The impact of internationalization on organizational culture
a comparative study of international US and German companies

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vorgelegt von

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aus Deutschland

Genehmigt auf Antrag der Herren

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und

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Die Universität St.Gallen, Hochschule für Wirtschafts-, Rechts-, und Sozialwissenschaften (HSG), gestattet hiermit die Drucklegung der vorliegenden Dissertation, ohne damit zu den darin ausgesprochenen Anschauungen Stellung zu nehmen.


Der Rektor:

Prof. Dr. Peter Gomez
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Loerrach, September 4, 2003

Wolfgang Amann
# Table of contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TABLE OF CONTENTS</strong></td>
<td>i</td>
</tr>
<tr>
<td><strong>LIST OF FIGURES</strong></td>
<td>IV</td>
</tr>
<tr>
<td><strong>LIST OF TABLES</strong></td>
<td>V</td>
</tr>
<tr>
<td><strong>LIST OF ABBREVIATIONS</strong></td>
<td>VII</td>
</tr>
<tr>
<td><strong>1. INTRODUCTION</strong></td>
<td>1</td>
</tr>
<tr>
<td>1.1. The research field</td>
<td>1</td>
</tr>
<tr>
<td>1.2. Structure of the thesis</td>
<td>2</td>
</tr>
<tr>
<td>1.3. Objectives and intended contributions of the research project</td>
<td>4</td>
</tr>
<tr>
<td>1.4. Note on studies involving internationalization and organizational culture</td>
<td>5</td>
</tr>
<tr>
<td><strong>2. KEY CONCEPTS AND THEORETICAL FOUNDATIONS</strong></td>
<td>7</td>
</tr>
<tr>
<td>2.1. An introduction to internationalization</td>
<td>7</td>
</tr>
<tr>
<td>2.1.1. Defining internationalization</td>
<td>7</td>
</tr>
<tr>
<td>2.1.2. Research traditions and theoretical foundation</td>
<td>8</td>
</tr>
<tr>
<td>2.1.3. Importance of the field of internationalization</td>
<td>21</td>
</tr>
<tr>
<td>2.2. An introduction to organizational culture</td>
<td>31</td>
</tr>
<tr>
<td>2.2.1. Defining organizational culture</td>
<td>31</td>
</tr>
<tr>
<td>2.2.2. Research traditions for organizational culture</td>
<td>37</td>
</tr>
<tr>
<td>2.2.3. Importance of organizational culture</td>
<td>39</td>
</tr>
<tr>
<td><strong>3. LITERATURE REVIEW</strong></td>
<td>44</td>
</tr>
<tr>
<td>3.1. Introduction</td>
<td>44</td>
</tr>
<tr>
<td>3.2. Literature review part I: on the changeability of organizational culture</td>
<td>45</td>
</tr>
<tr>
<td>3.3. Literature review part II: pressure from internationalization on culture</td>
<td>50</td>
</tr>
<tr>
<td>3.4. Literature review part III: organizational culture’s reaction to internationalization</td>
<td>68</td>
</tr>
<tr>
<td>3.5. Summary of research gaps</td>
<td>75</td>
</tr>
</tbody>
</table>
4. RESEARCH QUESTION, FRAMEWORK, AND HYPOTHESES ......................... 77

4.1. Research question and conceptual framework ..................................... 77
4.2. Propositions and hypotheses .................................................................. 77
   4.2.1. Proposition 1 on individual content dimensions of organizational culture 77
   4.2.2. Proposition 2 on the setting dimension of organizational culture ......... 83

5. METHODOLOGY AND METHOD .................................................................. 85

5.1. Selection of suitable methodology ......................................................... 85
5.2. Primary data on organizational culture .................................................. 90
   5.2.1. Traditional and selected conceptualization of organizational culture .... 90
   5.2.2. The fax-based survey method for primary data on organizational culture 105
   5.2.3. Respondents in the U.S. study ......................................................... 110
   5.2.4. Respondents in the German study ................................................... 111
   5.2.5. Note on international comparative studies on organizational cultures 113
5.3. Secondary data on internationalization .................................................. 115
   5.3.1. Traditional and selected conceptualization for internationalization ...... 115
   5.3.2. Data sources .................................................................................. 121
5.4. Control variables .................................................................................... 121
5.5. Evaluation ............................................................................................... 122

6. THE EMPIRICAL STUDY IN THE U.S. ......................................................... 125

6.1. Descriptive statistics .............................................................................. 125
6.2. Results of hypotheses testing in the US ................................................. 129
   6.2.1. Impact of internationalization on corporate adaptability and change .... 129
   6.2.2. Impact of internationalization on goal achievement ......................... 131
   6.2.3. Impact of internationalization on coordinated teamwork .................. 131
   6.2.4. Impact of internationalization on customer orientation .................... 133
   6.2.5. Impact of internationalization on cultural strength ......................... 134
   6.2.6. Impact of internationalization on total organizational culture scores ... 135
   6.2.7. Further analysis .............................................................................. 137

7. THE EMPIRICAL STUDY IN GERMANY ...................................................... 144

7.1. Descriptive statistics.............................................................................. 144
7.2. Results of hypotheses testing in Germany .............................................. 147
   7.2.1. Impact of internationalization on managing change ....................... 147
   7.2.2. Impact of internationalization on goal achievement ....................... 149
   7.2.3. Impact of internationalization on teamwork .................................... 150
   7.2.4. Impact of internationalization on customer orientation ................... 150
The impact of internationalization on organizational culture

7.2.5. Impact of internationalization on cultural strength .................................................. 151
7.2.6. Impact of internationalization on total organizational culture scores ................................. 152
7.2.7. Further analysis ............................................................................................................. 153

8. SUMMARY, DISCUSSION OF FINDINGS, AND CONCLUSION ......................................... 166
8.1. Findings on impact of internationalization on culture ....................................................... 166
8.2. Implications for theory ....................................................................................................... 173
8.3. Implications for practice .................................................................................................... 176
8.4. Limitations and suggestions for future research ................................................................. 182
8.5. Conclusions ....................................................................................................................... 182

BIBLIOGRAPHY ..................................................................................................................... VIII

APPENDICES ......................................................................................................................... LXIX

A. Cover letter for the U.S. survey ............................................................................................. lxix
B. Questionnaire for the U.S. survey ....................................................................................... lxx
C. Cover letter for the German survey ..................................................................................... lxxi
D. Questionnaire for the German survey .................................................................................. lxxii
# List of figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Structure of the content</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Three major theoretical pillars of internationalization</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Internationalization process and patterns</td>
<td>19</td>
</tr>
<tr>
<td>4</td>
<td>Foreign trade development of the U.S. and Germany</td>
<td>22</td>
</tr>
<tr>
<td>5</td>
<td>Organizations and their environment</td>
<td>23</td>
</tr>
<tr>
<td>6</td>
<td>A three-stage sigmoid framework for the DOI-performance link</td>
<td>29</td>
</tr>
<tr>
<td>7</td>
<td>Internationalization and performance with differing internationalization paths</td>
<td>31</td>
</tr>
<tr>
<td>8</td>
<td>Multiple value stimuli for employees</td>
<td>37</td>
</tr>
<tr>
<td>9</td>
<td>Three paradigms for research on organizational culture</td>
<td>38</td>
</tr>
<tr>
<td>10</td>
<td>Original and derivative functions of organizational culture</td>
<td>40</td>
</tr>
<tr>
<td>11</td>
<td>Framework for the literature review and the propositions</td>
<td>44</td>
</tr>
<tr>
<td>12</td>
<td>Changeability of organizational culture</td>
<td>46</td>
</tr>
<tr>
<td>13</td>
<td>Evaluation matrix for strategy and culture-related risks</td>
<td>52</td>
</tr>
<tr>
<td>14</td>
<td>Organizational culture change as an incremental process</td>
<td>71</td>
</tr>
<tr>
<td>15</td>
<td>How organizational culture works</td>
<td>72</td>
</tr>
<tr>
<td>16</td>
<td>Sathe and Davidson’s framework of cultural evolution</td>
<td>75</td>
</tr>
<tr>
<td>17</td>
<td>Conceptual framework</td>
<td>77</td>
</tr>
<tr>
<td>18</td>
<td>Typology of quantitative instruments for organizational culture</td>
<td>93</td>
</tr>
<tr>
<td>19</td>
<td>Parsons’ four basic organizational functions</td>
<td>97</td>
</tr>
<tr>
<td>20</td>
<td>OCAQ’s comprehensive conceptualization of customer orientation</td>
<td>101</td>
</tr>
<tr>
<td>21</td>
<td>Cultural strength cube</td>
<td>102</td>
</tr>
<tr>
<td>22</td>
<td>Distribution of FSTS and FATA ratios in the U.S. sample</td>
<td>128</td>
</tr>
<tr>
<td>23</td>
<td>Impact of DOI on managing change in U.S. companies</td>
<td>130</td>
</tr>
<tr>
<td>24</td>
<td>Impact of DOI on teamwork coordination in U.S. companies</td>
<td>132</td>
</tr>
<tr>
<td>25</td>
<td>Impact of DOI on customer orientation in U.S. companies</td>
<td>134</td>
</tr>
<tr>
<td>26</td>
<td>Impact of DOI on cultural strength in U.S. companies</td>
<td>135</td>
</tr>
<tr>
<td>27</td>
<td>Impact of DOI on the sum of all scales in U.S. companies</td>
<td>136</td>
</tr>
<tr>
<td>28</td>
<td>Distribution of internationalization strategies in U.S. companies</td>
<td>139</td>
</tr>
<tr>
<td>29</td>
<td>Size distribution and DOI of German companies in the sample</td>
<td>146</td>
</tr>
<tr>
<td>30</td>
<td>Impact DOI on managing change in German companies</td>
<td>148</td>
</tr>
<tr>
<td>31</td>
<td>Impact of DOI on achieving goals in German companies</td>
<td>149</td>
</tr>
<tr>
<td>32</td>
<td>Impact of DOI on coordinated teamwork in German companies</td>
<td>150</td>
</tr>
<tr>
<td>33</td>
<td>Impact of DOI on customer orientation in German companies</td>
<td>151</td>
</tr>
<tr>
<td>34</td>
<td>Impact of DOI on cultural strength of German companies</td>
<td>152</td>
</tr>
<tr>
<td>35</td>
<td>Impact of DOI on total scale scores of German companies</td>
<td>153</td>
</tr>
<tr>
<td>36</td>
<td>Impact of interationalization speed on organizational culture</td>
<td>157</td>
</tr>
<tr>
<td>37</td>
<td>Distribution of internationalization strategies in German companies</td>
<td>158</td>
</tr>
<tr>
<td>38</td>
<td>DOI of transnational companies from Germany</td>
<td>161</td>
</tr>
<tr>
<td>39</td>
<td>Impact of DOI on performance and culture in German companies</td>
<td>174</td>
</tr>
<tr>
<td>40</td>
<td>Room for improvement in change for German companies</td>
<td>177</td>
</tr>
<tr>
<td>41</td>
<td>Culture-oriented room for improvement for German companies</td>
<td>178</td>
</tr>
<tr>
<td>42</td>
<td>Orientations at medium and highly internationalized German firms</td>
<td>180</td>
</tr>
</tbody>
</table>
# List of tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Challenges for the diversified multinational corporation</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>Past results on the link between multinationality and performance</td>
<td>27</td>
</tr>
<tr>
<td>3</td>
<td>Selected definitions of organizational culture</td>
<td>34</td>
</tr>
<tr>
<td>4</td>
<td>Contingency and configuration approaches compared</td>
<td>53</td>
</tr>
<tr>
<td>5</td>
<td>Organizational characteristics of the international configurations</td>
<td>55</td>
</tr>
<tr>
<td>6</td>
<td>Models on the impacts of environments on organizations</td>
<td>58</td>
</tr>
<tr>
<td>7</td>
<td>Major “fit” approaches within contingency theory</td>
<td>60</td>
</tr>
<tr>
<td>8</td>
<td>Assumptions of the two premier research paradigms</td>
<td>86</td>
</tr>
<tr>
<td>9</td>
<td>Fundamental differences between functionalism and symbolism</td>
<td>89</td>
</tr>
<tr>
<td>10</td>
<td>Differences in applying functionalism and symbolism empirically</td>
<td>90</td>
</tr>
<tr>
<td>11</td>
<td>Selected approaches on measuring organizational culture</td>
<td>94</td>
</tr>
<tr>
<td>12</td>
<td>OCAQ scale dimensions and items</td>
<td>98</td>
</tr>
<tr>
<td>13</td>
<td>OCAQ norms for categorizing scale scores</td>
<td>99</td>
</tr>
<tr>
<td>14</td>
<td>Means to enhance response-rates</td>
<td>110</td>
</tr>
<tr>
<td>15</td>
<td>Individual internationalization indicators</td>
<td>116</td>
</tr>
<tr>
<td>16</td>
<td>The measurement of regional diversification</td>
<td>117</td>
</tr>
<tr>
<td>17</td>
<td>Logit analysis for the U.S. sample</td>
<td>125</td>
</tr>
<tr>
<td>18</td>
<td>Respondents in the U.S. sample</td>
<td>126</td>
</tr>
<tr>
<td>19</td>
<td>Descriptive statistics for key variables in the U.S. study</td>
<td>127</td>
</tr>
<tr>
<td>20</td>
<td>Correlation matrix of independent and variables in the U.S. study</td>
<td>129</td>
</tr>
<tr>
<td>21</td>
<td>Statistics on impact of DOI on change management in the U.S.</td>
<td>130</td>
</tr>
<tr>
<td>22</td>
<td>Impact of internationalization on goal achievement in U.S. companies</td>
<td>131</td>
</tr>
<tr>
<td>23</td>
<td>Impact of DOI on coordinated teamwork in U.S. companies</td>
<td>132</td>
</tr>
<tr>
<td>24</td>
<td>Impact of DOI on customer orientation in U.S. companies</td>
<td>133</td>
</tr>
<tr>
<td>25</td>
<td>Impact of DOI on cultural strength in U.S. companies</td>
<td>134</td>
</tr>
<tr>
<td>26</td>
<td>Impact of DOI on total culture scores in U.S. companies</td>
<td>136</td>
</tr>
<tr>
<td>27</td>
<td>Non-linearity in the impact of DOI on culture in U.S. companies</td>
<td>137</td>
</tr>
<tr>
<td>28</td>
<td>Linear and non-linear impact of internationalization in U.S. firms</td>
<td>138</td>
</tr>
<tr>
<td>29</td>
<td>Group descriptives for international companies from the U.S.</td>
<td>140</td>
</tr>
<tr>
<td>30</td>
<td>Comparing international with transnational organizations from the U.S.</td>
<td>141</td>
</tr>
<tr>
<td>31</td>
<td>Comparing multinational with transnational companies from the U.S.</td>
<td>141</td>
</tr>
<tr>
<td>32</td>
<td>Linking enabling cultures with internationalization in U.S. companies</td>
<td>142</td>
</tr>
<tr>
<td>33</td>
<td>Results from the control items in the U.S. study</td>
<td>143</td>
</tr>
<tr>
<td>34</td>
<td>Logit analysis for the Germany study analysis for the U.S. sample</td>
<td>145</td>
</tr>
<tr>
<td>35</td>
<td>Descriptive statistics for the key variables in the German study</td>
<td>145</td>
</tr>
<tr>
<td>36</td>
<td>Impact of DOI on organizational culture in Germany</td>
<td>147</td>
</tr>
<tr>
<td>37</td>
<td>Analysis for a linear impact in the DOI-culture link in German companies</td>
<td>154</td>
</tr>
<tr>
<td>38</td>
<td>Analysis for a sigmoid impact in the DOI-culture link in Germany</td>
<td>155</td>
</tr>
<tr>
<td>39</td>
<td>Impact of previous internationalization on culture in Germany</td>
<td>156</td>
</tr>
<tr>
<td>40</td>
<td>Impact of internationalization speed on culture</td>
<td>157</td>
</tr>
<tr>
<td>41</td>
<td>Group descriptives for international companies from Germany</td>
<td>159</td>
</tr>
<tr>
<td>42</td>
<td>Comparing international with global organizations from Germany</td>
<td>160</td>
</tr>
</tbody>
</table>
The impact of internationalization on organizational culture

Table 43: Comparing international with transnational organizations from Germany............160
Table 44: Comparing multinational with transnational organizations from Germany ........161
Table 45: Linking enabling culture with DOI in the German sample ...............................162
Table 46: OCAQ items for employee orientation.................................................................163
Table 47: Impact of DOI on employee orientation in Germany.............................................163
Table 48: Results from the control items in the German study............................................165
Table 49: Overview on results from Germany and the U.S..................................................167
The impact of internationalization on organizational culture

## List of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT</td>
<td>Cultural Assessment Tool</td>
</tr>
<tr>
<td>CCS</td>
<td>Corporate Culture Survey</td>
</tr>
<tr>
<td>CDD</td>
<td>Culture Due Diligence</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief executive officer</td>
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<td>cf.</td>
<td>compare to</td>
</tr>
<tr>
<td>CGS</td>
<td>Culture Gap Survey</td>
</tr>
<tr>
<td>DMNC</td>
<td>Diversified multinational corporation</td>
</tr>
<tr>
<td>DOI</td>
<td>Degree of internationalization</td>
</tr>
<tr>
<td>e.g.</td>
<td>exempli gratia, for instance</td>
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<td>et al.</td>
<td>et altera</td>
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<td>etc.</td>
<td>et cetera</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign direct investment</td>
</tr>
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<td>FATA</td>
<td>Foreign assets to total assets</td>
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<tr>
<td>FSTS</td>
<td>Foreign sales to total sales</td>
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<tr>
<td>i.e.</td>
<td>id est, that is to say</td>
</tr>
<tr>
<td>HR</td>
<td>Human resources</td>
</tr>
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<td>HRM</td>
<td>Human resource management</td>
</tr>
<tr>
<td>M&amp;A</td>
<td>Mergers and acquisitions</td>
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<tr>
<td>M.I.T.</td>
<td>Massachusetts Institute of Technology</td>
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<tr>
<td>MNC</td>
<td>Multinational corporation</td>
</tr>
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<td>MNE</td>
<td>Multinational enterprises</td>
</tr>
<tr>
<td>NDI</td>
<td>Norms Diagnostic Index</td>
</tr>
<tr>
<td>No.</td>
<td>Number</td>
</tr>
<tr>
<td>NYSE</td>
<td>New York Stock Exchange</td>
</tr>
<tr>
<td>OBQ</td>
<td>Organizational Beliefs Questionnaire</td>
</tr>
<tr>
<td>OC</td>
<td>Organizational culture</td>
</tr>
<tr>
<td>OCAQ</td>
<td>Organizational Culture Assessment Questionnaire</td>
</tr>
<tr>
<td>OCI</td>
<td>Organizational Culture Inventory</td>
</tr>
<tr>
<td>OCP</td>
<td>Organizational Culture Profile</td>
</tr>
<tr>
<td>OCS</td>
<td>Organizational Culture Survey</td>
</tr>
<tr>
<td>p.</td>
<td>Page</td>
</tr>
<tr>
<td>pp.</td>
<td>Pages</td>
</tr>
<tr>
<td>ROA</td>
<td>Return on Assets</td>
</tr>
<tr>
<td>ROE</td>
<td>Return on Equity</td>
</tr>
<tr>
<td>ROS</td>
<td>Return on Sales</td>
</tr>
<tr>
<td>SEC</td>
<td>(U.S.) Securities and Exchange Commission</td>
</tr>
<tr>
<td>SME</td>
<td>Small- and medium-sized enterprise</td>
</tr>
<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
</tr>
<tr>
<td>U.S.</td>
<td>United States (of America)</td>
</tr>
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1. Introduction
1.1. The research field

By virtually every measure – growth in international trade, foreign direct investment, and cross-border flows of technology – internationalization is becoming increasingly pervasive (Gupta and Westney 2003, p. 1). Geographic expansion abroad offers the vast potential benefits of a much larger market arena, spread risk, scale- and location-based cost efficiencies, and exposure to a variety of new product and process ideas. Emerging markets especially constitute the major growth opportunity in the evolving economic world order (Arnold and Quelch 2003, p. 107). Globally active companies have been on the rise and substantially extending their impact, particularly in the last three decades (Letto-Gillies 2002, p. 11). Whether to internationalize, and how to internationalize, have become two of the most burning strategy issues for managers around the world (Yip 2003, p. 39).

