WHAT MAKES SOME FIRMS MORE COMPETITIVELY AGGRESSIVE THAN OTHERS? EVIDENCE FROM THE BANKING INDUSTRY

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INTRODUCTION

Lumpkin and Dess (1996:148) characterize competitive aggressiveness as the propensity to directly challenge rivals by taking competitive actions. Stalk and Lechenauer (2004) suggest many firms are intensely competitive, focused on outperforming rivals, and willing to attack those rivals to improve their own performance. Why is it that some firms are more aggressive toward their rivals than are others? To address that question we more specifically ask: what is the nature of competitive aggressiveness and how does it relate to performance?

Lumpkin and Dess (1996) develop competitive aggressiveness as one of the five dimensions of an Entrepreneurial Orientation (EO). EO is a firm-level construct that considers internal firm practices and decision-making processes that form the foundation for a firm's entrepreneurial behavior (Covin & Slevin, 1991; Lumpkin & Dess, 1996; Miller, 1983). The early conceptualizations of EO had only three dimensions: innovation, proactiveness, and risk-taking (Covin & Slevin, 1989; Miller, 1983; Miller & Friesen, 1982). Lumpkin and Dess (1996) added autonomy and competitive aggressiveness as dimensions of EO. However, competitive aggressiveness remains a somewhat underdeveloped construct.

Though competitive aggressiveness may be underdeveloped, the competitive dynamics research stream (Ketchen, Snow, & Hoover, 2004; Smith, Ferrier, & Ndofor, 2001) has significantly advanced our understanding of competitive behavior and its relationship with performance. Competitive dynamics researchers have determined, for example, that the visibility of the attack is positively related to the likelihood of a response (Chen & Hambrick, 1995; Chen & Miller, 1994) and that an increased volume of firm competitive actions is positively related to firm performance (e.g., Ferrier, 2001; Smith, Grimm, Gannon, & Chen, 1991). Moreover, competitive dynamics researchers have investigated the relationship between competitive behavior and firm-level attributes such as heterogeneity among senior decision-makers (Ferrier, 2001; Hambrick, Cho, & Chen, 1996) and firm size (Chen & Hambrick, 1995).

Integrating these insights into our study of competitive aggressiveness should enrich our understanding of competitive aggressiveness and its relationship to firm performance. EO's focus is internal to a firm, emphasizing firm routines (Lumpkin & Dess, 1996; Miller, 1983; Nelson & Winter, 1982). Competitive aggressiveness is thus about firm practices and processes that are associated with a firm's propensity to take competitive actions. Competitive actions constitute a vital link between orientations and performance (Covin & Slevin, 1991). Therefore, as we attempt to understand the relationship between competitive aggressiveness and

performance, integrating insights from competitive dynamics research on competitive behavior and performance is an important step. Additionally, competitive dynamics researchers' inquiries into firm-level attributes that are associated with competitive behavior can inform our understanding of the internal firm processes of competitive aggressiveness. Chen's (1996) conceptualization of awareness, motivation, and capability as drivers of firm competitive behavior is particularly helpful in understanding competitive aggressiveness.

THEORETICAL BACKGROUND

Lumpkin and Dess (1996) define competitive aggressiveness as: "a firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry rivals in the marketplace" (1996:148). Lumpkin and Dess add that competitive aggressiveness entails a combative and forceful approach toward rivals through preemptive actions and aggressive responses to attacks (2001:431). Just as Kirzner (1973:20) describes competition as an "incessant race to get ahead," the ultimate goal for taking competitive actions is to earn abnormal rents. Therefore, we define competitive aggressiveness as: the propensity to devise and implement competitive actions aimed at challenging rivals in the race for superior performance. Further, increasing levels of competitive aggressiveness are associated with increasing levels of firm competitive actions.

