Impact of National Cultural Distance on Cross-border M&A Performance

Master's Thesis

supervised by the

Department of Banking and Finance at University of Zurich

Prof. Dr. Per Nils Anders Östberg

to obtain the degree of

Master of Arts UZH (Banking and Finance)

Author: Iva Cerna
Closing date: April 15th, 2017

Abstract

This thesis analyzes 641 cross-border mergers and acquisition across the world announced between 01.01.2006 and 31.12.2015. Using short-term cumulative abnormal returns as performance measure, I find that cross-border deals create value for targets and combined firms, while they destroy value for acquirers. Furthermore, I proxy national cultural differences with an aggregate index of cultural distance based on Hofstede et al. (2010) model with six dimensions. I observe no significant effect of cultural distance on merger performance. However, when testing for influence of single dimensions I identify a negative effect of *indulgence versus restraint*, in particular on returns to acquirer.

Executive summary

In the past decades, cross-border mergers and acquisitions [CBM&A] have gained on importance as they have become one of the leading instruments for foreign direct investment (UNCTAD (2016)). However, vast majority of the extant body of literature on M&A performance focuses on domestic, mainly U.S., transactions. Cross-border deals represent opportunities, for example, for geographical market expansion and global economies of scale. At the same time they carry an additional risk factor related to cultural, institutional and organizational differences between the countries. (Shimizu et al. (2004)) Empirical evidence regarding profitability to acquirers is unclear for both domestic and cross-border deals. Some researchers find that CBM&A create value to shareholders of the acquirer (Markides and Ittner (1994), Moeller and Schlingemann (2005)), while others find that they destroy value to the latter (Datta and Puia (1995), Aybar and Ficici (2009)).

National cultural differences constitute one of potential risk factors in CBM&A. Firms in cross-border deals face a so called *"double-layered acculturation"* as they need to integrate not only different organizational cultures, but also different national cultures (Barkema et al. (1996)). These difference will be particularly relevant for deals in which firms are expected to fully integrate and combine their teams (Nahavandi and Malekzadeh (1988)). National culture is more deeply enrooted than organizational culture (Laurent (1986)) and has been shown to be a stronger predictor for merger resistance than the latter (Weber et al. (1996)). Theoretical research on whether and how cultural differences can affect merger performance is in its very beginnings. Van de Steen (2009) puts forth a first model according to which organizational cultural differences will have on one hand a negative impact on firm performance as they reduce coordination and effort of the employees, while they also hinder communication and delegation. On the other hand, in the long term increased information collection might improve firm performance.

Management literature in general claims that cultural differences constitute barriers to integration in the merger and therefore are a transaction cost (Kogut and Singh (1988), Brouthers and Brouthers (2000), Weber et al. (1996), Krug and Nigh (2001)). However, empirical evidence does not confirm this view, except for findings by Datta and Puia (1995) and Ahern et al. (2015). Prevailing empirical evidence shows either no influence or even positive influence of cultural distance (Chakrabarti et al. (2009), Rahahleh and Wei (2013), Aybar and Ficici (2009), Markides and Ittner (1994)). Possible explanations are that firms in CBM&A realize a cultural synergy instead of a cost, or that investors have a selection bias in that they only carry through transactions with a high expected net value that can off-set a potential cultural cost (Ahern et al. (2015)).

The most commonly used scheme for measurement of culture is the Hofstede (1980) model (Kirkman et al. (2006)). Based on large-scale questionnaires focused on beliefs and values of respondents, the model classifies every culture by assigning it a numerical score on four dimensions – *power distance* (relationship with authorities), *individualism versus collectivism* (relationship with social groups), *uncertainty avoidance* (relationship with ambiguity), and *masculinity versus femininity* (relationship with gender roles). Kogut and Singh (1988) are the first ones to aggregate these scores into a single number, a cultural distance [CD] index. Most of the above mentioned studies use this methodology to proxy for culture. However, more recently two dimensions were added to the model – *long-term orientation* (relationship with time horizons; Hofstede and Bond (1988)), and *indulgence versus restraint* (relationship with leisure, Minkov (2007)). None of the extant research uses the fully extended model to explain impact of CD on merger performance.

