RESEARCH

Martin Schmuck

Financial Distress and Corporate Turnaround

An Empirical Analysis of the Automotive Supplier Industry

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Martin Schmuck
TU München
München, Germany

Dissertation Technische Universität München, 2012

ISBN 978-3-658-01907-5 ISBN 978-3-658-01908-2 (eBook)
DOI 10.1007/978-3-658-01908-2

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at http://dnb.d-nb.de.

Library of Congress Control Number: 2013935439

Springer Gabler

Printed on acid-free paper

Springer Gabler is a brand of Springer DE.
Springer DE is part of Springer Science+Business Media.
www.springer-gabler.de

FOREWORD

Since its early days, business research has paid special attention to companies in distress situations. Its main focus has always been on the question of how distressed companies can successfully turn around. This issue is of major importance to academics as well as practitioners, but has only been partially answered so far. The reasons for the sparse and inconclusive research results are manifold. On the one hand, results are frequently hampered by the lack of exhaustive data and inappropriate research designs. On the other hand, the research samples under examination are often very heterogeneous, making it impossible to draw valid conclusions.

In his dissertation, Martin Schmuck analyzes the effectiveness of restructuring measures of companies in financial distress. In order to overcome the limitations of prior studies, he focuses on a sample of automotive suppliers; a distinctive, but nevertheless highly important industry segment. The international sample also makes it possible to accommodate regional differences. One of the main contributions of this doctoral thesis is that it includes a set of healthy companies in the research sample and, thereby makes it possible to identify how individual restructuring measures contribute to the corporate success of distressed and non-distressed companies.

This dissertation is underpinned by an excellent review of existing research efforts, a carefully constructed framework of hypotheses, and an extensive data set. The empirical analysis, conducted specifically for the purpose of this thesis, is based on advanced econometric methods, as well as an extremely well-structured approach. Both the research design and research results are a valuable and innovative contribution to national and international research on corporate turnaround. Martin Schmuck's dissertation on financial distress and corporate turnaround provides important new insights into this field, and future research workers as well as corporate decision-makers in the automotive industry will be able to significantly benefit from his work.

Munich, February 2013 Gunther Friedl

PREFACE

This book is the product of more than three years of my intensive research as an external doctoral student at the Department of Business Administration – Controlling at Technische Universität München. This dissertation is a result of my passion for business management, my scientific curiosity and, last but not least, my preference for working to a flexible time schedule. However, it would never have been written without the support and advice of numerous people, who provided both academic guidance and moral support, and thus played a substantial role in the completion of my dissertation.

First of all, I am extremely grateful to my academic advisor Prof. Dr. Gunther Friedl for his encouragement and trust during the past years. While he granted me a remarkable degree of freedom in defining and pursuing my research, my work would not have been possible without his invaluable advice and guidance. I would also like to thank the entire team of Prof. Dr. Gunther Friedl's chair for welcoming me to their team as an external doctoral candidate. Furthermore, I would like to thank the two other members of my dissertation committee, Prof. Dr. Dr. Ann-Kristin Achleitner for kindly agreeing to provide a second opinion, and Prof. Dr. Kaserer for chairing the examination board. I am very thankful for their efforts and the time they spent serving on my committee.

Special thanks go to my employer Oliver Wyman for generously supporting my Ph.D. leave. In particular, I would like to thank my advisor Dr. Tobias Eichner, who laid the academic foundation for my work, and also Dr. Lutz Jaede, who had already sponsored my diploma thesis. I am especially indebted to my former colleague Peter Bosch, who supported my move from consulting into academia early on, and without whom I would still be looking for the right moment to start this venture.

I would also like to thank my fellow doctoral student Marcel Naujoks for his thoughtful feedback and our ongoing discussions. I am thankful to Doug Boyle, Patrick Rohrmeier, and Tobias Wiesner for reading my thesis and for their helpful feedback. I would also like to thank all my friends who shared distractions from academia with me during the last three years. Finally and most importantly, my deepest gratitude goes to my family. I would like to thank my parents Maria and Hajo Schmuck for unconditionally supporting my education at all times, as well as my brother Stefan, whom I could always rely on. I would also like to express my utmost gratitude to my fiancée Sonja for her unreserved faith and support from day one of the dissertation project.

I wish to dedicate this thesis to my parents.

