

More recently, several authors (Miller and Friesen, 1978 and 1984; Dess and Davis, 1984; and Venkatraman and Grant, 1986; and Venkatraman, 1989) have developed alternate measurement systems to unveil differences in strategies. These systems are comprised of several dimensions which together facilitate the development of a fairly detailed portrayal of firms' strategic inclinations. Venkatraman (1989) proposes a scale to measure strategic orientations of firms. The scale, denominated STROBE (Strategic Orientation of Business Enterprises), consists of six dimensions: Aggressiveness, Analysis, Defensiveness, Futurity, Proactiveness, and Riskiness. Venkatraman's STROBE scale, although conceptualized at the business level, doesn't

establish a clear link between its dimensions and decisions of scope and focus of the business unit. Using our methodology, aggressiveness, for instance, could be conceptualized as radical departures from the firms' average plot or, as another instance, defensiveness could be viewed in terms of entries which are consistently reducing the variability around the firms average client-product plot.

In this study, of course, we are not interested in advancing the development of such schemes for measuring strategy. Rather, we are interested in studying in more detail the effects of order of market entry when observed under the light of the entrant's competitive strategy. Hence, to this end, we use already developed scales to measure the construct. We must underscore that these measures of strategy do not provide clear means for establishing the aforementioned effects through the client-product plots. Moreover, such measures encompass only a portion of the total phenomenon. They portray dynamic characteristics of business level strategy and, therefore, results cannot be extrapolated to the corporate level.

Our purpose here is only to investigate whether certain strategic types will enjoy advantages from pioneering, or, as Robinson et al. (1992: 622) indicate, whether "...strategic windows for market entry tend to open at different times for different entry types." There might exist firms with a built-in inclination for developing new products. These would be firms that are on the constant lookout for new developments and are interested in disrupting the market. Because of this, they might have developed skills for coping with related risks and uncertainties associated with the development and launching of new services. Other less aggressive firms may encounter themselves in a

situation of being a pioneer or an early entrant, but, because of inexperience in dealing with the situation, fail. Conversely, they may have become adept at exploiting proven markets, hence they may achieve good performance despite entering relatively late.

Hypotheses

From the aforementioned we propose that:

HO: Firms that are characteristically early entrants will have a stronger effect of order of market entry on long term market share. Prospectors will exhibit larger long term-market shares than all other Miles and Snow strategic types. Firms which are characteristically late entrants (such as defenders) will achieve performance outcomes comparable to those of the pioneer.

H1: The relationship between order of market entry and market share will significantly change when controlling for business strategic orientations. In particular, firms that score high on the Aggressiveness dimension of Venkatraman's (1989) STROBE scale, will enjoy greater long term market shares than other firms⁴.

Aggressiveness is understood, following Venkatraman (1989), as "...referring to the posture adopted by a business in its allocation of resources for improving market positions at a relatively faster rate than the competitors in its chosen market." Thus, we would expect aggressive firms to improve market positions through the introduction of

⁴See Table 2 for a summary of the six strategy dimensions contemplated by Venkatraman to conform the measuring scale.

new products and through aggressive pricing. We should expect higher scores of this dimension to be found among firms which are typically pioneers and early entrants. Venkatraman's pilot findings indicate that firms which have aggressive postures did not fare well when performance was measured using financial indicators. Yet, these firms did have greater market shares despite weaker financial positions.

Methods

This study is based primarily on historical analysis. Product histories for several financial products have been reconstructed and assembled using archival records available in published sources of information (which include primarily newspapers, trade journals, and research papers) and from other sources such as regulatory institutions. The historic information was then validated with data from informants in pertinent institutions and other people who were familiar with the industry. For convenience of data gathering, the sample chosen is a set of three financial services launched in Costa Rica within the past 15 years. As in the preceding essay, we use a sample of 36 entries in three product lines (credit cards, debit cards, and pension funds). Our choice of sample encompasses products that were created recently. This permitted gathering a significant amount of information from public records and cross-validating it with people in the industry who had actually participated in the conceptualization and launching of the products.

In order to obtain information about strategic inclinations of firms, we used primarily two sources of information. First we interviewed bank executives. These interviews were semi-structured and were used to administer in-situ all scales used to measure strategy. We also gathered information from three industry experts. Information was then compared and contrasted. We requested clarification through the telephone.

Care was taken to interview top level managers in the institutions under study. In some cases we performed interviews with several members of the top management team in each institution.

Model and Measures

The dependent variable of this study is total market share of the nth entrant at the time of the study. Order of market entry is used as an independent variable. Pioneers are operationalized as the first entrant. The institution's strategy is used as a control variable. The model to be tested can be summarized as follows:

$$MS_{nc} = E_{nc}^{\alpha 1} S_{nc}^{\alpha 2}$$

Where:

MS_{nc} = market share of the nth product to enter category c, in percent. It is termed SHARE.

$E_{nc}^{\alpha 1}$ = Order of entry of nth product in category c. It is termed ENTRY.

$S_{nc}^{\alpha 2}$ = Strategy of the firm that launched the nth product in category c. It is named STRATEGY.

Two measuring schemes were used to characterize STRATEGY. Following our discussion earlier, the first measure involves the use of Miles and Snow's (1978) typology. In order to minimize the observations made by Zahra (1987) with respect to the correct categorization of industry participants into such categories, a systematic scheme

was used to assign categories. The measuring device closely follows the one proposed by Conant et al. (1990).

The second measure utilizes Venkatraman's *Strategic Orientation of Business Enterprises* or STROBE scale. This scale is comprised of six dimensions of strategic orientation. These dimensions are: Aggressiveness, Analysis, Defensiveness, Futurity, Proactiveness, and Riskiness. The meaning of each dimension is summarized in Table 2, and the items used to measure them are indicated in Appendix 2.

Table 2: Description of dimensions that compose the Strategic Orientation of Business Enterprises. Adapted from Venkatraman (1989).