In an attempt to answer for this void, the present thesis analyzes a sample of 641 global CBM&A announced between 01.01.2006 and 31.12.2015 using event study methodology. Transactions are selected from the SDC Platinum Mergers and Acquisitions database and are restricted to completed deals with publicly traded acquirer and target firms, with a deal value higher than USD 10 million, leading to a 100% ownership at completion. The sample is further restricted to exclude deals for which daily stock price data was not available in the required periods. Stock price data and equity index prices are obtained from the Thomson Reuters Datastream database. Normal returns are predicted using market models with national MSCI equity indices as market proxies for each firm over an estimation window of (-240, -41) days before transaction announcement. Abnormal returns are then computed as difference between observed and predicted returns. Returns for combined firms are computed as average returns of acquirer and target, weighted by their market value at the date of announcement. Abnormal returns are then aggregated to show cumulative abnormal returns [CAR] to acquirer, target and combined firms for the following event windows: (-40, 40), (-10, 10), (-5, 5), (-3, 3) and (-1, 1) days around announcement.

In line with previous research, the results show strong positive returns to target firm, between 28.65% for (-1, 1) and 35.9% for (-40, 40), all significant at 1%. Returns to acquirer are significant only for (-40, 40) and (10, 10) windows with returns of -4.1% and -1.01%, respectively. Returns to combined firms are positive and significant for all event windows, and lie between 2.65% for (-40, 40) to 3.2% for (-10, 10). The sample is then split into transactions with low and high cultural distance. All CAR are lower for deals with a high level of CD, however the difference is significant only for CAR to target firms (up to 5.5% for (-1, 1)). Univariate analysis therefore suggests that CBM&A destroy value for acquirers, but combined firms overall gain from the deals as returns to targets are high. In addition, it also provides a first indication that CD have a negative impact on CAR.

Multivariate analysis is then carried through by running an OLS regression on CAR as dependent variable and cultural distance as an independent variable, both as an aggregate index and as single dimensions. In order to ensure robustness of the results, control variables are included in the test. Dummy variables for different languages, legal systems, religions and OECD membership are used to account for country characteristics. Natural logarithm of deal value and dummy variables for cash payment, hostile transactions, related industry and multiple bidders stand for deal characteristics. Year effect is represented by relevant dummy variables as well. The obtained results show no significant impact of aggregate CD index on CAR, neither to acquirer, to target, nor to combined firms. However, when measuring for single dimensions, there is a negative impact of *indulgence versus restraint* [IVR] on returns to acquirer, between -0.4% for returns to target and -0.1%. As the impact of IVR on merger performance had not yet been studied, this result constitutes a novel contribution to the extant literature. *Indulgence* stands for culture's relationship with leisure time and positivity. Even though it is intuitive that differences along this dimension might cause communication barriers and conflicts, more theoretical research would be desirable to investigate upon this finding. The only other observed significant effect is that of *individualism* on returns to acquirer in the (-40, 40) event window of -0.2%.

It is surprising to find a relatively low influence of the original set of dimensions on merger performance with respect to the newly added ones (*long term orientation* approaches significance in several cases). A question arises whether their scores are not outdated as they still base on questionnaires submitted to IBM employees in the 1970s which were presented in Hofstede (1980). Even though this point has been refused for example in Hofstede (2011), it remains a valid concern as stressed out by Shenkar (2001). Overall, despite some novel findings, the data adds to the body of literature that is not able to confirm an impact of national cultural distance on merger performance. There are several limitations to the present study. The choice of cultural model and cultural distance index is one of the major ones. More research is needed in theoretical and empirical area in order to further extend the current state of knowledge regarding the role of culture in mergers and acquisitions.

References

Ahern, Kenneth R., Daniele Daminelli and Cesare Fracassi, 2015, Lost in Translation? The Effect of Cultural Values on Mergers Around the World, *Journal of Financial Economics*, Vol. 117, No. 1, 165-189.

Aybar, Bulent, and Aysun Ficici, 2009, Cross-Border Acquisitions and Firm Value: An Analysis of Emerging-Market Multinationals, *Journal of International Business Studies*, Vol. 40, No. 8, 1317-1338.

Barkema, Harry G., John H. J. Bell and Johannes M. Pennings, 1996, Foreign Entry, Cultural Values and Learning, *Strategic Management Journal*, Vol. 17, 151 – 166.

Brouthers, Keith D., and Lance Elliot Brouthers, 2000, Acquisition or Greenfield Start-up? Institutional, Cultural and Transaction Cost Influences, *Strategic Management Journal*, Vol. 21, 89 – 97.

