Performance in Recessions: the Roles of Opportunity Recognition and Improvisation

Abstract

While most firms suffer severe impacts from recessions, other firms are less affected or even prosper in these moments. Nevertheless, strategic management has made little progress in understanding the reasons for these differences in performance. We build on the Resource-based view of the firm (RBV) and its relationships with theories on entrepreneurship, improvisation and flexibility to create an integrative model that identifies resources, in a broad sense, which enable superior performance in recessions. We surveyed the characteristics and capabilities of Brazilian firms in various industries during the 2008-2009 recession and analyzed our data using Partial Least Squares (PLS). Our findings indicate superior performance for those firms that have a propensity to see opportunities, rather than only threats, and improvisation capability for fast and creative actions. Entrepreneurial orientation and flexibility also have indirect effects on performance.

Key Words: Recession, Crisis, Capabilities

1. Introduction

Today’s global marketplace is characterized by increased turbulence due to disruptive changes such as the recent global recession (Li & Tallman, 2011). Economists have thoroughly studied recessions (Zarnowitz, 1985), mostly from a macroeconomic perspective of understanding their causes and consequences for countries. The effects of recessions, however, are not limited to countries. They can transform and cleanse industries (Latham & Braun, 2011) and severely affect the performance or even survival of firms (Geroski & Gregg, 1997; Srinivasan, Rangaswamy, & Lilien, 2005). Most importantly, while most firms do suffer severe impacts from recessions, other firms are less affected and even prosper in these moments (Gulati, Nohria & Wohlgezogen, 2010). Nevertheless, within strategic management there has been little investigation on the effects of recessions to firm performance and on how firms should deal with these events (Mascarenhas & Aaker, 1989; Navarro, Bromiley & Sottile, 2010).

A theoretical perspective that is helpful for such investigation is the Resource-based view of the firm (RBV) (Barney, 1986, 1991; Dierickx & Cool, 1989), which posits that the value of resources, or their relevance, depends on the particularities of the environment surrounding the firm (Ireland, Hitt, & Sirmon, 2003; Miller & Shamsie, 1996). In this paper we build on the RBV and its relationship with entrepreneurship, improvisation and flexibility theories to study the resources, in the broad sense of the term, that provide firms with superior performance in moments of economic recession. More specifically, we propose an integrative model to investigate the characteristics and capabilities that firms possess before the recession that may protect it from the negative effects of recessions and grant better performance than that of competitors.

2. Literature Review on Recessions

Recessions are technically defined by the International Monetary Fund as a decrease in Gross Domestic Product (GDP) for two consecutive quarters (Claessens & Kose, 2009). In practice, however, scholars tend to evaluate recessions considering GDP in conjunction with other indicators such as employment and production (Zarnowitz, 1985). We focus on three important consequences of recessions for firms: change in demand patterns, increase in competition and increase in uncertainty. These factors represent important facets of the organizational environment (Grewal & Tansuhaj, 2001).

First, and most important, recessions reduce the demand for firms’ products and services (Srinivasan et al., 2005) as a result of lower employment and income as well as reduced availability of credit (Gertler, Kiyotaki, & Queraltó, 2010; Hall, 2005). In addition to the general demand reduction, recessions alter demand patterns, which requires organizations to adapt their product offerings, plans, and strategies to the changing market conditions (Grewal & Tansuhaj, 2001). Second, and related to the first point, recessions increase competition (Geroski & Gregg, 1997) as demand contraction creates pressure for price cuts, which tends to increase rivalry amongst industry players (Porter, 1979). Third, and related to the first and second points, recessions generate uncertainties (Parnell et al., 2012) to organizations. Changes in demand patterns and in competitor rivalry make it difficult for firms to predict new consumer preferences and competitor moves. Moreover, as recessions vary in amplitude, scope and duration (Bromiley et al., 2008; Zarnowitz, 1985) firms cannot foresee how drastic their...
Performance in Recessions: the Roles of Opportunity Recognition and Improvisation

effects will be. Finally, firms tend to have very misleading expectations when the economy turns from expansion to recession (Navarro et al., 2010), which makes interpretations and sensemaking more difficult (Grewal & Tansuhaj, 2001).