Dimension of Strategic Orientation	Description
Aggressiveness	<ul style="list-style-type: none"> • Improving market positions at a relatively faster rate than the competitors, based on product innovations and/or market development or high investments to improve relative market share and competitive position. • Improvement of market positions in the short run (explosion). • Pursuit of market share as an important path towards achieving business unit profitability.
Analysis	<ul style="list-style-type: none"> • Tendency to search deeper for the roots of problems and to generate the best possible solution alternatives. • Extent of internal consistency achieved in the overall resource allocation for the achievement of chosen objectives • Use of appropriate management systems. • Does not reflect the 'Analyzer' behavior of Miles and Snow.
Defensiveness	<ul style="list-style-type: none"> • Emphasis on cost reduction and efficiency seeking methods. • Reflects view of organizations seeking to defend their core technology and the preservation of own products, markets and technologies.
Futurity	<ul style="list-style-type: none"> • Reflects temporal considerations. • Relative emphasis of effectiveness (longer-term) considerations versus efficiency (shorter-term) considerations. • Manifested through emphasis in areas such as forecasting sales and customer preferences and formal tracking of environmental trends.
Proactiveness	<ul style="list-style-type: none"> • Reflects proactive behavior to participate in emerging industries. • Continuous search for market opportunities and experimentation • Introduction of new products.
Riskiness	<ul style="list-style-type: none"> • Patterns of decision making and resource allocation in the choice of products and markets.

Data Analysis and Results

In this section we first compare and contrast the two alternative ways that were utilized to measure the independent variable STRATEGY. Then, after an exploratory data analysis, we fit regression models in which SHARE is regressed against ENTRY and STRATEGY.

Measurement of the independent variable STRATEGY

Before conducting any data analysis, all items in Venkatraman's *Strategic Orientation of Business Enterprises Scale (STROBE)* were tested for reliability in terms of the Cronbach α coefficient. This index is commonly used for measuring the reliability of indicators. For pre-testing purposes, we administered our questionnaire to a group of MBA students with experience in the financial services sector and thereupon to a group of managers of financial institutions from several countries. We finally tested the instrument with a group of 23 financial institutions. These pre-tests indicated that some reversed items appeared to confuse respondents. By changing these items we were able to attain reliability indicators which ranged between 0.49 to 0.84, as shown in Table 3. The reliability of the Riskiness indicator is very close to the cutoff point of 0.5 proposed by Nunnally (1967) for preliminary research. After the first pretest we tried to improve the reliability of this indicator by adding more items and primarily through improving the quality of the items. In the subsequent pre-test, an important improvement was observed. This item is also one of the two that exhibits the lowest internal consistency reliability

indices (0.53) in Venkatraman's (1989) original work. We decided to utilize this indicator, noting, nonetheless, its potential drawbacks.

Table 3. Reliability Analysis of indicators of STROBE scale used to measure strategy.

Variable	Number of items	Cronbach's alpha
Aggressiveness	3	0.57
Analysis	5	0.83
Defensiveness	3	0.69
Futurity	4	0.83
Proactiveness	4	0.84
Riskiness	3	0.49

Scatterplots of these indicators for our final pre-test show a fairly strong positive relationship between Analysis, Defensiveness, and Proactiveness. No evident curvilinearities appear to be present. Descriptive statistics for each of the items, shown in Table 4, reveal that the smallest means occur for Aggressiveness and Riskiness. Likewise, though certainly at least one institution scored the maximum score (7) in the variables Analysis, Defensiveness and Futurity; the maximum score observed in the variable Riskiness is 5.3. This might be due, according to the opinion of an industry expert, to the peculiar meaning that the word risk entails in banking. Risk in this industry is a multidimensional concept that must be actively managed, and bankers tend to be risk averse. Thus, in the banking industry managers deal with several types of risk, for example: credit risk (risk that loans will not be repaid), interest rate risk (risk that earnings will decline if interest rates change), liquidity risk (risk that funds will be tied up and cash will not be available when needed); insolvency risk (risk of liabilities becoming greater than assets), and currency risks. As a result the variable Riskiness in this industry has more connotations and implications than simply a reflection of businesses' resource allocations.

Table 4. Descriptive statistics of the indicators in the STROBE scale.

Variable	Mean	Std. Dev.	Min.	Max.
Aggressiveness	3.6	1.3	2.0	6.3
Analysis	4.9	1.4	2.2	7.0
Defensiveness	4.5	1.4	2.7	7.0
Futurity	5.1	1.3	2.0	7.0
Proactiveness	4.0	1.5	1.8	6.3
Riskiness	3.8	1.1	1.0	5.3

The emerging relationships we observed in the scatterplots were confirmed through Spearman-rank correlation coefficients (Table 5) which showed a strong and positive relationship between Analysis and Defensiveness, Futurity and Proactiveness (in all cases $S-r \geq 0.59$, $p < 0.001$). This suggests that, from a strategic standpoint, Analytical proclivity is not associated solely with passive strategic postures but also with more proactive stances even for firms operating in the same environment. Similarly, Proactiveness is positively correlated with Defensiveness ($S-r = 0.74$, $p < 0.001$) which suggests that one company may adopt a proactive stance towards defending its existing markets or that a firm may be proactive while defending certain market niches. No significant relationships are observed between the variables Aggressiveness and Riskiness, either between them or with other variables. This would suggest that an aggressive strategic posture is rather divorced from a more analytical long-term orientation.

Table 5. Spearman-rank correlation coefficients for all indicators of the Strategic Orientation of Business Enterprises Scale.

	Aggressiv.	Analy.	Defensiv.	Futur.	Proactiv.
Aggressiv.	1.00				
Analysis	0.08	1.00			
Defensiveness	0.25	0.77***	1.00		
Futurity	0.05	0.70***	0.72***	1.00	
Proactiveness	-0.07	0.72***	0.74***	0.59**	1.00
Riskiness	-0.14	0.03	-0.01	-0.15	0.07

***p<0.001, **p<0.01

The results shown in Table 5 are similar to those obtained by Venkatraman (1989: 955) in his pilot study where the variable Analysis is positively and significantly correlated with Defensiveness, Futurity and Proactiveness. Defensiveness is also positively and significantly correlated with Futurity and Proactiveness, and Futurity is correlated (positively and significantly) with Proactiveness. The only observed difference with Venkatraman's results is in the relationship between Aggressiveness and Riskiness. He found a positive correlation while here we observe no correlation. Such difference could arise from definitional problems we have already observed when exploring the data. In all, though, observed results do not depart significantly from the expected outcomes, particularly those mentioned in Venkatraman (1989) which were the only benchmark available. We were fairly comfortable that the STROBE scale was adequately portraying strategy for this sample of firms.