The Sub-dimensions of Competitive Aggressiveness

Chen (1996) identifies three factors as the drivers of competitive behavior: *awareness*, *motivation*, and *capability*. Awareness suggests the level of cognizance a firm has of its competitors and the general competitive environment. Motivation reflects a focal firm's level of drive to take competitive actions. Finally, capability is the level of available resources to take competitive actions (Smith et al., 2001:320). We suggest these drivers, though generically rendered by Chen, can be used to develop internal firm decision-making practices and policies that reflect competitive aggressiveness. Hence, we submit the general concept of awareness can be refined to suggest the level of information a firm has about its rivals, i.e., *rival awareness*. Motivation as a driver of competitive behavior can be more precisely considered as the drive to outperform rivals using competitive actions, i.e., *outperform motivation*. Lastly, a firm's perception of the internal processes and resources available for competitive actions, i.e., *action capability*, builds on Chen's view of capability. We next develop these constructs.

Rival Awareness. Competitor analysis is the foundation for rival awareness, but rival awareness extends competitive analysis by adding the dynamic nature of competitive interactions. Taking competitive actions typically requires a stimulus, which in business could be the attack of a competitor or the recognition of an emerging competitive opportunity (Dutton & Duncan, 1987; Kiesler & Sproull, 1982). Detecting these actions suggests active, real-time processes where firms closely monitor rivals. Hence, we define rival awareness as: the level of information a firm has concerning its rivals' actions, intentions, and capabilities. This definition makes clear the rival-focused nature of the construct and incorporates the dynamic aspect of monitoring rivals to detect competitive actions and also anticipating future rival moves.

Outperform Motivation. The decision to take competitive actions is a situation of decision-making under risk. Therefore, a firm's performance aspiration level affects a firm's propensity for competitive actions. Firms may use internal reference points such as past

performance or business plan projections to set their aspiration level (Fiegenbaum & Thomas, 2004; Shoham & Fiegenbaum, 2002) or may use external references such as industry averages or the performance of selected rivals (Porter, 1980). Competitive aggressiveness involves competitor-focused aspiration points, and we define outperform motivation to be: the level of drive a firm has to outperform its rivals through taking competitive actions. This definition suggests a propensity or enthusiasm for addressing performance deficits by taking competitive actions.

Action Capability. Smith and colleagues (Smith et al., 2001:320) suggest that capability is simply "the ability to carry out action." Extant research has used measures such as a firm's level of slack and resource portfolio similarity among rivals to capture this notion (Chattopadhyay et al., 2001; Chen et al., 2007; Ferrier, 2001; Miller & Chen, 1994; Smith et al., 1991), yet these objective measures of capability have not indicated a consistent relationship to firm performance. We suggest how managers perceive their firm's resource availability and ability to translate these resources into effective competitive actions may better capture a firm's capability to take competitive action. Rather than simply measuring a firm's stock of resources, the concepts of effectuation (Sarasvathy, 2001) and bricolage (Baker & Nelson, 2005) suggest it is the effects managers perceive they can generate using the resources at hand that are central to a firm's competitive capability. While we define action capability as the level of resources available for initiating and responding to competitive actions, this level is based on firm judgments, which would be influenced by a firm's orientation toward effectuation and bricolage. Simply put, we suggest two firms with identical stocks of resources could differ significantly in their perception of their action capability.

We hypothesize that the levels of rival awareness, outperform motivation, and action capability are affected by the level of competitive aggressiveness as a function of strategic prioritization of resources and strategic orientations. Accordingly, we hypothesize that competitive aggressiveness is positively related to each.

Competitive Aggressiveness and Performance

As noted earlier, increasing levels of competitive aggressiveness should lead to a firm taking a relatively greater number of competitive actions. A consistent finding is that firms taking a relatively greater number of competitive actions than their rivals outperform those rivals, even in situations or industries where firms have collectively deescalated their competitive intensity (Ferrier, 2001; Ferrier et al., 1999; Young, Smith, & Grimm, 1996). Moreover, as competitive aggressiveness rises, increased rival awareness is likely to both reduce the number of undetected competitive attacks and reduce the time required to detect an attack (Montgomery, Moore, & Urbany, 2005). This improved detection, combined with the increased likelihood that a firm will respond to the attack given an increased level of competitive aggressiveness, results in a faster focal firm response. Faster responses to attacks have been linked to improved firm performance (Ferrier et al., 1999). Therefore, we hypothesize that competitive aggressiveness is positively related to firm financial performance.

