# The value creation effect of corporate diversification in falling and rising economies. The case of Russian and Chinese firms

## Корпоративная диверсификация и потенциал создания стоимости при падающей и растущей экономике. Пример российских и китайских компаний

**Abstract**

The value and benefits of corporate diversification vary across different emerging nations due to the differing institutional environments within which diversification takes place (Chang and Hong, 2002; Fauver et al., 2003; Chakrabarti et al., 2007).

Although the majority of the researchers agree that diversification is a value-enhancing strategy in emerging capital markets. In economies with a low level of institutional development high levels of diversification can be seen as an instrument to offset market imperfections (Yiu et al., 2005; Benito-Osorio et al., 2012). If an emerging market firm manages to internalize these institutions, the firm can diversify across industries and be profitable (Purkayastha et al., 2011; Purkayastha, 2013). As soon as the institutional environment develops and becomes stronger, the advantages of high levels of product diversification tend to disappear, therefore moderate or low levels of diversification are beneficial (Lee et al., 2008).

The resource-based perspective assumes that a diversified company will exploit its "core factors" in technical and managerial skills (Palepu, 1985) as well as bureaucratic connections (Jara-Bertin et al., 2015) across various business lines and industries to derive economies of scale and allocate resources efficiently. To capture possible synergy effects, a diversified firm needs to have a high level of coordination among different businesses. Such coordination will be impossible or extremely inefficient beyond a certain threshold (Purkayastha, 2013). Beyond a certain threshold the coordination costs outweigh diversification benefits and performance may decrease.

Various emerging markets are likely to have differences in the level of their institutional development, government and investment policies that stipulates differences in the effect of product diversification on firm performance depending on the emerging economy where a company operates (Guillen, 2000; Khanna and Palepu, 2000; Lee et al, 2008; Benito-Osorio et al., 2012, etc.). This theoretical argument allows one to assume that the

institutionally higher a home country environment is the less beneficial diversification should be (Kock and Guillen, 2001; Peng and Delios, 2006; Lee et al., 2008).

Very little is known about the diversification-performance in emerging markets depending on different types of national economy dynamics. For example, B. Schwetzler and C. Rudolph (Schwetzler and Rudolph, 2013) extend the analysis to the recent financial crisis period and prove that the diversification discount fell during 2008-2009 in well-developed capital markets while diversification discount was not affected in those capital markets which tend to be less developed.

Based on the context of the specific institutional environments of emerging economies, we shed additional light on diversification-performance by reexamination of the impact of product diversification over firm performance on a sample of companies from Russia and China, assuming that benefits of diversification differ depending on the state of the national economy.

Our empirical model is based on a new performance measure to account for investment risks, namely residual income spread. We identify that the effect of product diversification on firm performance is the reverse of the economic conditions: if the national economy is falling product diversification creates value while the potential of diversification strategy is limited is the national economy is growing.

We hypothesize:

*Hypothesis 1. If the economy is falling the effect of diversification on firm performance should be positive.*

*Hypothesis 2. If the economy is not falling the effect of diversification on firm performance should be negative.*

To test the effect of corporate diversification on firm performance against various types of national economy dynamics we include in the research sample 74 Chinese and 71 Russian public companies totaling 363 and 336 firm-year observations consequently.

Data is extracted from S&P Capital IQ (annual financial data including revenues segment breakdown), Bloomberg (cost of equity and Tobin Q), Economist Intelligence Unit (macroeconomic data).

The observation period is limited to 2010-2014 as the most appropriate period to compare the diversification-performance linkage in the growing versus falling emerging economy.

To empirically test the relationship between corporate diversification and firm strategic performance we estimate the following basic model given the assumption of fixed effects for the subsample of Chinese and Russian firms:

Strategic performance $_{it}$ = α1 + α2 (Diversification$_{it}$) + α4 $Z_{it}$ + $\varepsilon_{it}$ ,        (1)

where:

Diversification$_{it}$ – level of product diversification;

$Z_{it}$ – vector of control variables (Company size$_{it}$, Level of investment$_{it}$, Intangibility$_{it,}$ Leverage$_{it,}$ Profitability$_{it}$, Diversification type dummies$_{it}$[1], Year dummies);

$\varepsilon_{it}$ – error term.

We assume that firms decide to diversify as an adjustment to changes in the external environment (Villalonga, 2004, Andres et al, 2014; Bertin et al., 2015). To correct for any potential bias in the estimated results we follow the two-step Heckman method (Heckman, 1979).

Our selection equation is as follows:

Diversification $_{it}$ = β1 + β2 Company size$_{it}$ + β3 Level of investment$_{it}$ +
β4 Profitability$_{it}$ + β5 PNDIV$_{it}$ + β6 GDP growth rate$_{it}$ + $\eta_{it}$,        (2)

$$\text{Diversification}_{it} \begin{cases} 1 \text{ if Diversification } *_{it} > 0 \\ 0 \text{ if Diversification } *_{it} < 0 \end{cases}$$

where

Diversification*$_{it}$ – an unobserved latent variable observed as Diversification$_{it}$ = 1 if Diversification*$_{it}$>0 (diversified firms) and Diversification$_{it}$ = 0 if Diversification*$_{it}$<0 (focused firms);

$\eta_{it}$ – an error term.

The independent variables that could potentially influence the decision of the company to diversify can be grouped into three categories:

1) at firm level – firm size, level of investment, profitability;

2) at industry level – industry attractiveness approximated by the percentage of companies from the primary industry that are diversified (PNDIV$_{it}$);

3) at the country level – national economy attractiveness approximated by real growth rates of GDP calculated as the GDP annual growth rates at constant basic prices of 2005 (in

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[1] Diversification type dummies$_{it}$ are dummies for related and unrelated diversification.

US dollars) (GDP growth rate$_{it}$).

Large companies in Russia are more likely to increase the number of product lines while in China the smaller the firms the more likely they take the decision to diversify. The finding corresponds with the results obtained in the previous research that Chinese firms due to their relatively small size are ready to "exploit economies of scale through expansion" (Jiang, Zhihui, 2005).

As far as industry-level factors are concerned, our results are in line with Campa and Kedia (2002), Santalo and Becerra (2008) and suggest that the more companies are diversified in the core industry the more firms tend to diversify.

Similarly in line with Campa and Kedia (2002), macroeconomic country-level factors do not have any statistical significance on the corporate propensity to diversify for both Russian and Chinese companies. This finding demonstrates that high levels of corporate diversification in China could not be found in rich business opportunities that the external environment offers (Fan et al., 2008) and that high growth rates of the Chinese economy do not stand for corporate decisions to diversify.

We empirically prove that the market negatively reacts if Chinese companies turn to unrelated diversification. The fundamental value of Chinese firms is also likely to decrease if firms diversify their product portfolio. This means that if the national economy is not falling to create value firms should diversify in related industries.

On the contrary, the fundamental value of Russian firms increases with the increase of the level of diversification. This means, that if Russian conglomerates move from related to unrelated diversification their fundamental value increases. This finding is in line with the previous empirical findings (Bae et al., 2011) and confirms the theoretical assumptions that corporate diversification can be beneficial in emerging capital markets (Purkayastha et al., 2012). Thus, we can conclude that if the national economy is falling firms should diversify in unrelated industries.