We then proceeded to classify the 23 firms into typologies, utilizing Conant et al.'s (1990) strategic types scale. According to this scale, 10 entries in our sample were made by institutions that were categorized as Prospectors, 9 were done by Analyzers, 8 by Defenders, and 7 by Reactors.

Although the measurements of STRATEGY that we were using were essentially different, we decided to check whether both scales were categorizing and classifying the institutions object of the study in ways which were somewhat consistent. To do so, we first cross tabulated the results as shown in Figure 1. The figure shows that Prospectors score higher in the Analysis, Defensiveness, Futurity and Proactiveness variables of the STROBE scale.

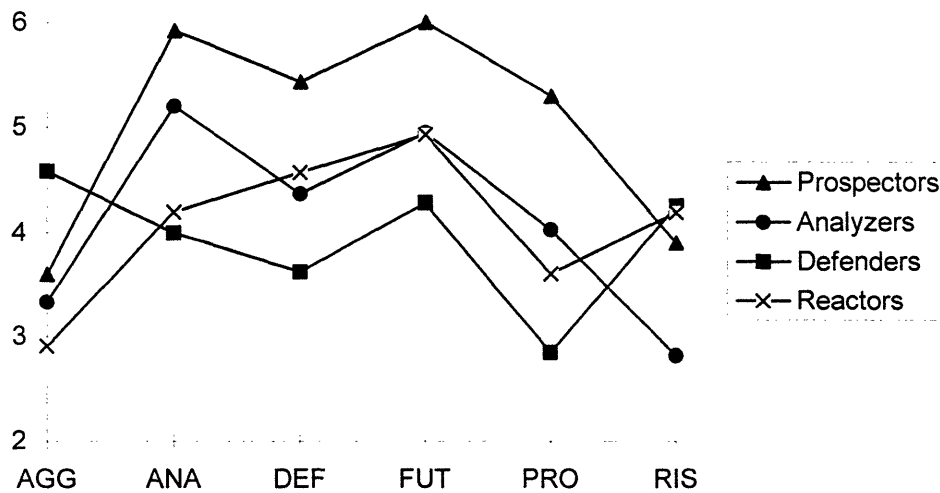


Figure 1. Cross tabulation of Miles and Snow Strategic Types with Venkatraman's Strategic Orientation of Business Enterprises Scale.

Table 6 shows Wilcoxon Rank-Sum for differences in medians for each of the six strategy dimensions and the typology of Miles and Snow. Prospectors, as a class, are clearly significantly different from Defenders in 5 of the six categories but only significantly different from Analyzers in 3 of the six categories. Analyzers fall, as expected from the theory (Miles, et al., 1978), somewhere between Prospectors and Defenders. Entries in this typology are significantly different from Defenders and Prospectors in 3 of the six categories. Reactors appear to have an uneven behavior across categories.

Table 6. Wilcoxon Rank-Sum Test for difference in medians. Difference in medians found significant by strategic type and for each of the six strategy dimensions of the STROBE scale.

	Strategy dimension				
Aggressiveness	Analysis	Defensiveness	Futurity	Proactiveness	Riskiness
	1-3*	1-2*	1-3~	1-2~	1-2~
	1-4~	1-3*	3-4~ ^{a/}	1-3~	1-3~ ^{a/}
	2-3~ ^{a/}			1-4~ ^{a/}	2-3*
				2-3~ ^{a/}	
				2-4~ ^{a/}	

^{a/}one-tailed

~p<0.1. *p<0.05

1=Prospectors, 2=Analyzers, 3=Defenders, 4=Reactors.

Regression Analyses.

Once we had evaluated the scales used to measure our independent variable STRATEGY, we concentrated on fitting the proposed regression models to evaluate entry effects in conjunction with firm strategy. Our first step in the analysis was to devise scatterplots of SHARE against ENTRY and the items of STRATEGY. Inspection of the

scatterplot of SHARE against ENTRY denoted the existence of curvilinearity. We therefore decided to transform the independent variable SHARE taking its natural logarithm. The transformed variable was thereupon termed SHARE*. Bi-variate scatterplots showed that such transformation apparently restored linearity to this relationship. A table of Spearman-rank correlation coefficients (Table 7) indicated the existence of a strong and negative correlation between SHARE* and ENTRY.

Table 7. Spearman-rank correlation coefficients for performance, entry, and strategy variables.

	ENTRY	SHARE*	Aggre- ssive- ness	Analysis	Defen- siveness	Futurity	Proa- ctiveness	Riskines s
ENTRY	1.00							
SHARE*	-0.80***	1.00						
Aggressiveness	0.28~	-0.13	1.00					
Analysis	0.06	-0.09	0.16	1.00				
Defensiveness	-0.08	0.14	0.12	0.73***	1.00			
Futurity	-0.03	0.14	0.05	0.77***	0.78***	1.00		
Proactiveness	-0.1	0.04	-0.06	0.78***	0.79***	0.61***	1.00	
Riskiness	0.06	-0.17	-0.30~	-0.14	-0.11	-0.17	-0.00	1.00

***p<0.001, ~ p<0.1

We observed a similar relationship among the items of the STROBE scale for institutions that had product entries to the one we observed when pre-testing with a larger sample of financial institutions. There are strong and positive bivariate correlations among Analysis, Defensiveness, Futurity, and Proactiveness. There is a weak positive relationship between ENTRY and Aggressiveness. This could indicate that aggressive firms do not necessarily tend to enter the market first with innovative products. Perhaps such firms are likely to enter the market later with an emphasis on price undercutting or heavy investments in promotion.

Following these analyses, we established one control predictor (ENTRY) and one question predictor (STRATEGY), represented in this case by the several items that

comprise the STROBE scale. The relatively large correlations among the variables that comprise the STROBE scale, particularly the high correlations observed among Analysis, Defensiveness, Futurity, and Proactiveness, could eventually result in problems with multicollinearity. We, hence, built a sequence of nested models carefully observing the possible occurrence of multicollinearity. Three regression models were subsequently fitted and analyzed. In the first model we simultaneously introduced the variables Analysis, Defensiveness, Futurity and Proactiveness as question predictors, together with the question predictor ENTRY. The rationale behind such choice of predictors is that the observed correlation of the analytical orientation of the businesses with the other key strategic dimensions suggests that firms scoring high on these items have developed a somewhat consistent manner and evaluation of strategic options. Here we follow Venkatraman (1989) who indicates that "...perhaps, those businesses with strong analytical orientations are neither too risky nor too aggressive in pursuing market share in general." Thus, here we would be facing institutions that tend to have a longer-term inclination toward the allocation of resources for operating the business. New product development is probably associated with such resource allocation tendencies.

