Revisiting the First-Mover Advantage Theory: A Resource-Based Perspective

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ABSTRACT

The Internet phenomenon of late has instigated a fresh surge of interest in the first-mover advantage theory and offers proof of its continued relevance today. Following a critical analysis of the first-mover advantage theory literature, theoretical and empirical inconsistencies are identified within the literature. A 'stalemate' position has arisen, where the question as to the optimal entry strategy remains, i.e. should a firm enter as a first-mover, bearing extra costs and risks to avail of first-mover advantages, or should it wait and enter when the market has developed and learn by the first-movers' mistakes, but in doing so sacrifice initial market share? The aim of this theoretical paper is to illustrate future direction for the first-mover literature in which it takes a fresh look at the first-mover theory, adopting a resource-based perspective. It is proposed that the broad theoretical base of the resource-based view of the firm will assist in gaining a deeper understanding of 'how' and 'why' first-movership has resulted in a sustainable competitive advantage or not. Two fundamental considerations in understanding the sustainability of a first-mover advantage will be dealt with, including

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the accumulation of resources by the first-mover on entering early to the market and the initial resources the first-mover brings to the market, relative to the quality of resources held by later entrants. Research propositions are outlined to assist in furthering research within the first-mover literature.

INTRODUCTION

Initially, early entry was believed to be critical given the relative ease with which new businesses could start up online and their immediate global scope once in operation. The sudden 'burst' of the 'dotcom bubble', or the high failure rate of online businesses in the late 1990s, ignited serious doubt over the validity of first-mover advantage theory and its applicability to Internet and high technology industries. This realisation is evident from both a practitioner and an academic perspective. Writers such as Porter (2001), Tellis and Golder (2001) and Rangan and Adner (2001) have submitted their contradictory opinions on whether Internet first-mover advantages actually exist. Also popular business literature abounds with articles that emphasise the urgency pertaining to being first and the potential advantages accruing to the first-movers online.

> 'If you want to be more than a bit player, you have to go in early and go in hard'
>
> (Moore, 1999).
>
> 'You win by being first'
>
> (Ries & Ries, 2000: 111).

In spite of the substantial dotcom failures and losses of millions of venture capital, there exists several examples of overwhelmingly successful early-movers online, such as Amazon, eBay, etc., in which these companies have sustained a competitive advantage in their respective industries. The Internet phenomenon of late has, therefore, instigated a fresh surge of interest in the first-mover advantage theory and highlights that this debate is still as relevant today and very much alive in our information age. This fact warrants a revisit to the three decades-old debate, in which this paper will critically review the first-mover literature.

LITERATURE REVIEW

The first-mover advantage concept is self-explanatory in that it posits that the first mover into the marketplace may acquire certain advantages over subsequent entrants, resulting in a sustainable competitive advantage for the first-mover in the form of abnormal profit returns and higher market share (Miller, 1989; Kerin et al., 1992, etc.). This concept is multifaceted in nature and encompasses several other disciplines, most notably economics, marketing, strategic management and also consumer behaviour and entrepreneurship/ innovation literature. Owing to this fact it is hardly surprising that there exists an extensive literature in which there are many different interpretations and perspectives of first-movership. Lieberman and Montgomery (1998: 1111) state, 'an effort to bring coherence and precision to the first-mover concept would be helpful'. This paper recognises three distinctive eras in the development of the first-mover theory and Table 12.1 below outlines the main insights and contributors to this theory.

Origins of the First-Mover Advantage Theory: 1930s–1960s

The first-mover theory originates in economics literature with references appearing for decades, particularly in industrial organisational economics (see work by Bain 1956, 1959). Although there are references to such an advantage for a considerable amount of time, there has been only 'limited empirical effort' to document this prior to Bain's contribution (Whitten, 1977: 3). It was Bain's (1956) rigorous empirical investigation of the conditions of entry that assisted with the development of entry theory much further than his predecessors such as Borden and Nicholls.

