

# Competitive Dynamics of Market Entry: Scale and Survival

John W. UPSON<sup>1</sup>  
Mariana S. SANCHEZ<sup>2</sup>  
William J. SMITH<sup>3</sup>

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## ABSTRACT

*Market entry is the essence of strategy and is largely viewed as a dichotomous event: entry or no entry. What has not been acknowledged is the uniqueness of each market entry. Our study highlights the scale of market entry in the context of multipoint competition. We assert that entry scale varies based on the risk of market incumbent retaliation. Theory suggests that when risk associated with retaliation are low, firms enter with large scale and when associated risks are high, firms enter with low scale. Further, survival is viewed as dependent on following theory. We argue and find supporting evidence that firms behave in the opposite manner and do so to their own benefit, thereby revealing a unique discrepancy between theory and practice among 75 product market entries by 27 firms.*

**KEYWORDS:** *Market entry, competitive dynamics, multipoint competition, survival analysis*

**JEL CLASSIFICATION:** *M10*

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## 1. INTRODUCTION

Research has overwhelmingly positioned market entry as an aggressive action (Caves & Porter, 1977; Stephan et al., 2003) that risks provoking retaliation from rivals (Scherer, 1980). To mitigate this risk, market entrants can alter their entry strategies. If the incumbents' retaliation is expected to be forceful, an entrant can seek a small market presence or focus on a market niche. Alternatively, if light retaliation is expected, entry can be made on a larger scale (Robinson, 1988). Theoretically, these assertions seem plausible; however, empirical research has largely focused on the dichotomy of entry or no entry while ignoring scale. A recent review of multipoint competition acknowledged that research on market entry could prove beneficial to the competitive dynamics field because extant studies "have used a broad, definition of market entry and have not distinguished between the ways in which market entry is made" (Yu & Canella, 2013:101). A primary objective of this paper is to highlight the role of entry scale and its relation to the competitive dynamics between firms.

One factor that may affect entry scale is the degree of rivalry between the market entrant and market incumbents. However, the literature conflicts on this topic. Prior research suggests that as firms become closer rivals, they decrease their level of confrontation, because any display of hostility might escalate into an all-out-war (Haveman & Nonnemaker, 2000; Porter, 1980). As a sign of acquiescence, this literature suggests that rivals avoid entry into each other's markets (Baum & Korn, 1999). However, this same literature provides examples of firms that meet in many markets. To meet in many markets, firms must have made numerous entries

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<sup>1</sup> University of West Georgia, USA, [jupson@westga.edu](mailto:jupson@westga.edu) (corresponding author)

<sup>2</sup> University of West Georgia, USA, [msanchez@westga.edu](mailto:msanchez@westga.edu)

<sup>3</sup> University of West Georgia, USA, [wjsmith@westga.edu](mailto:wjsmith@westga.edu)

into each other's markets. What remains unresolved is rivalry encourages or discourages market entry.

We consider the competitive action of market entry and suggest that both the context and scale of a market entry are important. Further, we suggest that by matching entry scale to the competitive market conditions, post-entry survival increases.

To test these assertions, we empirically analyzed 75 product market entries made by 27 public information technology firms in 64 product markets during the years 2004-2010. Results indicate that as the similarity of markets between rivals increases, the scale of market entry also increases along with their post-entry survival rates. In fact, by acting in contradiction to theory, firms increase their chances of survival.

The concept of competitive interactions lies at the heart of strategic management (Henderson & Mitchell, 1997). This study helps to explain how competitive conditions affect a particular type of competitive interaction, market entry. This topic is important because up to 40 percent of market entries fail within the first year (Timmons, 1990). From a practical standpoint, this may help inform managers of how to adjust their market entry strategies, in light of incumbent competitors, to increase the chance of survival.