The second model tested has Aggressiveness solely as a question predictor. The observed positive relationship between Aggressiveness and ENTRY would seem to suggest that aggressive behavior is not necessarily related to entering the market first. This is a bit counterintuitive, but, nevertheless, plausible, if firms that aggressively seek market share do so through means other than the disruption of markets by introducing entirely new products.

We finally fitted a model in which Riskiness was used singly as a question predictor and ENTRY is used as a control. Risky behavior should be associated with exploration of new markets where returns are not certain.

The results of these analyses are summarized in Table 8.

Table 8. A taxonomy of fitted regression models for the relationship between order of market entry, strategy and market share for a set of financial service innovations.

Model	Intrcpt.	ENTRY	Aggr.	Anal.	Defens.	Futurity.	Proact.	Risk.	R2 (%)
1	-2.23***	-0.24***	0.13						62
2	-3.27***	-0.22***		-0.42	0.013	0.65*	0.002		69
3	-1.42~	-0.23***						-0.10	62
Base	-1.79***	-0.24***							62

***p<0.001, *p<0.05, ~p<0.1

Table 8 shows that, contrary to what we expected, the variables Aggressiveness and Riskiness have little effect upon the fit. The addition of these variables (singly or jointly) do not render an appreciable change in the R2 statistic of the baseline model in which SHARE* is simply regressed against ENTRY. The addition of the variables Analysis, Defensiveness, Futurity, and Proactiveness, do appear to have an important impact on the fit. We observe that Futurity has a beta coefficient of 0.65 (p<0.05). Such occurrence warrants further exploration.

We introduced the aforementioned four variables (Analysis, Defensiveness, Futurity, and Proactiveness) into the model in various combinations. We found that only the Futurity variable showed an important effect upon the model. As can be seen in Table 9, introduction of this variable into the baseline model results in a difference in R-sq. of 0.0434. This difference is important ($F_{observed} = 4.486 > F_{critical} = 3.316$).

We also tested the effects of interactions. None was appreciable. An inspection of the scatterplot of studentized residuals for this model did not show heteroscedasticity and permitted validating the assumptions about independence of errors. The assumption about normality of the residuals was validated through inspection of the normal probability plot. No evidence of multicollinearity was found when the model was tested

through the tolerance statistic (Tol=1 which renders a Variance Inflation factor slightly greater than one which precludes collinearity even for small data sets).

Table 9. Comparison of reduced baseline model with model in which the variable Futurity has been added.

Model	Intercept	ENTRY	FUTURITY	R2	ΔR2	dfE
Reduced	-1.792***	-0.236***		0.62		34
Full	-3.42***	-0.235***	0.314*	0.659	0.0434	31

***p<0.001, *p<0.05

Before interpreting the model, we performed sensitivity analyses to examine the potential impact of atypical data points upon the regression model. Influence statistics, Cook's D and Hat H, were then calculated to perform such assessment. Figure 3 shows a scatterplot of Hat vs. Cook's D statistics. No single point seems to stand out conspicuously from the rest. Nevertheless, regression analyses were performed to evaluate the impact of points labeled 4, 15, and 16 in Figure 3. The Beta coefficients of the regression model remained fairly stable with changes in the Beta coefficients that did not exceed 15%.

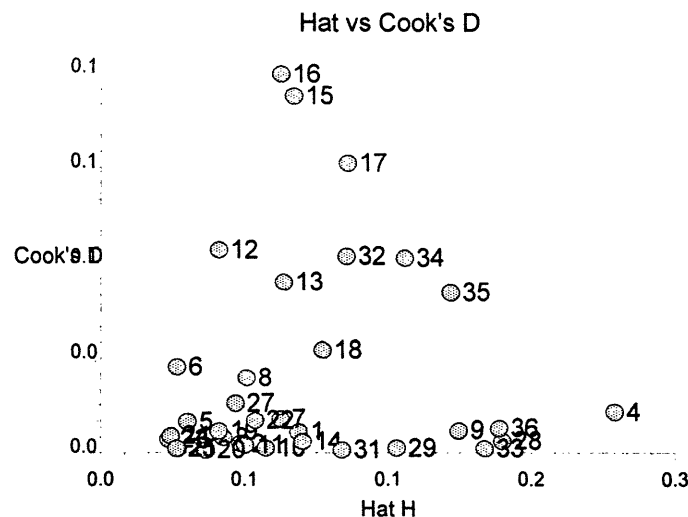


Figure 3: Plot of influence statistics (Cook's D vs. Hat H) to observe influence of atypical data points.

After performing these analyses our best and chosen model was one that regressed SHARE* against ENTRY and Futurity. The assumption about normality of the residuals was validated through inspection of the normal probability plot of the residuals. Inspection of plots of raw and studentized residuals served to validate the assumptions about independence of errors.

Thereupon, we fitted an additional regression model using the categorical measure of the variable STRATEGY. These categories were used as dummies, in which 1 indicated whether the entrant belonged to that particular category. We first did an exploratory data analysis. Given the categorical nature of our variable STRATEGY, the mean of such variables is interpreted only as the percentage of entries that are considered to be done by firms which belong to this strategic typology (in Table 10: Prospectors 29%, Reactors 21%, etc.). These numbers do not permit making any inference about relative frequency of entry by strategic type.

Table 10. Descriptive statistics for strategic typologies present in the sample.

Variables	Mean	s.d.	Min.	Max.
ENTRY	8.30	5.92	1	21
SHARE*	-3.75	1.78	-7.46	-0.39
Prospectors	0.29	0.46	0	1
Analyzers	0.26	0.45	0	1
Defenders	0.24	0.43	0	1
Reactors	0.21	0.41	0	1

Further related inquiry was performed by inspecting Spearman-rank correlation coefficients of all variables. Given that we use ranks to evaluate emerging correlations, a positive correlation between ENTRY and some strategic type should signal the tendency of such type to be composed primarily of late followers (and vice versa, a negative correlation should signal the tendency of the particular strategic type to be constituted

principally by pioneers or early entrants). Such appears to be the case. Table 11 shows a negative correlation (S-r= 0.33, $p < 0.1$) between Prospectors and ENTRY. This indicates that entries done by Prospectors tended to occur early. In contrast, the positive correlation between ENTRY and Defenders indicates that entries done by Defenders tended to happen late (relatively speaking). As a result, we observe a fairly strong and significant correlation between Prospectors and SHARE (S-r = 0.38, $p < 0.05$). We can infer from this table that Prospectors tend to enter early and, possibly as a result, tend to reap higher market shares. This indicates that SHARE varies for different strategic types for a given order of market entry. These observations are of course not conclusive given the dichotomous characteristics of the variables at issue, but they do warrant further exploration.