3. Our model
The RBV posits that the value of resources is context-specific (Miller & Shamsie, 1996). Several resources, or capabilities have been suggested by scholars as relevant in turbulent, fast-changing and uncertain environments such as recessions, including improvisation (Bergh & Lim, 2008), flexibility (Volberda, 1996) and entrepreneurial orientation (Anderson, Covin & Slevin, 2009), but always separately. We link improvisation and flexibility to entrepreneurship based on a sequence of activities proposed by Zahra, Sapienza, and Davidsson (2006). The authors argue that entrepreneurship involves a sequence of: (a) perception of opportunities to productively change existing routines or resource configurations; (b) willingness to undertake such change; and (c) ability to implement these changes.

We build on the sequence proposed by Zahra et al. (2006) to create a parallel model that explains successful performance in recessions, based on a similar sequence of activities or competences. Our model proposes that: (a) the perception of opportunities is represented by a firm’s propensity to recognize opportunities within the recession, rather than threats to its operations; (b) willingness to act is represented by a firm’s entrepreneurial orientation, which encourages employees to be proactive, innovate and take risks and accept changes; and (c) the ability to implement changes is represented by both improvisation capability and flexibility. We develop hypotheses H1 to H9, as shown in Figure 1.

4. Method
Hypotheses H1 to H9 were tested using data from Brazilian firms on the recession resulting from the 2008-2009 global financial crisis. This was a severe recession, considered the worst since the recession that followed the 1929 financial crash (Crottty, 2009; Sinai, 2010), and reached most developed and developing countries (Chau, Thomas, Clegg, & Leung, 2012; Gore, 2010). Brazil can be considered a good setting for the analysis as the country was affected by the crisis between the third quarter of 2008 and the first quarter of 2009 (Galveas, 2009), but most firms were able to recover relatively quickly by the second quarter of 2009. So, by the time of this analysis, several firms were already in a better situation than in the prior-crisis period. Moreover, some firms benefited from the crisis, which allows for good comparisons. Our sample comprises publicly-traded firms as well as non-traded firms of various sizes and industries. Data were collected from a questionnaire with 5-point, Likert-type scale questions sent to firms either: (a) part of the Economatica database of Brazilian publicly-traded firms; or (b) affiliated with FGV University’s students or alumni. The questionnaire was developed in Portuguese, native language of respondents, based on scales available in the literature, then discussed with executives and pre-tested with students attending an executive master of management program. The final version was administered in 2011-2012 either through the LimeSurvey software or on a paper-version.

Our dependent variable, performance, was treated as a reflective construct, measured with 5 items. Our first independent variable, OPP, was treated as a reflective construct, measured with 3 items. The other independent variables, EO, IC and flexibility, were treated as formative constructs, with 3, 2 and 3 dimensions, measured with 10, 7 and 12 items respectively.

We received answers from 157 respondents and, after standard treatment of data, our final sample comprised 91 usable questionnaires. This passes the minimum sample requirement criteria as proposed by Hair, Ringle, and Sarstedt (2011) for Partial Least Squares (PLS), the method of analysis that we selected. PLS is suitable when a model uses a combination of formative and reflective measures for latent variables (Gruber, Heinemann, Brettel, & Hungeling,. 2010) and appropriate to deal with un-normal data and small samples (Hair, Ringle, & Sarstedt, 2012), including samples from less than 100 respondents (Ringle, Sarstedt, & Straub., 2012). All these reasons apply to our case. We used the SmartPLS 2.0 M3 software (Ringle, Wende, & Will 2005).
Performance in Recessions: the Roles of Opportunity Recognition and Improvisation

Figure 1: Framework of main relationships and hypotheses

Reflective constructs. In our final model, most indicator loadings (24 out of 29) are above the threshold of 0.7 that confirms good indicator reliability (Tsang, 2002). The only 6 exceptions are still well above the 0.4 limit considered acceptable for early stages of theory development (Hair et al., 2011). Indicators with loadings below 0.4 were excluded from the model. All constructs have composite reliability above the 0.7 threshold, which confirms good internal consistency reliability (Elbanna, 2012). All constructs have Average Variance Extracted (AVE) above the threshold of 0.5, which confirms good convergent validity (Crossland & Hambrick (2011). Moreover, all constructs have the square roots of their AVEs superior than the respective correlations between them and all other constructs, which confirms good discriminant validity (Zhang et al., 2010). Furthermore, all intercorrelations between the constructs, maximum of 70%, are sufficiently different from 1 (Navarro, Acedo, Losada, & Ruzo, 2011).