## **2. LITERATURE REVIEW**

### **2.1. Market entry**

Market entry is the "essence of strategy" (Porter, 1996). Firm boundaries and competitive positions are defined by the markets firms enter and avoid (Stephan et al., 2003). Strategy literature largely views entry as a hostile action toward incumbents (Caves & Porter, 1977; Stephan et al., 2003) because entry decreases market concentration and profitability (Demsetz, 1973). Also threatening, entrants bring new technologies, routines, and market-specific investments which can disrupt market conditions and force incumbents to learn and implement appropriate defenses (Aldrich & Wiedenmeyer, 1993).

Despite the importance of market entry, research has focused almost exclusively on its dichotomy: entry or no entry. One critical aspect overlooked by research is the scale of entry. Although entry itself may threaten incumbents, entry scale may indicate the severity of the threat.

Research has not made sufficient progress in explaining market entry. We argue that market entry scale is of equal or greater importance than entry itself because entrants are concerned about incumbent retaliation. Entrants can and sometimes do find the best compromise between two primary entry goals: securing scale and minimizing the risk of warfare (Scherer, 1980). This compromise is important because the more responses a firm's actions provoke, the worse its performance (Chen & Miller, 1994). Next, we turn attention to the context of rivalry and its effect on market entry scale.

### **2.2. Multipoint competition**

The context of multipoint competition within the competitive dynamics field provides an appropriate setting to assess market entry dynamics. In this context, competitive actions

between rivals often cross multiple markets (Karnani & Wernerfelt, 1985) providing firms the opportunity to attack rivals at multiple points while exposing firms to rivals' retaliation at multiple points (Gimeno, 1999). This exposure presents risks in that confrontation in one market could potentially spill over into other shared markets (Porter, 1980).

Consistent with other fields of study, competitive dynamics frames market entry as a hostile action (Haveman & Nonnemaker, 2000). Incumbents therefore view market entry with disdain and initiate retaliation when appropriate. One key indicator of incumbents' retaliation threat is the degree to which they meet the entrant in other markets, or their market commonality. Formally defined, market commonality is the degree of presence that a competitor manifests in the market it overlaps with the focal firm (Chen, 1996).

Market commonality research has generally revealed a curvilinear relationship with rivalry. When a firm and its rivals have low market commonality, neither is very familiar with the other. Therefore, the firm has an incentive to establish a presence in some of its rivals' markets so as to signal the firm's competitiveness. As market commonality increases, competitive intensity also increases and each party develops knowledge of the other's tactics, strategies, and reputations for retaliation (Gruca & Sudarshan, 1995). Then, at a crucial level of market commonality, the firm and rivals become critically aware of their interdependence (Jayachandran et al., 1999) and begin to mutually forbear, or decrease their competitive intensity toward one another (Karnani & Wernerfelt, 1985). Mutual forbearance is attractive because it leads to higher profits (Scott, 1982), favorable price setting (Evans & Kessides, 1994), and lower rates of market exit (Baum & Korn, 1996).

As multimarket contact increases further, rivalry becomes less intense and firms avoid entering their rivals' markets because of the risk of retaliation and the multiple points at which the retaliation can strike (Yu et al., 2009). This phenomenon has been observed in several industries including U.S. airlines (Baum & Korn, 1999), California savings and loan (Haveman & Nonnemaker, 2000), and Japanese auto parts manufacturing (Alcantara & Mitsuhashi, 2015). To protect themselves, entrants are advised to enter passively by securing a foothold (Upson et al., 2012), securing a niche, or competing in non-threatening ways (Robinson, 1988). By minimizing the chances of an incumbent retaliation, entrants gain an opportunity to learn, acquire resources, and capture sufficient market share in order to ensure survival (Zajac & Bazerman, 1991).

We take issue with the current framing of market entry for two reasons. First, it places the burden of rivalry reduction on the market entrant and ignores the role of the incumbent. At high levels of market commonality, incumbents have equal incentives to avoid confrontation as entrants. Second, the belief that firms avoid entering markets where their multimarket rivals are present suggests that firms sacrifice exploitable opportunities. For these two reasons, we argue that market entry may occur under conditions of high market commonality and those entries occur with greater scale than at low levels of market commonality.