While we propose a generally positive relationship between competitive aggressiveness and firm performance, context may moderate this relationship (Covin & Covin, 1990; Lumpkin & Dess, 1996, 2001). We specifically hypothesize that a firm-level factor (the level of cost leadership emphasis in a firm's strategy) and a market-level factor (the competitive density of a

firm's market) may affect the efficacy of competitive actions on performance and thus moderate the competitive aggressiveness—firm performance relationship.

METHODS

We selected community banks headquartered in the states of Texas, New Mexico, and Oklahoma for our sample. The community bankers' associations of New Mexico and Texas (the Texas association also has significant membership in Oklahoma) assisted our research by distributing our survey via emails to 590 of their member banks using the associations' proprietary contact listings.

The nature of the community banking industry itself provided a rich environment for our study. Community banks tend to be smaller in size, more locally controlled, and operate in fewer markets than their regional and national competitors. As recently as the 1970s, community banks operated in an "idyllic world" with tight regulatory controls that minimized competitive rivalries (DeYoung, Hunter, & Udell, 2004:88). That has changed dramatically. Changes in federal and state banking laws in the 1990s gave banks significant discretion on which markets to enter, what products to offer, and what prices to charge for those products (Heffernan, 2005; Hein, Koch, & MacDonald, 2005). Not only have major regional and national banks entered markets traditionally dominated by community banks, there has been both a wave of bank consolidations and an uptick in *de novo* banks (Marquis & Lounsbury, 2007). While some predicted a dim future for community banks in this highly competitive environment, they have adapted and continue to thrive despite facing much larger competitors (DeYoung et al., 2004).

We used a web-based survey instrument to collect data from bank senior decision-makers. To minimize priming effects the survey automatically randomized the order of the questions within each section and the order in which the sections were presented. Sufficiently complete responses were received from 182 banks (median bank age—62 years; median bank assets—$124 million), which represents a 31 percent response rate. To increase the precision of our research, we requested multiple responses from the bank senior decision-makers, defined as the president, CEO, CFO, or COO, and 35 banks provided multiple responses. We tested for response bias within our sample using bank age, size, and whether the bank was headquartered in a metropolitan area as defined by the U.S. Census Bureau and found no significant differences between our sample and the population of banks headquartered in the three states.

Measures

We developed measures for the constructs of competitive aggressiveness using the process recommended by Hinkin (1998). For item generation we drew on existing items from EO (e.g. Lumpkin & Dess, 2001), market orientation (Jaworski & Kohli, 1993; Narver & Slater, 1990), strategic orientation (Venkatraman, 1989), and theoretical papers discussing competitor analysis (Chen, 1996; Zahra & Chaples, 1993). We further used a deductive approach using the construct definitions to develop the initial items. We used subject matter experts and the quantitative approach pioneered by Schriesheim and colleagues (Schriesheim, Cogliser, Scandura, Lankau, & Powers, 1999) to assess content adequacy of the items.

We used a six-point Likert-type scale to measure competitive aggressiveness and its sub-dimensions. The item scores were summed to form the composite score for use in the regression analyses. The scales were adequately reliable, with Cronbach alphas of .76 (competitive

aggressiveness), .80 (rival awareness), .71 (outperform motivation), and .72 (action capability). For banks with multiple respondents we averaged the scores of the individual respondents. We calculated interrater agreement using the procedure outlined by James, Demaree, and Wolf (1984). The median r_{wg} value was .90, with 79 percent of the scores above the recommended value of .70, suggesting reasonable interrater agreement (George, 1990).

Dependent Variables. Using FDIC data, we calculated the 2007 bank return on assets (ROA) and return on equity (ROE) as well as the percentage change in a bank's deposits and loans from December 2005 to December 2007.

Moderating Variables. In the banking industry, a transactional strategy is analogous to Porter's cost leadership strategy and a relationship strategy is analogous to a differentiation strategy. Firms using a relationship strategy are able to command a higher net interest margin which, in simplified terms, indicates that firms with a relationship strategy are able to command relatively higher loan rates while paying relatively lower interest rates on deposits. Therefore, we measured low cost emphasis using the bank's net interest margin, with the level of net interest margin inversely indicating the level of low cost emphasis (DeYoung et al., 2004). For competitive density, counties falling within a Metropolitan Statistical Area (MSA) as designated by the U.S. Census Bureau were treated as a single market; otherwise each county was treated as a separate market.