Simultaneously, academic research over the last three decades has been assiduously investigating the relationship between corporate internationalization and performance with partly disillusioning and partly contradictory results (Annavarjula and Beldona 2000, p. 48; Ruigrok and Wagner 2003, p. 64). Diversifying internationally often turns out to be a double-edged sword, as it forces organizations to cope with often drastically increasing levels of complexity and uncertainty (Sanders and Carpenter 1998, p. 158; Welch and Welch 1997). On the one hand, the greater diversity of cultures, customers, competitors and regulations (Gomez-Mejia and Palich 1997; Hofstede 1984) multiplies complexity (Bartlett and Goshal 2003, p. 163). Every corporate function is confronted with a rising level of challenge owing to the added international dimension (e.g., Wunderer 1993, p. 2). On the other hand, competitive pressures cause geographically expanding companies to extract more synergies across products and regions along their value-chains (Kogut 2003, p. 32). For these reasons, international firms often represent the most complex managerial decision-making environment (cf. Conference Board 1995).

The question arises for managers and researchers alike as to which ways best enable one to cope with this augmenting complexity, while capturing benefits and minimizing costs and risks. Internationalization is likely to require different horses for different courses, encouraging a creative destruction of existing configurations to achieve lucrative headway (cf. Schumpeter 1934). Nonetheless, enhancing global reach creates the obvious need for a centripetal force holding the expanding organization together. Organizational culture has been proposed as such a much-needed “glue” (Albert and Silverman 1984, p. 13). However, organizational theorists are just embarking upon the serious study of multinational companies, and have as yet not had much time to devote to organizational culture (Van Maanen and Laurent 1993, p. 275). Perlmutter’s (1969) typology suggests fundamental shifts in orientation
for internationalizing companies beyond ethnocentric mindsets and towards polycentric and egocentric ones. Prescriptive management and organization literature on “fit”, “consistency”, and “congruence” (cf. Tushman and Andersen 1997) argue in favor of such shifts. In certain phases, negative performance implications of internationalization (Gomes and Ramaswamy 1999; Ruigrok and Wagner 2003) could act as strong motivators for change (Tushman and Romanelli 1985, p. 179). But does internationalization actually have an impact upon organizational culture?

1.2. Structure of the thesis

This featured question is answered with the help of major blocks within the theme depicted in Figure 1. The introductory chapter provides an overview of the thesis and the research field. It explains why this research project is a worthwhile endeavor detailing the substantial potential for new insights and contributions. From the very beginning, the reader is forewarned of the mounting controversy surrounding the two principal constructs of this study, and the prevalent discord regarding their impacts. Nevertheless, despite more than 20 years of intense academic research, organizational culture remains one of the most challenging and polarizing topics in organizational research today, with a ‘cultural war’ (cf. Chapter 1.4.) raging even about the field’s basic assumptions.

Chapter 2 introduces the two key variables of this research project: internationalization and organizational culture. Both constructs exhibit a variety of characteristics and various emphases as proposed in multiple definitions. Chapter 2.2. critically reviews three main pillars which comprise the theoretical foundation for internationalization. Reasons for advocating the importance of diversifying abroad follow. Chapter 2.2. also defines organizational culture and illuminates the three major research traditions applied to organizational culture research, namely integration, differentiation and ambiguity. In addition to outlining derivative functions of organizational culture, this subsequent section explicates construct importance with original functions such as integration, coordination, and motivation.

After introducing the two key variables of this study, Chapter 3 critically reviews current academic literature in the field, examining what has been revealed as well as what remains unknown with regard to the impact of internationalization on organizational culture. Three distinct questions are addressed. Is organizational culture changeable and is it a dynamic construct to begin with? How can internationalization create a tension field in which organizational culture can change? How can organizational culture react to and overcome the tension field created by internationalization? Chapter 3 closes with the identification of research gaps. After reviewing what is known and unknown, Chapter 4 presents the research questions and the research framework.
Figure 1: Structure of the content

Chapter 1: Introduction

Chapter 2: Definitions, theoretical foundation and importance of key constructs
- Internationalization
- Organizational culture

Chapter 3: Literature review
- I. Can organizational cultures change?
- II. Why can internationalization impact organizational culture?
- III. How does organizational culture react to internationalization?

Chapter 4: Research question, framework, and hypotheses

Chapter 5: Methodology, method and construct conceptualization

Chapters 6 and 7: Empirical studies
- Impact of internationalization on culture in the U.S.
- Impact of internationalization on culture in Germany

Chapter 8: Summary, discussion of findings, and conclusions
- Actual impact of internationalization on organizational culture
- Implications for theory and practice
- Limitations and suggestions for future research

Conclusions

Source: Author
Subsequently, two major propositions follow concerning the content and strength dimensions of organizational culture. Testable hypotheses are outlined along with their rationale on how geographic expansion affects organizational cultures in the U.S. and Germany. Several effects of corporate internationalization on organizational culture in terms of individual content dimensions and overall cultural strength are also proposed. The focus of this study is on two key economies of the contemporary world: those of the U.S. and Germany. The methodology and method for acquiring further knowledge and gathering empirical evidence, including quantitative data, are detailed in Chapter 5. Elaborations follow delineating: (a) how the constructs are conceptualized; (b) how and why the survey was carried out; and (c) the criteria for choosing particular respondents and identifying key participants. Chapters 6 and 7 present the empirical results, which are discussed further in Chapter 8. Implications for theory and practice are derived. Moreover, the limitations of this study are identified, followed by suggested directions for future research. Conclusions close this thesis project.

1.3. Objectives and intended contributions of the research project

Generally, contributions are plausible in three areas: (1) conceptual contributions to theory building or testing; (2) an innovative method; and (3) new empirical data. Before a theory can be tested, however, it must be constructed. The process of theory generation includes steps such as identifying relevant constructs, developing hypotheses about relationships, and proffering explanations for these relationships (Snow and Thomas 1994, p. 465). Decades of research on the core paradigm of international business theory claiming economic benefits as motives and rewards for endeavors abroad reveal many inconsistencies in the empirical results (Contractor et al. 2003, p. 23; Ruigrok and Wagner 2003, p. 64).

The impact of internationalization on an organization’s internal aspects remains under-researched. Nevertheless, evidence exists that internal change actually occurs (Sullivan 1997, p. 183). This calls for further conceptual refinements in two regards. While the ultimate goal of theory may well be to answer the questions of how, why, and when, there is a preceding need to describe what key variables matter. Secondly, this necessitates explanations of how and why key variables are related (Whetten 1989, p. 491). This study contributes to theory building by introducing organizational culture as a hitherto neglected variable. Given the newness of organizational culture as an emphasized variable in internationalization research, the major contribution resides in description and explanation, to the exclusion of predictions until further on in the research process (cf. Snow and Thomas 1994, p. 466). In addition, the focus on a contemporary challenge along with the intended deduction of concrete implications for practice ensures high relevance of the project for companies and managers alike (cf. Ulrich 1981, p. 16).
While the intention to enhance existing knowledge on internationalization guides this research project, an additional contribution is enabled on the second variable. Research into the contingent nature of organizational culture remains scarce even today (Malekzadeh and Nahavandi 1998, p. 111). Studies such as the one at hand not only advance the available knowledge on organizational culture but also contribute to the development of a theory on "cultural adaptation to regain fit" (CARFIT), similarly to its established structure-oriented counterpart SARFIT, which conceptualizes structural adaptation to regain fit (cf. Donaldson 2001).

With regard to the innovativeness of method, two characteristics of this study are worth mentioning. Researchers suggest that paths to geographic expansion differ, and assign a crucial role to the question whether companies diversify geographically into culturally related or unrelated countries, as this affects performance (Ruigrok and Wagner 2003). Internationalization knowledge is likely to benefit considerably from studies investigating countries with clearly identifiable archetype-like patterns. This study considers this need for sensitivity towards national diversification differences, not only in deriving country-specific hypotheses but also by conceiving a method for arriving at cross-company patterns. In the context of researching organizational culture, employee representatives in Germany may represent a new, not overly surveyed target group that knows its respective organizations inside out.

Finally, this thesis project aims to contribute new and unique data on organizational cultures in two key economies of the world and provide new insights on how internationalization affects them. The data are gathered with a well-proven instrument and creates the potential for learning more about internationalization as well as organizational culture, two constructs which previous research have identified as heavily influencing organizational success (cf. Wagner 2001, pp. 142-147 for an overview on internationalization and Wilderom et al. 2000, pp. 198-199, on organizational culture). Pettigrew (1979) closed his seminal article on organizational culture by describing his contribution. He “listed some items on a menu and put some of the items together in some simple dishes; it remains for others to broaden the menu and produce the cordon bleu meals” (Pettigrew 1979, p. 580). To stay with his analogy, the menu has been further extended in previous research (cf. Hatch 1993). This thesis aims to add a cosmopolitan flavor by selecting international dishes for the menu.

1.4. Note on studies involving internationalization and organizational culture
Organizational culture seems to polarize researchers and practitioners like no other construct. Martin and Frost (1996, p. 599) even coined the notion of “culture wars” to describe the ongoing intellectual battle and disputes between opposing viewpoints. When asked to write a literature review on the advances within the field of organizational culture, these authors had to state that the current situation resembled

Admittedly, organizational culture is a highly complex topic, as Chapter 2.2. will demonstrate. Disunity prevails in particular, on theoretical and methodological aspects (cf. Frost et al. 1991; Martin 2001; Martin 1992; Rousseau 1990a). Martin’s (2002) suggestion presented in Chapter 2.2.2. to proceed eclectically, considering all three major paradigms simultaneously may originally have been motivated by positive, constructive intentions to overcome the culture war and to unify the opposing camps, but has turned out to have opposite effect. It practically puts an end to organizational culture research owing to the substantial financial, human and time resources required for the respective projects. Interestingly enough, Martin announced her withdrawal from the field of organizational culture at the Academy of Management in Denver in 2002, without first giving indications on how to implement her three-perspective approach practically and empirically, as this is a true challenge (cf. Lewis and Grimes 1998).

Future research is encouraged so as not remain bogged down in this paradigm heterogeneity of views on what organizational culture is and how it can be approached in research. Nor should the partly deconstructive effects of a paradigm proliferation (Pfeffer 1993) discourage research with approaches featuring inherent limitations, especially if evaluated from a different paradigmatic point of view. It can be unarguably stated that no single study on organizational culture satisfies every paradigm. Only a sequential proceeding with shorter steps allows for reducing the paralyzing intricacy of organizational culture, and enabling further knowledge creation. More research is still required not only to address homo sapiens' compulsive need for continuous growth, but also to foster the development and amelioration of existing solutions to contemporary and future problems (Remenyi et al. 1998, p. 25).

What about internationalization? Previous inquiries into the internationalization-performance link parallel to a large extent the controversy on the best way to conceptualize internationalization. This is shown, for example, in the published back-and-forth discussion between Sullivan (1994a, 1996) and Ramaswamy et al. (1996). But construct conceptualization seems to be a challenge generally found in the case of multidimensional variables such as performance (Venkatraman and Ramanujam 1986), quality (Bennington and Cummiane 1998), or market orientation (Gray et al. 1998). Internationalization-performance research is neither free from two-sided communication, nor from the struggle for intellectual superiority on respective curves.
and thus a notable degree of controversy. However, participants in the field do not get entangled in meta-theoretical wars to the same extent, but continue to advance available knowledge through valuable contributions. Contractor et al. (2003) propose integration of previous results and curves, Wan and Hoskisson (2003) point out the relevance of the domestic environment, Ruigrok and Wagner (2003) contribute evidence for the impact of culturally related versus unrelated internationalization paths and respective learning needs, and Wagner (2001, pp. 87-112) extends the model sophistication process by proposing elements of a contingency framework. As long as progress is made through more suitable frameworks, more sophisticated measurement, better data and meta-analytic reviews (cf. Hunter and Schmidt 1990, p. 37), researchers on internationalization together with its impact on performance show at least a slightly more constructive culture. Chapter 5 will outline how pressure points in research on internationalization and organizational culture are dealt with, and how overall complexity can be kept at a manageable level.

2. Key concepts and theoretical foundations
2.1. An introduction to internationalization

2.1.1. Defining internationalization
While the notion of internationalization has been widely used to describe the “outward movement in a firm's international operations” (Turnbull 1987, pp. 21-22), no consensus has been reached on a single accepted manner of defining internationalization (Andersen 1997, p. 28). This stems from the miscellany of theoretical foundations of internationalization and, in some instances, different aspects of a multifaceted construct that are particularly emphasized. The proposed definitions can be structured along a logical sequence. First, Beamish et al. (1997) emphasize the shift in orientation and awareness by viewing internationalization as “the process by which firms increase their awareness of the influence of international activities on their future, and establish and conduct transactions with firms from other countries” (p. 3). Subsequently, action follows in the form of a geographic expansion process. Johanson and Vahlne (1977) regard internationalization as “the process in which the firms gradually increase their international involvement” (p. 23). This process consists of multiple smaller internal decisions taken together, e.g. decisions to start exporting, establish export channels, or found sales subsidiaries. Analogously, Welch and Luostarinen (1988) define internationalization as the “process of increasing involvement in international operations” (p. 36). However, these authors consider internationalization to be an inward process as well. Another approach focuses on organizational borders and views internationalization as “bringing new foreign operations within the boundaries of a firm” (Hitt et al. 1997, p. 767).
Consequently, this boundary shift requires adaptation. Andersen (1997) therefore defines internationalization as “the process of adapting exchange transaction modality to international markets” (p. 29). Calof and Beamish’s (1995) definition shows the same reactive character, understanding internationalization as “the process of adapting firms’ operations (...) to international environments” (p. 116). But these same authors consider the reverse process of de-internationalization included in their approach (cf. also Benito and Welch 1997). Internationalization is not confined to the output side and can involve input factors or remaining parts of the value chain (Oviatt and McDougall 1999, p. 24). An alternative approach perceives internationalization as a dynamic, evolutionary strategy process entailing sophisticated organizational patterns of multinational organizations (Melin 1992; Bartlett and Goshal 1989). It becomes clear that internationalization constitutes a phenomenon which affects the entire organization (Perlitz 2000, p. 9; Korhonen 1999). For the context of this research project, special emphasis is placed on defining internationalization. The focus is not on triggers or the uni-dimensional nature of geographic expansion abroad. The concentration is less on a static or structural view of internationalization, as exemplified by Dunning (1993a), for whom international equates to owning or controlling “value-added activities in two or more countries” (p. 1). Internationalization is understood as a process affecting the entire organization, rendering the relevant organizational environment more international, and calling for organizational adaptations. This definition considers the comprehensiveness of the construct, the increasingly international environment in which organizations are left, and finally the requirement for adaptation.

2.1.2. Research traditions and theoretical foundation

The multi-faceted internationalization construct relies on considerable intellectual diversity (Melin 1992, p. 99). Covello and McAuley (1999) identify three major strings of research traditions: an economic, a behavioral and a process dimension. Each represents a main pillar of the theoretical foundation of internationalization. The following review reapplies this three-pillar structure as depicted in Figure 2. The key goal of this Chapter 2.1.2. is to specify major strings evident in a jumble of theories on internationalization. The delineation of important theoretical strings gains priority over frame-breaking completeness. One tendency becomes evident. As many partial approaches exist with specific foci and inherent limitations, these fragmented approaches lead to integrated theoretical frameworks necessary to reflect construct richness and complexity over time (cf. Bell and Young 1998). To begin with, an economic perspective on internationalization comprises various partial approaches, such as industrial organization theory, location theory, transaction-cost theory, and their integration in Dunning’s (1979) eclectic paradigm.
Section I of the economic pillar I: industrial organization theory

The first subsequent section on industrial organization theory comprises major contributions from Hymer (1976), Kindleberger (1969), Johnson (1970), Caves (1971), Aliber (1970) and Knickerbocker (1973). Up to the 1960s, foreign direct investment had been predominantly explained by international capital theory, foreseeing transfer of capital from one country to another in anticipation of higher returns (Stein 1998, p. 40). Moreover, Hymer (1976) extended the theoretical foundation by associating capital movements with the international operations of firms and by linking foreign direct investment (FDI) to industrial organization theory, thereby focusing on industries instead of countries (Kindleberger 1969, p. 11). A conceptual extension became necessary since FDI occurred - to a non-negligible extent - within and not between firms. This included a variety of resources apart from capital, such as technology, knowledge or management (Hymer 1976, p. 10). Industrial organization theory builds on the structure-conduct-performance paradigm. The inherent idea views market structure as determining market participants' conduct, which in turn determines market performance (Caves 1971, p. 116). Market structure alludes to the number and size of corporations on both the supply and demand sides, characterizing competition and profitability of markets (Chandler 1990, p. 36). Market imperfections such as entry barriers, e.g., through cost advantages,
product differentiation and scale economies determine market structure (cf. Bain 1956, p. 14). Generally, fewer competitors, higher entry barriers, more product differentiation, and lower demand elasticity, are associated with higher returns (Barney 1986, p. 792).