### **2.3. Reconsidering market entry**

According to current theory on multipoint competition, market entry can encourage or suppress rivalry. These two roles become clear when considering the different levels of market commonality. As explained above, at low market commonality, entry into a rival's market tends to encourage competitive interaction and therefore intensifies rivalry. However,

once rivals begin to mutually forbear, further increases in market commonality suppress competitive actions (Karnani & Wernerfelt, 1985). However, theory also suggests that when market commonality approaches a sufficiently high level, market entry resumes the role of intensifying rivalry by disrupting mutual forbearance (Baum & Korn, 1999). How and why the effect of market entry changes is not clear.

Our primary focus is on market entry in a high market commonality context, where market entry is thought to disrupt mutual forbearance. Under these conditions, theory states that entry should occur on a small scale because of fear of incumbent retaliation. However, we believe there are at least three reasons why, at high market commonality, entry will not be small in scale and incumbent retaliation will not be fierce. Instead, market entrants will tend to gain greater market share upon entry into markets where they encounter high market commonality with incumbents than markets where they encounter low market commonality. The reasons for this include: 1) incumbents maintain their commitment to mutual forbearance and avoid retaliation, 2) the entrant has the resources and skills to compete in markets, and 3) incumbents are not threatened by the entry. We detail each of these next.

**2.3.1. Incumbent role in mutual forbearance.** The assumption that high market commonality leads to small scale entry suggests that entrants are solely responsible for maintaining mutual forbearance. No role is acknowledged for the incumbent rivals. What has not been highlighted is that incumbents clearly have the option not to retaliate against market entrants, thereby playing a role in maintaining mutual forbearance. In fact, there is a disincentive to retaliate as it could be the spark that ignites greater confrontation (Baun & Korn, 1996). This argument bears consideration because “do nothing” was the most frequently observed response to rivals’ competitive actions (Smith & Wilson, 1995). Market entries under high market commonality may draw no incumbent retaliation and allow entrants to gain greater market shares than they could have gained if fending off retaliations.

Incumbents can play another role in maintaining mutual forbearance: spillover effects. If an entrant and incumbent rival are engaged in mutual forbearance and able to co-exist peacefully in many markets, they can likely co-exist in an additional market. Entrants therefore may expect mutual forbearance to spill over into markets of entry (Hsieh & Vermeulen, 2014). Expecting little retaliation, entrants may initially seek generous market share. Incumbents that respect mutual forbearance, enable entrants to actually capture generous market share.

**2.3.2. Strategy and resources.** A second reason why high market commonality allows entrants to gain generous market share is due to similarities they share with incumbents. Firms that compete in the same markets often have similar strategies and resources (Teece et al., 1997). If a firm’s close rivals are able to compete effectively in a market, it is likely that the firm could also use its strategy and resources to do the same. Also known as the herding effect (Scharfstein & Stein, 1990), the entrant views its rivals’ presence in a market as a sign of the market’s attractiveness and exploitability (Avery & Zemsky, 1998). In fact, Chang (2012) observed the confidence by which Taiwanese manufacturers follow the herd and expanded most rapidly when their rivals had already entered markets.

**2.3.3. Non-threatening entry.** Our final reason for expecting high market share gain under conditions of high market commonality is that incumbent rivals may acknowledge and appreciate the entrant’s ability to compete and its need to seek growth and profit to survive. Through shared markets and a history of interactions, the entrant and incumbents are able to understand each other’s competitive moves, interpret each other’s intentions, and signal their

own intentions (Boeker et al., 1997). Some actions may be intended to exploit opportunities and other actions may be intended to attack rivals. Under high market commonality, it is likely that incumbents can differentiate between these two. Consequently, incumbents may not view entry as a direct threat. Therefore, incumbents likely respond as most firms do, by doing nothing to retaliate (Smith & Wilson, 1995).

