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Conference participant, National championship in scientific analytics SYNERGY – THE WAY FOR COMPANY TO OVERCOME FINANCIAL CRISIS

The financial crisis results in a loss of paper wealth. If this decrease is significant and involves several economic sectors it can develop into an economic recession or even depression. In this case crisis consequences are experienced by many companies. One of the reasonable solutions in company level is to seek for synergy.

Paper deals with the analysis of different synergy manifestation and types. The new method is formulated. This approach allows companies to gain competitive advantage and overcome the difficulties that are caused by financial crisis or even strengthen its position.

Keywords: synergy, financial crisis, competitive advantage.

s one knows the term financial **\**crisis is applied broadly to a variety of situations in which some financial institutions or assets suddenly lose a large part of their value (Haidar, 2009). Sometimes it leads to economic recession or depression. This impacts many companies and especially small business via decrease in trade, late payment and access to finance. The relevant solution to these problems is managing costs, managing cash flow and increasing business volume. And this can be accomplished through synergy effect. Iversen (1997) stated that synergetic companies are more resistant to financial crises.

So what is synergy? First of all, it is joint actions. In economics' literature it is analyzed as the form of corporate acquisitions or mergers. It is worth to mention the recent studies which reveal the frequent cases of unsuccessful consequences (Cartwright & Schoenberg, 2006). In short term the shareholders of acquired company experience the positive effect, but the probability of positive impact for the purchaser is much less apparent (Agrawal & Jaffe, 2000). This situation is defined as negative synergy. So, the synergy can be defined as situation when the sum of two or more parts are grater then they are summed independently.

Synergy can be expressed in the following way. Suppose V(A) is a profit, sales or other measure of company A performance and V(B) is a measure of B company performance. A measure of joint company V(A+B) is:

$$V(A+B) = V(A) + V(B) + \Delta S.$$
 (1)

Here  $\Delta S$  is synergy. It can be expressed as:

$$\Delta S = V(A+B) - V(A) - V(B).$$
 (2)

Here can be three cases. The first, then  $\Delta S$ =0. This means that joint company does not gain any additional value and no synergy occurs. The second, then  $\Delta S$ <0. In this case there is negative synergy. The value of joint company is less than they were separated. The last case, then  $\Delta S$ >0. This means that synergy is positive and joint firms gain additional value.

The first one who mentioned this term was Ansoff. He argues that synergy can occur in these processes (Ansoff, 1987):

- Increase in profit;
- Operating cost decrease;
- Investment needs' decline.

This list can be extended by these elements:

- Increase in market share;
- Revenue increase;
- Technological advances;
- Labor productivity increase;
- Brand name improvement.

First element from extended list means, that the situation of acting together is interpreted by demand as a sign of superior product. In long run this increases market share. Second factor occurs then joint companies sell each other's products. This is how they increase their sales. Third element reflects situation then companies share research and development results or know-how knowledge. Forth factor increases as unnecessary staff or duplicated human resources are eliminated. The last one element reveals situation then joint companies strengthen each other's marketing strategies.

Charterjee (1986) proposes other classification. He defines these types of synergy:

- Hidden;
- Financial;
- Operational.

This list can be extended by

forth type – management synergy. It is described by Trautwein (1990). According to him, this synergy is realized then one firm uses others planning and monitoring resources. Charterjee's classification corresponds to firms relations. Hidden synergy arises from horizontal merger, financial synergy from unrelated activity and operational synergy from vertically related actions.

Financial synergy emerges from decrease of capital cost. One of the possible ways to achieve this is diversification strategy. By distributing investment portfolio, company can reduce risk and lower its capital costs.

Other factor that reduces capital costs is company size. Large firms can establish internal capital market. This functioning of a market is based on more accurate information and more efficient capital distribution system (Got & Sanz, 2002). This internal system can bring synergy for two reasons. The first one, these resources can be distributed at an easy rate compared to banking system. The second one, transaction costs are much smaller. These factors play the main role at the presence of financial crises then it is extremely difficult to borrow.

Operational synergy is related to productivity. Its' mechanics is based on decrease of marginal costs. According to Porter (1985), operational synergy occurs from knowledge distribution.

So far discussed synergies are based on cost reduction. Seth (1990) looked from different perspective. He connected synergy to process of value creation by distinguishing these types:

- Market power;
- Economies of scale;
- Economies of scope;
- Coinsurance:
- Financial diversification.



Market power is proportional to the possibility to influence the price, sales amounts or sales types. Economies of scale are the most common consequence of horizontal merger. Economies of scope can occur in joint actions producing and selling different types of products. Other two types are already discussed.

A little bit different vision was proposed by Porter (2008). According his five forces framework, company is exposed to competitors, new entrants, substitute producers, suppliers and customers. These forces put firm under pressure. This pressure can be compensated through synergy effect that caused by horizontal integration. Synergy can be achieved by two ways: sharing resources and activities or eliminating unnecessary ones. Strategy that is based on sharing resources between different units is called interrelationship strategy (Porter, 1985). Two different relations are distinguished: tangible intangible. The last one is very similar to Charterjee's Hidden synergy that is mentioned supra.

Tangible relations occur from customers, sales channels and technology. According to Porter, intangible relations include management skills, know-how and relationship with suppliers and government. These subjects motivate companies to merge in order to achieve synergy.

Based on Porter's view it is possible to construct new synergy type concept. It is based on relations to company partners. Partners mean customers and vendors. Relations here are sales and purchases. This synergy can be positive or negative and occur in a form of revenue, profit, brand and etc.

This type of synergy is conditioned when a customer is also a vendor. Let's define this concept. Suppose firm's sales are  $P_{aV}$  and part of these sales are to vendors  $P_{aS}$ . Then sales synergy  $S_{pard}$  is defined as:

$$S_{pard} = \frac{Pas}{Pav}.$$
 (3)

This indicator  $(S_{pard})$  represents percentage of sales to vendors.

Analogically, it is possible to express purchase synergy. If firm's purchases are  $P_{IV}$  and purchases from customers are  $P_{IS}$  then purchase synergy is:

$$S_{pirk} = \frac{Pis}{Piv}.$$
 (4)

This indicator  $(S_{pirk})$  represents percentage of purchases from customers. It can be argued that  $S_{pard}$  is positive and  $S_{pirk}$  is negative synergy effect. Let's entitle the difference between these indicators synergy balance:

$$B_{s} = S_{pard} - S_{pirk} \tag{5}$$

This synergy balance is the difference between sales to vendors and purchases from customers. It is possible to mark out three cases. The first case when  $B_s > 0$  is positive synergy effect. This means that company has more opportunities in negotiations on prices.

The second case when  $B_s < 0$ . This is negative synergy effect, because partner has more advantages in negotiations.

The third case when  $B_s = 0$ , but  $S_{aS}$  and  $S_{IS}$  are not equal to zero. It is not possible a priori to say is it positive or negative synergy. From one point of view it is clear that company is dependent on partner. In case of partner failure, the company loses customer and vendor at the same time. That is why this is negative side. The positive side effect is the possibility to give partners each other discounts.

The indicator synergy balance  $(B_s)$  is only for internal use, because sales to vendors or purchases from customers can only be calculated by person who has detailed accounting information. This is probably the main drawback of this method.

So, synergy seeking is useful in order to overcome financial crisis by lowering costs and sustain or even increase revenue. Proposed synergy model that is based on cooperation with business partners brings the possibility of implementation of vertical expansion and cooperation strategy.

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