Hymer (1976, p. 23) criticized the weak explanatory power of capital theory in regard to FDI and mentions two major motives for internationalization: (1) control and (2), monopolistic advantages. As for (1), two major motives account for interest in control. Referring to a direct investment type I, investors place investments in order to attain a higher level of security for the investment. In contrast, a direct investment type II is motivated by two primary intentions. Type II investments primarily occur in order to decrease competition (Hymer 1976, p. 25) and to utilize monopolistic advantages (Hymer 1976, p. 32; Kindleberger 1969, p. 12). The latter especially deserves further elaboration, as geographic expansion entails disadvantages through market inexperience, unfamiliarity with national differences, potential discrimination on behalf of foreign governments or customers, and risks of problems in repatriating profits (Hymer 1976, p. 32). Kindleberger (1969, p. 12) adds higher costs stemming from communication, travel and misunderstandings to the list of burdens to be overcome abroad. Monopolistic advantages counterbalance these drawbacks, and the aforementioned control ensures their full utilization. The multinational organization is thereby a “creature of market imperfections” (Dunning and Rugman 1975, p. 14). According to Kindleberger (1969, pp. 14-16), there are four major sources for them: (1) imperfections on the goods market through marketing skills, e.g., for product differentiation; (2) imperfections on factor markets, e.g., derived specialized knowledge through internal F&E, gathered managerial expertise, and size advantages in raising capital; (3) economies of scale in all corporate functions; and (4) entry barriers imposed by foreign governments. In particular, Johnson (1970) and Caves (1982) emphasize the crucial role of knowledge, which is better protected within the organization through FDI. Internationalization allows of the full utilization of existing knowledge advantages. For Caves (1971, p. 304), it is the complementarities of knowledge transfer and local production which explain geographic expansion beyond mere exports and licensing. This constellation is a given for industries with higher degrees of product differentiation.

Undoubtedly, Hymer’s (1976) conceptual extension using an industrial organization theoretical perspective represents a more general and comprehensive approach than the previously one based on capital theory. This conceptual enhancement was able to explain real world phenomena much better. While the work of Hymer and Kindleberger are often associated with the theory of monopolistic advantages only, Hymer’s (1976) dissertation contained a variety of thoughts serving as the starting point for several other theories (Dunning and Rugman 1975, p. 229). Nonetheless, Stein (1998, p. 50-51) notes shortcomings: (1) multinational enterprises (MNE) invest
abroad not only to reap benefits from existing advantages, but also to create new ones such as acquiring knowledge or access to resources; (2) the model focuses heavily on the initial phase of internationalization, and additional theories are necessary to round off the analysis, such as Vernon’s (1966) product life cycle theory; and (3) while monopolistic advantages may explain foreign production, they fail to elucidate the decision against a potential, equally profitable investment in the home market or exports. In short, intricacies of internationalization materialize even when a single aspect, such as to the question of why companies internationalize, is focused upon.

Aliber (1970) provides an explanation for direct investment abroad and considers the directions of flows. Tariffs and currency characteristics determine these flows. The higher the import tariffs, the lower local demand and the less attractive become exports. Licensing may be an intermediate solution, but larger market sizes foster local production. In contrast, access to capital and overall risk management constitute advantages for MNE from countries with a stable and strong currency. The resulting lower capital cost for MNE renders investment projects in countries with softer currencies more attractive. Aliber’s (1970) work can be understood best as a complementation of Hymer’s and Kindleberger’s framework (cf. Dunning 1971, p. 7). Criticism includes a lack of focus on inter-industry differences and a contradiction of reality, as MNE also raises local capital, and investment flows do not necessarily take place from hard to soft currency countries. Knickerbocker (1973) added that players on oligopolistic markets move in parallel, either to follow competitors abroad in a follow-the-leader investment or to react to a foreign competitor’s market entry by a retaliatory cross investment in the competitor’s home market (cf. also Jahrreiss 1984, p. 208). While Knickerbocker’s (1973) contribution remains restricted in scope, it nonetheless demonstrates once again how multifaceted internationalization is, and explains observable concentrations of FDI as well as cross investments.

Section II of the economic pillar: location theory
Location theory deals with the questions as to where international firms operate and why they make investments in one country and not in others (Dunning 1979, p. 273). Choosing a foreign location is one of the key decisions for an organization and is long-term in nature, since it frequently involves substantial financial and human capital investment and is hard to revoke (Goette 1994, p. 1). Overall, Stein (1998, p. 117) criticizes that location factors are often neglected in the theory of MNE, that location aspects often play a minor role in other approaches, as the interplay with organizational characteristics is decisive, and that few attempts have been made to formulate a comprehensive location theory (cf. also Oppenlaender 1997, p. 215). Nonetheless, location received attention early on in international trade theory. Smith (1776) explains international trade with absolute cost advantages and thereby builds up his argument on the classic but weak assumptions of immobile production factors,
negligible transportation costs, production of homogenous goods, excluded services, and does not address the question as to what countries without any absolute cost advantages should do. Ricardo (1819) provides an answer for the latter, explicating international trade with relative cost advantages. However, he also relies on untenable assumptions, such as considering labor as the only major production factor and omitting the possibility that relative prices may change as a result of altered supply and demand from abroad. Neo-classical international trade theory does not disregard location, either. According to the Heckscher-Ohlin theorem, countries specializing in goods requiring a large input of resources plentifully available will trade them against goods with which other countries are better endowed (Casson 1979, p. 63). Hence, the disposability of resources in a country determines factor cost, but increased trade entails price assimilation through supply and demand. Again, underlying assumptions can be questioned. Leontief’s (1941) study revealed that the U.S. exported labor-intensive goods, which is known as the Leontief paradox. This calls into question the assumption of identical production functions in different locations. Several factors, such as knowledge and technology, can effectuate comparative advantages. While Smith (1776) was rather skeptical about governmental influence, List (1841) takes up this idea and endorses temporary trade barriers as artificial causes of cost differentials in trade to and from countries with varying degrees of industrialization.

International trade can be explained with a series of micro-economic approaches as well. In Posner’s (1961) view, exports and trade take place because of technological gaps due to innovation. Considering the latter, the preconditions are favorable in industrialized countries. Labor cost matters only after the imitation gap is bridged by production abroad. Vernon (1966) applies a similar logic. For him, export and trade depend on the stage of goods in their life cycle. Innovative companies dispose of monopolistic advantages and can disregard cost detriments because of low price elasticity on the demand side. Exports rise in the growth stage until the imitation gap is closed and exports are rendered unnecessary by imitating competitors abroad. Linder (1961) hints at another aspect when referring to the structure of demand in countries as the determination for exports. For him, bilateral trade will be higher between two countries if they have comparatively equal income levels and are close to each other geographically.

While Buckley (1981, p. 80) still criticizes the minor role of location theory in the modern theory of MNE, location considerations have been included in almost all theoretical contributions to FDI, according to Braun (1988, p. 284). At approximately the same time in the early 1980s, the first stand-alone location theory was developed. It was not restricted to country-level analysis, single production factors or industries, and was not as partial as previous propositions (cf. Jahrreiss 1984, p. 94-97; also Dunning 2000, p. 15). In addition to explaining FDI, Tesch’s (1980) approach
delineates export and licensing, two alternative forms of geographic expansion with congruent determinants (Tesch 1980, p. 35). For Tesch (1980, p. 334), international trade consists in the exploitation of existing location advantages. FDI then aims to remove competitive disadvantages, e.g., through trade barriers, geographic distances and associated logistics problems, currency risks, differing manufacturing conditions on one hand, and acquiring location advantages on the other. Braun (1988, p. 319) considers Tesch’s work a seminal contribution, as detailed location considerations are an essential part of internationalization. Simultaneously, he points out that Tesch’s approach may lack completeness, dynamic elements, and sufficient sophistication in explaining alternative forms of foreign expansion when compared, for example, to transaction-cost analysis. The latter is further explored in the next section.

**Section III of the economic pillar: transaction-cost theory**

The theory of the firm with a focus on transaction-cost enhances the theoretical foundation of internationalization. While this approach originated with Coase (1937) and developed with work by Williamson (1975, 1981, 1985), its application to international firms is attributable to Brown (1976) and Teece (1981, 1983). Coase (1937) regards the emergence of organizations with central planning and coordination of individual tasks as representing an interesting phenomenon, because it contradicts the classical understanding of markets, whereby price mechanisms should carry out this coordination for a welfare optimum. However, the coordination mechanism of markets fails when certain costs of using the price mechanism occur, such as costs of price identification, of negotiation, of transaction adaptation and control, or any additional costs due to governmental influence in terms of taxes (Coase 1937, p. 390). Companies emerge, as they are able to save the cost of the price mechanism through internal organization. Nevertheless, there are barriers to unlimited growth - or the rise of one single company - as a firm tends to expand only until internal costs of supporting an extra transaction break even with the associated costs of market transactions (Coase 1937, p. 395). Williamson (1975) extends Coase’s work by departing from the neo-classical *economic man* in favor of a *contractual man*. Opportunistic behavior and bounded rationality characterize this contractual man, leading to a higher “cost of running the economic system” (Williamson 1985, p. 1). Calvet (1981) criticizes that while the transaction-cost approach is a general theory of the firm with the MNE as a special but inclusive case, it does not pay sufficient attention to the international context of the firm.

Brown (1976) transfers this transaction-cost oriented perspective directly to international companies. He itemizes two modifications of such explanations one ought to consider in the context of MNE. First, an international context entails higher market transaction-cost and higher internal organization cost than in a national one. Secondly, the argument of taxes favoring internal solutions does not hold, as
The impact of internationalization on organizational culture

respective tariffs occur. Nonetheless, the basic assumption of the transaction-cost approach still foresees multinational firms appearing in circumstances where allocating international resources internally is more effective than using markets (Brown 1976, p. 39). Besides Brown’s (1976), research by Teece (1981, 1983) applies the market-or-hierarchies approach to the phenomenon of MNE. Internalization can become advantageous in order to secure supply of intermediate products in vertical integration, which applies even more in the case of increasing asset specificity. Horizontal integration allows of overcoming imperfections for know-how markets. For capital, both modes of vertical and horizontal integration exhibit benefits in contrast to markets (cf. Teece 1981).

The long-run theory of MNE by Buckley and Casson (1976) for the first time relates internalization to MNE. Geographic expansion abroad as well as organizational growth take place through internalization of foreign markets. These authors again place especial emphasis on market imperfections when dealing with knowledge and intermediate goods (Rugman 1980, p. 370). Internalization is advantageous owing to five major market imperfections: (1) lack of future markets for intermediate products where prices can be anticipated; (2) difficulties in differentiating prices abroad; (3) uncertain negotiations; (4) pricing problems for intermediate products; and (5) government regulations (cf. Buckley and Casson 1976, p. 34). Through internalization, these challenges can be met more suitably than with exports. Analogously to Coase (1937), Williamson (1975), Brown (1976), and Teece (1981), internalization advantages need to be juxtaposed to internal cost emerging from intensified communication, limited management capabilities, or political, respectively societal, issues resulting in discrimination abroad (Buckley and Casson 1976).

Transaction-cost theory provides a unique perspective of the international firm, because it focuses on a different question from other aforementioned theoretical strings (Braun 1988, p. 272). Yet major criticism has been put forward. Stein (1998, p. 110) again points to the very restricted scope of several authors, as this emphasis on markets versus hierarchies does not explain why the activities to be coordinated are in different locations in the first place. Andersen (1997, p. 34) indicates major measurement problems of actual cost situations in general, and of the internal costs of organizing in particular. Madhok (1997, p. 5) criticizes the neglect of long-term strategic considerations beyond mere cost optimization. As Braun (1988, p. 276) outlines, the primary goal of internationalization is not necessarily profit maximization, but an interest in growth, power and a gain in reputation, therefore accounting for internalization at higher internal cost than external. To conclude, consideration of transaction-costs represents only a partial framework for internationalization. Dunning’s (1979) eclectic paradigm, presented in the next section, addresses this need for more integrative and comprehensive approaches.
Integrating the economic pillar: Dunning’s eclectic paradigm

The preceding created awareness of the need for an integrative framework. Dunning (1979) made a successful attempt by integrating industrial organization theory, international trade and location theory, as well as transaction-cost theory into his eclectic framework. His primary motivation resides in explaining a firm’s ability and willingness to internationalize and to proceed by foreign production (Dunning 1979, p. 274). According to his eclectic paradigm, FDI takes place if the following three conditions are met (Dunning 1979, p. 275):

1. The firm possesses net ownership advantages \( (O) \) in comparison to firms of other nationalities in serving particular markets. These advantages encompass intangible asset and/or property rights, which are exclusive, at least for a period of time.
2. If condition 1 is met, it has to be more beneficial for the firm to exploit these advantages internally rather than sell or license them to foreign corporations. This refers to internalization advantages \( (I) \).
3. If conditions 1 and 2 are met, the location advantages \( (L) \) of host countries have to favor production activities in the respective countries.

The mere existence of ownership advantages speaks in favor of licensing abroad, while the simultaneous possession of internalization advantages suggests their exploitation through exports, and only the coexistence of location advantages entails FDI (Dunning 1993b, p. 196). An evaluation of this approach follows, starting with an examination of its merits.

Firstly, it withstood empirical testing (cf. Dunning 1979, 1980, 1981). Secondly, Andersen (1997, p. 35) underlines its conceptual richness due to several complementary explanatory factors considered on the one hand, and on the other the creativity involved through integration for a better understanding of FDI. Thus, this approach is able to address the heterogeneity of problems and decisions involved with internationalization more adequately (Jahrreiss 1984, p. 266) and satisfies more adequately the often-mentioned need for overcoming partiality of approaches (Andersen 1997, p. 35). Thirdly, the framework represents a valuable contribution to analyzing activities of multinational companies (Cantwell and Narula 2001). Moreover, its basic tenets continue to hold in an e-business world (Dunning and Wymbs 2001, p. 273) and for increasingly important alliances (Dunning 1995), while adaptations for an operational application become inevitable.

However, for Braun (1988, p. 329), integration of partial approaches does not represent a real achievement as Hymer’s (1976) theory of monopolistic advantages already considers all three elements, even though the form may be less explicit. Buckley (1985, p. 18) misses the explicit consideration of dynamic aspects in the
sense of deploying advantages over time. In the opinion of Agarwal and Ramaswami (1992, p. 2), factor inter-relationships are not considered sufficiently enough. This aspect is also found in Krist (1985, p. 114), for whom Dunning’s (1979) approach resembles a tautological catalogue of determinants instead of a comprehensive theory of the globally active firm. Stein (1998, p. 146) acknowledges the merits of the OLI framework, as it raises the limited explanatory power of this partial analytical approach through their integration, but criticizes that it does not provide universal validity, since it lacks behaviorist elements. Finally, Kogut and Zander (1993) and Love (1995) suggest that knowledge development and organizational learning can represent an even more suitable rationale for FDI than market failure. Behaviorist elements constitute the focus of the next section.

**Pillar II: the behavioral dimension**

Abandoning the assumption of dealing with rational behavior (cf. Simon 1956), the behavioral dimension focuses on overcoming limited cognitive capabilities in a complex and uncertain environment with learning. According to Andersen (1993) and Barkema et al. (1996), two major models on learning in internationalizing companies can be found in the literature: (1) the group of innovation-related internationalization models, the so-called *I-models*; and (2) the Uppsala internationalization model, or *U-model*. These models consist of a number of identifiable and distinct stages with higher-level stages indicating greater involvement in a foreign market.

The first group of models is based on Roger’s (1962, pp. 81-86) stages of the adaptation process. A common feature of these models is the view that the internationalization process is a series of innovations for the firm. Their emphasis is exclusively on export development with a particular focus on small- and medium-sized firms (Leonidou and Katsikeas 1996, p. 529). Internationalization consists of fixed and sequential stages. The number of stages varies between models, and they range from as few as three to as many as six (cf. Bilkey and Tesar 1977; Cavusgil 1980, Czintoka 1982, Reid 1981). Alongside the initiating mechanism, the variety among them reflects semantic differences rather than real differences (Andersen 1993, p. 212; cf. also Korhonen 1999, p. 32; Morgan and Katsikeas 1997). Leonidou and Katsikeas (1996, p. 524-525) identify three generic stages: the pre-export stage, the initial export stage, and finally the advanced export stage. Since exports represent an innovation to the firms, these concepts have been termed *I-models* (Andersen 1993, p. 212).

In contrast, the Uppsala internationalization process model (*U-model*) overcomes the weakness of being closely bound to the earliest stages of internationalization (Andersen 1993, p. 210). Similarly, it is conceptually based on behavioral theories of the firm and includes assumptions about lack of information and relevance of perceived risk or uncertainty. Key to internationalization is not a rational analysis or
an informed executive decision, but successive learning through stages of enhanced commitment to diverse foreign markets. Further knowledge is gathered parallel to an augmenting commitment to foreign markets, while Johanson and Vahlne (1977, p. 23) again foresee predetermined steps of international involvement. Two dimensions are thereby relevant: the establishment chain and the psychological distance. As for the first, the internationalization process proceeds sequentially and incrementally, since acquiring knowledge about foreign markets is difficult and time-consuming. At first, the focus is on the domestic market, where exports are not of relevance yet. In the subsequent second stage, exports are triggered, followed by subsidiaries abroad in the third stage. Fourthly, manufacturing moves abroad as a further process in the establishment chain (Johanson and Wiedersheim-Paul 1975, p. 307). Psychological distance is defined as factors preventing or disturbing the flow of information between firm and market, including factors such as differences in language, culture, political systems, level of education, and level of industrial development (Johanson and Vahlne 1977, p. 24; cf. Child et al. 2000).

Building on the work by Penrose (1966), two types of knowledge are distinguished in the U-model. Objective knowledge is relatively easy to gather through standard means, and while it can be taught, it is of minor relevance. Experiential knowledge can be gained only through personal experience and emphasizes the change in the services human resources can supply through their activity (Penrose 1966, p. 53). The resource-consuming challenge and main driver for further internationalization is found in experiential knowledge (Johanson and Vahlne 1977, p. 26). Experiential knowledge on foreign countries’ conditions decreases psychological distance and uncertainty as well as transaction-cost (Eriksson et al. 1997, p. 341). Each further step in commitment represents an opportunity to improve the firm’s ability to absorb the relevant information from the external environment and to process it, in a word: learning (cf. Cohen and Levinthal 1990). Domestic organizations lack the knowledge on how to enter new markets successfully (Eriksson et al. 1997), which is why they embark upon psychologically less distant markets first (Anderson 1993, p. 210). The U-model finds empirical support not only in selected Swedish firms, but also from subsequent studies in other settings (Davidson 1980, Denis and Depelteau 1985, Erramilli and Rao 1993, Johanson and Nonaka 1983). The lesson drawn from I-models and U-models is that in internationalization is a process of sequential, smaller steps during which experience is gathered before further geographic expansion is envisaged. Thus, the two models are in tune with complexity theory (Schroder et al. 1967), asserting that the quality and sophistication of a response depend on the frequency of problematic stimuli. Simultaneously, a stimuli cacophony has the potential of leading to overload, which is why the pace of the proceedings has to be cautious and reasonably slow.
Regarding the establishment chain, extensive criticism has been expressed of the U-model. First, there is a primary focus on small and mid-sized enterprises (Bell and Young 1998, p. 6). Dunning (1994) estimated for the 1990s that, while each year 4,000 to 5,000 MNEs were emerging, their initial investment is relatively small in comparison to the sequential investment by established MNEs, accounting for 70-90 percent of worldwide foreign direct investments. Secondly, the approach shows a rather narrow focus. On the one hand, this is shown in the limitation to international market-seeking activities, as opposed to a more comprehensive view including the pursuit of natural resources, efficiency, and strategic assets. On the other, this becomes obvious in the implicit assumption of organic evolution, rather than expansion through mergers, acquisitions and alliances (Bell and Young, p. 6). International mergers and acquisitions are not a recent phenomenon due to a long-standing trend towards consolidation in globalizing industries. By the end of the 1980s, worldwide cross-border acquisitions already accounted for 70 percent of the foreign direct investment inflows to developed countries (UNCTAD 1994, p. 13).