In his seminal empirical study of the barriers to new competition and the conditions of entry of twenty American manufacturing industries, Bain examined one potentially strategic dimension of market structure – the condition of entry or relative ease or difficulty of entry of new competitors to an industry. Bain (1956) outlined economies of large scale, product differentiation advantages, absolute cost advantages and capital requirement as possible sources of economic barriers to entry. Up to this the conditions of entry had received nominal attention from economists in which they had failed to recognise their importance as a regulator of market

Table 12.1 Summary of Evolution of FMA Literature – Theoretical and Empirical

Date	Authors	Main Insights/Findings
Origins 1930–1960s:		Limited research on order of entry:
	Von Stackelberg (1952)	• Von Stackelberg leadership model
	Borden (1944)	• Borden equates product success to the interaction between innovation and advertising
	Nicholls (1951)	• Nicholls refers to an early entry advantage, equating it to an entry barrier. Origins of first-mover advantage theory in Industrial Organisation Economics
	Bain (1956, 1959)	• Origins of first-mover advantage theory in Industrial Organisation Economics
Growth 1970s–1980s:		Theoretical Development:
	Bain (1956) Spence (1981) Ghemawat (1984) Schmalensee (1978)	– Economic-based advantages
	Carpenter & Nakamoto (1989) Alpert & Kamins (1992, 1994) Kalyanaram & Urban (1992)	– Consumer-based advantages
	Bond & Lean (1977) Whitten (1979)	• Beginning of empirical research on market pioneers in marketing literature

(Continued)

Table 12.1 (*Continued*)

Date	Authors	Main Insights/Findings
	Robinson & Fornell (1985) Lambkin (1988) Robinson (1988) Srinivasan (1988) Miller et al. (1989)	• Order of entry – market share relationship with empirical studies using PIMS database
Contemporary Developments Growth 1970s–1980s: Late 1980s–2000s:	Lieberman & Montgomery (1988)	• Attempts to conceptualise first-mover concept
	Urban et al. (1986) Lambkin (1988) Lilien & Yoon (1990)	• Management discipline – 'awakening' of the first-mover concept
	Schnaars (1986) Lilien & Yoon (1990) Golder & Tellis (1993)	• First-mover disadvantages and later-mover advantage literature emerged in opposition to the first-mover theory
	Kerin et al. (1992)	• Kerin et al.'s (1992) conceptual framework and contingency perspective of first-mover concept
	Makadok (1998) Huff & Robinson (1994)	• 'Fast follower' strategy – early-mover advantage
	Lieberman & Montgomery (1998) Schoenecker (1998) Murthi (1996)	• Use of resource-based view of the firm to further conceptualise the first-mover concept

conduct and performance. Therefore Bain developed the theory of entry far beyond what existed previously and '...gave structure, high standards of research quality and method to a discipline, which prior to this had a tendency to casual research and was in a formative stage of development...' (Shepherd, 1976).

Growth of the First-Mover Advantage Theory: 1970s–1980s

This first-mover literature really came to the fore in the late 1970s and 1980s with numerous theoretical studies in marketing and strategic management focusing on the economic-based and behavioural-based (consumer-based) advantages accruing to firms adopting first-mover strategies. Researchers began to focus specifically on the first-mover as opposed to follower or later-mover concepts, as the advantages accrued by first-movers were believed to enhance the magnitude and durability of a sustainable competitive advantage.

Economists generally approached the first-mover phenomenon from the perspective of sequential market entry by firms or business units (Kerin et al., 1992). Theoretical and analytical literature within economics and industrial organisation economics advance several reasons to explain first-mover advantage, including cost advantages (Robinson & Fornell, 1985), barrier to entry advantages (Bain, 1956), switching costs (Porter, 1985; Lieberman & Montgomery, 1988), economies of scale (Kerin et al., 1992), learning curve economies and positioning (Urban et al., 1986). The economic arguments supportive of first-mover at this time (see Table 12.1) are impressive if only because of the number of factors contributing to entry barriers that may be erected by being first (Kerin et al., 1992).