Table 11: Spearman-rank correlation coefficients for ENTRY, SHARE, and variables that measure Miles and Snow strategic typologies.

	ENTRY	SHARE*
ENTRY	1.00	
SHARE*	-0.80***	1.00
Prospectors	-0.33~	0.38*
Analyzers	0.12	-0.25
Defenders	0.32~	-0.22
Reactors	-0.09	0.08

*** $p < 0.001$. ** $p < 0.01$, * $p < 0.05$, ~ $p < 0.1$

Following these analyses, and as suggested by the observation of the Spearman-rank correlation coefficients, we decided to use the strategic typologies as question predictors, using ENTRY as a control, and proceeded to fit a taxonomy of regression models. To do so, we built a model in which the question predictors were introduced simultaneously to the baseline model of SHARE* vs. ENTRY. Table 12 summarizes the results of this analysis.

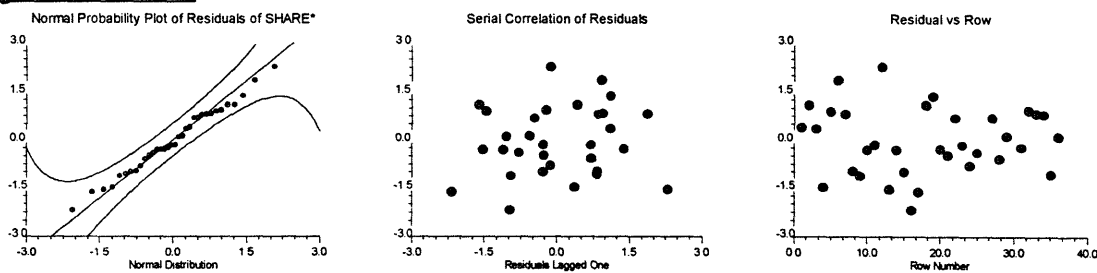
Table 12.: Taxonomy of regression models in which ENTRY is used as a control and Miles and Snow typologies are used as question predictors. The question predictors are introduced into the model simultaneously. The fourth typology becomes automatically defined when all other question predictors are zero.

Model	Intrcpt.	ENTRY	Prospectors	Analyzers	Defenders	R2 (%)	ΔR2 (%)	df Error
Baseline	-1.79***	-0.236***				61.59		
M1	-1.76***	-0.219***	0.32	-0.81	-0.26	66.54	4.95	29

***p<0.001. **p<0.01. *p<0.05. ~ p<0.1

We have included only three of the four strategic dimensions. Given that they are dichotomous (0 or 1) the fourth dimension will become automatically specified when all others are set to zero. Assumptions about normality of the residuals were validated through inspection of the normal probability plot. Plots of raw and studentized residuals and serial correlations of residuals did not show evidence of infringement of the assumption about the independence of errors (see Figure 4). We chose this model as our basis for discussion and interpretation. Notice, however, how remarkably strong is the relationship between order of market entry and SHARE. Despite the introduction of additional variables, the difference in the R2 statistic is relatively small.

Fig 4: Normal probability plot, and plot of residuals for model in which strategic typologies are introduced as question predictors in a model that regresses ENTRY against SHARE.



Summary and Discussion

We wanted to assess the effect of order of market entry upon market share, controlling for some "strategic effects." The goal was to determine whether innovation initiatives in the development of new financial services may result in better performance if launched during certain time frames by firms which follow particular strategies. We found that a baseline model in which SHARE* was regressed against order of market entry (ENTRY) explained over 60% of the variability in performance. Including variables that measured firm strategy only had a minor effect on our baseline model. The relationship between ENTRY and SHARE remained remarkably consistent, and in line with most other work that has been done in this area. The effects of strategic interactions are dwarfed by the magnitude of the main effect (ENTRY).

When we classified entrants into Miles and Snow's strategic typologies, we found that early entry had larger effects upon Prospectors. Figure 6 shows that, for a given entry, Prospectors gain, on average, higher market shares than all other strategic types. This is in line with what we had hypothesized. The relatively small size of our sample made it very difficult to assess performance by entry type and entry decision. The graph, then, shows only the average result (that Prospectors tend to outperform other entry types for a given time of entry). The results, however, permit making some inferences as to when certain followers may turn out to outperform the pioneer. Such observations must be taken with caution. We can see that, for instance, other things being equal, a Defender that pioneers a new product will be outperformed by a fourth entrant which is a Prospector. Such occurrences could explain why in certain studies it has been found that followers are able to capture larger market shares than pioneers. Further research could assess whether these observed differences, and in general, whether observed differences

in strategic types correspond to fundamental differences in available resources and capabilities.

Our results apply only to business level strategy, and we are not assessing the effect that each entry has upon the product portfolio of the company. It is suggestive, however, that our limited data indicated that certain strategic types have less focused product portfolios. Prospectors appear to have larger product arrays aimed at different markets. Although, given the limitations of our data, we cannot rigorously test these differences, it could be interesting if further research could look into the parallelism existing in the characteristics of product portfolios and strategic types. By assessing the effect of subsequent entries on the dispersion of the matrix, one could more easily understand the effects of strategy upon the relationship between order of market entry and market share.