Regarding the deterministic nature of a four-stage process, the empirical evidence for leapfrogging stages represents a contradiction (cf. McKiernan 1992, Nordstroem 1991). Furthermore, the model seems confined to the early stages of internationalizing operations, and does not elucidate the internationalization and reconfiguration processes of multinational firms that have learned over a substantial period of time (Macharzina et al. 2001, p. 639). Furthermore, the establishment chain does not consider the increasingly important internationalization of R&D abroad and views the globalization of manufacturing at the latest stage. Finally, Nordstroem (1990, p. 28) points out that through more readily available expertise on international business as well as technology, there is at least some degree of homogenization and convergence visible (cf. also Levitt 1983). Based on the shortcomings of these two models of internationalization, Bell and Young (1998) proposed an amended and more integrated framework. Based upon a broader theoretical foundation, it is more comprehensive and thus counterbalances the above-addressed weaknesses of the I-models and U-models.

Further to the elements of behavioral theory described above and besides a contingency theoretical element, this comprehensive framework incorporates transaction-cost theory to evaluate market-entry modes (cf. also Chi and McGuire 1996). Bell and Young (1998) acknowledge that international diversification is an evolutionary process with process patterns contingent upon external and internal factors, including the potential networks of the decision-maker and the focal firm. The authors admit that firms often, although not inevitably, initiate internationalization through exports in an ad hoc, intuitive manner, because of key decision-makers’ attitudes, attributes and behavior, with subsequent international marketing decision-making gradually becoming more structured. However, internationalization is less a
The impact of internationalization on organizational culture

question of stages than of contingencies upon a firm’s prevailing circumstances. The strengths of the model clearly lie in its broader theoretical foundation, since comparatively, the variety of theoretical foundations proposed for approaching internationalization are not necessarily mutually exclusive. Thus, the model succeeds in integrating them. On the one hand, internalization and transaction-cost perspectives are useful in understanding the global growth strategies of large, internationally established companies. On the other, elements of behavioral, contingency and network theories are more appropriate for smaller firms with less export experience (cf. Bell and Young 1998, p. 22). Therefore, this model permits of the analysis of a full spectrum of companies of differing sizes and experience levels in the internationalization process. Although the Bell and Young model of internationalization needs further conceptual sophistication and empirical validation, it nevertheless represents an enrichment of the theoretical foundation for the understanding of the phenomenon of internationalization.

**Figure 3: Internationalization process and patterns**

![Internationalization process diagram](image)

- External environment\(^a\) (Contingency theory)\(^b\)
- Internal environment (Contingency theory)\(^d\)

<table>
<thead>
<tr>
<th>International Marketing Decisions(^c)</th>
<th>(Behavioral theory)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unplanned-----------------------------</td>
<td>Planned</td>
</tr>
<tr>
<td>Reactive------------------------------</td>
<td>Proactive</td>
</tr>
<tr>
<td>Opportunistic-------------------------</td>
<td>Systematic</td>
</tr>
<tr>
<td>Instinctive---------------------------</td>
<td>Rational</td>
</tr>
</tbody>
</table>

\(^a\) Includes market size and economies of scale; networking requirements and opportunities; transaction specificity of product; technological change; home country variables; host country variables. \(^b\) Includes entrepreneurial characteristics and networks; demographics; firm’s resources; firm’s knowledge, commitment and performance. \(^c\) Such as whether to internationalize; which markets; which entry mode; marketing. \(^d\) Italic refers to the relevant theory

**Source:** Bell and Young 1998, p. 21

**Pillar III: the process and network dimension**

Traditionally, the aforementioned economics-driven FDI theory and the behavioral stage models represent the two main schools of internationalization research (Benito and Welch 1994, p. 7). The third pillar deals with more recent approaches to internationalization. It perceives internationalization as a more dynamic and
evolutionary phenomenon (Coviello and McAuley 1999, p. 225). The emphasis switches to the more dynamic character of strategy and structure of MNE and moves beyond the static perspective criticized in previous approaches as well as beyond the linear thinking inherent in simple strategy-structure-fit arguments (Melin 1992, p. 111). It acknowledges to a larger extent the need for flexible strategy processes and organizational configurations for MNE, since competition for internationalizing companies does not simply resemble the extension of oligopolistic rivalry across borders (Kogut 1989, p. 384). The third pillar introduces a more multilateral element through its focus on a process and on a network perspective, rather than on unilateral processes, as stage models suggest (cf. Johanson and Vahlne 1992, p. 12).

First, Doz and Prahalad (1991) propose for MNE multifocal strategies for balancing two key forces: (1) the economic perspective showing in pressures of global competition to rationalize operations through centralized control and coordination, and (2), a political imperative for local responsiveness. Second, a stronger focus is directed on network aspects. Bartlett and Goshal’s (1989) “integrated network”, Hedlund’s (1986) “heterarchy”, White and Poynter’s (1990) “horizontal organization” are further examples of non-hierarchical, more dynamic approaches reflecting complexity of environments, competition, and organizational tasks more adequately. Traditionally, headquarters develop ownership-specific advantages and leverage them amongst foreign subsidiaries (Dunning 1981, Vernon 1961). However, the role of subsidiaries has changed drastically (Birkinshaw and Hood 1998, also Jarillo and Martinez 1990), especially with regard to headquarters’ self-understanding (Conference Board 1999). There is an entire range of subsidiary roles conceivable (Bartlett and Goshal’s 1989, p. 106) and actually encountered in practice (Jarillo and Martinez 1990). There is plenty of room for subsidiary dynamism and evolution (Birkinshaw and Hood 1998). Focusing more on interaction, exchange and communication processes, Hedlund’s (1986) heterarchy envisages multiple centers for traditional headquarter functions, sharing information intensively to capitalize on dispersed competences and leverage knowledge synergies (cf. also Hedlund 1993).

The concentration is thereby on firms monitoring and strengthening their positions in international networks (Johanson and Mattsson 1988, 1992) and value creation within networks Sharma (1992, 1998). From the network perspective, research draws on exchange and resource dependency as well as firm behavior in the context of inter-organizational and interpersonal networks (Axelsson and Easton 1992, Lettow-Gillies 2002, pp. 39-62). Thus, even externalization occurs (Coviello and McAuley 1999 p. 227). This represents a complementary view to the previously presented FDI theory, given that the latter lacks key features of a process and network view, such as a non-linear and more dynamic mode of thinking in heterarchical networks (Korhonen 1999, p. 58).
Engelhard and Daehlin (1997, p. 32) call the above-mentioned models competency-based, as environmental complexity requires more than merely structural differentiation and fosters the development of capabilities to cope with complexity within management (cf. Doz and Prahalad 1991). Bartlett and Goshal (2003, p. 184) define the development of a transnational organizational culture as the core and motor of corporate competitiveness, the aspect that differentiates these network, process and capability approaches from those of the first and second pillars. Furthermore, while Melin (1992, p. 110) acknowledges the multifocus orientation, he criticizes the lack of an explicit embeddedness in existing organizational theory and of an even more extensive process orientation. This is shown, for example, in Bartlett and Goshal’s (1989) model being in need of further elaboration in regard to the transition from predecessor stages in international orientations. Engelhard and Daehn (1997, p. 30) argue analogously that process description to achieve extreme cases is lacking. There is also a need for more sophisticated suggestions for the actual management of such a complicated organization construct, especially when concrete recommendations for individual countries are to be derived (Engelhard and Daehn 1997, p. 31). Engelard and Daehn (1997, pp. 38-39) add two more interrelated points for criticism. First, the simultaneous consideration of the three aspects of environmental needs for adaptation; demands for internal integration; and strategic as well as organizational issues, inevitably leads to a perceived hypercomplexity, which can be addressed more adequately by means of a capability approach instead of a resource-based view. Secondly, the suggested capabilities such as flexibility (Hedlund and Rolander 1990), handling information overflow (Doz and Prahalad 1991), or worldwide learning beyond managing efficiency and responsiveness (Bartlett and Goshal 1989), to name but a selected few, would never show negative impact. These directions for capability development are tautological, as no one would argue in favor of their opposites as a source of competitive advantage. Their desirability can never be doubted, and they thus become immune to falsification, especially since their positive nature is generally valid (cf. Popper 1976). Finally, Hagstroem (1991, p. 43) criticizes the prescriptive bias in favor of these new models, even though empirical evidence remains scanty. To sum up, internationalization is an extremely rich construct. It is therefore no surprise to see its theoretical foundation being constructed on multiple pillars, each with varying focus scopes and content.

2.1.3. Importance of the field of internationalization

Three major factors indicate the importance of internationalization: (1) It is a non-negligible phenomenon, as statistics in Figure 4 illustrate; (2) it has the potential to fundamentally alter the relevant organizational environment; and (3) geographic expansion abroad has performance implications. All three aspects are dwelt upon in the following discussion.
Internationalization as a non-negligible phenomenon

Internationalization represents an important phenomenon. According to UNCTAD (2003) worldwide FDI has doubled over the last six years to reach more than 620 billion USD annually, 93% of which came from developed countries that also received 70%. Simultaneously, global annual exports rose by 75% to 6.3 trillion USD in the same time period. Taking a closer look at two economies of special relevance for this study in Figure 4, we find that the U.S. as the world’s largest economy supplies 12% of all global exports, purchases 19% of all global imports, receives 17% and invests 18% of all FDI.

Figure 4: Foreign trade development of the U.S. and Germany

Source: U.S. Census Bureau 2003; Deutsche Bundesbank 2003, p. 14
In contrast, Germany, as Europe’s largest economy, delivers 9% of global exports, buys 8% of global imports, but receives only 4% of all FDI and in turn invests 7% of all worldwide FDI (UNCTAD 2003). As Figure 4 shows, both countries have considerably improved their foreign trade in the last eleven years. The growth rate has increased by 80% in the case of Germany, and by 140% in the case of the U.S., where imports substantially exceed exports.

**Fundamental alternation of the organizational environment**

Corporate internationalization is of high importance to organizations, because it alters the relevant task environment. Emery and Trist’s (1969, p. 47) model for organizational interdependencies is applied to demonstrate this as well as to differentiate two types of environment, specifically the *general environment* and the *specific environment*. The general environment is comprised of aspects such as the technological, legal, political, economic demographic, ecological, and cultural conditions. The specific environment for an organization has a higher degree of immediate relevance for the focal organization (cf. also Child 1972). Figure 5 depicts the most relevant linkages for a focal organization F, with its supplier environment A, and the buyer environment C. Further, B, D and E represent entities of the second-order environment, such as foreign governments and distant industry players.

**Figure 5: Organizations and their environment**

![Diagram](image-url)

Source: Emery and Trist 1969, p. 47
Internationalization affects the specific environment, or its causal texture, based on either the inward \((L_{21})\) or outward \((L_{12})\) understanding of internationalization, or both, as new suppliers or supplying locations, respectively purchasing institutions or locations, emerge. According to Emery and Trist (1965), *interconnectedness* refers to the extent to which changes in one element in the environment affect another, and *movement* refers to the extent to which environmental elements experience change. As internationalization fundamentally alters the environment, this exposes an organization to a larger and more heterogeneous environment, which in turn increments the likelihood of some change occurring (cf. Duncan 1972), and changes in one country can seriously affect the position in other markets (Porter 1986, p. 9, Engelhard and Daehn 1997, p. 38). Hence, the causal texture of the organizational environment is altered.

 Adopting a more organization-internal view, one may say that internationalization adds to the number and difficulty of problems for the organization, as exemplified by the many different and increasingly varied sets of customers and employees (Krystek 1997, p. 13). Internationalization leads to a *quantitative* increase in the number of managerial and organizational challenges, since these problems have to be dealt with in addition to those in the home market. Simultaneously, a *qualitative* escalation of the problems occurs, owing to the diversity and complexity of managing a geographically dispersed system of value-added activities (Macharzina et al. 2001, p. 632). Multiple foci are pursued (cf. e.g. Doz and Prahalad 1994), while higher levels of interconnectedness and movement augment decision-making uncertainty (Engelhard and Daehn 1997, p. 38). In the case of the diversified multinational corporation (DMNC), an advanced form of internationalization, Doz and Prahalad (1991, p. 147) identify seven major demanding challenges, summarized in the table below, circulating around issues of the complexity, multidimensionality and heterogeneity of managerial and organizational aspects.

 Does internationalization always lead to a more complex environment? In accord with Kogut and Singh (1988) and Lu and Beamish (2001, p. 567), it may be argued that foreign cooperation partners alleviate burdens entailed by internationalization. However, this only enlarges the overall scope of tasks. Foreign cooperations entail relationship management challenges (Inkpen and Beamish 1997) and evoke competitive threats (Khanna et al. 1998). Since companies face the challenge of a double-layered acculturation to different country and foreign partner cultures, Zacharakis (1996) applies the notion of a “double whammy of globalization” (p. 109). Such double-layered acculturation needs are linked with negative performance implications in the short term, and a drastically heightened need for learning (Barkema et al. 1996).
Additionally, it may be argued that the management of complexity has always been the core task of management ever since Barnard (1939) identified complexity as a major challenge. Sufficient experience with managing complexity should be available by now. Indeed, Hitt et al. (1997) identify advantages in the internationalization process for those companies with prior exposure to advanced levels of complexity. Wan and Hoskisson (2003) present a further differentiation of the role of domestic environments. The munificence of home country environments in terms of varying degrees of endowment with factors and institutions needed for operating successfully determines in turn the level of challenges and opportunities abroad. These scholars found evidence for munificent home markets rendering companies fit for outbound internationalization since such a home market sharpens their competitive edge (cf. also Lloyd-Reason and Wall 2000; Porter 1990). This only applies to geographic diversification into other munificent markets, as companies from munificent environments may otherwise lack globally redeployment capabilities (cf. Anand and Singh 1997).

<table>
<thead>
<tr>
<th>Key pressure points for management in diversified multinational firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Structural indeterminacy</strong>: neither a single stable one-dimensional structure nor simple concepts of structure, such as centralization and decentralization, are likely to be useful</td>
</tr>
<tr>
<td>2. <strong>Internal differentiation</strong>: management processes need to differentiate between various countries, products and functions in the management process</td>
</tr>
<tr>
<td>3. <strong>Integrative optimization</strong>: management processes need to foster varied decision trade-offs among multiple priorities expressed along different dimensions and represented by diverse groups of managers</td>
</tr>
<tr>
<td>4. <strong>Information intensity</strong>: the importance of both formal and informal information flows as a source of competitive advantage and as an implicit structure in DMNCs is such that managing information becomes a central task of management</td>
</tr>
<tr>
<td>5. <strong>Latent linkages</strong>: in a complex DMNC it is not possible to pre-specify linkages and interdependencies but only to facilitate the emergence of appropriate linkages, as the need for them arises, in a decentralized self-structuring process</td>
</tr>
<tr>
<td>6. <strong>Networked organization and fuzzy boundaries</strong>: this structure creates a need explicitly to incorporate partners, customers and suppliers’ relationships, as well as networked relationships in the management tasks</td>
</tr>
<tr>
<td>7. <strong>Learning and continuity</strong>: there is tension between the need for repeatability of interaction at a low cost and that for innovation and change</td>
</tr>
</tbody>
</table>

Source: Based on Doz and Prahalad 1991, p. 147

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1 In a comment made in a Ph.D. class on macro-organizational behavior at the Wharton School, University of Pennsylvania, Philadelphia, Tuesday, February 12, 2002, Prof. Marshal Meyer suggested a slightly different role for the home market. The example provided was the extremely heterogeneous market of the People’s Republic of China. For him, once Chinese companies successfully reached out for the vast national market in China, internationalization could be perceived as a relatively easy task. Conquering the dynamic national market beyond the regional parts rendered companies so fit and adaptive that subsequent internationalization posed a less challenging problem.
However, the alteration of the causal texture of organizational environments, the problems associated with the organizational form of the DMNC (Doz and Prahalad 1991, p. 147), and the double-layered acculturations represent in their combination a non-negligible challenge of a new nature. In summation, internationalization represents an important phenomenon fundamentally due to its potential impact upon organizational internal L11 interdependencies. New, functioning solutions have to be identified in response to geographic expansion. Taken together, these reasons account for the fact that international firms are often regarded as the most complex managerial decision-making environment (cf. Conference Board 1995).

**Performance implications**

While theories on FDI and multinational firms describe internationalization as possessing inherent advantages, there is theoretical and empirical evidence for implicit threats. Internationalization has not always been associated with benefits only. Several studies (Collins 1990, Kumar 1984; Michel and Shaked 1986; Siddharthan and Lall 1982) even showed a negative relationship between the degree of internationalization and the financial performance of corporations. Hence, there are liabilities to foreignness (Zaheer and Mosakowski 1997; Hymer 1976). However, costs of internationalization remain a neglected aspect of internationalization as such (Eriksson et al. 1997, p. 338). The risks involved can therefore be high and again emphasize the need for more knowledge on how to internationalize properly. Hence, internationalization has a most ambivalent character (Krystek 1997, p. 3).

As Table 2 indicates, numerous studies have attempted to study the impact of internationalization on performance, with mixed results (cf. also Sullivan 1994a, pp. 327-329; Wagner 2001, pp. 142-147). Recent research has overcome the strongly U.S. focus of previous studies (Han et al. 1998, p. 63). According to Annavarjula and Beldona (2000, pp. 48-49), three major theory strings support the positive performance implications of geographic expansion: (1) resource-based perspective, (2) market-power perspective, and (3) portfolio diversification perspective.

The resource-based perspective (cf. Barney 1991; Grant 1991) provides a firm foundation for the positive DOI-performance slope and is rooted in industrial organization theory (cf. Hymer 1960; Knickerbocker 1973). The quality and utilization of internal resources, such as firm-specific knowledge or diversity in products, processes and markets affect overall performance either directly or indirectly by creating entry barriers for competitors. In contrast, perspective (2) asserts that after accumulating market power by virtue of size and expertise in the domestic market, the internationalizing organization is able to lower foreign entry barriers, to exploit monopolistic profits, to cross-subsidize internationally and thus to edge out competitors (cf. Hamel and Prahalad 1985). In the third perspective, performance enhancements stem from the advantageous position of being able to spread
investments and risk wisely in the international arena (Kim et al. 1993). Indeed, several studies foresee a period of positive linear relation between internationalization and performance, confirming the bedrock proposal of International Business studies – that firm performance improves with greater international expansion (e.g., Grant 1987; Han et al. 1989; Jung 1991). For this positive linear relationship, Daniels and Bracker (1989, p. 50) did not find any differences between FSTS and FATA as the independent variable, as these scholars view the majority of foreign sales as a consequence of foreign production leading to parallels in the DOI-performance implication. In this regard, corporate size does not necessarily matter, since small- and medium-sized organizations may also achieve an improved performance through geographic expansion (Loth and Parks 2002).

