The Effect of Dynamic Capabilities under Financial Crisis—Case Studies in U.S. Financial Industry

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Keywords: Dynamic capabilities, Financial crisis, Performance.

Abstract. As the business environment becomes more unstable, capital flows more rapidly across the worldwide, so financial industry is facing more and more challenges. Within an organization, dynamic capabilities are used to gather resources to address challenges. In the 2008 financial crisis, many investment banks fell, but those who survived did have superior competitive advantages than those fell. Previous studies show that dynamic capabilities would make firms gain more competitive advantages, especially in the highly dynamism environment. Therefore, it is important to identify how those dynamic capabilities affect firms’ performance in 2008 financial crisis, and making the stories valuable for making strategies in the future.

Introduction

Since the situation changes over time, the direction of researching dynamic capabilities also differs over time. Initially, the term of dynamic capabilities was first established by David Teece, with a definition of “appropriately adapting, integrating, and reconfiguring internal and external organizational skills, resources, and functional competences to match the requirements of a changing environment”. It is the most basic theory of dynamic capabilities, but since the theory has been developing for a long time, there are many other ways and perspectives to define it.

The first is resource-based view, one of the most influential perspective of strategic management is resource-based view, and it focuses on the firms’ capabilities of managing internal resources. Subsequently, since the theory of dynamic capabilities was claimed, it was realized that combining the internal resources and external resources to protect firms from risks were more important for firms [1]. The second one is routine-based view, which was the term of linking organizational routine and dynamic capabilities. Zollo and Winter categorize routines into two kinds, one is generating profits, and the other one is looking for opportunities to change the current execution [2]. The third one comes to knowledge-based view, information was defined as unique to a firm, such as a firm’s data, its accounting figures and firms’ patent, while the “know-how” was defined to be “the accumulated practical skill or expertise that allows one to do something smoothly and efficiently” [3]. Dynamic capabilities was defined to be the ability to “sense and then to seize new opportunities, and to reconfigure and protea knowledge assets, competencies, and complementary assets and technologies to achieve sustainable competitive advantage”.

Although the directions of researching dynamic capabilities are mainly classify into resource-based view, routine-based view and knowledge-based view, they are not clearly isolated. As Nelson and Winter indicated, routine is an organization’s important resource of knowledge in operation activities. Knowledge, on the other hand, is also an important intellectual resource for firms to obtain competitive advantage. Since the organizations’ regimes are becoming more and more pluralistic, there would be more perspectives.

Analysis in the Effect of Dynamic Capabilities during the 2008 Financial Crisis

Background of 2008 Financial Crisis

Financial crisis happened in 2008, but it actually started in 2006. It is widely known that it was the sub-prime mortgage market resulted in the crisis, but many economists pointed out that the real cause...
of the crisis refers to the New Financial Architecture [4]. NFA refers as an integration of rampant manipulation in financial market with the lack of adequate regulations, and this situation have existed since 1929, when the great financial collapse happened in US. Barney Frank, the Democratic chairman of the House Financial Services Committee, also agreed that: “All these years of deregulation by the Republicans and the absence of regulation as these new financial instruments have grown have allowed them to take a large chunk of the economy hostage.”

Bear Stern, one of the top 5 investment banks in US, was acquired by JP Morgan, with a sponsor from the government. Unfortunately, Lehman Brother went bankrupt. Governments took over the two giant mortgages companies, Fannie Mae and Freddie Mac. Merrill Lynch was purchased by Bank of America. American International Group accepted bailout from the government. Federal Reserve also close the Washington Mutual Bank and sold its assets to JP Morgan. Although Morgan Stanley and Goldman Sachs survived from the crisis, they were regulated to be bank holding companies by the Federal Reserve. Besides, Federal Reserve also close the Washington Mutual Bank and sold its assets to JP Morgan. Ford, General Motors and Chrysler succeeded in requesting loans in Trouble Assets Relief Program, which made them survive. In the end, $7.4 trillion vanished during the crisis, and it was about $66,200 on average per household [5].

In the society aspect, GDP declined about $650 billion, and the employment deceased about 5.5 million. Each household lost about $66,200 in stock and $3,250 in wages during the crisis [5].

**Effect of DC on Firms’ Performance**

1) Base on dynamism

It is widely believed that dynamic capabilities positively affect firms’ performance, but the extent varies from situations. According to Schilke’s test, alliance capability and new product development capability, the two of dynamic capabilities, positively affect firms’ competitive advantage strongest under the middle levels of dynamism, the second strongest under the high levels and the lowest under the low ones. Furthermore, Nair et al specifically testify the relationship between enterprise risk management capability and firms’ competitive advantage during and after the crisis. They found out that enterprise risk management does not have any impact on firms’ profitability during the crisis, but it helps firms to gain more profits in the upswing. The authors suspected the main reasons behind that is firms make different strategies dependent on different contexts [6]. During the crisis, firms would be more prudent on investment, but they would be more likely to make aggressive strategy in the upswing, so they can gain more profits. However, enterprise risk management capability does affect firms’ performance other than profitability. Firms with better risk management capability can recover quicker and gain more profits right after 2008 financial crisis.