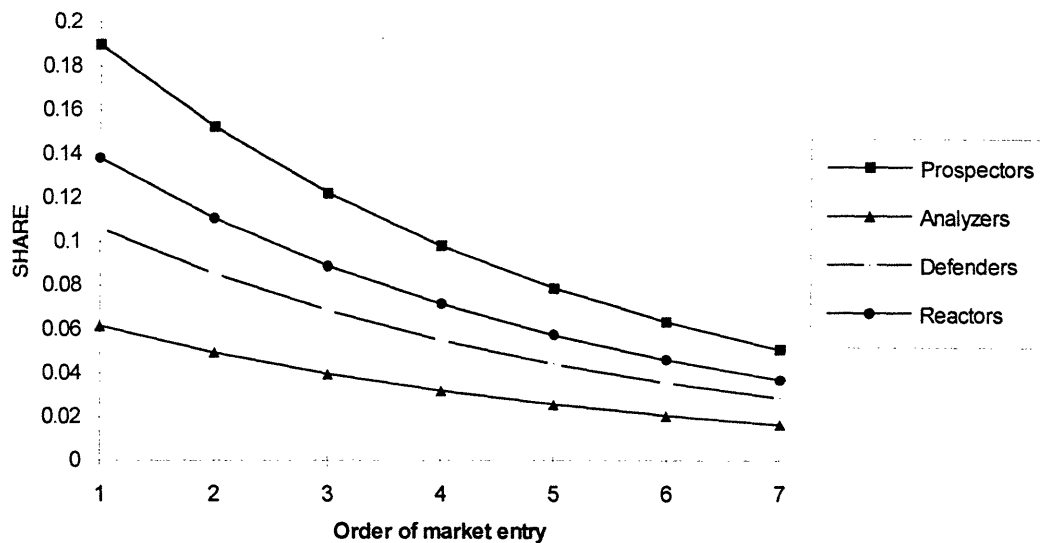


Figure 6. SHARE against ENTRY for different strategic types.

These results are in rough consonance with our qualitative data. When we asked bank executives to determine how pioneering products had been developed and to rate their success, we observed that pioneering products were developed differently. Some (about 24% of the cases listed) were generated in an orderly and formalized manner with a somewhat structured process of market research and a subsequent development process aimed at satisfying certain market needs. Most products (43.5%) were adaptations of ideas that had been seen operating in other countries. A third large category of products (13%) stemmed from regulatory changes.⁵ Products that were developed or produced in response to some perceived market need seemed to be the most successful, as shown in Table 13. The performance measures here are clearly inadequate (executives' self ratings), but the results suggest that longer-term considerations do have an important impact upon performance, and, particularly, that formal processes of research and development may result in improved returns for a given entry decision in financial services innovations. These structural modes of product generation seem to conform to different strategic Miles and Snow types. Establishing such correspondence for financial services could be an interesting research path.

⁵These products, according to executives, could be anticipated and developed in a somewhat automatic mode.

Table 13. Sources of ideas for pioneering products developed within firms.

Generation of the idea	N	%	Perf.
1. Perceived market need. Formal process of research, development and launching of product to satisfy the need.	11	23.9%	2.73
2. Realized product was successful in other countries and decided to launch a similar product.	20	43.5%	2.25
3. Spontaneous. The idea "happened" and all of the sudden we were working on the product.	8	17.4%	2.38
4. Regulatory changes allowed launching the product locally.	6	13.04%	2.0
5. It was just a small adaptation to something that already existed in the market.	1	2.2%	2.0

Our analysis showed that only one of the strategic dimension in the Venkatraman STROBE scale had a significant impact upon the baseline model. This was counterintuitive and opposed to our hypothesized relationship. We had presumed that Aggressive firms, and aggressiveness as a strategic trait, would magnify returns from pioneering efforts. This was not the case. A regression model in which the variable Aggressiveness was added to a baseline model (of SHARE* against ENTRY) did not show any significant increment in the R2 statistic. Figure 5 is a visual display of SHARE against Futurity for different entry times. The results indicate a positive relationship between SHARE and Futurity. However, this relationship is significant only at the 0.05 level and, given the limitations of our data, we cannot make any normative conclusion based on this isolated outcome. Perhaps the apparently intended comprehensiveness of Venkatraman's (1989) scale and the lack of orthogonality among the different items that comprise them tend to overwhelm and conceal the effect of more routinary strategic decisions. Not having enough discriminant power it becomes almost impossible to assess the characteristics of the firms that exhibit stronger entry effects.

This study has many limitations. One with which we were particularly concerned was the need to stratify the sample. Perhaps such stratification (into say early entrants, early followers, late entrants, and laggards) could then indicate different strategic types to be better than others for each subsample (hence for different timing of entry decisions).

Another limitation of this study is the presumption that strategies are persistent over time. Though it is apparent that strategic traits tend to remain stable over time (Miles, Snow, et al., 1978), perhaps to the point of inducing rigidity (Leonard-Barton, 1992; Christensen and Rosenbloom, 1995), it is perfectly plausible that strategies change over time particularly because of possible and important changes in institution personnel. Our data do not permit us to assess this fully. We measured strategy at one point in time and presumed that the same strategy had been maintained when products were launched. To explore this, we gathered data on top management tenure within each institution. We were able to collect data for 11 institutions in the sample which reported that the CEO had an average of 14.7 years of experience within the same institution (St. dev. = 5.6 years). We had no means to validate this information and we also had relatively young institutions that had entries in our sample.

In all, the study showed that it might be fruitful to consider organizational and environmental factors when analyzing the effects of order of market entry. Such considerations might reveal strategic traits that are better adapted to different timing of entry decisions. Though our results are only suggestive, further research could address the limitations of this pilot study in order to evaluate whether in fact entry decisions can be actively managed to maximize performance for a given set of skills and resources.