Table 2: Past results on the link between multinationality and performance

<table>
<thead>
<tr>
<th>DOI-performance link</th>
<th>Author(s) and year</th>
<th>Performance indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear</td>
<td>Han et al. (1998) (+)</td>
<td>ROE, asset turnover, profit margin</td>
</tr>
<tr>
<td></td>
<td>Jung (1991) (+)</td>
<td>(After tax net income)/(total assets)</td>
</tr>
<tr>
<td></td>
<td>Vernon (1971) (+)</td>
<td>ROI, ROS</td>
</tr>
<tr>
<td></td>
<td>Kim and Lyn (1987) (+)</td>
<td>Excess market value; Tobin’s Q</td>
</tr>
<tr>
<td></td>
<td>Errunza and Senbet (1981) (+)</td>
<td>Excess return</td>
</tr>
<tr>
<td></td>
<td>Grant (1987) (+)</td>
<td>ROA, ROE, ROS</td>
</tr>
<tr>
<td></td>
<td>Grant et al. (1988) (+)</td>
<td>ROA, ROE, ROS</td>
</tr>
<tr>
<td></td>
<td>Siddharthan and Lall (1982) (-)</td>
<td>Sales growth</td>
</tr>
<tr>
<td></td>
<td>Michel and Shaked (1986) (-)</td>
<td>Risk adjusted return</td>
</tr>
<tr>
<td></td>
<td>Collins (1990) (-)</td>
<td>Total risk, debt to equity ratio, beta</td>
</tr>
<tr>
<td></td>
<td>Buckley et al. (1977, 1984) (0)</td>
<td>ROA</td>
</tr>
<tr>
<td></td>
<td>Kumar (1984) (0)</td>
<td>ROA, ROS</td>
</tr>
<tr>
<td></td>
<td>Morck and Yeung (1991) (0)</td>
<td>Market value</td>
</tr>
<tr>
<td>U-Shaped</td>
<td>Qian (1997)</td>
<td>ROE</td>
</tr>
<tr>
<td></td>
<td>Ruigrok and Wagner (2003)</td>
<td>ROA</td>
</tr>
<tr>
<td>Inverted J-curve, U-curve</td>
<td>Daniels and Bracker (1989)</td>
<td>ROA, ROS</td>
</tr>
<tr>
<td></td>
<td>Geringer et al. (1989)</td>
<td>ROA, ROS</td>
</tr>
<tr>
<td></td>
<td>Sullivan (1994a,b)</td>
<td>ROA, ROS</td>
</tr>
<tr>
<td></td>
<td>Ramaswamy (1995)</td>
<td>ROA, ROS, ROVA</td>
</tr>
<tr>
<td></td>
<td>Al-Obaidan and Scully (1995)</td>
<td>Frontier production function, variance in technical efficiency</td>
</tr>
<tr>
<td></td>
<td>Gomes and Ramaswamy (1999)</td>
<td>Cost of sales/total sales, ROA</td>
</tr>
<tr>
<td></td>
<td>Hitt et al. (1994)</td>
<td>ROA, ROS</td>
</tr>
<tr>
<td></td>
<td>Chen et al. (1998)</td>
<td>ROA, ROS</td>
</tr>
<tr>
<td></td>
<td>Qian (2002)</td>
<td>ROA</td>
</tr>
<tr>
<td>S-curve</td>
<td>Contractor (2003)</td>
<td>ROA, ROS</td>
</tr>
<tr>
<td></td>
<td>Lu and Beamish (2001)</td>
<td>ROA, ROS</td>
</tr>
<tr>
<td></td>
<td>Riahi-Belkaoui (1998)</td>
<td>ROA</td>
</tr>
</tbody>
</table>

Findings: (+): positive relationship, (−): negative relationship, (0): no relationship

Source: Author, extending Contractor et al. 2003, p. 29

Other studies identified an optimum level of internationalization after which negative consequences preponderate, leading to an inverted J-curve (e.g., Daniels and Bracker 1989; Gomes and Ramaswamy 1999). After initial expansion into familiar
markets as suggested by Johanson and Vahlne (1977), the incremental costs of further expansion into peripheral nations is greater than the incremental benefits, and hence detrimental to overall global performance (Hitt et al. 1997). Higher DOI organizations tend to adopt complex and costly structures, such as the product-country matrix or transnational forms (cf. Bartlett and Ghoshal 1989; Egelhoff 1988). The cultural diversity arising from operating in varied locations entails numerous problems of communication, coordination, control, and motivation (cf. Hofstede 1984; Kogut and Singh 1988). Hence, complexity cost (Geringer et al. 1989, p. 112) as well as transaction and governance costs (Gomes and Ramaswamy 1999, pp. 174-175) rise and eventually dominate, explaining the resulting downward slopes. Based on Hymer’s (1976) theory purports that enterprises will only initiate and enhance internationalization if their expected return from foreign operations is sufficiently lucrative. Based on a downturn of the portion of foreign to total operations as a consequence of declining performance, Daniels and Bracker (1989, p. 47) do not expect a high number of companies to operate beyond the optimum level of foreign operations.

This inflection point occurs at a different DOI for various industries, for instance, because of dissimilar scale economies, entry barriers, or the perceived importance and actual size of the home vs. foreign markets (Daniels and Bracker 1989). As Gomes and Ramaswamy (1999, p. 184) indicate, further internationalization beyond such a financial optimum may be motivated by non-monetary factors and consists in (1) carrying out defensive investment to hold off competitors overseas, (2) pursuing learning, and finally (3) attempting to continue to harvest internationalization benefits, as this optimum may be difficult to discern (cf. also Delios and Beamish 1999).

However, Annavarjula and Beldona (2000, p. 48) believe an imprecise conceptualization of internationalization to be partially responsible for conflicting DOI-performance curves. Conceptualizations vary strongly in the intent, content, and extent of value-adding activities. Ruigrok and Wagner (2003) attempt to contribute to explain actual curve shapes by country-specific paths to internationalization. For example, German companies internationalize primarily into culturally unrelated countries (cf. Kogut and Singh 1988). The only two other (wholly or partly) German-speaking countries, Austria and Switzerland, are both very small, and have never been able to attract any substantial direct German foreign investment (Deutsche Bundesbank 2003, p. 43; UNCTAD 1999). Hence, for German companies, geographical diversification into attractive, psychologically close and culturally related countries is not a real option (cf. Johanson and Vahlne 1990, p. 11). This results in a standard U-curve for the DOI-performance relationship. German companies encounter performance difficulties in the first half of the internationalization process when internal adaptations and reconfigurations become necessary to cope with an increasingly heterogeneous, complex, and therefore challenging external
environment. Sullivan (1994b) and Hitt et al. (1997) interpret these internal changes to external pressures during geographic expansion as organizational learning. In contrast, their U.S. counterparts show a tendency to diversify abroad into culturally related countries (cf. Davidson 1980; Johansson and Yip 1994; Tung and Miller 1990). Focusing on the service sector, Contractor et al. (2003) try to integrate these propositions, the J-curve, the positive slope as well as the inverted J-curve or U-curve into a three-stage sigmoid hypothesis, delineated in Figure 6. Thereby, a different primary reason accounts for the initial performance drop, namely the cost of acquiring foreign market knowledge (Johanson and Vahlne 1977, 1990). Hence, there is a liability of foreignness in the form of additional burdens or costs to be endured initially (Zaheer and Mosakowski 1997; Hymer 1976).

Figure 6: A three-stage sigmoid framework for the DOI-performance link

![Three-stage sigmoid framework](image)

Source: Contractor et al. 2003, p. 27

While conceptually appealing, empirical evidence by Contractor et al. (2003) remains limited to a confirmed sigmoid curve for the knowledge-based service sub-sectors, not even the entire service sector. Capital-intensive service sub-sectors exhibit stages 1 and 2 only, while significant net benefits of internationalization materialize at a high DOI only. Contractor et al. (2003) foresee a relatively short stage 3, indicating that the availability of fewer data points of companies straying into a sub-optimal DOI influences the empirically identifiable, actual shape of the DOI-performance relationship. In contrast, the scholars confirmed a home-country impact for the U.S. and therefore the necessity to differentiate between countries. In contrast, Riahi-
Belkaoui (1998) delivers relevant empirical evidence for such a sigmoid curve. He also considers the group of companies with a moderate DOI ratio below 10%, which may explain why he arrives at differing results and why the S-curve may recur in future studies on internationalization.² Lu and Beamish (2001) provide additional evidence for an S-curve, based on a sample of Japanese SMEs.

Another recent attempt to contribute knowledge to the DOI-performance link emphasizes munificence of home and foreign markets in combination with either an inbound or outbound internationalization strategy (Wan and Hoskisson 2003). These authors propose that companies from a munificent home environment, where competition has sharpened their competitive edge, perform well in outbound internationalization efforts to other munificent markets. In contrast, diversifying from munificent into non-munificent economies entails adverse effects due to limited asset redeployment flexibility (cf. Anand and Sing 1997). Besides limited empirical backing not covering their entire framework, their approach has elements of a deterministic and even fatalistic, nature in contrast to the more optimistic view based on organizational learning. Nonetheless, the framework of Wan and Hoskisson (2003) is able to explain why internationalization entails positive performance implications for companies from and diversifying to munificent countries, and thus provides yet another explanation for the DOI-performance curve.

Hence, current literature on the DOI-performance suggests, that (1) internationalization has the potential to affect performance; (2) there is a risk of over-expansion; (3) country-specific differences based on varying internationalization paths, e.g., primarily into culturally related or unrelated countries, may play a role; (4) the nature of domestic and foreign markets in terms of munificence as well as the internationalization strategy, are material; and finally (5) industry and firm idiosyncrasies may be relevant. Based on Ruigrok and Wagner (2003) and as illustrated in Figure 7, this study applies the standard U-curve for Germany, and the inverted J-curve for the U.S. context in accordance with Qian (2002), Gomes and Ramaswamy (1999), Chen et al. (1998) and Geringer et al. (1989) until additional research reveals stronger opposite results. A contingency perspective on the DOI-performance relationship and the consideration of further variables represent a promising pathway to additional insights, as proposed by Wagner (2001, pp. 87-112). Delios and Beamish (1999) make a similar call for more differentiated analysis by re-emphasizing the possession of proprietary assets as the foundation of superior performance.

² The Federal Accounting Standards Board and Securities Exchange Commission guidelines require publicly traded firms to report foreign sales separately if such revenue exceeds 10% of overall company sales. Since most public databases, such as Compustat, Fortune and Forbes use 10-Ks and annual reports to compile firm level foreign sales statistics, most prior studies such as, for example, Daniels et Bracker (1984), Gehringer et al. (1989), Siddharthan and Lall (1982) have implicitly adopted the 10% cut-off (Gomes and Ramaswamy 1999, p. 185).
2.2. An introduction to organizational culture

2.2.1. Defining organizational culture

Defining organizational culture is clearly the key to understanding how this research is carried out and to explain one of the sources for organizational culture as a polarizing and ambiguous topic. The “mysterious and seemingly irrational things that go on in human systems” (Schein 1984, p. 4) have been defined in numerous ways subsequently outlined here. By 1952, Kroeber and Kluckhohn (1952) had already gathered 170 definitions of culture; hence, grouping becomes essential for better understanding.

A frequent attempt at categorizing definitions distinguishes between ideational and materialistic approaches, or a combination thereof (Bidney 1968, p. 23). Table 3 provides an overview of selected definitions which demonstrates this variety. The first two definitions from Sathe (1985a) and Louis (1985) emphasize the conceptualization of organizational culture in terms of meanings and understandings with a focus on the cognitive aspects. Simultaneously, these two examples show two additional features common to many definitions: the perception of culture as something shared, and a reference to culture being distinctive and unique. The third and fourth definitions by Sergiovanni and Corbally (1984) and Mills (1988), respectively, add considerations of material conditions which further develop these ideas. An attempt to bridge the gap between ideational and materialistic aspects is found in many classifications of culture definitions. Bidney uses the terminology of “idealistic” and “realistic” (Bidney 1968, p. 23). Kluckhohn and Kelly (1972, p. 68)
adopt a similar approach and differentiate between descriptive and explicative concepts of culture. While culture as a descriptive construct describes the tangible and intangible artifacts made and developed over an extended period of time, culture as an explicative construct refers to the ideological, mental and normative foundations and prerequisites for such the cultural artifacts. Osgood's (1951) approach is similar. However, it coins different notions by using perceptas to refer to the visible and perceivable artifacts, rites and behavioral norms, and conceptas to represent theoretical, mental values, norms and attitudes that can be identified only by their derivation from the observable 'perceptas'. Allaire and Firsiothu (1984) proposed the most comprehensive systematization of definitions, but essentially restrict the conceptualization of the culture phenomenon to two ways. They define culture "as inferred ideational codes lying behind the realm of observable events" on the one hand, and as an "integrated element of the social system showing in certain social behaviors and manifesting in more materialistic cultural products" (Allaire and Firsiothu 1984, p. 197) on the other.

Subsequent definitions offer finer distinctions of the relationship between ideational and materialistic aspects. In some definitions, such as number 4, both ideational and materialistic sides constitute culture. In other approaches only ideational aspects represent culture. Materialistic aspects are essential but not a constitutional part (Martin 2002, p. 59). Some approaches to organizational culture can be grouped into either generalist or specialist ones, with the latter defining culture with only a single or very few manifestations. Additional specialist ones are definition 5 by Schall (1983) focusing on communication activities solely, or definition 6 by Davis (1984), narrowing the view to values and beliefs. Definition 7 provided by Schein (1985a) is the most comprehensive, appending the dimension of depth as a dimension for categorization. Schein (1985a, p. 3) differentiates between three levels of depth, namely artifacts, values and basic assumptions (cf. also Schein 1999, p. 16). Culture is thus primarily a “pattern of basic assumptions - invented, discovered, or developed by a group as it learns to cope with its problems of external adaptation and internal integration - that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those processes” (Schein 1985a, p. 9).

In addition to depth, the breadth of manifestations can differentiate between definitions as well. Definition 8 by Smircich (1983) conceptualized organizational culture with several manifestations such as language, rituals, and symbols. Beyond differences in comprehensiveness, e.g. in terms of inclusion of both materialistic and ideational aspects, and varying degrees of depth and breadth, most definitions share the perception of culture as a common phenomenon. The degree to which culture is shared can represent an additional interesting aspect, since several definitions allow for subcultures and inconsistency. Definition 9 by Feldman (1991) and definition 10
by Meyerson (1991) serve as two exemplary definitions. These inconsistencies can thereby explain some of the organizational problems mentioned in Mills’ (1988) definition 4. Another intriguing question in definitions (e.g., definitions 2 and 8) is whether an organization’s culture is unique. If it is really unique, little scope for cross-company generalizations exists. Many factors speak in favor of employees preferring to believe they are part of a unique and distinctive culture. According to Martin (1992), they may take personal pride in working in a unique environment. Particularly in individualistic societies people generally want to be viewed as separate and special (Snyder and Fromkin 1980). Whether these reasons or just the lack of knowledge of other organizations’ cultures explains the perception of a unique context, there is dissension on uniqueness among various definitions. For Martin et al. (1983), the notion of a uniqueness paradox describes the phenomenon of employees believing themselves to be part of a one-of-a-kind culture. However, what is believed to be unique to a particular context is often found elsewhere as well. Definition 11 expands the range by supplementing a teleological aspect. To survive, human beings interact in a variety of ways with each other and with their environment, and in this process produce and reproduce different cultures (Godelier 1986). Culture can be described as a shared common resource of a group of people built up while coping with problems of survival (Carrithers 1992; also Schein 1985a). This view of organizational culture as a tool for problem-solving is vital to this project, since internationalization poses new difficulties and challenges. Definition 12 in turn enriches the consequence-oriented view of organizational culture and even assigns it a strategic role by viewing it as a resource-endowing organization with a potentially sustainable competitive advantage (Barney 1986). Carrithers’ (1992) and Schein’s (1985a) definitions seem especially suitable for this thesis, as they emphasize (1) that culture is something learned and shared, and (2) that culture fulfills a functional role.

Henceforth, organizational culture is understood as a shared common resource, a pattern of assumptions, beliefs, and behaviors learned while coping with problems of external adaptation and internal integration. Overall, the definitions of organizational culture, even in this selective overview, show that a variety of definitions and disunity on key aspects exist. Categorizing definitions is one possibility, albeit not an unproblematic one, since each definition mostly sheds light on selected aspects of culture only (Dill 1986, p.40). Furthermore, the concept of culture can easily be misunderstood and misused to include everything and therefore define nothing. A definition as such should clarify what the construct does not refer to. In particular, the relation to organizational climate is explored since it is used too often in a confusing way, and mistakenly, interchangeably with organizational culture, as outlined below. Besides organizational climate, organizational culture is compared with other similar constructs such as organizational philosophy, organizational citizenship and national culture.
The impact of internationalization on organizational culture

Table 3: Selected definitions of organizational culture

<table>
<thead>
<tr>
<th>Definitions of organizational culture in the literature</th>
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<tbody>
<tr>
<td>1. “Culture is the set of important understandings (often unstated) that members of a community share in common” (Sathe 1985a, p. 6).</td>
</tr>
<tr>
<td>2. “[Culture is] a set of understandings or meanings shared by a group of people. The meanings are largely tacit among the members, are clearly relevant to a particular group, and are distinctive to the group” (Louis 1985, p. 74).</td>
</tr>
<tr>
<td>3. “A standard definition of culture would include the system of values, symbols, and shared meanings of a group including the embodiment of these values, symbols, and meanings into material objects and ritualized practices (...). The ‘stuff’ of culture includes customs and traditions, historical accounts be they mythical or actual, tacit understandings, habits, norms and expectations, common meanings associated with fixed objects and established rites, shared assumptions, and inter-subjective meanings” (Sergiovanni and Corbally 1984, p. viii).</td>
</tr>
<tr>
<td>4. “Cultural arrangements, of which organizations are an essential segment, are seen as manifestations or a process of ideational development located within a context of definite material conditions. It is a context of dominance (males over females/owners over workers) but also of conflict and contradiction in which class and gender, autonomous but over-determined, are vital dynamics. Ideas and cultural arrangements confront actors as a series of rules of behavior; rules that, in their contradictions, may variously be enacted, followed, or resisted” (Mills 1988, p. 366).</td>
</tr>
<tr>
<td>5. “An organization might then be studied by discovering and synthesizing its rules of social interaction and interpretation, as revealed in the behavior they shape. Social interaction and interpretation are communication activities, so it follows that the culture could be described by articulating communication rules” (Schall 1983, p. 560).</td>
</tr>
<tr>
<td>6. “[Culture is] the pattern of shared beliefs and values that give members of an institution meaning, and provide them with the rules for behavior in their organization” (Davis 1984, p. 1).</td>
</tr>
<tr>
<td>7. “A pattern of basic assumptions -invented, discovered, or developed by a group as it learns to cope with its problems of external adaptation and internal integration- that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those processes” (Schein 1985a, p. 3)</td>
</tr>
<tr>
<td>8. “In a particular situation the set of meanings that evokes gives a group its own ethos, or distinctive character, which is expressed in patterns of belief (ideology), activity (norms and rituals), language and other symbolic forms through which organization members both create and sustain their view of the world and image of themselves in the world. The development of a worldview with its shared understanding of group identity, purpose, and direction are products of the unique history, personal interactions, and environmental circumstances of the group” (Smircich 1983, p. 56).</td>
</tr>
<tr>
<td>9. “Culture does not necessarily imply a uniformity of values. Indeed quite different values may be displayed by people of the same culture. In such an instance, what is it that holds together the members of the organization? I suggest that we look to the existence of a common frame of reference or a shared recognition of relevant issues. There may not be agreement about whether these issues should be relevant or about whether they are positively or negatively valued... They may array themselves differently with respect to that issue, but whether positively or negatively, they are all oriented to it” (Feldman 1991, p. 154).</td>
</tr>
<tr>
<td>10. “Members do not agree upon clear boundaries, cannot identify shared solutions, and do not reconcile contradictory beliefs and multiple identities. Yet, these members contend they belong to a culture. They share a common orientation and overarching purpose, face similar problems, and have comparable experiences. However, these shared orientations and purposes accommodate different beliefs and incommensurable technologies, these problems imply different solutions, and these experiences have multiple meanings... Thus, for at least some cultures, to dismiss the ambiguities in favor of strictly what is clear and shared is to exclude some of the most central aspects of the members’ cultural experience and to ignore the essence of their cultural community” (Meyerson 1991, pp. 131-132)</td>
</tr>
<tr>
<td>11. Culture can be described as a shared common resource of a group of people, a pattern of assumptions, beliefs, and other responses learned while coping with problems of survival (Cannithers 1992, p. 7)</td>
</tr>
<tr>
<td>12. Organizational culture can be a source of sustainable competitive advantage (Barney 1986, p. 656)</td>
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</tbody>
</table>

Source: Author, extending Martin 2002, pp. 57-58
Organizational culture and organizational climate

For many years, these terms have been used interchangeably (Ogbonna and Harris 1998a, p. 36). Numerous definitions are also found on climate. Generally, climate can be viewed as perceptions among organizational members of the way things are around them in the organization (Reichers and Schneider 1990, p. 22). Climate has also been dubbed “the personality of an organization” (Toulson and Smith 1994, p. 445). Ostroff (1993, p. 58) distinguishes between psychological climate, based on individuals’ perceptions of aspects of work environment, and organizational climate, which represents a shared or summary perception.