The behavioural base of first-mover literature has developed on the premise that first-mover advantages are present in markets in which brands can reposition and where switching costs are minimal (Carpenter and Nakamoto, 1989). Therefore, this literature developed from the fact that first-mover advantage must arise from something other than economic-based theories. There is strong support for the theory that sustainable first-mover advantages arise from the behavioural aspects of the first-mover advantage theory (Carpenter & Nakamoto, 1988, 1989, 1990; Kalyanaram & Urban, 1992; Alpert & Kamins, 1992, 1994). The above researchers offer several reasons to explain first-mover advantage theory, including first-mover image (Porter, 1985; Alpert & Kamins, 1994), consumer preference formation (Carpenter & Nakamoto, 1989), first-mover behavioural stereotypy (Schmalensee, 1982; Hoch & Deighton, 1989), first-mover prototypicality (Carpenter & Nakamoto, 1989) and learning of novel versus redundant information (Bond & Lean, 1977).

In the late 1970s studies by Bond and Lean (1977) and Whitten (1979) marked the beginning of empirical research on market pioneers. In Bond and Lean's (1977) longitudinal study of two prescription drug markets they found that the 'first firm to offer and promote a new type of product received a substantial and enduring sales advantage'. In addition to this, they found first entrants were able to retain high market shares after the entry of imitative competition (Whitten, 1979). Whitten's (1979) longitudinal study of the cigarette industry, an outgrowth of Bond and Lean's (1977) study, offers support to their findings in that six of the seven cigarette submarkets studied received substantial and enduring sales advantage and market share benefits.

Following Bond and Lean's seminal empirical study, a plethora of empirical work emerged within the area, the majority using the PIMS or ASSESSOR databases. Although empirical research on market pioneers began in economics, the majority of studies have been in marketing. Much of the empirical work from the marketing perspective has typically used PIMS, which illustrates a strong relationship between market share and order of entry, particularly in first-movership. Robinson and Fornell (1985), for instance, report a strong relationship between order of entry and market share, as do Urban et al. (1986) in their cross-sectional study of 129 consumer brands using ASSESSOR.

Contemporary Developments: Late 1980s–Present

The 1980s marked an awakening of the need for scientifically underpinning the first-mover phenomenon within management literature (Patterson, 1993). The entry decision is an important strategic decision; however, strategic management and entrepreneurship fields had focused little attention on entry order up to this point (Miller et al., 1989). Patterson (1993) believes that market entry research in the strategy field is in the formative stage as perhaps timing and entry are so fundamental and pervasive that not many researchers have recognised a need to conceptualise or empirically test what seems to be obvious. Therefore, while timeliness already permeates many strategy prescriptions, first-movership benefits are being ever more widely documented within the management field (see Table 12.1 for contributors).

Up to this, research was notably devoted to empirical research and there was an obvious need for more conceptualisation within first-mover literature. Lieberman and Montgomery (1988) and Haines, Chandran and Parkhe (1989) were the first to attempt to categorise first-mover advantages and the mechanisms by which these advantages can be enhanced. Lieberman and Montgomery's (1988) paper was in a direct response to bring '...coherence and precision' to this concept. This stemmed from varying interpretations and also the broad lack of consensus among business scholars, which was noted by Lieberman and Montgomery at that time. Lieberman and Montgomery (1988: 42) proposed a theoretical model of first-movership, which sees opportunities arise endogenously from either 'proficiency or luck'. Kerin et al.'s (1992) major contribution to entry theory (as well as providing an extensive synthesis) is their development of a unified conceptual framework. This framework incorporates moderating factors affecting the first-mover positional advantages, i.e. a contingency perspective, which operates beyond the simple market entry order effect. Empirically, several studies have observed other factors that were more influential than order of entry in explaining market share differentials.

Empirical studies in the 1980s illustrated a general tendency of the first-mover firm to enjoy enduring competitive advantage over later entrants, reflected in higher level of market share and profitability. This cumulative evidence led Scherer (1985) to conclude that pioneer advantage is a general phenomenon (Golder and Tellis, 1993: 158). However, this tendency had concealed a considerable degree of variation in the fortunes of individual pioneers and major methodological inconsistencies in the literature (which will dealt with later). It was with this in mind that the literature began to diversify both theoretically and empirically, in that researchers began to examine later-mover and follower literature.