Formative constructs. The minimum indicator weight is 0.233 and its T-value at 2.520 is statistically significant at the 0.05 level, indicating that all indicators sufficiently contribute to the formation of their respective construct. Moreover, the maximum Variance Inflation Factor is 2.166, well below the threshold of 10, indicating that multicollinearity is not a problem, which confirms good discriminant validity. Finally, the use of multiple measures based on prior theory also confirms content validity among the constructs (Hulland, 1999).

5. Results, discussion and conclusion
Control variables (size, age, slack, exports and industry) alone explain 20% of the variance in performance, as measured by the R2 coefficient. In a model that adds the direct effect of all 4 independent variables, R2 increases to 34%, indicating sufficient contribution (0.14pp) to explaining the variance. In the final model in which we added our indirect effects, R2 coefficient at 48% indicates that our complete framework is a good predictor of performance in recessions. Results of our various models are shown in Table 1.

We confirmed our hypothesis that have superior performance in recessions those firms that, before the recession starts, have a propensity to see opportunities within the recession, rather than only threats. These firms are able to invest in opportunities (Srinivasan et al., 2005) and benefit from the returns they provide, improving
Performance in Recessions: the Roles of Opportunity Recognition and Improvisation

performance. As most other companies are not investing, suppliers offer discounts, increasing the returns on investments (Navarro et al., 2010). Moreover opportunity costs of redirecting resources are lower in recessions, as sales dropped (Geroski & Gregg, 1997).

We also confirmed that improvisation capability (IC) for fast and creative actions to exploit these opportunities is important in recessions. Radical changes in demand and competitor moves represent a risk to the survival of companies and require fast responses. With no sufficient time to plan, these companies have to rely on the spontaneity dimension of IC. Moreover, uncertain situations are less analyzable (Daft & Weick, 1984), which creates further difficulties for planning and stronger need for spontaneity. Furthermore, when firms’ responses include closure of production sites (Geroski & Gregg, 1997), assets need to be reconfigured for new uses, to which the creativity dimension of IC is helpful.

Entrepreneurial orientation (EO) has only indirect effects on performance. First, it improves opportunity recognition. Employees in entrepreneurially-oriented firms have the intuition skills required in an environment of difficult analysis. They are well attuned to environmental cues and ready for quick interpretation of changes to detect emerging trends (Wright, Hoskisson, Busenitz, & Dial., 2000). A second indirect effect is that EO enhances the positive effect of opportunity recognition on performance. The more a firm is proactive, accepts changes and risks to be innovative, the more it will be willing to invest in the visualized opportunities, thus improving performance.

Flexibility also has only an indirect effect on performance, moderated by slack. Firms might show flexibility as a state of openness to consider various alternatives of action. But, only when slack resources are available, firms can take risks to experiment with new strategies (Zona, 2012) and realize the potential of those alternatives to improve performance. In fact, this idea supports the prevalence of IC, rather than flexibility, with a significant effect on performance. The IC construct is intrinsically linked to action as opposed to analysis.

One possible explanation for the non-significant direct effects of EO and flexibility on performance is that some inertia may be necessary even in a recession due to its temporary character. Companies that are excessively flexible and engage in many entrepreneurial projects may change course too often and waste scarce resources before having time to enjoy profits from their exploitation. Another possible explanation for the non-significant direct effects of EO and flexibility on performance is the relatively small size of our sample. Only a few cases of companies that may be flexible and entrepreneurially oriented but suffered from the crisis due to other reasons could be enough to create bias in the results. Although PLS is method that is suitable to treat small samples, this is a limitation in our study.

A second limitation is that we relied on the perceptions of respondents, which can always differ from reality. Moreover, we applied a longitudinal perspective and respondents might not remember exactly what happened a few years back, both regarding the effects of the recession and the company’s conditions before it started.