While a substantial overlap between the concepts of organizational culture and climate cannot be denied, they can be differentiated. Culture casts off climate in the sense of climate representing a manifestation of the organization’s culture features (Reichers and Schneider 1990, p. 24; Schein 1985a). Culture represents a more enduring feature of the organization than climate (Moran and Volkwein 1992; Denison 1996). Cultural research focuses upon “group understandings”, emphasizing the collective rather than the individual, while climate research focuses upon “individual and shared psychological fields regarding perceptions of the nature of the work environment, the level of analysis varies from the single member to the organization as a whole” (Sparrow and Gaston 1996, p. 681). Culture is generally said to represent a more subconsciously held phenomenon in the minds of organizational members, whereas climate exists at a more conscious level (Reichers and Schneider 1990, p. 24; Moran and Volkwein 1994; Sparrow and Gaston 1996). One can thus describe climate as more tangible. Organizational culture is at least to some extent less consciously apparent to organizational members, thus requiring more interpretation. A definite difference between these two constructs exists in their origin. The term “organizational culture” stems from ethnology and cultural anthropology, while “organizational climate” has its roots in psychology (Kasper 1987, p. 11). While “culture” describes how the organization is depicted and what it is about, “climate” focuses on employees’ perceptions of what the organization is about to a much greater degree (Meudell and Gadd 1994, p. 28). In conclusion, organizational “culture” represents a concept distinct from the “climate” phenomenon.

Organizational culture and organizational philosophy

There is an overlap of the two constructs, even an understanding that organizational philosophy, or corporate philosophy, is a part of organizational culture (cf. Kieser 1985, p. 310). Organizational philosophy defines the basic and relatively stable ideas for the desired structuring and is rendered more concrete through goals of corporate decision-makers, thus leading to guidelines for action with a normative character (Matenaar 1983, p. 52). The basic difference resides in the fact that organizational philosophy primarily consists of intended and desired imaginations and input, while organizational culture aims at the actual reality within the organization, which can be
and often is in contrast to the preset program (Kasper 1987, p. 12). Only if, and only to the extent to which, an organization’s philosophy is actually lived up to, can it be regarded as a part of the organizational culture.

**Organizational culture and organizational citizenship**

The organizational culture literature differentiates between organizational culture and citizenship. Organizational citizenship refers to “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective function of the organization” (Organ 1988, p. 4; cf. also Bolino et al. 2002). Major examples of organizational citizenship behavior include degrees of altruism, courtesy, sportsmanship, civic virtue and consciousness (Organ 1988). Brief and Motowidlo (1986, p. 711) include pro-social behavior not promoting functional outcomes for the organization in their approach, e.g., when employees provide services to clients in ways contrary to organizational interests. The strong emphasis on behavior turns organizational citizenship into a sub-unit of organizational culture analysis. This becomes evident in examining the behavioral level, strength, and content dimensions of organizational culture obviating defective behavior such as the previously undesired and unauthorized services. In conclusion, many constructs exist in the literature with a sometimes larger, sometimes smaller overlap with culture. A thorough definition is therefore always needed in order to prevent unnecessary confusion in this field of academic research.

**Organizational and national culture**

The complexity of the national versus organizational culture relationship exceeds the respective entity focused on. One camp of researchers views national culture as having a greater impact on employees than organizational culture (e.g., Adler 1991; Soeters and Schreuder 1988). Others disagree and report significant differences in organizational cultures even within the same national context (cf. Schneider 1990, Schreyoegg 1990). According to Schein (1985a, p. 3), every organization in the course of its evolution develops its own culture as it learns to cope with its problems of external adaptation and integration. Mentioning the case of transnational institutions, Schein (2001) comes to the conclusion that these emerging organizational cultures are even powerful enough to affect and partly override national culture elements. Mwaura et al. (1998) adopt an interim position and conceive of the influence of national culture on organizational culture as contingent upon the relative strength of the national and organizational cultures. Thus, these scholars warn of difficulties associated with transferring organizational culture to subsidiaries in the P.R. of China. The thesis at hand is more closely related to a position foreseeing individuality among organizational cultures even within a given country. Nonetheless, it acknowledges a variety of value stimuli working upon employees (cf. Hilb 2000, p. 16; Sackmann 1997, p. 37). Figure 8 depicts this heterogeneity of values influencing employees.
2.2.2. Research traditions for organizational culture

As shown above, scholars offer a multitude of definitions on organizational culture. Likewise, different emphases exist on what they study when they claim to be studying organizational culture. Table 9 summarizes the three major foci underlying the research on organizational culture: integration, differentiation and ambiguity (cf. Siehl and Martin 2000; Martin and Meyerson 1988). A brief explanation follows.

Integration, differentiation and ambiguity

Researchers from the integration tradition investigate solely those elements of organizational culture that are consistent with each other. Any cultural portrait can be understood as a hologram due to this assumed consistency: when a hologram breaks, each part encapsulates the whole. The same entity is revealed from each perspective. These commonly shared basic views act as the “glue” (Albert and Silvermann 1984, p. 13) holding the organization and its members together. Besides consistency and organization-wide consensus, the denial of ambiguity is the third defining feature of the integration approach. In this predominant approach in culture research, organizational culture is defined as what is clear rather than ambiguous (Siehl and Martin 2000, p. 247). In contrast, differentiation comprises those elements of organizational culture that are inconsistent with each other. A management statement on participatory management in a context of authoritarian decision-making serves as an example. The organization-wide consensus is questioned in favor of consensus among sub-groups, respectively sub-cultures, emerging at different hierarchy levels, corporate functions, and even friendship groups.
The third paradigm, *the ambiguity tradition*, views the cultural situation within corporations as neither consistent nor inconsistent, but rather confused, contradictory and paradoxical. Even within sub-groups, not to mention at organization-wide level, there is either no overall consensus or it is limited to some aspects for some organizational members. While Berger (1967), referring to the integration approach, speaks of “an area of meaning cut out of a vast mass of meaninglessness, a small clearing of lucidity in a formless, dark, always ominous jungle” (p. 23), the ambiguity paradigm addresses organizational culture as the jungle directly.

![Figure 9: Three paradigms for research on organizational culture](image)

Source: Based on Siehl and Martin 2000, p. 249, and Martin 2002, p. 100

**Evaluation and selection of research tradition**

While the integration approach assumes unity and harmony, the differentiation together with the ambiguity approach permit and prescribe the analysis of inequalities and conflicts. Each approach has its merits and potential for adding knowledge, yet requires a respective allocation of resources. As there is hardly any research on how internationalization affects organizational culture, this study primarily adopts an integration view to explore the terrain in a first situation analysis. Besides the early state of research, the research goal of targeted cross-company insights favors the integration paradigm, as differentiation and ambiguity demand a stronger within-company focus. Needless to say, the intricacies and resource-intensity of researching sub-groups enhances the challenge of studying organizational culture even more. Cross-company generalizations become extremely difficult. This explains why studies
on organizational culture usually rely on one paradigm only (Siehl and Martin 2000, p. 248). While this study is primarily based on the integration paradigm, it acknowledges the strength of the application of multiple research paradigms at some point in the research process. For that matter, one aspect of the study researches the strength of organizational cultures, with strength serving as a clear indicator for the existence and functioning of a dominant organizational culture. A diminishing strength, in contrast, speaks in favor of the rise of sub-groups, sub-cultures and value heterogeneity.

2.2.3. Importance of organizational culture
Organizational culture is an enigma, which has held the attention of practitioners and researchers alike worldwide for more than two decades (Ogbonna and Harris, 1998a, p. 35). This section explores why. While Denison (1996, p. 634) views the grounds of culture literature in the symbolic and social construction perspective developed by Mead (1934) and Berger and Luckmann (1966), it was not until the 1980s and the publications of On studying organizational culture (Pettigrew 1979), In Search of Excellence (Peters and Waterman 1982), and Corporate Cultures (Deal and Kennedy 1982) that an unparalleled growth of interest in this subject developed. Extensive research and publications followed focusing on a large variety of links between organizational culture on one hand and organizational outcomes and functions on the other. Topics include: personal productivity (Akin and Hopelain 1987, Welch 1990), financial performance (Denison 1984), strategic planning and implementation (Arogyaswamy and Byles 1987, Schwartz and Davis 1981), strategic success (Bluedorn and Lundgren 1993), recruitment and selection (Gross and Shichman 1987) as well as self-selection (Soeters and Schreuder 1988), innovation (Jassawalla and Sashittal 2002), marketing (Arnold et al. 1987) or sales (Tinsley 1988). The following section provides a structured overview on the importance of organizational culture and the variety of functions provided.

This research project approaches organizational culture from a functionalist perspective. In particular, this view gives the construct its importance, since organizational culture fulfills very specific and crucial functions in organizations. Heinen (1997) thus differentiates primarily between, as shown in Figure 10, three original and several derivative functions of organizational culture. The original functions include coordination, integration and motivation (cf. also Staehle 1999, p. 480; Deal and Kennedy 1982). These are derived from the influence of shared norms and values, of relationships, and of the decisions, actions and behavior of members of the organization.
The impact of internationalization on organizational culture

Figure 10: Original and derivative functions of organizational culture

Source: Based on Heinen 1997, pp. 146-156

**Original function 1: coordination**
Organizational culture supports the coordination of sub-parts of the organization in view of achieving higher goals and mission. Therefore, need for coordination is derived from company-internal separation and specialization of tasks, and interdependency of the behaviors and decisions of organizational members. This need for coordination escalates with levels of task separation, task-related interdependency among organizational units, and the risk that granted freedom of decision-making in the sense of autonomy and delegation may lead to ineffective results (Hoffmann 1986, p. 316). When analyzing the coordination function in more detail, it helps to differentiate between two types of coordination possibilities. For example, the structural instruments of coordination include plans or programs, and can function in either a centralized or decentralized organization (Kieser and Kubicek 1983, p. 128).

However, these structural means of coordination show inherent weaknesses. They can leave room for interpretation and only express certain expectations for the target group’s behavior, and become increasingly ambiguous as their formulation grows more abstract. Motivational and creativity deficiencies might be a key consequence if structural coordination is imposed without creating shared values and an understanding for them in order to make them operate properly (Remer 1982, p. 283). The second major complementary instrument of coordination is found in organizational culture. A shared set of values and norms compatible with the corporate system can not only enable existing structural coordination systems, but also reduce the need for formal coordination. In this context, Ouchi (1980) introduced
two concepts of non-structural coordination mechanism: markets and clans. Thereby, markets function through negotiations between demand- and supply-side parties without the need for extensive structural coordination, and clans solve coordination problems by creating an orientation for organizational members through shared values and norms. The aforementioned drawbacks of utilizing only a formal, structural coordination mechanism underline the importance of organizational culture. Especially in regard to more dynamic and complex tasks and environments, formal coordination does not satisfy all coordination needs, making further means necessary (Hoffmann 1986, p. 337). Joensson and Lundin (1977, p. 151) coined the notion of an internalized gyroscope serving as an orientation support for the behavior of organizational members. Owing to a value isomorphism, a higher level of commitment and less available options for organizational members can be attained. Therefore, the risks of an ineffective interpretation and implementation of structural coordination tools are reduced, especially since organizational culture also serves as a very suitable source for information in itself. In short, a gain in speed and increased effectiveness as well as efficiency can be major consequences, and the aspects of the coordinating function an organizational culture are fulfilled.

Research into the transformation towards new forms of organizing indicates that cultural programs have the potential to replace the previously existing vertical command and control systems (Ruigrok and Achtenhagen 1999, p. 534). The rising importance of informal and normative integration is represented in modern concepts of organizing such as "heterarchy" (Hedlund 1993) or "innovating organization" (Pettigrew and Fenton 2000). Also, Martinez and Jarillo (1989, p. 489) claim that informal and social modes of control emerge in multinational companies as a necessary result to counter international dispersion of organizational units. Organizational culture represents a crucial means of the coordination and control of multinational companies (Jaeger 1983), in addition to accounting-based mechanisms (Shapiro 1978), human resource management (Edstrom and Galbraith 1977), and specific decision-making patterns (Egelhoff 1988).

**Original function 2: integration**

In addition to the important coordination function, organizational culture contributes to the solution of another tension field of organizing between centrifugal and centripetal forces, or the right degree of integration. Centrifugal forces are created in organizations for various reasons. Increasing international activities, divisionalization, increasing autonomy and decentralization of organizational sub-parts result in its members and units becoming increasingly focused on their particular functional, divisional goals (Humes 1993, p. 109). Through corporate growth either via internal growth or M&A, the need for differentiated sub-units to keep productivity and efficiency high is created (Reimer 1982, p. 41). Dominating interaction with their unit's colleagues and an appraisal system focusing on job performance within the units
foster the development of corporate sub-cultures. The latter represent centrifugal forces that turn a unit's goals more in ends on the cost of neglected higher corporate goals (Dill 1986, p. 154). In contrast to these centrifugal forces, organizational culture can act as a "social glue" (Albert and Silvermann 1984, p. 13, Smith and Simmons 1983, p. 377) to keep the corporation together. Organizational culture reminds employees of corporate higher goals, of the big picture and also helps to overcome the weaknesses inherent in organizational structures such as the lack of product and market orientation in a functional way of organizing (Schreyoegg 1998, p. 133). In view of the tendency to delegate, decentralize, internationalize, empower, and to rely on trust, this glue that organizational culture represents will assume an even more crucial role in the future.

**Original function 3: motivation**
"Strong cultures are good motivators" (Fine 1984, p. 255), and there are at least two reasons supporting this statement. Firstly, application of Maslow's (1954) pyramid of needs shows that motivation can be furthered at all levels. Some organizational cultures allow of and foster self-actualization through entrepreneurship in profit center structures or implementation of an employee's own ideas by providing either additional time or financial resources for their own research efforts beyond the set research plan. Furthermore, a strong system of clear values can endow employees with an appreciation of the value of their work that may often otherwise be lacking due to the extensive separation and specialization of tasks in addition to automation (Heinen 1997, p. 156).

**Derivative functions of organizational culture**
Derivative functions of organizational culture are based on the original and work only indirectly, if a strong and functional culture is found that is compatible with the overall system (Heinen 1997, p. 157). According to Albert and Silvermann (1984), gains in *efficiency* and *effectiveness* can be derived from organizational culture, since "greater commitment to the organization's objectives (notably quality, good customer service, high productivity, and so on); advanced employee effort, pride and loyalty; lower turnover, faster implementation of plans, projects and programs, more effective problem-solving at all organizational levels; (...) the ability to grow rapidly through directing more effort toward implementing plans, programs, and objectives and less effort toward fighting fires, plugging holes, constantly resolving conflicts" (Albert and Silvermann 1984, p. 13) represent potential consequences. Similarly, in regard to the benefits of an easier consensus, Baker (1980) states, "because it directly effects employee behavior organizational culture can help a company to prosper. It can make it easy for top managers to devise and implement new strategies and plans. It can make people work harder or be more innovative" (p. 8). Deal and Kennedy (1982) concur by revealing that, "a strong culture enables people to feel better about what they do, so they are more likely to work harder" (p. 14).
However, organizational culture is not a panacea, since the opposite holds true in the case where an organizational culture, regardless of strength, is too resistant to change when change is necessary. At this point, organizational culture becomes rather a burden (Heinen and Dill 1986). A contemporary problem at the turn of the century, as Schad (2000, p. 326) warns, lies in corporations that embark on the transition to the networked economy and are thus faced with the need to make the new technology-based processes work. Weeks (1998) provide a concrete example of how culture can impede company-internal technological innovation (Weeks 1998), if not harmonized with other internal variables (cf. also Cabrera et al. 2001). Tata and Prasas (1998) outline organizational culture constraints on total quality management. Organizational culture fulfils many functions, although the way they are categorized or the number of functions included may differ. Kono and Clegg (1998) use the terms simplification of decisions, affiliation, motivation as the functions from an organizational member’s point of view on the one hand, and adaptation to outside environments, integration, and coordination as well as activation from the corporate viewpoint on the other (cf. Kono and Clegg 1998, pp. 17-18). Assessing the importance of organizational culture based on functions fulfilled is a key way to proceed. Others stress to the importance of organizational culture by viewing it as a source of sustainable competitive advantage, which is hard to imitate (cf. Barney 1986, Prahalad and Hamel 1990).