The above points bring into question what we know about market entry and mutual forbearance tendencies. It is well known that as market commonality increases, the rate of entry into rivals' markets decreases because of mutual forbearance (Baum & Korn, 1999; Haveman & Nonnemaker, 2000). A reasonable assumption would be that the scale of entry also decreases for those entries that actually occur. But the arguments presented above suggest the opposite. As market commonality increases, market entrants have the opportunity to gain greater market share. By acknowledging the incumbent's role in maintaining mutual forbearance, firms need not be overly cautious about market entries under conditions of high market commonality. Regardless of whether entrants seek exploitable opportunities, or whether rivals fail to retaliate, the market share gained by entrants should increase as market commonality increases. Therefore, we suggest that scale in is an important consideration in the study of market entry. We predict:

*Hypothesis 1: There is a positive relationship between the level of market commonality and the scale by which firms enter markets.*

The way in which a firm enters a market may dictate the incumbent reception. If entrants are aware of their market commonality with incumbents and gauge their entry scale accordingly, then entrants should have a better chance of survival in the market. We turn to that topic next.

#### **2.4. Survival of new entrants**

Above, we argued that market commonality has an independent effect on the scale of market entry. Prior research suggests that there could be value in examining the interactive effects of these two variables on the survival of new entrants. Indeed, studies indicate that tacit collusion at a high level of market commonality leads to a stable market with increased profits (Evans & Kessides, 1994). This ideal setting suggests that new entrants to those markets should survive longer if they help maintain the peace. When market commonality is high, large scale entry should help the entrant leverage its relationship with incumbent rivals to coordinate and maintain peace within the market. Securing too small of scale might not allow entrants the credibility to promote mutual forbearance.

Incumbents may also affect an entrant's survival. A common incumbent defense tactic is a shakeout strategy in which retaliation is aimed at forcing entrants out of the market (Kuester et al., 1999). However, theoretical arguments suggest that under mutual forbearance, incumbents might practice an influencing strategy whereby they seek to co-exist with entrants and avoid overly aggressive retaliation that might threaten their own existence in the market (Robinson, 1988).

At the other extreme, low levels of market commonality, entrants share few markets with incumbents and retaliation from incumbents has a fair chance of occurring in the market of entry. In addition, low market commonality indicates more vigorous competitive interaction, which entrants likely attempt to avoid. Entry via a niche or foothold may be an effective way

to hide from incumbents and gain time to learn and acquire resources necessary to ensure survival.

In sum, consideration of the interaction between market commonality and entry market share might allow for increased survival rates over time for new entrants. At low levels of market commonality, we predict survival to be greatest when entrants gain a relatively low market share. At high levels of market commonality, we predict survival to be greatest when entrants gain a relatively high market share.

*Hypothesis 2: The interaction between market commonality and entry scale is positive: when both are high (low), the likelihood of survival increases.*

Finding support for this hypothesis would indicate that survival is based on matching entry scale to the respective market conditions.

### 3. METHODOLOGY

#### 3.1. Sample and data sources

We chose a research setting appropriate to investigate competitor analysis: the U.S. computer-related manufacturing and software industry. This setting is highly suitable for testing our hypotheses because demand conditions and competitive dimensions (e.g., number of competing firms, competitive activity) vary considerably across product markets (cf. Henderson et al., 2006).

Our main data source for identifying new entrants was The NPD Group (NPD), a major market research firm that has created a system of categorized product markets that are embraced by firms in the focal industry. NPD's proprietary data are used by many industry executives and market researchers to track the behavior of competitors (Honomichl, 2008). Our sample consisted of all firms that competed during a seven-year window, 2004 to 2010, within any of the 318 product markets that make up the industry. These product markets are segmented by 'computer-related manufacturing' (e.g., desktop computers, inkjet printers, network gateways, PC projectors) and 'software' (e.g., desktop operating systems, OCR software, programming languages, virus detection, word processing) industry. To ensure that the product markets were not too small, or peripheral, to firms' interests, we considered only those product markets with \$1 million in sales among market participants per month. The largest product market averaged \$602 million in sales per month.

The sample included 75 market entries by 27 public firms in 64 product markets. Because this study concerns firms' market entries, we considered only those firms that were new to the market (i.e. \$0 sales in the product market during the previous quarter). Additional firm-level data were gathered from Compustat for the years 2004-2010.