On the other hand, through the empirical assessment by Pezeshkan et al, they reached a different result. The assessment shows that the more turbulent and complex the environment is, the more competitive advantage specific dynamic capabilities can provide.

2) Based on components

Although we know about that dynamic capabilities is effective for firms to obtain competitive performance, it is still important to know which specific capability could be helpful. Teece categorized them into three primary types, sensing, seizing and transforming. Sensing means the ability of identifying opportunities and threats related to customers. To sense the the market, Teece indicated that generative sensing, abductive reasoning, scenario planning and real option analysis are the capabilities included in the sensing process. These capabilities are to allow firms to make hypotheses, collect data to analyze and testify the hypotheses by exercise them. Seizing is the one that makes use of the existed resources to match the needs from customers. Flexibility that includes outsourcing in manufacture and supply chain, multidivisional organizational structure and open innovation methodologies are the main factors help the seizing process. Transforming is the process of continuing to refine. It is hard, but it is not impossible for a large institutions. Mostly, transforming allow firms to make great change successfully in the crisis and differentiate themselves with other firms.
On the other hand, according to Schilke, alliance management capability and new product development capability are also effective for firms to improve competitiveness, but they are only useful in the context of high level of dynamism [7]. Moreover, Alves et al have categorized dynamic capabilities into three clusters, technological drivers, business drivers and innovation performance. Technological drivers consist of development capability and operations capability, while business drivers includes management capability and transaction capability. They drew a result that operations capability does not have any effect on firms’ innovation performance, and the others all affect it positively to different extent [8].

Comparison

1) Bear Stearns

Table 1. Financial Performance of Bear Stearns.

<table>
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<th>DE ratio</th>
<th>Financial leverage</th>
<th>Net income</th>
<th>Current ratio</th>
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<tbody>
<tr>
<td>2006</td>
<td>27.8922</td>
<td>0.9654</td>
<td>$2,054m</td>
<td>0.01197</td>
</tr>
<tr>
<td>2007</td>
<td>32.5274</td>
<td>0.9702</td>
<td>$233m</td>
<td>0.06795</td>
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</table>

Bear Stearns was the first one nearly collapsed, because it kept an extremely high level of financial leverage, 0.9654 in 2006 and 0.9702 in 2007 shown in Table 1. The purpose of doing so was gaining as much profits as possible [9], and it was exactly what it had been doing for about the whole centuries. Bear Stearns was famous for its aggressive market behavior. In the 1930 financial crisis, it even survived without cutting any cost, and it participated in many mergers and acquisitions and made a great expansion. It made many risky investment but gained profits eventually. Because of the success it made, it did the same in 2008. However, it underestimated the risks behind such a high profitability. While other banks were trying their best to seize the collaterals, Bear Stearns just waited for the upswing of the market. In the “last week”, Bear Stearns finally realized the danger, but it was too late. It failed to neither raise cash nor reduce bonds and portfolio of mortgages. The main problem with Bear Stearns happened in the sensing process. The CEO, Alan Schwartz, neglected the importance of monitoring the market, which he was not familiar with. In March 2008, the management still believed that the situation was not that bad and convinced the staff and investors to believe that it was viable. The managers were too confident in their abilities to address the external uncertainty and too optimistic on the external market, because of its success in 1930 financial crisis. Finally, Bear Stearns was acquired by JP Morgan at $10 per share, with the help of the government.

2) Lehman Brothers

Table 2. Financial Performance of Lehman Brothers.

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<th>Net income</th>
<th>Current ratio</th>
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</thead>
<tbody>
<tr>
<td>2006</td>
<td>25.2386</td>
<td>0.9619</td>
<td>$4,007m</td>
<td>0.02817</td>
</tr>
<tr>
<td>2007</td>
<td>29.7276</td>
<td>0.9675</td>
<td>$4,192m</td>
<td>0.01356</td>
</tr>
</tbody>
</table>

Lehman Brothers was one of the top 5 investment bank in Wall Street. It was famous for its high level of profitability. However, the costs of high profitability was its low level of liquidity and high financial leverage. According to its annual report in 2006 and 2007, the financial leverage even reached about 97%. The CEO, Richard Fuld, knew about the risks of such a high leverage, but he was not willing to give up the opportunities of making tremendous amount of money. The managers decided to put a high weight in commercial real estate, because they thought that real estate would be immune from the uncertainty of the market. They did sense the market, but they fail to sense the situation correctly. The firm still thought it was greatly specialized in commercial real estate as no
one in Wall Street could compete with it. Moreover, Lehman Brothers was immersed in an aggressive atmosphere, so it made a great amount of debt, causing the financial leverage reached about 97%. They were too aggressive to consider the risks and make hypotheses for the crisis, so they did not realize that this action was putting Lehman into danger. Until a few weeks before the crisis occurred, it did not have enough liquidity to handle such a great crisis. At that time, although it sensed the danger, it did not have enough resources like cash to save the firm. When Bear Stearns nearly collapsed, people suspected Lehman would be the next one going bankrupt. Since the financial statement exposed, no one was willing to provide them any loans [9].