Towards the end of the 1980s and early 1990s an equally sizeable literature emerged in opposition to the first-mover advantage theory, outlining empirical evidence indicating first-mover disadvantages and later-mover advantages (see Table 12.1). Overall empirical findings show that there is a market share advantage of being first but they also found a significant pioneering profit disadvantage. Later-mover literature focuses on advantages and strategies available to later-movers. Empirical studies include Shankar et al.'s (1998) study of thirteen brands of two pharmaceutical products and also Cho et al.'s (1998) study in which they examined latecomer strategies by examining how latecomers can leapfrog pioneers, using evidence from the semiconductor industry in Japan and Korea.

Other recent development include studies which examine early-mover advantage where in addition to the first-mover other, early-movers can share in the benefits of early entry into the product category (Makadok, 1998). The essence of the 'fast follower' strategy is being fast, as the longer a follower waits before entering the more time the first-mover has a 'head start' to solidify its competitive advantage (Huff and Robinson, 1994). Lieberman and Montgomery (1998) recognise that the greatest opportunity in furthering work in the first-mover concept might lie in forging links with the complementary body of research on the resource-based view of the firm.

FIRST-MOVER ADVANTAGE THEORY: A THEORY IN CRISIS?

Despite three decades of research, the answer to whether being the first to enter a market accrues a sustainable competitive advantage remains inconclusive or contradictory (Li et al., 2003). What remains, however, is an enduring and exhaustive debate with major inconsistencies evident in the literature. The debate persists as to an optimal entry strategy, i.e. should a firm enter as a first-mover bearing extra costs and more risk to avail of first-mover advantages or should it wait and enter when the market has developed and learn by first-movers' mistakes, and in doing so sacrifice initial market share. Theoretical gaps and methodological inconsistencies, which tend to enhance the likelihood that pioneers will be found to be more successful market entrants, will now be discussed.

Theoretical Gaps

Theoretical contributions within the first-mover literature, as previously outlined, have focused on identifying and categorising first-mover advantages and disadvantages or advantages accruing to later entrants. In contrast to this, empirically there is an over-emphasis on testing the direct effect of order of entry on the performance of first-mover firms and an over reliance on the use of PIMS and ASSESSOR datasets despite clear methodological difficulties with these datasets. There is inordinate evidence revealing a direct relationship between order of entry and market share, which has consistent support across multiple studies using multiple databases. The similar results of independent databases, which have varied in methods and researchers, are quite impressive in that they both provide compelling support for a first-mover advantage. However, this also serves to highlight a theoretical–empirical imbalance within the literature, in which conceptual contribution has lagged in comparison to empirical progress and the first-mover literature lacks a broad theoretical framework (Kalyanaram, 1995).

Moreover, first-mover advantage literature comprises of descriptive and explanatory studies, of which many have concentrated on the existence of a first-mover advantage, and lacks theoretical contribution or advancement. In general this literature lacks a deeper understanding of the first-mover phenomenon and 'why' and 'how' first-movers have sustained a competitive advantage and others have failed to do so.

Methodological Inconsistencies

Several methodological inconsistencies have been identified within empirical studies on the first-mover advantage literature, which consequently question the validity of the first-mover advantage argument. These will now be discussed under the following headings: PIMS database, Market share and Idiosyncratic samples.

PIMS Database

The PIMS database is used heavily (see Table 12.1) to demonstrate an entry order–market share relationship and is clearly regarded as superior to small-sample surveys. Its use as such has enabled several generalisable tendencies to be constructed, which has contributed to the development of first-mover literature with several established generalisations.

The PIMS dataset, however, has significant methodological difficulties in that it contains only large, well-established businesses in mature markets, where survivorship bias and large firm bias are likely to exaggerate both the magnitude and the sustainability of first-mover advantages. It is based upon surviving pioneers, i.e. restricting a sample to those entries that are still active at a particular point in time, and this screens out early failures, therefore it is biased against non-surviving entrants. This is significant because if pioneers were more likely to fail than subsequent entries to the market the supposed disadvantages of late entry would be exaggerated (Bryman, 1997).