#### 3.2. Dependent variables

*Entry market share* reflects the scale at which firms enter markets. Because firms can enter markets at any given time, those that enter early in a quarter have more time to amass sales than firms that enter late in the quarter. Therefore, entry market share was measured as the first full quarter in which a firm was observed to have sales in a market. To correct for positive skewness, we used the square root of entry market share in all analyses. Below, we

explain two analyses, a regression and survival analysis. Entry market share was used as a dependent variable in regression models and as an independent variable in survival analysis models.

The dependent variable in our survival analysis models was *survival*, which indicates whether or not the new entrant continued to exist in subsequent quarters after its entry. This was a dichotomous variable coded as 1 if the entrant had sales in the quarter and 0 if the firm had no sales. This was repeated for all 24 quarters of analysis.

### 3.3. Independent variable: Multipoint competition

To operationalize market commonality, we measured *multimarket contact* as the highest degree of presence that any competitor manifested in markets in which it overlapped with a new entrant (Chen, 1996). We used the competitor with the highest multimarket contact, rather than averaging multimarket contact with all competitors, because the competitor with the greatest amount of overlap across markets likely drives a focal new entrant's motivation (Upson et al., 2012).

Calculating this variable requires a market-by-market analysis of commonality between the new entrant and each incumbent firm. We began by creating a matrix of multimarket contact between every pair of firms in our sample, calculated as follows (Chen, 1996):

$$M_{ab} = \Sigma [(P_{ai} / P_a) \times (P_{bi} / P_i)] \quad (1)$$

where  $P_{ai}$  = the sales by firm  $a$  in product market  $i$ .

$P_a$  = total sales by firm  $a$ .

$P_{bi}$  = the sales by firm  $b$  in product market  $i$ .

$P_i$  = total sales of all firms in product market  $i$ .

$i$  is all product markets where firms  $a$  and  $b$  compete.

This operationalization accounts for the notion of competitive asymmetry because  $M_{ab} \neq M_{ba}$ . For a given new entrant, we extracted from the matrix the multimarket contact between the parent firm to the closest rival in that product market and quarter. Multimarket contact is thus a firm-market level construct because it takes on a unique value for a given market in which the firm is present. To correct for heteroscedasticity, we transformed this variable by its natural log.

### 3.4. Control variables

Control variables were transformed as necessary. At the market level, we controlled for *market concentration* as dominant market competitors may influence an entrant's ability to capture market share. We also controlled for the log of *market size* in dollars and for *market growth* as year-over-year growth of respective quarters. Both these measures are indicators of munificence and might experience greater numbers of market entry attempts.

At the firm level, we controlled for firm size through the log of *net sales*. We controlled for *firm scope* as the number of markets in which the firm competes (Young et al., 2000). Scope might influence the scale of entries by placing competing demands on a firm's finite resources. We also controlled for profitability as return on assets (*ROA*). This variable was transformed using its inverse. More profitable firms may be better positioned to fund entries

and attain larger market shares. Along with profitability, those firms with available liquid resources might also be in a position to seek greater scale upon entry. *Liquidity* was measured as the log of current assets divided by current liabilities (Ahuja, 2000). Our final firm-level control was for *firm growth* (quarterly growth year-over-year) because rapidly growing firms may tend to enter more markets.

Finally, we controlled for the business quarter, with a series of dummy variables, to address any nuances that might affect entry in a particular quarter. This control also addressed the somewhat cyclical nature of the industry's sales.

### 3.5. Analysis

We tested our first hypothesis using OLS regression. The control variables were entered first to create a reference model. Then, multimarket contact was entered to show the effects on entry market share.

We tested our second hypothesis using survival analysis. Survival, or duration, analysis attempts to answer questions related to the life span of a unit of observation. Given that a unit of observation has survived to a point, what is the expected rate of "exit"? Survival analysis allowed for us to control for multiple potential factors that may influence the survival rate and/or exit rate. Because firms may exit a market at any time, the most appropriate measure, given continuous observation of both the dependent variable and its covariates, would involve using one of several continuous time models available; however, an exit is only observable at the end of each quarter and the covariates are likewise only observable at discrete intervals. Hence, we employ a discrete-time model suggested by Jenkins (1995).