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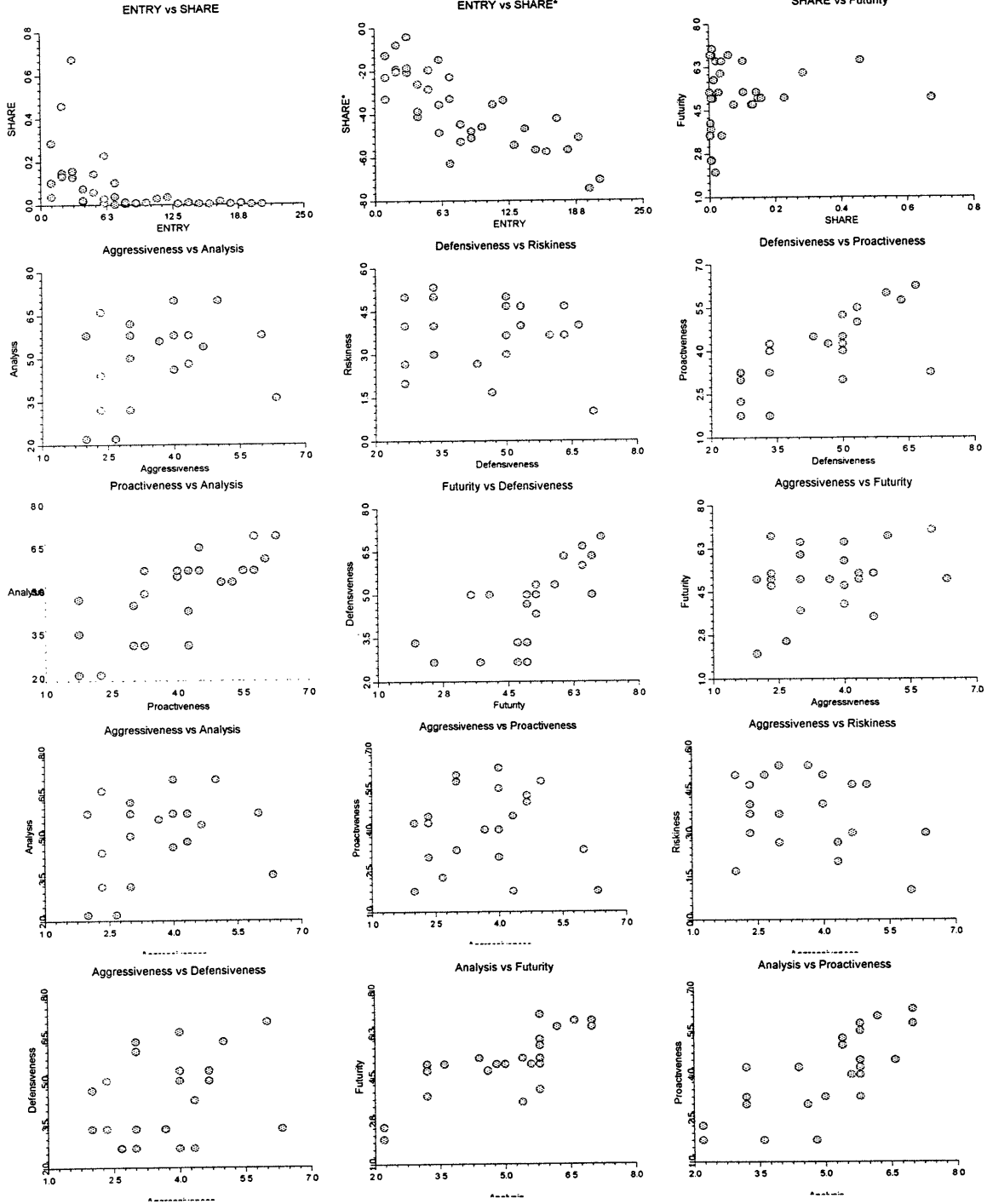
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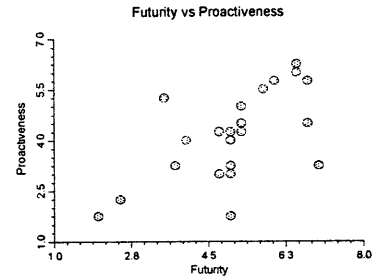
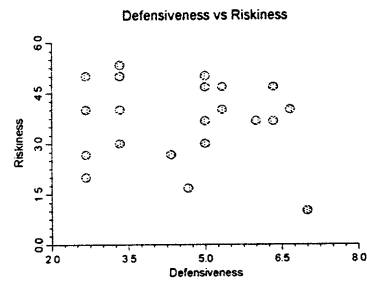
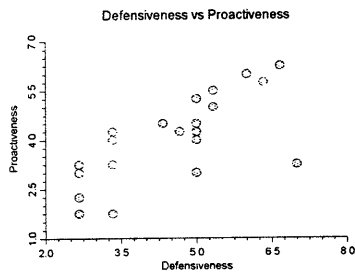
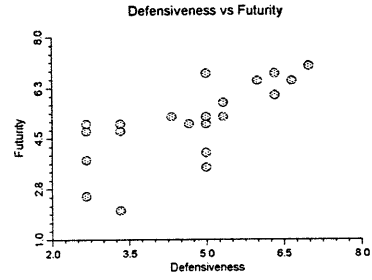
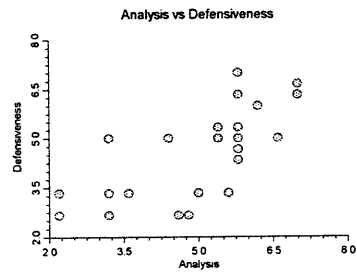
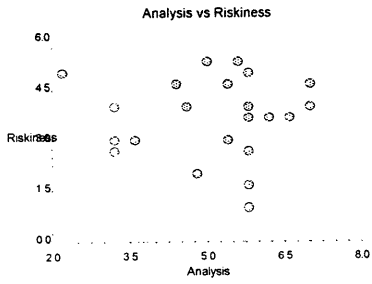
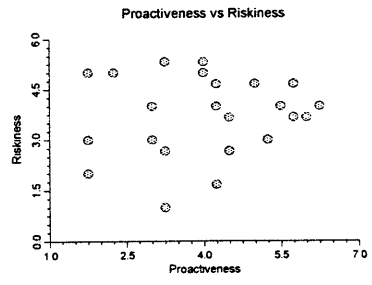
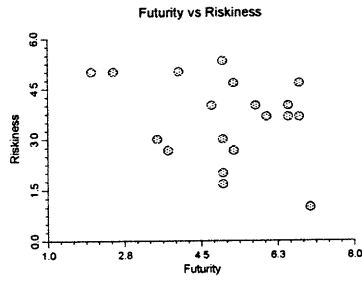
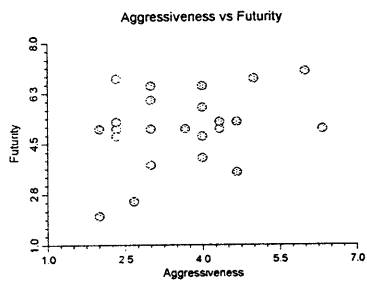
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Appendix 1

Selected scatterplots.





Appendix 2

Indicators for Venkatraman's (1989) STROBE scale. Adapted from Venkatraman (1989).

I. Aggressiveness Dimension. Seven-point scales for the following: 1) In our organization we sacrifice profitability to gain market share; 2) In our organization we often cut prices to increase market share; 3) In our organization we tend to set prices below competition; 4) In our organization we seek market share position at the expense of cash flow and profitability.