In addition to this, the term 'first-mover' is not defined precisely in the PIMS questionnaire, which suggests the possibility of some degree of misclassification and inconsistency with the terms used by researchers (Lambkin, 1992; Golder & Tellis, 1993, 1996). Typically, first-movership is predominantly applied in a 'first-to-market context' (Patterson, 1993), however there is a lack of a clear identification as to the definition of a market pioneer. With regards to the PIMS database, the difficulty with market pioneer definition is, while the PIMS database defines it as 'one of the pioneers', researchers who have utilised the PIMS database conceptually define the pioneer as the first entrant in a market.

This deficiency is further compounded by the fact that datasets rely on self-reports of single informants to classify themselves as a first-mover, an early follower or a late entrant. Golder and Tellis (1993) suspect that self-report surveys and inconsistent definitions may wrongly classify early entrants as first-movers, therefore these datasets are capable of determining only early-mover advantage as opposed to first-mover advantage. In fact, more than half of the business units in the PIMS database are classified as 'pioneers', including several competitors within the same market (Buzzell and Gale, 1987). Srinivasan (1988), as mentioned in Kerin et al. (1992), reports that 60–72 per cent of PIMS businesses are 'self-classified' as pioneers. This is unrepresentative as realistically most firms are actually later-movers. Adopting a 'loose' or broad definition of a market pioneer has subsequently caused many conceptual as well as methodological problems. Golder and Tellis (1993) describe this distinction as critical and not merely 'pedantic' as an early-mover advantage may actually exist by entering after the pioneer and learning from the pioneer's mistakes and therefore the advantage is not one pertaining to being a market pioneer.

Lambkin (1992) also identifies an industrial goods bias in using the PIMS database, where industrial goods account for 67 per cent of the sample, with consumer goods accounting for 26 per cent and services/distribution industries for only 7 per cent. This, according to Lambkin (1992), signifies these biases are more likely to produce a Type II rather than a Type I error, i.e. they are more likely to obscure the pioneering effect rather than exaggerate it. A Type II error is more serious as it is accepting a false hypothesis to be true – i.e. accepting the generalisation that first to the market is the winner.

Empirical studies using the PIMS database, such as Robinson and Fornell (1985) and Robinson (1990), examine the pioneering market share advantage using mature consumer samples and mature industrial samples in order to assess long-term advantages. Bryman (1997) questions whether pioneering is more 'fraught' in connection with new rather than mature industries in that it is more difficult for pioneers in new industries to sustain themselves than in mature industries.

Market Share

The use of market share as a measure of performance of market entry also poses some methodological difficulties. Urban and Star (1991) discuss some caveats of the market share measure in that it is a measure of 'what' market, i.e. the more narrowly a market is defined the higher the market share will be. There is a critical difference in relation to the PIMS definition of market share and that of Porter. Namely, in Porters' conceptualisation concerning the proposed relationship between market share and return on investment (ROI), where the PIMS database correlates low market share with low ROI and supply, the data defines its own 'served markets', while Porter suggests that low market share correlates with high ROI and the data reflects the 'total market'. It is, therefore, crucial to define the relevant market correctly when assessing a firm's market share, especially if one considers that many empirical studies have overemphasised the importance of market share as a reliable measurement of performance. Many studies on first-mover advantage have a pervasive tendency to examine market share averages and this focus leads to overlooking information on the range of performance of (individual) first-movers and later entrants, apart from their survival and failure (Kerin et al., 1992).