**Criticism directed towards organizational culture**

Factors do in fact exist which diminish the importance of organizational culture. Meta-theoretical controversies characterize the field (Martin 2001). This is even more deplorable in the light of desperately needed further theoretical advancement in order to cope with the extreme complexity of the construct (Wicher 1994, p. 329). For this reason, Schreyoegg (1997) rejects the facile notion of the possibility of creating a “plug-and-play” (p. 244) culture as frequently proposed by consultants, who promise undifferentiated paths to future success in the form of cookbooks (cf. for example Thompson 2002). This clearly represents a misuse of an originally anthropological construct and approach, on which anthropologists spend due time before arrogating an advanced comprehension. Cultural interventions then inevitably entail unintended consequences (Harris and Ogbonna 2002).
3. Literature review

3.1. Introduction

The literature review aims to reveal the established and general facts of the situation, provides an overview on theories and models used by previous researchers, and leads to the identification of an unsolved problem in the field (Remenyi et al. 1998, p. 75). Therefore, “what we know” is reviewed critically as follows. Both the constructs of internationalization as well as that of organizational culture are broad in nature and so are their conceptual foundations. Therefore, the literature included will inevitably remain eclectic and restricted to that previous academic work in the field that is particularly pertinent to this study. Three major questions arise concerning the impact of internationalization on organizational culture. They provide the structure for the literature review. Firstly, it is essential to demonstrate that organizational culture can change. This is necessary since this construct is still associated with characteristics like rigidity or persistence. The second crucial question aims at the basic question of why there may be an impact of internationalization on organizational culture.

![Figure 11: Framework for the literature review and the propositions](image)

This part is rather static in nature but explains the reason for the tension field for internationalization affecting organizational culture. This foundation also explains the direction and intensity of the impact and pressure of internationalization on organizational culture. The third question concerns how organizations, and specifically organizational cultures react to and cope with this pressure. This part focuses on the process side and is dynamic in nature. These three questions
complement each other, each addressing aspects omitted or not as explicitly included in the other. Hence, the literature review in the next three sections covers the left and middle part of the research field depicted in the figure below.

3.2. Literature review Part I: on the changeability of organizational culture

In the following section, ideas that previous literature postulated in relation to the changeability of organizational culture will be outlined. Demonstrating evidence for the changeability of the dependent variable is of crucial importance for this research project, since an impact of the independent variable internationalization has to be ruled out conceptually if the dependent variable could not be changed. Four major blocks are identifiable, as Figure 12 depicts.

Block I comprises pessimist hardliners arguing against a controlled changeability of organizational culture. Their first argument pivots around the inaccessibility and deep rootage of organizational culture. According to Krefting and Frost (1985) and Gagliardi (1986), values and assumptions are embedded in the very essence of human cognition. The deep-rooted values and assumptions are too entwined in the subconscious to be susceptible to conscious manipulation by managers (Gagliardi 1986, p. 119). Second, Krefting and Frost (1985, p. 156) contend that change is impossible, since it requires knowledge on how the human consciousness is ordered. As there is a lack of such knowledge, researchers warn of unintentional consequences entailed by attempts to manage culture, especially since the assumption of employees being willing agents, powerless and responding positively to management initiatives, may not hold true universally (Harris and Ogbonna 1998, p. 78; also Ackroyd and Crowdy 1990). Organizational culture is acquired over many years (Thompson and Luthans 1990, p. 326). Any attempt to change is fraught with cognitive anxiety, rendering such changes relatively rare (Gagliardi 1986, p. 121). It is a pattern of decision-making and a belief system concerning what is right and wrong. Any change in organizational culture may be interpreted as a threat to the status of top management because of the risk of its construal as criticism (Kono and Clegg 1998, p. 163).

Block II and Block III allow for some possibility to change organizational culture, although only under certain conditions. Block II resumes the notion of the inaccessibility and deep rootage of crucial constituents of organizational culture. Wegbreit (1992) and Schein (1985b) argue that only surface levels of culture can be changed, and not the deepest. Interestingly enough, Schein (1985b, pp. 271-272) himself points out that intrinsic motivators work more effectively in changing organizational culture in young organizations, and extrinsic ones for comparatively more mature ones. Hence, he emphasizes the life cycle as a more determinant factor for the effectiveness of change triggers. The latter also shows in him listing contributions of change models from the Skinnerian tradition (Skinner 1953) to
The impact of internationalization on organizational culture

modern leadership (1985b, pp. 311-329). Moreover, this kind of change is also contingent upon the flexibility of the organization and the degree to which it is ready to change, either because of some crisis externally induced or some internal forces pushing toward change (Schein 1985b, p. 27; Schein 1993b, p. 89). Speed gains can be achieved if communities more relevant for adaptation change first and fast (Schein 1996, p. 9).

**Figure 12: Changeability of organizational culture**

If organizations are not flexible due to too strong existing values, Brown and Starkey (2000, p. 102) contend that these organizations are prone to ego defenses such as denial, rationalization idealization, fantasy, and symbolization, which maintain collective self-esteem and the continuity of existing identity. These defenses are dysfunctional when they militate against necessary change of the organizational culture and the organization in general. Thus, in his conceptualization of organizational culture Schein (1985a, b) agrees with the idea of changeability and simultaneously argues that the deeper levels determine the shallower, more salient layers of organizational culture. How can the shallower levels be changed without the deeper levels, if the deeper levels provide the foundation for the remaining part of organizational culture? One explanation for this contradiction resides in the necessity of profound expertise in changing organizational culture (Schein 1999).

Block III foresees cultural manipulation under certain organizational circumstances such as organizational formation, crisis and leadership turnover, or more generally speaking, periods of organizational transformation (e.g., Martin 1985; Robbins 1987). As many theorists agree, culture shows at least some inherent dynamics and change
over time (cf. Hatch 2000). However, they doubt that the impact and sustainability of this change is subject to the conscious action of management (cf. Ogbonna and Harris 1998b, p. 274). As Robbins (1987, p. 368) notes in this context, even in times of such crises, where a greater influence may be exerted, cultural strength issues can limit raising opportunities to manipulating culture, which is why the role of cultural strength is further explored below.

Block II and III represent mid-points between the aforementioned extreme Block I and Block IV, as featured here. Block IV on the right-hand side of the continuum in Figure 12 comprises those optimistic researchers most open to the idea of changing and manipulating organizational culture by willing executives (e.g., Thompson 2002). Studies in this field clearly have an extreme functionalist orientation, assuming that organizational culture is organizational property subject to management control (cf. Smircich 1983). As there is obviously more room for ongoing research, this camp innovated a sequence of models for changing organizational culture, which show grounding in the recent organizational change literature (e.g., Hatch 2000; Bowman and Faulkner 1997; Brown 1995; Bate 1994; Dawson 1994). Early models have been criticized according to Ogbonna (1993, p. 79) due to their emphasis on behavioral change, as this may represent only a cutout of culture. This criticism includes the applied assumption that by changing shallower levels of cultures, such as behaviors, deeper layers will follow suit.

In order to access deeper layers, making them explicit and identifying discrepancies represents the first valuable step towards changing them (Fitzgerald 2001, p. 6, also Argyris 1993, p. 50; Bernstein and Burke; Sathe 1985b). Ongoing research on how cultures evolve and how to target management efforts better leads to comprehensive and process-oriented models (e.g., Bate 1994). Conditional factors can thereby further the accelerated, profound alteration of organizational culture: depressed financial performance, development of a hopeful future, or drastic change of the environment (Kono and Clegg 1998, p. 198). Several additional scholars extend the list of those arguing in favor of activating power of depressed financial performance (cf. Tushman and Romanelli 1985, p. 179, Bartlett and Goshal 1989, p. 76).

As indicated, cultural strength can impede cultural change (Robbins 1987, p. 368), turning it into a two-edged sword. In most writings on organizational culture, it is implicitly assumed that there is one strong, integrated culture. Historically, in the literature on complex organizations, social cohesion is perceived as a positive note (cf. Perrow 1979). A strong and distinctive organizational culture is linked to performance (e.g., Kotter and Heskett 1992, Peters and Waterman 1982, Roskin 1986, Schmidt and Posner 1986, Gross and Shichman 1987). Deal and Kennedy (1982, p. 5) assert that strong culture has nearly always been the driving force behind continued business success. Strong cultures are said to generate an almost tangible
social force field of energy (Mitroff and Kilmann 1984), empowering employees (Pascale 1985) and driving the organization toward superior performance. Posner et al. (1985) connect strongly shared values with commitment, self-confidence, ethical behavior and reduced job stress. The view that positive cultural traits boost performance has been called the strong culture hypothesis (Denison 1984). However, Burgoyne (1998, p. 359) reveals that many of the excellent organizations in the 1980s, on which these strength insights are based, failed to maintain the status in the 1990s. Hence, strength of organizational culture is a two-edged sword, because a downside exists as well.

Strong culture studies too often place emphasis upon a single, dominant culture. From a management perspective, the focus on a unitary culture and the similarities among highly visible cultural traits can create the appearance of cultural homogeneity, while masking fundamental cultural differences (Martin 1985, p. 99). Unitary cultures are the exception, and multiple subcultures appear to be the rule, according to Van Maanen and Barley (1984, p. 288). According to Saffold (1988, p. 549) there are methodological shortcomings of so-called trait studies in which a generalized set of values or short-lists are distilled from a sample of excellent or highly productive organizations. Too often, convenience sampling is applied (cf. Peters and Waterman 1982). But contrasting samples of qualitative case studies are lacking, and the profile for excellence or superior performance is not applied to less productive organizations to check if the diametrically opposed situation is actually uncovered, a critical piece of information (cf. Martin and Diehl 1983). Hence, insights gained from these prescriptive studies remain partially questionable, at the very least.

Next, Willmont (1993) expresses ethical concerns with a strong organizational culture and any attempt to strengthen it further. Corporate culturalism can become a medium of nascent totalitarianism, when the company succeeds in its mission to imprint core values upon its employees (Willmont 1993, p. 523). Similarly, research reveals that strong organizational cultures could attempt to remove individual autonomy through programming activities aimed at limiting the freedom of the mind to question moral systems intelligently (Dahler-Lahsen 1994, p. 10). Beyond questionable prescriptive insights based on methodologically unsound studies and ethical issues, the content dimension causes a series of authors to associate strong cultures with drawbacks for change (e.g., Faux 1982; Sathe 1985a; Strebel 1994). According to Kono and Clegg (1998, p. 164), the difficulty to change is formulated as follows:

\[
\text{The size of resistance to change} = \text{Perceived size of change} \times \text{Strength of present beliefs} + \text{The organizational resources available to the combatants}
\]
Strong cultures run the risk of impeding organizational change but also show a clear potential of aggravating shifts and conversions of organizational culture itself (Harris and Ogbonna 1998, p. 80). Undoubtedly, a rather passive and defensive culture in lieu of an active, adaptive and constructive one poses more challenges to managers who are keen on organizational culture shifts accompanying other organizational transformations (Cooke and Szumal 2000, p. 149).\(^3\) Conceptualizations of organizational culture as well as its change should therefore consider contextual factors and recognize their significance (Ogbonna and Harris 2002, p. 33). Few aspects seem apt for generalization, in particular an emphasis on continuous evolution and cultural evolution as critical success factors (Sathe and Davidson 2000, p. 295, also Kotter and Heskett 1992).

**Summary**

Since more knowledge has became available and further research has revolved around changeability, the current academic discussion seems to have stepped beyond the stage of given or not given changeability in order to focus more on one of the most effective change processes (cf. Sathe and Davidson 2000, p. 284). The content and setting dimensions of organizational culture are decisive (Cooke and Szumal 2000, p. 149) and factors such as externally induced crisis or internal forces pushing toward change matter (Schein 1985b, p. 27; also Schein 1993b, p. 89). Examples are depressed financial performance, and the development of a hopeful future or drastic change of the environment (Kono and Clegg 1998, p. 198). As Chapter 2.1.3. demonstrates, internationalization has the potential to alter not only the environment, but also the financial performance fundamentally. Given a rather realistic view, the academic literature allows for cultural shifts under certain circumstances. Finally, a note has to be made on the language applied. According to Sandelands and Drazin (1989), the language used in organizational theory is too vigorous. Words such as managing change, shaping, determining and selecting appear to depict processes of organization, thereby obscuring the actual organizational processes behind these abstractions. Harris and Ogbonna (1998, p. 80) make a similar remark more directly concerning the context of organizational culture, as some of the above-mentioned discrepancies in positions might be attributable to the definition of changing, respectively managing. If managing refers to the precise targeting of organizational culture at the full discretion and control to top management, the group of change advocates shrinks. In contrast, if these notions allude to the effectuation of potential shifts in organizational culture, the idea of changeability becomes more widely accepted. Hence, a warning is issued to avoid

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\(^3\) This is why Prof. M. Sashkin suggested the notion of “functional coherence” in an interview at George Washington University in Washington, D.C., May 28, 2002, 10.30 - 15.00. This notion acknowledges that evaluation of cultural strength depends on situational factors and content dimensions which organizational members widely agree on and act upon.
excessive optimism for controlled cultural conversion, since contextual and situational factors play a crucial role as described above.

3.3. Literature review Part II: pressure from internationalization on culture

Internationalization can simultaneously be perceived as a strategy and strategic process (cf. Melin 1992), while also as a process that fundamentally alters the environment when organizations bring new foreign operations within their boundaries (Hitt et al. 1997, p. 767). This section is therefore divided into two themes. The first explores how internationalization as a strategy affects organizational culture. The second scrutinizes how diversifying abroad and the resultant altered external environment impacts organizational culture. The two sections have their application of a rather static view in common. They intend to establish the tension field between internationalization and organizational culture. More specifically, they address the question why internationalization has any impact at all. Chapter 3.4 provides a more dynamic and process view on how that tension field is slackened, respectively the impact of internationalization on organizational culture is transmitted.

*Internationalization understood as a strategy*

Astley and Van de Ven (1983) demonstrate that a central debate in organization theory focuses on whether changes in organizations are due to the environment or strategic choice. *Exogeness* attributes organizational change to the outside environment showing itself either in definite causal forces (e.g., Pfeffer and Salancik 1978) or selection forces at work (e.g., Hannan and Freeman 1977). In contrast, *endogeness* associates change with actions and choices of managers inside the organization (e.g., Child 1972). Decision processes trigger these actions and changes (e.g., Bower 1972, Fredrickson 1986). The subsequent section adopts an endogenous view to structure the impact of internationalization on organizational culture in a more comprehensive manner.

Several scholars consider internationalization and the decision to favor specific geographic expansion paths amongst corporate growth strategies (e.g., McKiernan 1992; Bartlett and Goshal 1989; Porter 1989; Meffert 1989; Prahalad and Doz 1987). They differentiate between an international, multinational, global, or mixed, respectively transnational, strategy along the dimensions of local differentiation and internal integration. Due to the fact that management decides on how and where to develop and allocate crucial resources, and additionally has to coordinate the decision to expand abroad across the entire organization, internationalization can be viewed as part of the corporate strategy (Hofbauer 1991, pp. 112-113). Ansoff’s (1965) strategy matrix of serving old and new markets with either old or new products is easily applicable to internationalization when new markets are discovered abroad. Internationalization in Porter’s (1985) generic strategies can materialize in foreign production enabling cost leadership. Several portfolio management models (e.g.,
Drucker 1964, pp. 51-57; Hedley 1977; Hofer and Schendel 1978, pp. 32-33; Patel and Younger 1978) consider product or market life-cycle stages where lucrative market growth and returns stem from foreign markets. Besides simply executing traditional strategy models in an international arena, the international dimension enables innovative international strategies to be implemented, which could not operate in the conceived form without the international terrain: global marketers, transnational restructurers, technological innovators, as well as global niche players (Calori et al. 2000). In the academic literature, researchers generally postulate a fit between organizational variables, e.g., in alignment theory (Chorn 1991), configurationalism (Meyer et al. 1983) or more specifically concerning strategy and organizational culture (Amburgey and Dacin 1994; Batelaan 1995; Kilmann 1995; Miller 1990; Trompenaars 1990). Strategic, but also structural, change may easily lead to a misfit with the organizational culture in place (Bate et al. 2000). As shown in Figure 13, Davis (1984, p. 15) emphasizes the importance of the compatibility of corporate actions (cf. also Bleicher 1988). The more important internationalization is for a company, the sooner the situation starts to bear unacceptable risk if there is no compatibility with organizational culture. In a phase of increased attention towards soft factors, organizational culture finds its way into the discussion, and above all the strategists start to deal with it in order to secure a more successful implementation of their strategies (Heene 1994, p. 144; also Durstberger 1987). According to Dill and Huegler (1987, p. 173), a detrimental conscious or unconscious resistance from within the organization may emerge from a given misfit. As DeLisi (1990) candidly states, "good strategy only equals success when we possess an appropriate culture" (p. 4).

Hence, Schwartz and Davis (1981, p. 41) suggest anticipating mismatches between culture and strategy with due-diligence examinations. This view goes beyond the direct causality of organizational culture impacting performance as known from Ouchi (1981) or Pascale and Athos (1981). It includes an understanding that only the congruent relationship of strategy and culture and possibly other factors positively influence performance as the driving force (cf. Schwartz and Davis 1981). Hence, a key task of strategic management lies in fine-tuning organizational variables, especially those of strategy and organizational culture (Bate 1994; Batelaan 1995; Hinterhuber 1990, Ulrich 1984a). While the literature acknowledges the positive implications of a strategy-culture fit, Hofbauer (1991, p. 5) criticizes their exclusively prescriptive nature. Besides Bate et al. (1997), theory-based frameworks for analyzing and overcoming gaps are lacking, and empirical work remains restricted to limited qualitative case studies, and quantitative attempts are seldom encountered (see, however, Goll and Sambharya 1995). Strategy typically occupies a dominant position in the intrasystem hierarchy of organizational variables (Hofbauer 1991, p. 175), especially in a functional understanding of organizational culture as applied here. Therefore, initiating the analysis with a focus on the impact of
internationalization as a strategy on organizational culture seems to be a logical step. As few prescriptive insights and even fewer empirical insights exist on the internationalization-culture link, it is too early for more holistic, multi-variable approaches, suggested by configuration theory juxtaposed to contingency theory in Table 4. More integrative frameworks and studies of complex adaptive systems (cf. Keene 2000) would only make sense if additional evidence on bivariate relationships is continually added. Hence, while the academic literature acknowledges the existence of reciprocal, non-linear, and more comprehensive frameworks for relationships between strategy and culture, or even includes other variables, a step-by-step analysis seems to be the better way of proceeding, given the early stage of research and sparse knowledge available on the topic. Profound empirical testing as is given in cases with structural contingency (cf. Donaldson 2001, also Pennings 1992, 1987) is not applicable to the same extent in this context.

**Figure 13: Evaluation matrix for strategy- and culture-related risks**

![Evaluation matrix for strategy- and culture-related risks](image)

Source: Davis 1984, p. 15

Indeed, there is some evidence that internationalization affects the mindsets. As Perlmutter’s (1969) typology of international orientations demonstrates, there are major overall international orientations. In ethnocentric orientations, and decisions are centralized in headquarters and transferred abroad. Polycentric orientations grant autonomy to foreign subsidiaries and allow domination of local strengths of HR management. Finally, geocentric orientations do not allow the nationality of employees to become a decisive factor, placing the emphasis on their qualifications and mobility. Recently, the notion of global mind-sets has gained new importance, again advocating a fit (Gupta and Govindarajan 2002; Murtha et al. 1998). However,
research falls short of exploring what happens to organizational culture when firms internationalize, if international orientation aspects are excluded from the analysis to focus on organizational culture in general. This view enables the analysis of internationalization as the independent variable, and organizational culture as the dependent variable.

