

# Contributions to Management Science



Daniel O. Klier

# Managing Diversified Portfolios

What Multi-Business Firms Can  
Learn from Private Equity

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# Foreword

There has been a long tradition of research on the relation between diversification and performance of public corporations in the strategy and finance fields. As for private equity portfolios, research on this matter is rather scarce. From a theoretical as well as from a practical perspective, however, it is interesting to know more about the relation between private equity portfolio diversification and performance, how private equity firms manage their portfolios, and what public companies can learn from private equity firms. These are the research questions which are addressed in Daniel Klier's research.

In order to answer these questions, the author uses a two-tier research design. As a first step, he compares the diversification-performance link of public corporations and private equity firms. With respect to the private equity sample and the operationalization of the relevant variables, the study is highly innovative in terms of generating the PE sample from databases like Preqin and Dealogic, constructing a diversification measure from transaction data, and developing comparable performance measures for private equity firms as well as traditional multi-business firms.

As the second step, which is exploratory in nature, the author explores management models of PE firms. The sample of 20 US and Europe-based private equity firms is unique and of high quality, because the author succeeded in getting in-depth interviews with top decision makers of PE firms. The exploratory study extracts three clusters of management models that PE firms are using, and their relation to performance.

Beyond its high academic standards and its significant contribution to the empirical knowledge on the diversification-performance link in PE firms, the study provides important lessons for private equity managers, investors and corporate managers with regard to choosing the right portfolio strategy and the right management model.

For these reasons, the study is highly relevant to practitioners as well as to academics in the field of strategy and finance. Therefore, the study deserves wide attention in the academic and in the business world.

Professor Dr. Martin K. Welge

# Acknowledgements

The research theme “managing diversified portfolios – what multi-business firms can learn from private equity” provided me with an exceptional opportunity to combine some of my strongest interests in my dissertation. Diversification, conglomerates, and corporate strategy sparked my interest early on in my academic and professional path and let me through my studies at the University of St. Gallen and my career at McKinsey & Company. Corporate finance, on the other hand, has always provided me with a counterbalance to strategic insight and has given me the ability to properly evaluate strategic initiatives from an investor perspective. Private equity combines both elements and resembles at the same time a highly innovative form of ownership and management that so far has found only limited consideration in academic research. Fascinated by this phenomenon and motivated by the increasing importance of private equity as an asset class and public matter, this dissertation has been an academically, professionally, and privately enriching experience that has only been possible with the support and contribution from many sides.

First of all, my thanks go to my doctoral advisor Professor Dr. Martin K. Welge. Not only was he able to provide me with excellent guidance through the world of strategic management, he also granted me the right level of academic freedom together with targeted intervention whenever necessary. I appreciate his strong commitment to my research, his continuing willingness to offer advice, as well as the pleasant and encouraging work atmosphere he created. I would also like to express great gratitude to Professor Dr. Peter Witt and Professor Dr. Wolfgang Leininger for their support and valued input.

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This dissertation would not have been feasible without the willingness of investment professionals in leading private equity firms in the United States and Europe to reveal information about their management models that are generally undisclosed to

the public. I highly value the time spent by private equity professionals to support this research and the ability to gain such privileged insights into the investment and management philosophy as well as value creation levers of private equity investors.

I moreover owe sincere gratitude to my employer McKinsey & Company for the opportunity to write this dissertation and their financial and intellectual support during this time. I would like to thank Dr. Markus Boehme, Dr. Philipp Haerle, and Conor F. Kehoe for their contributions during the definition of my research question as well as Andreas Beroutsos and Aly Jeddy for challenging my findings in intellectually engaging discussions during my stay in New York. I owe further recognition to the outstanding support received from McKinsey colleagues around the world and to the great office communities in Berlin and New York.

Finally, I would like to thank those people, who made my time during this dissertation a wonderful experience. My friends in Europe and New York made this period of academic challenges a highly enjoyable time. My parents gave me everything I needed to get to this point in my life and always believed in me. And last but not least, my girlfriend Friderike, who showed great encouragement and patience and walked with me along the ups and downs of my academic adventures.

Berlin, January 2009

Daniel O. Klier

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# Abbreviations

AIM	Alternative Investment Market
ARD	American Research and Development Corporation
BSD	Broad spectrum diversification
CAPM	Capital asset pricing model
CD&R	Clayton, Dubilier & Rice
CEO	Chief executive officer
CFO	Chief financial officer
COO	Chief operating officer
DR	Related diversification
DT	Total diversification
DU	Unrelated diversification
EBIT	Earnings before interest and taxes
EBITDA	Earnings before interest, tax, depreciation and amortization
EU	European Union
E.U.	European Union
EUR	European currency Euro
EVCA	European Private Equity and Venture Capital Association
GSB	Graduate School of Business, Columbia University
GP	General partner
HBS	Harvard Business School, Harvard University
IPO	Initial public offering
IRR	Internal rate of return
KKR	Kohlberg Kravis Roberts & Co.
LBO	Leveraged buyout
LEPP	Leveraged equity purchase plan
LP	Limited partner
M&A	Mergers and acquisitions
MBI	Management buyin

MBO	Management buyout
MIRR	Modified internal rate of return
NASDAQ	National Association of Securities Dealers Automated Quotations
NAV	Net asset value
NPV	Net present value
NSD	Narrow spectrum diversification
NVCA	American National Venture Capital Association
NYSE	New York Stock Exchange
PE	Private equity
P/E ratio	Price/earnings ratio
R&D	Research and development
PIPE	Private investment in public equity
RoA	Return on assets
RoE	Return on equity
RoS	Return on sales
S&P	Standard and Poor's
SBIC	Small business investment company
SIC	Standard industrial classification system
TSR	Total return to shareholder
UK	United Kingdom
U.K.	United Kingdom
US	United States
U.S.	United States
USD	United States currency U.S. Dollar
VC	Venture capital
WACC	Weighted averaged cost of capital

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