Munich, February 2013 Martin Schmuck

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LIST OF ABBREVIATIONS

Adj. .... Adjusted
AG .... Aktiengesellschaft
AM .... Americas
ANCOVA .... Analysis of covariance
ANOVA .... Analysis of variance
AP .... Asia-Pacific
AR .... Asset restructuring
CAGR .... Compounded annual growth rate
CAP/CAPEX .... Capital expenditures
CD .... Cook's distance measure
CEO .... Chief executive officer
Cont. .... continued
Corp. .... Corporation
CTX .... Context
DBT .... Total debt
CE .... Common equity
df. .... Degrees of freedom
DIV .... Common dividends
DS .... Distress severity
DY .... Distress year
EA .... Europe and Africa
EBITDA .... Earnings before interest, taxes, depreciation, and amortization
EQU .... Equity issue
ER .... Early restructuring
EXP .... Total operating expenses
FAS .... Fixed assets
FC .... Financial capacity
FR .... Financial restructuring
FS .... Financial slack
FTSE .... Financial Times Stock Exchange Index
H-L .... Hosmer-Lemeshow
ICB .... Industry Classification Benchmark
IN .... Industry subsector
Inc. .... Incorporated
INT .... Interest expense on debt
LL .... Log-likelihood function
LN .... Natural logarithm

LRT	Likelihood-Ratio-Test
Ltd.	Limited
MANCOVA	Multivariate analysis of covariance
Manuf.	Manufacturing
MR	Managerial restructuring
MRA	Top executive change – All
MRN	Top executive change – Non-routine
ND	Non-distressed
No.	Number
NT	Non-turnaround
OEM	Original equipment manufacturer
OLS	Ordinary least squares
OR	Operational restructuring
p./pp.	page/pages
PIMS	Profit Impact of Marketing Strategies
PLC	Public limited company
PP	Prior profitability
R&D	Research and development
REV	Net revenue
RG	Region
ROA	Return-on-assets
ROE	Return-on-equity
ROI	Return-on-investment
s.d.	standard deviation
s.e.	standard error
SA	Société anonyme
Sig.	significance level
TA	Turnaround
TAS	Total assets
UK	United Kingdom
US	United States
USD	United States Dollar
VIF	Variance Inflation Factor
Vol.	Volume
WC	Working Capital
Y	Year

1. INTRODUCTION AND PROBLEM STATEMENT

This research empirically investigates the phenomena of financial distress and corporate turnaround in the automotive supplier industry. CHAPTER 1.1 outlines the dissertation's general research objectives, including its research problem, underlying research questions, and intended contribution to the literature. The motivation and significance for the research object 'automotive supplier industry' and the identification of successful turnaround strategies are provided in CHAPTER 1.2. CHAPTER 1.3 presents the general research design, including research strategy, methodology, and methods. The first part concludes by outlining the dissertation's structure in CHAPTER 1.4.

M. Schmuck, *Financial Distress and Corporate Turnaround,*
DOI 10.1007/978-3-658-01908-2_1, © Springer Fachmedien Wiesbaden 2013

1.1 Research objectives

1.1.1 Research problem

Corporate distress and turnaround long have been issues integral to business research. Already in the late 1920s, EMMERICH (1929) discussed different forms of turnaround for distressed companies, and SCHMALENBACH (1932) analyzed financing aspects of corporate turnarounds. The general goal of turnaround research has not changed since then: to identify how companies can overcome distress situations. The question of how distressed companies can successfully turn around is important for practitioners and scholars and has received considerable attention in the finance and strategy literature.[1]

Today, corporate turnaround remains one of the most important fields in business research.[2] Nonetheless, no complete and coherent theory of corporate turnaround exists.[3] Research has intensified since the 1970s,[4] but understanding of corporate turnaround remains incomplete, and empirical evidence for the effectiveness of turnaround actions is limited.[5] Insufficient research designs and limited theoretical grounding of existing findings constrict many research efforts in this field.[6] In addition, research themes in distress and turnaround studies have shifted from decade to decade, and the topic of effective distress resolution has been neglected in the recent past.[7] Although scholarship established early that the key to reversing a decline in firm performance is explicit action by management and that ability to formulate appropriate strategic responses is of prime consideration for management,[8] recommendations for practitioners have been only partially forthcoming from academics.[9] Researchers have investigated many critical questions, and an impressive body of literature concerning turnarounds has accumulated over several decades, but the subject remains largely idiosyncratic, and many open issues remain unsettled and contradictory.[10] That said, scholars