Idiosyncratic Samples
In addition to empirical studies, which use cross-sectional data, other studies are based on idiosyncratic industry samples. Even with attempts to avoid bias from large-scale datasets, industry studies have led to further methodological problems, such as selectivity bias (Kerin et al., 1992). Industry samples, such as the semiconductor, the cigarette and the pharmaceutical industries, are not easily generalisable to other product-market situations and VanderWerf and Mahon (1997) state it is possible that researchers have historically tended to investigate industries in which advantages to first-movers are greater. Whitten's (1979) use of the cigarette industry presents 'atypical entry barriers' as information vehicles fostering product/brand search and trial are eliminated and purchase inertia is more prevalent (Kerin et al., 1992: 39). The pharmaceutical industry is another example where later entrants in this industry have to endure similar regulatory issues faced by first-movers, therefore the advantages of pioneering might be exaggerated. Bryman (1997) states that the problem regarding the use of 'idiosyncratic' cases is that what is (and is not) idiosyncratic is undefined. VanderWerf and Mahon (1997) found that empirical studies that include industries selected by the researcher report a positive, significant relationship more often than tests using samples that include a random set of industries. However, it is suggested that the accumulation of a number of single-industry studies will help to illuminate a variety of common and differentiating factors that can add to the emerging contingency approach in this area (Kerin et al., 1992).

Overview
In light of these methodological inconsistencies, empirical studies have found contradictory evidence as to the existence of a first-mover

advantage, in fact lower market shares were found for the first and second entrants and higher market share for the subsequent entrants. Many studies have tried to overcome the inconsistencies outlined above; however it is found that the alternatives can highlight further methodological difficulties. Golder and Tellis's (1993) use of the historical analysis is a perfect example. It is evident that this approach offers several problems such as its 'subjective' nature and its lack of 'external validity' (Lieberman and Montgomery, 1998). In summation, the cumulative empirical evidence is mixed, in that there are differing explanations proposed to account for the variance across pioneering effects and also the validity of the main-effect perspective to the pioneering advantage (Szymanski et al., 1995).

Theoretically the first-mover concept has lagged behind an impressive empirical past and there is a major lack of understanding of the first-mover phenomenon itself and the process involved in acquiring or indeed not acquiring such an advantage. Also there has been a notable preoccupation with empirical studies testing for the existence of a first-mover advantage and the outcomes of this advantage, i.e. superior performance. Overall this literature implores deeper conceptual development, which concentrates on understanding this complex phenomenon. This paper proposes that the resource-based view of the firm as a 'major theoretical organizing framework' (Barney, 1991) will contribute to understanding the process by which a first-mover advantage can be attained. Further to this, it is posited that the broad theoretical base of the resource-based view of the firm will assist in gaining a deeper understanding of 'how' and 'why' first-movership has resulted in a sustainable competitive advantage or not. The following section will outline a resource-based perspective of the first-mover theory as an opportunity to move this established theory from a 'stalemate' position and also to '...aid the design of more sophisticated studies on the timing of entry' (Lieberman & Montgomery, 1998: 1112).

A RESOURCE-BASED PERSPECTIVE OF THE FIRST-MOVER ADVANATGE

The resource-based view of the firm, which was first articulated by Wernerfelt (1984), contends that the possession of key resources by a firm allows it to achieve a sustainable competitive advantage. Key resources are resources having the advantage-generating characteristics of value, inimitability, appropriateness and non-duplicability (see studies by Barney, 1991, 1996; and Wernerfelt, 1989). According to the resource-based view, a competitive advantage is sustainable depending upon the possibility of competitive duplication and only if it continues to exist after efforts to duplicate that advantage have ceased (Lippman and Rumelt, 1982). This is contrary to other definitions, adopted by Porter (1985) and Jacobsen (1988), in which a sustainable competitive advantage is defined as simply being a competitive advantage that lasts a long period of calendar time.

There is considerable support in using the resource-based view to gain a deeper understanding of the first-mover advantage theory. The resource-based perspective has grown significantly as a complement and/or an alternative to currently accepted theories of strategic management (Barney, 1991). Lieberman and Montgomery (1998: 1112) refer to the potential 'isomorphism' of first-mover and resource-based literature, in which first-mover literature could potentially contribute to resolving the empirical deficit faced by resource-based literature. Equally, the broad theoretical framework of the resource-based view literature could aid the design of more sophisticated studies on timing of entry. Kerin et al. (1992) offer support in using the resource-base perspective and they outline the need for insights into the firm's competencies and resources and how they are converted into sustainable positional advantages.