II. Analysis Dimension. Seven-point scales for the following: 1) We emphasize effective coordination among different functional areas; 2) Our information systems provide support for decision making; 3) When confronted with a major decision, we usually try to develop thorough analyses; 4) We normally use different planning techniques; 5) We use the outputs of management information and control systems to make decisions; 6) Our organization does manpower planning and performance appraisal of senior managers.

III. Defensiveness Dimension. Seven-point scales for the following: 1) We often introduce significant modifications to our technological platform; 2) We use cost control systems for monitoring performance; 3) We use different techniques to improve productivity of systems and people.

IV. Futurity dimension. Seven-point scales for the following: 1) Our criteria for resource allocation generally reflect short-term considerations (rev)⁶; 2) We emphasize basic research to provide us with future competitive edge; 3) In this organization we are constantly forecasting key indicators of operations; 4) In this organization we formally track significant general trends; 5) When confronted with critical issues we perform scenario analyses.

V. Proactiveness Dimension. Seven-point scales for the following: 1) We are constantly seeking new opportunities related to the present operations; 2) We are usually the first ones to introduce new brands or products in the market; 3) We are constantly on the look out for businesses that can be acquired; 4) Competitors usually precede us in the introduction of new products or practices (rev); 5) We eliminate operations which are in the later stages of their life cycle.

VI. Riskiness Dimension. Seven-point scales for the following: 1) Our operations can be generally characterized as high-risk; 2) We seem to adopt a rather conservative view when making major decisions (rev); 3) New projects are approved on a "stage-by-stage" basis rather than with "blanket" approval (rev); 4) We have the tendency to support projects where expected returns are certain (rev); 5) Our organization generally follows a "tried and true" paths (rev).

Strategic Types scale. Adapted from Conant, Mokwa, and Varadarajan (1990).

1. Entrepreneurial: product/market domain. In comparison to other banks, the services which we provide are best characterized as: a) Services which are more innovative, continually changing and broader in nature throughout the organization and marketplace (P); b) Services which are fairly stable in certain units/departments and markets while innovative in other units/departments and markets (A); C) Services which are well focused, relatively stable and consistently defined throughout the organization and marketplace (D); d) Services which are in a state of transition, and largely based on responding to opportunities or threats from the marketplace or environment (R).

⁶Reverse scored.

2. Entrepreneurial: success posture. In contrast to other banks, my organization has an image in the marketplace as a bank which: a) Offers fewer, selective services which are high in quality (D); b) Adopts new ideas and innovations, but only after careful analysis (A); c) Reacts to opportunities or threats in the marketplace to maintain or enhance our position (R); d) Has a reputation for being innovative and creative (P).
3. Entrepreneurial: surveillance. The amount of time my bank spends on monitoring changes and trends in the marketplace can best be described as: a) Lengthy: We are continuously monitoring the marketplace (P); b) Minimal: We really don't spend much time monitoring the marketplace (D); c) Average: We spend a reasonable amount of time monitoring the marketplace (A); d) Sporadic: We sometimes spend a great deal of time and at other times spend little time monitoring the marketplace (R).
4. Entrepreneurial: growth. In comparison to other banks, the increase or losses in demand which we have experienced are due most probably to: a) Our practice of concentrating on more fully developing those markets which we currently serve (D); b) Our practice of responding to the pressures of the marketplace by taking few risks (R); c) Our practice of aggressively entering into new markets with new types of service offerings and programs (P); d) Our practice of aggressively penetrating more deeply into markets we currently serve, while adopting new services only after a very careful review of their potential (A).
5. Engineering: technological goal. One of the most important goals in this bank, in comparison to other banks, is our dedication and commitment to a) Keep costs under control (D); b) Analyze our costs and revenues carefully, to keep costs under control and to selectively generate new services or enter new markets (A); c) Insure that the people, resources and equipment required to develop new services and new markets are available and accessible (P); d) Make sure that we guard against critical threats by taking whatever action is necessary (R).
6. Engineering: technological breadth. In contrast to other banks, the competencies (skills) which our managerial employees possess can best be characterized as: a) Analytical: their skills enable them to both identify trends and then develop new service offerings or markets (A); b) Specialized: their skills are concentrated into one, or a few, specific areas (D); c) Broad and entrepreneurial: their skills are diverse, flexible, and enable change to be created (P); d) Fluid: their skills are related to the near-term demands of the market place (R).
7. Engineering: technological buffers. The one thing that protects my organization from other banks is that we: a) Are able to carefully analyze emerging trends and adopt only those which have proven potential (A); b) Are able to do a limited number of things exceptionally well (D); c) Are able to respond to trends even though they may possess only moderate potential as they arise (R); d) Are able to consistently develop new services and new markets (P)
8. Administrative: dominant coalition. More so than many other banks, our management staff tends to concentrate on: a) Maintaining a secure financial position through cost and quality control measures (D); b) Analyzing opportunities in the market place and selecting only those opportunities with proven potential, while protecting a secure financial position (A); c) Activities or business functions which most need attention given the opportunities or problems we currently confront (R); d) Developing new services and expanding into new markets or market segments (P).
9. Administrative: planning. In contrast to many other banks, my organization prepares for the future by: a) Identifying the best possible solutions to those problems or challenges which require immediate attention (R); b) Identifying trends and opportunities in the marketplace which can result in the creation of service offerings or programs which are new to the banking industry or which reach new markets (P); c) Identifying those problems which, if solved, will

maintain and then improve our current service offerings and market position (D); d) Identifying those trends in the industry which other banks have proven possess long-term potential while also solving problems related to our current service offerings and our current customers' needs (A).

10. Administrative: structure. In comparison to other banks, the structure of my organization is: a) Functional in nature (i.e. organized by departments like marketing, accounting, personnel, etc.) (D); b) Service or market oriented (i.e. departments like corporate or retail banking have marketing or accounting responsibilities (P); c) Primarily functional (departmental) in nature; however, a service or market oriented structure does exist in newer or larger service offering areas (A); d) continually changing to enable us to meet opportunities and solve problems as they arise (R).

11. Administrative: control. Unlike many other banks, the procedures my organization uses to evaluate our performance are best described as: a) Decentralized and participatory encouraging many organizational members to be involved (P); b) Heavily oriented toward those reporting requirements which demand immediate attention (R), c) Highly centralized and primarily the responsibility of senior management (D); d) Centralized in more established service areas and more participatory in newer service areas (A).