Control Variables. We consulted the FDIC's Institution Directory database to verify each responding bank's incorporation status and included a dummy variable for Subchapter S banks. We controlled for geographic effects with dummy variables for Oklahoma and New Mexico. Also, we controlled for the overall growth of a bank's market by calculating the growth in market deposits from 2005 to 2007. Finally, we included bank age and size as a control.

Analysis and Results

We used LISREL 8.71 to conduct a CFA to finalize the scales for competitive aggressiveness and to test the relationships between competitive aggressiveness and its sub-dimensions. We employed ordinary least squares (OLS) regression analyses to test our remaining hypotheses. Checks for multicollinearity, plots of the regression / studentized residuals, and influence diagnostics did not suggest significant issues with an OLS analysis.

The results of our measurement and structural model for competitive aggressiveness and its sub-dimensions indicated good fit (χ^2=90.0; *df*=50; RMSEA=.057; SRMR=.049; CFI=.98). We also evaluated alternative models to determine whether a more parsimonious model fit equally well. Chi-square difference tests indicated our hypothesized model exhibited significantly better fit ($p < .001$) than any of the alternative models. The factor loadings between competitive aggressiveness and its sub-dimensions are significant and positive, indicating support for our hypotheses regarding competitive aggressiveness and its relationships with rival awareness, outperform motivation, and action capability

The results of the hierarchical regression analysis suggest both direct effects for competitive aggressiveness and also that that the effect is moderated. We found a significant, positive relationship between competitive aggressiveness and changes in market share, both for loans and deposits, but not in profitability. The coefficients for ROA and ROE are both positive but are not statistically significant. As for the moderating effects, we observed that the level of cost leadership emphasis did significantly affect the competitive aggressiveness—market share relationship for both loans and deposits. Specifically, banks with a high level of cost-leadership

emphasis had a much stronger positive relationship between competitive aggressiveness and changes in market share than did banks with low levels of cost leadership emphasis. Indeed, the relationship between competitive aggressiveness and market share changes is negative at the lower levels of cost leadership emphasis. As for market density, we observed three relatively distinct strata of density in our sample: (1) non-metropolitan areas, defined as markets not in a designated MSA (98 banks); (2) metropolitan markets, defined as markets within an MSA but excluding the Dallas-Fort Worth and Houston MSAs (55 banks); and (3) the "mega-metropolitan" markets of the Dallas-Fort Worth and Houston MSAs (29 banks). We excluded the metropolitan banks from the sample and had a single interaction term between a mega-metropolitan dummy variable and firm competitive aggressiveness. The interactions for ROA, change in loans, and change in deposits are all significant ($p < .05$), and the interaction for ROE is marginally significant ($p < .10$). Thus, we find some support for market density as a moderator as well.

DISCUSSION AND CONCLUSION

We began our inquiry by asking about the nature of competitive aggressiveness and its relationship to performance. The sub-dimensions of rival awareness, outperform motivation, and action capability reflect from a measurement perspective this aggressiveness and from a practical perspective suggest the firm routines and procedures that translate into aggressive marketplace behavior. Moreover, this propensity to devise and implement competitive actions does have a positive relationship with some measures of performance. Our findings further suggest that firms with an increasing cost leadership emphasis are more likely to observe performance gains from a competitively aggressive orientation. Our results concerning the moderating effect of competitive density suggest some interesting relationships for the market share-profitability relationship. In both non-metropolitan and mega-metropolitan areas, increasing levels of competitive aggressiveness are associated with increased market share, though the relationship is more pronounced in non-metropolitan areas. In metropolitan areas, however, there is also a positive relationship between competitive aggressiveness and profitability. In non-metropolitan markets, those with relatively fewer competitors, the increased market share is not associated with increased profitability. These findings are consistent with the multi-market contact findings that in markets with a small number of well-known rivals, increased competitive activity is associated with reduced profitability (Gimeno & Woo, 1999; Kalra & Soberman, 2008; Young et al., 1996). Hence, our results suggest that pursuing market share may not be profitable when a firm has few rivals, but becomes more profitable as density increases.

REFERENCES AVAILABLE UPON REQUEST FROM THE AUTHORS