Even though the first-mover and resource-based theories have co-existed, they have evolved as prominent but independent research streams (Lieberman & Montgomery, 1998). There are several earlier studies of first-mover literature with references to the 'endogenity' of the entry timing decision. Barney (1991) states explicitly that in order for first-mover advantages to exist, firms in an industry must be heterogeneous in terms of the resources they control. In other words, if competing firms are identical in the resources they control, it is not possible for any one firm to obtain a competitive advantage from moving first. Romanelli (1987: 162) states that being first implies a chance to gain significant control over available resources in the absence of substantial competition, in which 'fast-moverness, not first-moverness', appears to be more important.

RESEARCH PROPOSITIONS

The resource-based perspective of the firm may offer a more plausible explanation for the sustainability of first-movers as opposed to simple order of entry. Research suggests that unless the first-mover has substantial resources (or can gain access to resources) it is unlikely to convert environmental opportunities into long-term positional advantages (Kerin et al., 1992: 41). The remainder of this paper will examine the first-mover concept using a resource-based perspective or lens and outline several tentative research propositions. Two fundamental considerations characterise the interaction between resource accumulation and timing of market entry (Lieberman and Montgomery, 1998) – the 'a priori' resources the first-mover brings to the marketplace and the accumulation of resources by the first-mover on entering the market.

The first consideration of the existing or 'a priori' resources that a first-mover brings to the marketplace is a recent and emerging literature. Overall empirical studies, which are mostly quantitative and explanatory in nature (Robinson et al., 1992; Thomas, 1996; and Schoenecker & Cooper, 1998), have generally shown that being first is a desirable strategy for firms with strong research and development (R&D) skills and financial resources, whereas later entrants were found to possess strengths in manufacturing and marketing resources.
Hence:

P1: First-mover firms possess strong research and development (R&D) skills and financial resources.
P2: Later-mover firms possess strong manufacturing and marketing resources.

Such empirical studies, however, '...are complex and still poorly understood' (Lieberman and Montgomery, 1998: 1113) and therefore need further research.

The second consideration involves the literature pertaining to the potential accumulation of superior resources by first-mover firms and this is well documented in first-mover advantage literature, even though the use of the resource-based perspective is not explicitly noted. Early entrants have the potential to pre-empt and acquire resources of various types – such as technological and geographical – customer perceptual space, or to gain a 'head start' in developing a set of organisational capabilities (Lieberman & Montgomery, 1988, 1998). This may affect the costs and/or revenues of later-movers adversely and thus the first-mover in this position is said to enjoy a 'resource position barrier' (Wernerfelt, 1984; Makadok, 1998). Therefore:

P3: First-mover firms acquire superior resources or capabilities on entering the marketplace, which results in a stronger competitive position for first-movers relative to later entrants.

Resource accumulation of a first-mover firm, however, may not automatically incur sustainability of first-mover advantage as the first-mover may acquire the 'wrong resources', which may prove to be of limited value as the market develops. Also resource requirements may only become apparent as the market develops and this may be obscured due to market or technological uncertainties. The marketplace/context as well as other factors may, therefore, moderate this relationship, i.e. proposition three. Equally, later entrants may outdo first-mover firms with more potent resources or capabilities (Lieberman and Montgomery, 1998).

CONCLUSION

The order of market entry proves to be an important management issue and the recent Internet phenomenon really highlights this (particularly now as the Internet enters its second phase in which companies such as Yahoo! and Amazon have sustained their competitive advantage). This paper revisits the first-mover advantage theory and, subsequent to a critical review, identifies several theoretical and empirical inconsistencies within the literature. This has revealed a theory with several contradictions evident in the literature and also a lack of general consensus. Kalyanaram et al. (1995) state that generalisations within the first-mover literature may be, therefore, 'suggestive' rather than 'definitive' in nature. In light of this, it is proposed (with the support of other contributors) that the resource-based perspective of the firm, with its broad theoretical base, will contribute to the first-mover concept. Aaker and Day (1986: 409) attribute the high failure rate of companies to the entry of companies without 'understanding the skill and resource requirements for market pioneering, early entry and late entry'. The salient issues and several tentative propositions are offered with the aim of developing this theory beyond its 'stalemate' position.

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