1 E.g., SUDARSANAM/LAI (2001, p. 183), HAMBRICK/SCHECTER (1983, p. 247), or SCHENDEL ET AL. (1976, p. 3).
2 See HAUSCHILDT ET AL. (2006, p. 7).
3 Compare FRANCIS/DESAI (2005, pp. 1203-1204), PAJUNEN (2005, p. 14), and PEARCE/ROBBINS (1993, p. 614).
4 BUSCHMANN (2006, p. 1) quotes the work of SCHENDEL/PATTON (1976) and SCHENDEL ET AL. (1976) as initial work. HAMBRICK/SCHECTER (1983, p. 232) quote HOFER (1980) and BIBEAULT (1982).
5 See for the following LIN ET AL. (2008, p. 540), SUDARSANAM/LAI (2001, p. 183), and PANDIT (2000, p. 31). For a review of shifting research themes, compare LAI (1997, p. 1).
6 Compare PANDIT (2000, p. 31).
7 Compare LAFRENZ (2004, p. 3).
8 See for example ABEBE (2009, p. 201), OFEK (1993), or SCHENDEL ET AL. (1976, p. 10). At the same time, D'AVENI (1989b, p. 600) states that managerial actions are not solely responsible for turnaround.
9 See FRANCIS/MARIOLA (2005, p. 1), CHOWDHURY (2002, p. 249), and WINN (1993, p. 48).
10 See e.g. LIN ET AL. (2008, p. 540), LIOU/SMITH (2007, p. 74), or FRANCIS/DESAI (2005, pp. 1203-1204).

generally agree that industry-specific research is one palliative for the disjointed state of current research and a path to better understanding of corporate turnaround.[11]

The major research objective of this dissertation is to analyze the effectiveness of restructuring activities in overcoming situations of financial distress in the international automotive supplier industry.[12] It is based on the analysis of managerial, operational, financial, and asset restructuring of 194 publicly listed automotive suppliers between 1999 and 2008.

1.1.2 Research target and questions

The dissertation contributes to the current academic debate over financial distress and corporate turnaround and provides recommendations for managerial decisions in one of the most relevant industry segments.[13] Its purposes are to integrate the existing turnaround literature and to evaluate empirically the effectiveness of turnaround actions by financially distressed automotive suppliers.

Three questions guide this inquiry. They concern the effectiveness of restructuring actions, the differentiation between distressed and non-distressed companies, and the archetypes for successful turnarounds.

Research question 1: Effectiveness of restructuring actions

- How effective are frequently recommended restructuring strategies in resolving financial distress among automotive suppliers?
  - Which of the known restructuring actions are applied in this industry segment?
  - How effective are the four categories of restructuring (managerial, operational, financial, and asset restructuring), and what is their relative contribution to turnarounds?

Research question 2: Strategies of turnaround and non-distressed companies

- What sets apart successful turnaround strategies from successful strategies of companies not in distress?[14]

---

11 Compare PEARCE (2007), MORROW ET AL. (2004), or SUDARSANAM/LAI (2001).

12 Financial distress is one specific form of corporate distress and is defined as “a condition when a firm incurs more debt than its firm size, profitability, and asset composition can sustain” (LIN ET AL., 2008, p. 542). Financial distress lies within the bounds of this study. See SECTION 3.1.1 for a differentiation among stages of distress and the positioning of financial distress within the corporate crisis progression.

13 For the selection of the research object “Automotive supplier industry,” compare SECTION 1.2.1.

14 The focus is on successful turnarounds even if unsuccessful turnarounds are included in the comparison to identify more meaningful differences; compare CHAPTER 5.3 for details.

  - Do restructuring actions in successful turnarounds significantly differ from actions of healthy firms?
  - Are there timing differences between strategies of turnaround firms and non-distressed firms?

Research question3: Turnaround archetypes

- Are there archetypes for successful turnarounds among automotive suppliers?
  - Which restructuring actions are combined in successful turnarounds?
  - What is the relevant sequence of these restructuring actions?

These guiding questions address two important issues. First, they relate to important managerial decisions about which actions to consider during situations of financial distress. Second, they link these actions to performance consequences for the firm.[15] In a hypothesis-driven approach, key hypotheses are derived from existing theory and are empirically tested.

1.1.3 Intended contribution and originality

Although the research objective of identifying successful turnaround strategies is not new per se, questions that guide this dissertation differ from those that guided earlier studies of corporate turnaround and they contribute to existing literature in two distinct ways: (1) by focusing narrowly on one of the most affected industries[16] with an international sample and (2) by comparing turnaround strategies with strategies of non-distressed companies.