Chakrabarti, Rajesh, Swasti Gupta-Mukherjee and Narayanan Jayaraman, 2009, Mars–Venus marriages: Culture and cross-border M&A, *Journal of International Business Studies*, Vol. 40, No. 2, 216-236.

Datta, Deepak K., and George Puia, 1995, Cross-border acquisitions: An examination of the influence of relatedness and cultural fit on shareholder value creation in U.S. acquiring firms, *Management International Review*, Vol. 35, 337–359.

Hofstede, Geert, 1980, *Culture's consequences: International differences in work-related values* (Sage Publications, London).

Hofstede, Geert, 2011, Dimensionalizing Cultures: The Hofstede Model in Context, *Online Readings in Psychology and Culture*, Vol. 2, No. 1, Art. 8.

Hofstede, Geert, and Michael Harris Bond, 1988, The Confucius connection: from cultural roots to economic growth, *Organizational Dynamics*, Vol. 16, 4-21.

Hofstede, Geert, Gert Jan Hofstede and Michael Minkov, 2010, *Cultures and Organizations: Software of the Mind*, *3rd Edition* (McGraw-Hill, USA).

Kirkman, Bradley L., Kevin B. Lowe and Cristina B. Gibson, 2006, A quarter century of Culture's Consequences: A review of the empirical research incorporating Hofstede's cultural value framework, *Journal of International Business Studies*, Vol. 36, No. 3, 285-320.

Kogut Bruce and Harbir Singh, 1988, The Effect Of National Culture On The Choice Of Entry Mode, *Journal of International Business Studies*; Vol. 19, No. 3, 411-432.

Krug, Jeffrey A., and Douglas Nigh, 2001, Executive Perceptions in Foreign and Domestic Acquisitions: An Analysis of Foreign Ownership and its Effect on Executive Fate, *Journal of World Business*, Vol. 36, No. 1, 85–105.

Laurent, Andre, 1986, The cross-cultural puzzle of international human resource management, *Human Resource Management*, Vol. 25, 91–102.

Markides, Constantinos C., and Christopher D. Ittner, 1994, Shareholder Benefits from Corporate International Diversification: Evidence from U.S.International Acquisitions, *Journal of International Business Studies*, Vol. 25, No. 2, 343-366.

Minkov, Michael, 2007, *What makes us different and similar: A new interpretation of the World Values Survey and other cross-cultural data* (Klasika i Stil, Sofia, Bulgaria).

Moeller, Sara B., and Frederik P. Schlingemann, 2005, Global diversification and bidder gains: A comparison between cross-border and domestic acquisitions, *Journal of Banking & Finance*, Vol. 29, 533–564.

Nahavandi, Afsaneh, and Ali R. Malekzadeh, 1988, Acculturation in Mergers and Acquisitions, *The Academy of Management Review*, Vol. 13, No. 1, 79-90.

Rahahleh, Naseem Al, and Peihwang Philip Wei, 2013, Frequent cross-border acquirers from emerging countries and cultural distance: Does the cultural difference of the initial deal matter?, *Journal of Multinational Financial Management*, Vol. 23, No. 4, 356-373.

Shenkar, Oded, 2001, Cultural Distance Revisited: Towards a More Rigorous Conceptualization and Measurement of Cultural Differences, *Journal of International Business Studies*, Vol. 32, No. 3, 519-535.

Shimizu, Katsuhiko, Michael A. Hitt, Deepa Vaidyanath, and Vincenzo Pisano, 2004, Theoretical foundations of cross-border mergers and acquisitions: A review of current research and recommendations for the future, *Journal of International Management*, Vol. 10, No. 3, 307-353.

United Nations Conference on Trade and Development, 2016, *World Investment Report 2016*, accessed online, http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=1555, 02.02.2017.

Van de Steen, 2009, Culture Clash: The Costs and Benefits of Homogeneity, Strategy Unit Working Paper No. 10-003, Harvard Business School, accessed online, https://ssrn.com/abstract=1432446, 23.02.2017

Weber, Yaakov, Oded Shenkar and Adi Raveh, 1996, National and Corporate Cultural Fit in Mergers/Acquisitions: An Exploratory Study, *Management Science*, Vol. 42, No. 8, 1215-1227.