We used a model of duration to estimate the impact of a vector of time-varying covariates on the length of time in quarters a firm stayed active (with positive sales) in a specific market. In addition to time itself, we estimated the impact of firm-specific factors, some of which varied over the spell, on the likelihood of market exit. One factor that did not vary, which is of particular interest, is the size of the market share captured by the entering firm. An important characteristic of the firm that did vary over time was the firm's level of contact with incumbents in other markets, or multimarket contact.

Let  $T$  be a discrete random variable representing the duration a firm is active in a market, or time-to-exit. The variable  $T$  can take on any positive integer value with the probability mass function (PMF) is:

$$P(t) = Pr(T = t) \text{ where } (t = 1, 2, 3, \dots) \quad (2)$$

and the cumulative distribution function (CDF) is:

$$F(t) = Pr(T \leq t) = p(1) + p(2) + \dots + p(t) \quad (3)$$

where, the hazard function or exit rate from the market is given by the following based on time alone:

$$h(t) = Pr(T = t | T \geq t) = \frac{Pr(T=t)}{Pr(T \geq t)} = \frac{Pr(T=t)}{1 - Pr(T \leq (t-1))} = \frac{F(t) - F(t-1)}{1 - F(t-1)} \text{ for } t > 1 \quad (4)$$

$$\text{and } h(1) = p(1) = F(1).$$

Stated another way, the hazard function describes the probability of market exit for firms that survive in that particular market from the population for each time period. The hazard function provides a different way of describing the distribution of  $T$ . If the data are organized appropriately, the hazard can be characterized as a binary (discrete choice) variable, survive versus exit. If we include expletory variables for subject  $i$  at time  $t$  we get:

$$h_i(t|x_{it}) = Pr(T_i = t|T_i \geq t, x_{it}) \quad (5)$$

where, the vector of our  $x$ 's includes all the factors that influence exit for subject  $i$  at time  $t$ . These covariates may either be time-varying or constant for the individual. Time-varying covariates are extremely useful because they potentially provide more statistical information about the exit process than do characteristics that cannot vary over the period of observation. Because the hazard function is bounded between 0 and 1, a linear model for the hazard is not appropriate; however, the appropriate transformation of the hazard allowed us to use the logit (or probit) model to estimate the following:

$$\log \left[ \frac{h_i(t|x_{it})}{1-h_i(t|x_{it})} \right] = \alpha_t + x_{it}'\beta \quad (6)$$

where  $\beta$  is the vector of coefficients and the  $\alpha$ 's are the time-specific intercept terms, which represent the baseline hazards, holding hazard for all other covariates at zero. Each slope coefficient represents the estimated impact of a one-unit difference in the predictor on the event occurrence (market exit), controlling for all other influence measured and included in the model (see Francesca, 2012 for a more detailed description).

#### 4. RESULTS

Hypothesis 1 was tested using linear regression. Hypothesis 2 was tested using survival analysis owing to the binary dependent variable. Table 1 displays descriptive statistics and correlation among the variables used. In addition, we tested for multicollinearity and found none. All variance inflation factors were less than 3, a value well below the accepted maximum of 10 (Chatterjee & Price, 1991).

Table 2 displays the results of the linear regression analysis of multimarket contact on entry market share.

Model 1 consists of all control variables with the exception of the business quarter dummy variables.

Model 2 tests our hypothesized positive relationship between the level of multimarket contact and the scale by which firms enter markets. We observed this relationship to be significant ( $p < .01$ ), thereby supporting hypothesis 1.

In Model 3, we tested for curvilinear effects of multimarket contact as has been observed in prior studies (Vassolo, 2009). However, the curvilinear term was not significant. Therefore, the conditions for curvilinearity were not met (Haans et al., 2015).