Except for the capabilities, the lack of strategic management was another factor causing the bankruptcy. Geogery, one of the top managers, hired Erin Callen who was a tax lawyer without any finance experience before working in Lehman, to be the chief financial officer. At that time, there was a discord inside the firm. On the other hand, Richard Fuld was too arrogant to accept any advice. Geogery and Callen was forced resigned the job by the discord [9]. In the meantime, many experienced staff left the firm, as they were disappointed that the firm could not make an aggressive plan to address the problems. After the financial statement was exposed, the government could not take any action of it, because the situation was way out of its expectation. Therefore, the merger happened between JP Morgan and Merrill Lynch, but not Lehman.

3) Merrill Lynch

<table>
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<th>Net income</th>
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</tr>
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<tbody>
<tr>
<td>2007</td>
<td>13.35</td>
<td>9304</td>
<td>1002m</td>
</tr>
<tr>
<td>2008</td>
<td>17.52</td>
<td>9460</td>
<td>-3,876m</td>
</tr>
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</table>

Merrill Lynch cannot survived from the crisis neither. The problem is mainly on its strategic management. The top executive, Stan O’Neal, took a great risk on deciding to sell the CDOs and make much transaction in real state market continuously. His strategy did help the firm to make a great success, and the stock price even reached about $100 per share. However, in the mid of 2007, the real estate market broke, and it revealed about $26 billion write-down on the CDOs. In the meanwhile, the Securities and Exchange Commission(SEC) began to investigate Merrill Lynch on committing securities fraud and misrepresentation the firms’ situation to investors. Right before the acquisition by Bank of America, executives and top managers were paid a large amount of bonus. SEC finally sued Merrill Lynch on the failure disclosure. Merrill Lynch failed on the risk management. It did not stop the transaction on CDOs even though the losses had occurred.

On the other hand, Lehman Brothers did not conduct an appropriate strategy. Geogery, one of the top managers, hired Erin Callen who was a tax lawyer without any finance experience before working in Lehman, to be the chief financial officer. This controversial act dissatisfied many employees in Lehman, and it indirectly caused turbulence inside the organization, forcing Geogery and Callen resigned the job [9].

4) Goldman Sachs

<table>
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<th>DE ratio</th>
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<th>Current ratio</th>
</tr>
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<tbody>
<tr>
<td>2007</td>
<td>25.16</td>
<td>9618</td>
<td>11,407m</td>
</tr>
<tr>
<td>2008</td>
<td>12.73</td>
<td>9273</td>
<td>2,041m</td>
</tr>
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</table>
Goldman Sachs was one of the two among top 5 investment banks did not collapsed or merged, but it still had to pay about $5 billion for the punishment in selling risky mortgages. The main reason why Goldman Sachs can survive from the crisis is its unique strategy. Although it did trade on the toxic securities, the managers decided to avoid the securities only based on the sub-prime loan. Moreover, it shorted the ABX index, a basket of derivatives linked sub-prime securities, making them different from Bear Stearns or Lehman Brothers. Goldman Sachs was not perfect, and it also faced the liquidity problem, because it did not have deposit, like the other investment banks. The main strategy made to settle it up was relying on long-term repurchase agreement, while Lehman Brothers was highly dependent on overnight funding. The management took these actions for the unforeseeable situation like the financial crisis this time. When the crisis came, it can assure that it had enough abilities to handle it. We can see it through the chart. In 2008, when Goldman Sachs sensed the sign of the crisis, it immediately took action to reduce debt-to-equity ratio from 25.1635 to 12.7365.

Summary

Unlike other industries, financial industry faces a great uncertainty every day. It seems common that people working in Wall Street like to take action aggressively when they face a large amount of capital, and they usually neglect the potential risks behind the great profits. As the empirical evidence show, dynamic capabilities do help firms to gain competitive advantages, especially in the high-level of dynamism like financial crisis. Investment banks should keep developing dynamic capabilities. When financial crisis come, banks’ performance would be helped by the capabilities, making them differentiate others who do not have.

Acknowledgement

This research was financially supported by the Guangdong Provincial Education Department Key Platform and a Major Research Project: “Dynamic Capability Measurement in E-commerce Enterprises in Guangdong Province”. And it is also supported financially by “Program for Research Development of BNUZ”.

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