A third limitation is related to our setting, which comprised only firms operating in Brazil. Caution is recommended before generalizing these results to firms operating in countries with very different business environments. This leads to an interesting area for further research. Scholars should investigate whether the specific environment of certain countries influences the development of the characteristics and capabilities important for performance in recessions. For instance, emerging countries, for their more turbulent environments, may have allowed their firms to develop more improvisational capability and flexibility than those companies from developed countries.

Our paper offers three main contributions to research. First, by proposing the cultural characteristics and capabilities that enable firms to have superior performance in recessions, it advances the business cycle management literature. These resources may be also valuable for other types of turbulent environments, which represents an important implication for both theorists and practitioners. Firms that consider these situations to be recurrent should invest in fostering such a culture and developing those capabilities.

Second, the paper enhances our understanding of the complex relationship between EO, flexibility and improvisation. For instance, Anderson et al. (2009) claims that entrepreneurship has a complex relationship with various constructs that are sometimes seen as antecedents, correlates and outcomes of entrepreneurship. Moreover, while Bingham (2009) indicates that improvisation enables flexibility, Brown & Eisenhardt (1997)
**Performance in Recessions: the Roles of Opportunity Recognition and Improvisation**

suggest the opposite. Although these constructs have been extensively studied, particularly EO and flexibility, we are the first authors to test all these constructs in conjunction.

Third, the paper contributes to the growing theory of improvisation. It moves the discussion, mostly focused as a learning perspective and somewhat limited to organization studies, to a new perspective of improvisation as a strategy for performance rather than for learning objectives. Moreover, our work advances our knowledge on the dimensions of improvisation and provides statistical testing of ideas that have been mostly limited to theoretical exercises.

To conclude, recessions are recurring events that cause severe impacts to most firms while others prosper, but strategic management has made little progress in understanding the reasons for this difference in performance. We build on the RBV and its relationships with theories on entrepreneurship, improvisation and flexibility to create an integrative model that explains the cultural characteristics and capabilities that enable a firm to adapt to and be successful in recessionary environments. Based on PLS-SEM calculations for Brazilian firms during the 2008-2009 global recession, we find that have superior performance in recessions those firms that, before the recession starts, have a propensity to see opportunities within the recession and improvisation capability for fast and creative actions during the recession. We also find indirect effects of entrepreneurial orientation and flexibility.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Results of the PLS structural model analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
</tr>
<tr>
<td>MNUF</td>
<td>0.569</td>
</tr>
<tr>
<td>RENV</td>
<td>0.357</td>
</tr>
<tr>
<td>AGE</td>
<td>1.978</td>
</tr>
<tr>
<td>EXP</td>
<td>0.026</td>
</tr>
<tr>
<td>SLACK</td>
<td>4.936</td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td><strong>Model 1</strong></td>
</tr>
<tr>
<td>OPP</td>
<td>H1</td>
</tr>
<tr>
<td>EO</td>
<td>H2</td>
</tr>
<tr>
<td>IC</td>
<td>H3</td>
</tr>
<tr>
<td>FLEX</td>
<td>H4</td>
</tr>
<tr>
<td><strong>Indirect effects</strong></td>
<td></td>
</tr>
<tr>
<td>EO --&gt; OPP ***</td>
<td>H5</td>
</tr>
<tr>
<td>EO* OPP</td>
<td>H6</td>
</tr>
<tr>
<td>IC * EO</td>
<td>H7</td>
</tr>
<tr>
<td>FLEX * IC</td>
<td>H8</td>
</tr>
<tr>
<td>SLACK * FLEX</td>
<td>H9</td>
</tr>
<tr>
<td>R2</td>
<td></td>
</tr>
<tr>
<td>R2 increase</td>
<td></td>
</tr>
</tbody>
</table>

* Algorithm calculations based on path weighing scheme;
sign refers to the first model where each variable or relation is shown
** All calculations based on bootstrapping with 1,000 samples or more
and individual sign changes (Temme, Kreis & Hildebrandt, 2010).
*** Direct effect of EO on OR, considered indirect effect on Performance
+ T-values above 1.65 are significant at the 10% significance value
++ T-values above 1.96 are significant at the 5% significance value
+++ T-values above 2.58 are significant at the 1% significance value
REFERENCES


Performance in Recessions: the Roles of Opportunity Recognition and Improvisation