**Table 1. Descriptive statistics and correlations<sup>a</sup>**

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9
Scale variable											
1. Entry mkt share	0.05	0.07									
Multipoint competition variable											
2. Multimarket contact	0.01	0.02	0.47**								
Control variables											
3. Mkt concentration	0.62	0.19	0.14	-0.01							
4. Mkt size	16.69	1.65	-0.43**	-0.04	-0.37**						
5. Mkt growth	15.24	88.79	0.43**	-0.04	0.01	-0.14					
7. Net sales	0.10	0.02	-0.03	-0.08	-0.29*	0.11	0.14				
8. Firm scope	0.30	0.33	0.04	-0.23*	-0.17	-0.19†	0.25*	0.64**			
10. ROA	0.10	0.28	0.14	-0.1	0.26*	-0.19	0.03	0.07	0.17		
11. Liquidity	0.00	0.00	-0.14	0.01	-0.05	0.26*	-0.07	-0.23*	-0.26*	-0.31**	
13. Firm growth	1.59	9.04	-0.06	0	-0.15	0.15	-0.03	0.12	-0.08	0.08	-0.08

<sup>a</sup> N=75.  
† p < .10, \* p < .05, \*\* p < .01

Source: Authors

**Table 2. The influence of multimarket contact on entry market share<sup>a</sup>**

Variable	Model 1	Model 2	Model 3
<i>Controls</i>			
Mkt concentration	-0.03	-0.01	-0.01
Mkt size	-0.02**	-0.01**	-0.01**
Mkt growth	0.00**	0.00**	0.00**
Net sales	0.28	-0.02	0.06
Firm scope	-0.05	-0.01	-0.01
ROA	0.02	0.03	0.03
Liquidity	-0.28	-0.03	-0.18
Firm growth	0.00	0.00	0.00
<i>Multipoint competition effects</i>			
Multimarket contact		1.63**	2.42*
Multimarket contact sq			-7.10
Adj R <sup>2</sup>	0.28	0.50	0.49

<sup>a</sup> N=75.  
† p < .10, \* p < .05, \*\* p < .01

Source: Authors

In Table 3, we provide the estimated impact of the multimarket contact and entry market share on the probability of exit from the product market in each period after entry. Model 1 tests the net effect associated with control variables. Model 2 tests for the direct effects of entry market share and multimarket contact on firm exit from the market. We observed this relationship to be negative and significant ( $p < .10$ ) for multimarket contact, suggesting that

higher multimarket contact reduces exits. No significant direct effects were observed for entry market share. The results in Model 3 reflect the argument associated with hypothesis 2 which states that firms tend to survive (not exit) markets when both entry market share and multimarket contact are high. In this model, the interaction term is negative and moderately significant ( $p < .10$ ) indicating that firms tend to survive under such conditions. Therefore, hypothesis 2 was partially supported.

**Table 3. Hazard rate estimates of exit by new entrants<sup>a</sup>**

Variable	Model 1	Model 2	Model 3
<i>Controls</i>			
Mkt concentration	0.10	-0.18	-0.22
Mkt size	0.11	0.12	0.13
Mkt growth	-0.07	-0.07	-0.07
Net sales	14.10	13.59	15.55
Firm scope	-1.69*	-2.31*	-2.48**
ROA	0.51	1.21	1.23
Liquidity	-104.70*	-71.65	-68.11 <sup>†</sup>
Firm growth	0.00	-0.01	-0.01
<i>Independent variables</i>			
Entry market share		-0.04	-2.18
Multimarket contact		-64.46 <sup>†</sup>	-125.20*
Entry market share x Multimarket contact			-374.40 <sup>†</sup>
AIC	285.45	269.00	268.24
-2 Log L	267.45	247.00	244.24
<sup>a</sup> N=552 firm-quarters.			
<sup>†</sup> p<.10, *p<.05, **p<.01			

Source: Authors

## 5. DISCUSSION

This study sought to answer the call for greater insight into the phenomenon of market entry (Yu & Canella, 2013) and understand the tradeoff between market share and warfare (Bain 1956). After conducting an examination of 75 market entries, we offer the following three points of discussion.