The importance of industry-specific characteristics in corporate turnarounds is widely acknowledged but often overlooked by scholars.[17] Prior research shows that the effectiveness of different turnaround strategies depends on specific industry settings.[18] PEARCE/ROBBINS (1993) early on pointed out "that differences in turnaround candidates and in their environmental contexts may necessitate different turnaround models."[19] Research on generic turnaround strategies covering multiple industries provides limited results because it "may not fully capture the dynamics of performance decline and recovery in specific industries"[20]. With

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15 Compare SINGH (1993, p. 162), who outlines the requirements for research questions in the context of corporate restructuring.

16 Compare OLIVER ET AL. (2008, p. 563). MOLDENHAUER/SEAGON (2008, p. 35), and FOLEY & LARDNER (2008).

17 E.g., PEARCE (2007), MORROW ET AL. (2004), or SUDARSANAM/LAI (2001) who outline this research deficit.

18 Compare for example SCHENDEL/PATTON (1976), CHOWDHURY/LANG (1993, p. 11), or MCGAHAN/PORTER (1997, p. 16).

19 PEARCE/ROBBINS (1993, p. 623). PEARCE (2007) restates this claim by requiring further research to investigate turnaround in single industries and in narrowly defined economic sectors with larger samples; see PEARCE (2007, p. 268).

20 SUDARSANAM/LAI (2001, p. 198).

respect to future research, SUDARSANAM/LAI (2001) emphasize "the need to identify turnaround strategies beyond the generic ones. How firms in specific industries achieve turnaround in response to industry-specific causes of financial distress is an interesting area for future research, requiring a rigorous conceptual development."[21] The need for industry-specific research stems from the fact that to generate valid conclusions the sample analyzed must be as homogeneous as possible.[22]

Many empirical large-sample turnaround studies have increased the homogeneity of their research samples. First, financials and utilities were excluded because of their singular business characteristics and the regulatory surroundings in distress situations.[23] Then broader industry groups were selected, albeit still covering multiple sectors in most cases.[24] A review of existing research shows that so far no large-sample empirical study of financial distress and turnaround has focused on one, single, specific industry sector.[25] This research on the automotive supplier industry minimizes extraneous variance and known distortions from industry effects such as differing growth rates.[26] Selecting an industry sector with similar operating and competitive conditions increases the validity and accuracy of any conclusion and offers the potential to resolve contradictory results in the existing research concerning financial distress and corporate turnaround.[27]

Related to the narrow industry setting is another distinctive feature in this research: its international sample. Most studies have examined single countries, primarily the US, or have partially combined two or three countries.[28] Due to the global nature of the automotive industry, automotive suppliers, in, for example, Japan, Europe, and the US, are affected alike, and a true international sampling of companies from important regions distinguishes this study.[29]

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21 SUDARSANAM/LAI (2001, p. 198).

22 See BRYMAN/BELL (2007, pp. 195-197) for large-sample research in general, and see BARKER/DUHAIME (1997, p. 15) and ROBBINS/PEARCE (1992, p. 292) for turnaround research in particular.

23 See for example JOHN ET AL. (1992, p. 894), OFEK (1993, p. 7), ASQUITH ET AL. (1994), and SUDARSANAM/LAI (2001, p. 190).

24 See for example SMITH/GRAVES (2005), FURRER ET AL. (2007), or MORROW ET AL. (2007).

25 So far even studies focusing on manufacturing include companies within different value chain segments, hence Original Equipment Manufacturers (OEMs) and suppliers in their samples.

26 See for the following CHOWDHURY/LANG (1993, p. 11). Industry-adjusted performance measures are one form of adjustment used in other empirical studies; see for example YAWSON (2009, p. 218), DENIS/KRUSE (2000, p. 398), or CHOWDHURY/LANG (1996, p. 172). Because this approach captures only the effects from different industry performance levels, not industry dynamics, it is considered inferior compared to using an industry-specific sample.

27 ROBBINS/PEARCE (1992, p. 1992). One recurring issue is the role of retrenchment; compare BARKER/MONE (1994).

28 Compare LIOU/SMITH (2007, p. 101). See CHAPTER 2.2 for an overview of the geographic focus of corporate turnaround studies.

29 See OLIVER ET AL. (2008, p. 563).