To shed light on market entry, this study first challenged the view as portrayed in all major theories of strategy (e.g. Scherer, 1980; Williamson, 1975) that the important factor of market entry is the dichotomy of entry or no entry. The results of this study indicate that firms can and do vary their market entries and this affects survival. This is evident by our observation that market commonality influenced the scale by which firms enter markets. As firms are aware of their incumbent rivals and the respective market commonality, firms tailor their market entry scale to accommodate that contact.

This insight applied to industrial organization economics suggests that altering one's entry scale may be an effective means of overcoming market entry barriers, especially the threat of retaliation (Robinson, 1988). Applied to the resource-based theory (Barney, 1991), this study

suggests that the allocation of resources to market entry are different for each event. Also, knowledge of successfully matching entry tactics to market conditions could be a strategic resource in and of itself.

Our second point of discussion centers on the assumption that market entry is an aggressive action. From this, it has been assumed that as market commonality increases, firms choosing to enter their rivals' markets, do so somewhat passively. We asserted, and observed, that new entrants, instead, acquire greater market share as market commonality increases. We reason that entrants may seek to exploit opportunities rather than attack incumbents. As close rivals to the entrant, incumbents may recognize the entrant's capabilities to compete in the market and its intentions, and thereby interpret the entry as non-threatening. Incumbents thereby help to maintain peace in the market. Although this peace comes at the price to the incumbents of ceding some market share, the stability likely allows incumbents and entrant to continue operations without incident. In addition, because the entrant and incumbents are close rivals, they are likely aware of each other's competitive posture and are capable of signaling their intentions for peace.

Our final point is that market entrants have a lot more leeway with their rivals than is currently assumed. Prior research has observed that as market commonality increases, firms slow their rate of entry into each other's markets (Baum & Korn, 1999; Haveman and Nonnemaker, 2000) so as not to disrupt mutual forbearance. We observed that this is not necessarily reflected in practice. Firms in this study tended to enter through larger scale as market commonality increased and these entries tended to succeed at a higher rate. Our study indicates that firms can and do seek entry where their close rivals are present and find accommodating conditions. Having observed their rivals' success in the market, entrants might be confident of success and attempt to enter on a relatively large scale. Also, incumbents may hold as much an obligation to maintain mutual forbearance as entrants and thereby, fail to retaliate.

## **6. IMPLICATIONS, LIMITATIONS AND FUTURE RESEARCH**

From a research perspective, this study has several implications. First, the simple event of market entry has been limited in its research value. It is important to consider the specific aspects of market entry to gain a better understanding in a competitive sense. This study highlighted the scale that an entrant first secures in a market as one of those aspects. Other factors may also be important such as the speed, aggressiveness, predictability, breadth, and innovativeness (Chen & Hambrick, 1995; Smith et al., 1991). These may prove valuable to future research.

A second contribution to research is the idea that firms should match their market entry tactics with the market conditions. Studies should account for entry actions as well as how these actions may be viewed by market incumbents. As Chen (1996) highlighted, competitive asymmetry can cause some actions to be effective in contexts yet the same actions might not be effective in other contexts.

From a practical standpoint of this study, we hope to inform managers of how to adjust their market entry strategies in light of their multipoint rivals already present in the market. Our results suggest that accounting for market commonality can increase the chances of survival. As firms become closer rivals, they should alter their entries by capturing more market share in order to realize an increased chance of success.

Our results should be interpreted in relation to our study's limitations. First, no consideration was made for visible rival retaliation. It is possible that when firms enter markets, even with minimal scale, rivals retaliate. Additional research is needed to determine the effects of retaliation, if it does occur. Second, no consideration was given to firm performance effects. Longitudinal studies are necessary to determine the long-term performance benefits of entry scale. Another limitation is that the timeframe in which we observed scale might not have captured all that is occurring. We measured scale during the quarter that a firm entered a market. It is possible that the critical observation period for scale is after their first quarter. Again, a longitudinal study might provide greater insight. Finally, we considered only market entry through organic firm growth. Future research should consider other entry methods, such as acquisitions and alliances.

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