Table 4: Contingency and configuration approaches compared

<table>
<thead>
<tr>
<th>Underlying assumptions</th>
<th>Contingency theory</th>
<th>Configuration theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominant mode of inquiry</td>
<td>Reductionistic analysis</td>
<td>Holistic analysis</td>
</tr>
<tr>
<td>Social system cohesion and constraint</td>
<td>Aggregates of weakly constrained components</td>
<td>Configurations of strongly constraining components</td>
</tr>
<tr>
<td>Relationship among attributes</td>
<td>Unidirectional and linear</td>
<td>Reciprocal and nonlinear</td>
</tr>
<tr>
<td>Equilibrium assumptions</td>
<td>Quasi-stationary</td>
<td>Punctuated equilibrium</td>
</tr>
<tr>
<td>Primary mode of change</td>
<td>Incremental change</td>
<td>Frame-breaking change</td>
</tr>
<tr>
<td>Temporal distribution of change</td>
<td>Continuous progressions</td>
<td>Episodic bursts</td>
</tr>
<tr>
<td>Effectiveness assumptions</td>
<td>Determined by situational context</td>
<td>Equifinality</td>
</tr>
</tbody>
</table>

Source: Meyer et al. 1993, p. 1177

The academic literature does not show comprehensive frameworks or lists of elements which portray the impact of internationalization as a strategy on organizational culture. An extensive literature review identifies only a very few sources explicitly dealing with internationalization strategy and its implication for organizational culture. Prescriptive in nature and falling short of empirical backing, Voigt (1996, pp. 78-82) applies a fit view on his differentiation of two idealized, extreme cases: (1) organizations with a purely global strategy work best with a homogenized organizational culture, and (2) organizations with a fully implemented country-specific strategy require and promote cultural diversity.

The rationale behind (1) is based on the following. In a global strategy, the majority of value-added activities tend to remain centralized and integrated. Even in carrying out those functions necessitating some proximity to customers, subsidiaries favor standardization and operate in a tightly controlled way. As strategy and the entire organization emphasize integration and global standardization, local autonomy and differentiation are severely curtailed. Cultural heterogeneity is neither desired nor really enabled, as subsidiaries are only superficially anchored in foreign cultures. Voigt (1996, pp. 80-81) states that the majority of U.S. and European multinationals typically show this combination of a strategy for local adaptation along with cultural heterogeneity. In stark contrast, a strategy of local adaptation envisages a greater local establishment of parallel value chains with greater autonomy for adapted activities. Local differences thus impact more substantially at the expense of within-company impact. Voigt (1996, p. 81) acknowledges that the situation becomes more
complex if organizations simultaneously pursue some degree of internal integration and local adaptation. Frese and Blies (1997, p. 298) assign a more important role to cultural coordination and control than to structural, but they differentiate between fits for integration and local adaptation strategies as Voigt (1996) does. Harzing (1999) agrees on the need for a strategy-oriented differentiation. In her opinion, too, increasing intra-company interdependence necessitates more normative control. Interestingly enough, the classical writers on organizing provide insights. An uncertain environment precludes standardization, because there are fewer standard situations, and furthermore, standardization would preclude the necessary flexibility (Child 1984, Lawrence and Lorsch 1967; Mintzberg 1983). Centralized control is too slow and inflexible to cope with the necessary information processing (Galbraith 1973). Output control could work only if kept rather general. Hence, normative control by socialization is the most appropriate control mechanism for uncertain environments (Burns and Stalker 1961). Internationalization as a strategy can render environments more heterogeneous. However, more heterogeneous environments require organizations to differentiate their organizations where separate parts deal with respective elements in the environment (Khandwalla 1977; Larence and Lorsch 1967; Mintzberg 1983; Thompson 1967). This entails decentralization, which in turn renders bureaucratic control less effective than normative control through socialization (Hage and Dewar 1973). According to Thompson (1967), higher interdependence calls for mutual adjustments, especially since centralized control entails the risk of top management overload in growing companies (Blau and Schoenherr 1971). The rising importance of informal and normative integration is also found in the modern concepts of organizing such as the “heterarchy” (Hedlund 1993), the “horizontal organization” (White and Poynter 1990), or the “innovating organization” (Pettigrew and Fenton 2000).

Apart from this, surprisingly few and, even then, widely dispersed aspects of internationalization impacting organizational culture become obvious in academic literature. Or as Van Maanen and Laurent (1993, p. 275) expressed it, organizational theorists are just getting around to the serious study of multinational companies and have as yet not had much time for organizational culture. In summary, internationalization affects change and complexity. Commencing with the first, Schein (1985a, p. 3) views organizational culture as a learnt set of problem-solving techniques to cope with external adaptation and internal integration, which proved successful and consequently worthy of being passed on. Internationalization simultaneously leads to a quantitative augmentation of the number of organizational challenges, e.g. of serving additional and diverse customers abroad as efficiently and effectively as domestic, as well as a qualitative enrichment of the problems due to the diversity and complexity of managing a geographically dispersed system of value-added activities (Macharzina et al. 2001, p. 632). In the outcome, problems change quantitatively and qualitatively. Therefore, a set of problem-solving techniques, which
has been successful in the past and is therefore worthy of being passed on (1985a, p. 3), is likely to require overhauling. Profoundly and frequency, both key dimensions of change are affected. However, alterations in this set of problem-solving techniques are equivalent to organizational culture change.

As Bartlett and Goshal (1989) contend and as depicted in Table 5, organizations mutate fundamentally during their internationalization process. Profoundly of the change is shown in far-reaching switches in asset configuration, role alterations of subsidiaries and knowledge management. Multinational companies become multifocal (Doz and Prahalad 1994). More heterarchical structuring facilitates tapping into worldwide potential within networks (cf. Hedlund 1993). Organizational culture refers to behaviors, as learning behavior alters from domestic development to the acceptance of an international and mutual intellectual insemination. This necessitates shifts in underlying values and beliefs as to what is good or bad, e.g., domestic knowledge development versus competition within the subsidiary network for innovation leadership. On the organizational journey from domestic to transnational, change is not only profound but also frequent. Internationalization requires an augmenting frequency of change as internal adaptations and reconfigurations become necessary. The larger the number of countries served, the higher the likelihood that some organizational aspect in some part of the organization requires fine-tuning or reorganizing (Engelhard and Daehn 1997, p. 38; also Porter 1986, p. 9, Duncan 1972). As internationalization has the potential to affect performance negatively (Gomes and Ramaswamy 1999, Ruigrok and Wagner 2003), performance pressures can accelerate change in both dimensions of profoundy and frequency.

Table 5: Organizational characteristics of the international configurations

<table>
<thead>
<tr>
<th>Organizational characteristics</th>
<th>International</th>
<th>Multinational</th>
<th>Global</th>
<th>Transnational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration of assets</td>
<td>Sources of core competencies</td>
<td>Decentralized and nationally</td>
<td>Centralized and globally</td>
<td>Dispersed, interdependent, and</td>
</tr>
<tr>
<td></td>
<td>centralized, others</td>
<td>self-sufficient</td>
<td>scaled</td>
<td>specialized</td>
</tr>
<tr>
<td>Role of overseas operations</td>
<td>Adapting and leveraging parent</td>
<td>Sensing and exploiting local</td>
<td>Implementing parent company</td>
<td>Differentiated contributions by</td>
</tr>
<tr>
<td></td>
<td>company competencies</td>
<td>opportunities</td>
<td>competencies</td>
<td>national units to integrated</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>worldwide operations</td>
</tr>
<tr>
<td>Development and diffusion of</td>
<td>Knowledge developed at the center and</td>
<td>Knowledge developed and retained at</td>
<td>Knowledge retained at the center</td>
<td>Knowledge developed jointly and shared</td>
</tr>
<tr>
<td>knowledge</td>
<td>transferred to overseas units</td>
<td>the center</td>
<td></td>
<td>worldwide</td>
</tr>
</tbody>
</table>

Source: Bartlett and Goshal 1989, p. 65
The impact of internationalization on organizational culture

In the direction of change, internationalizing organizations steer towards higher levels of internal complexity due to aforementioned multiplied quantitative and qualitative problems (cf. Krystek 1997, p. 13; Macharzina et al. 2001, p. 632). If multiple foci are pursued as suggested by Doz and Prahalad (1994), enhanced capabilities are required for information processing to handle the most paradoxical demands of paralleled persuasion of locally adapted output, which are based on cost-efficient internal settings in a differentiated network. Eventually, this complexity reaches a level where the entailed complexity cost can even exceed the financial benefits of international diversification (Hitt et al. 1997, p. 789).

As a first way to counter-balance the complexity, organizations differentiate structures (Burns and Stalker 1961, p. 6). Mileti et al. (1977, p. 210) explicitly include number of locations next to ranks and jobs performed in their definition of structural complexity. For Blau (1970, p. 201), the spatial dimension is again unambiguously included besides an occupational, hierarchical and functional one in defining structural complexity (cf. also Hall 1977, Miller and Contay 1980). For Whetten (1987), size is another strong determinant of overall organizational complexity. Since internationalization tends to extend the number of foreign locations at higher structural internationalization as it ranges among growth strategies, organizational complexity increases. Doz and Prahalad (1991, p. 147) provide examples of areas where such challenging complexities in diversified multinational corporation appear. They reside in structural indeterminacy, internal differentiation, integrative optimization, information intensity, latent linkages, networked organization with fuzzy boundaries, and learning and continuity. Increasing foreign sales in the forms of contracts, joint ventures or alliances also raise transaction as well as organizing cost, and therefore have the same overall effect (cf. Garcia-Canal 1996). These complexity considerations remain independent from the question whether internationalization follows the traditional prescriptive strategy school and the herein assumed formal, top-down, planned and deliberate sequence, or whether internationalization takes place in a more emergent way as thought possible in traditional descriptive strategy theory (cf. Hofbauer 1991, pp. 150-153). A minimum consequence for organizational culture will result in both cases. Prior exposure to complexity may lead to an advantage in internationalization, as experience in coping with complexity and internal diversity is already available (Hitt et al. 1997, p. 789).

Next to structural differentiation, workforce differentiation in the form of creating a mixed pool of developed and local talents or functional experts from diverse backgrounds equip the internationalizing structures with the right people for the strategy. Organizations thus render people-strategy fit to avoid any friction loss in the system (Grundy 1998, p. 49). Here again, prescriptive literature from Ulrich (1998), Devanna et al. (1984), and Walker (1978) stipulating such a fit outweighs empirical testing or confirmation (Wright and Snell 1998, p. 56). There are strong liabilities to
workforce diversity ranging from internal conflicts, misunderstanding between diverse groups, lack of cohesion, parochialism, and negative political activity to poor organizational performance (Glick et al. 1993, p. 177). Furthermore, cultural diversity, psychological and geographical distances hamper identification and integration (Palich and Gomez-Mejia 1997, p. 587), while actually tapping into the diverse workforce involves the necessity to decentralize and grant discretion and autonomy to foreign employees and subsidiaries. The augmenting organizational differentiation and within-company diversity in turn challenge the established solutions to primary functions of organizational culture: integration, motivation and coordination. In particular, the St. Gallen trilogy approach (Bleicher 1991) idealizing a fit amongst strategy, structure, and culture provides the corresponding theoretical foundation for the need to reconfigure (cf. Keller 1991). But research has so far failed to explore this crucial aspect as applied to internationalization.

Overall, research on the impact of internationalization on organizational culture is very scarce and dispersed. Perlmutter (1969) indicates dynamism in orientations. Bartlett and Goshal (1989) underline the “matrix in the minds of managers” (p. 195). Murtha et al. (1998) provide quantitative evidence that the integration and responsiveness dimensions indeed represent quantifiable cognitive orientations. In contrast, Kobrin (1994) indicates gaps between a geocentric mind-set and multinational strategy. Birkinshaw et al. (1998) emphasize subsidiary culture and its dynamism for positive subsidiary initiatives and for activating the entire network. Values shared among headquarters and foreign subsidiaries are an approach to governing headquarters-subsidiary relations that enhances performance of the MNE. Thereby, structures and shared values are not mutually exclusive ways of effectively managing these relations. Indeed, MNEs that can simultaneously implement these two approaches have the best relative performance (Goshal 1991). Hence, first evidence exists that something happens to organizational culture in the internationalization process. Further research is needed to illuminate this phenomenon.

What key insights can be gained from the above review? This section yields the following conclusions: (1) there is a purely internal view possible on how internationalization impacts organizational culture; (2) organizational culture fitting to the strategy is important, as respective alignment and fit approaches indicate; (3) initial conceptual evidence does in fact foresee an impact of internationalization on culture considering change, complexity and diversity aspects; and (4) this primarily prescriptive literature lacks sophistication and empirical tests.

**Internationalization understood as a process altering the environment**

While the last section focused on an organizationally internal view on how internationalization impacts organizational culture, this section scrutinizes a different
The impact of internationalization on organizational culture

aspect. Internationalization can be defined as the process fundamentally altering the organizational environment (see Chapter 2.1.3). Since the advent of open-systems models of organization, theorists have explored the environment-organization relationship. However, the explicit distinction of national versus international environments and their impacts remain neglected in the relevant classic organizational theory (Rosenzweig and Singh 1991, p. 341).

The focus of the following literature review is on the lessons that can nevertheless be drawn from the impact an internationalizing environment has on organizational culture. An abstraction is made for ease of analysis of discussion on the extent to which internal aspects in turn trigger internationalization of the environment. In contrast to the endogenesis-based view of the previous section, the underlying canon is now on exogenesis, which attributes organizational change to the outside environment, showing that either definite causal or selection forces are at work (cf. Astley and Van de Ven 1983). According to Blau and Meyer (1987, p. 116), there are three major model categories for describing the impact of the environment on organizations: the adaptation, the selection, and the institutional model. Each string of models proceeds differently in addressing the same question on how the environment impacts organizations, as indicated in Table 48 below.

### Table 6: Models on the impacts of environments on organizations

<table>
<thead>
<tr>
<th>The adaptation model</th>
<th>The selection model</th>
<th>The institutional model</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Breaks with the tradition that optimal organization - a one best way to organize was sought</td>
<td>• Organizations are also vulnerable to external forces, but organizations are largely incapable of purposeful change</td>
<td>• A distinction is made between formal organizational structures and procedures from actual conduct with organizations, treating the former as determined by shared expectations about how organizations ought to be rationally constructed and the latter as considerably less constrained</td>
</tr>
<tr>
<td>• Organizations are vulnerable to external forces, but capable of accommodating them</td>
<td>• Environments thus cause births and deaths of individual organizations, but not adaptation within them</td>
<td></td>
</tr>
<tr>
<td>• Sample theories include cognitive theory, contingency theory, resource-dependence theory</td>
<td>• Sample theory: evolutionary theory/population theory</td>
<td></td>
</tr>
</tbody>
</table>

Source: Based on Blau and Meyer, pp. 116-132

The adaptation model breaks with the basic assumption of the existence of a singularly superlative way to organize, generally valid across different types of organizations (cf. Burrell and Morgan 1979; Perich 1992). Different theories apply the adaptation idea, with cognitive theory (cf. Schroder et al. 1967, Streufert and Nogami 1989) presumably being the less obvious example. However, it boasts unique significance in the context of addressing the impact of environments on organizations (Blau and Meyer 1987, p. 118). This first framework argues that organizations as administrative structures pursue two principal goals: making complicated decisions and accomplishing complicated tasks. Complicated decisions thereby often exceed
the limited cognitive ability of human resources, alluding to the bounded rationality found in organizations (cf. Simon 1976). As complicated tasks or decisions are thus broken into manageable pieces, organizational structures create psychological structures permitting people to function within their capabilities (Simon 1976, p. 101). Cognitive theories do not address the influence of the environment directly as stated above due to their primary occupation with psychological processes. But they serve as the foundation for this argument: the more complicated the decision, respectively the task, the greater the structural differentiation. Organizations adapt to complexity in the environment by developing more differentiated structures (Blau and Meyer 1987, p. 118). Overall, structural adaptation to cope with decision and task complexity imposed by more complexity in the environment seems to be one solution. However, it neglects the variable of organizational culture as a source of solutions. This criticism applies to further theories as presented in the following.

Contingency theory represents an additional theory following the idea of organizations adapting to the environment. This theoretical string has three intellectual fathers, based on three seminal publications by Thompson (1967), Lawrence and Lorsch (1967a), and Perrow (1967). Contingency theory argues that environments differ significantly based on the degree of uncertainty from multiple sources imposed upon organizations (Blau and Meyer 1987, p. 118). Environment and structure are both of a variable nature and organizational performance ultimately depends on their fit. To achieve performance, the degree of internal differentiation as well as coordination must mirror the environmental variable (Lawrence and Lorsch 1967a, p. 209). Hence, contingency theory is clearly an adaptation model. Interestingly enough, Lawrence and Lorsch included “… international attributes of the organization, in terms of structure and orientation…” (Lawrence and Lorsch 1967a, p. 209, emphasis added). However, contingency theory shows a primary concentration on structure as the dependent variable (cf., e.g., Donaldson 2001, pp. 17-18), and more explicit insights on organizational culture are not available. There seems to be room for a general prescription analogous to the environment-structure association.

There are several fit-oriented contingency approaches, namely the selection, interaction and systems approach (cf. Fry and Smith 1987; Van de Ven and Drazin 1985; Venkatraman and Prescott 1990). Table 7 outlines the major features of these different approaches. Thereby, the underlying particularities originate from the number of explicitly and simultaneously considered variables, hence, in the complexity of the overall framework. The selection approach implicitly assumes the positive effects of a fit between one specific organizational aspect and the contingency. The interaction and systems approach explicitly involves the performance variable, with the systems approach considering multiple contingent relationships. Clearly, there is a trade-off between parsimony as the advantage of the
selection approach, and comprehensiveness, as the advantage of the systems approach. Statistical method also shows a difference, with the selection approach relying on correlations and regression analysis, while the systems approach uses cluster analysis.

### Table 7: Major “fit” approaches within contingency theory

<table>
<thead>
<tr>
<th>Approach Features</th>
<th>Selection</th>
<th>Interaction</th>
<th>Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>Assumption: fit is the assumed premise underlying a congruence between context and structure</td>
<td>Bivariate interaction: fit is the interaction of pairs of organizational context-structure factors; it affects performance</td>
<td>Consistency analysis: fit is the internal consistency of multiple contingencies and multiple structural characteristics; it affects performance characteristics</td>
</tr>
<tr>
<td>Analytical method</td>
<td>Correlation or regression coefficients of context (e.g., environment, technology, or size) on structure (e.g., configuration, formalization, centralization) should be significant</td>
<td>Context-structure interaction terms in ANOVA or regression equations on performance should be significant; deviation scores</td>
<td>Deviations from ideal-type gestalts should result in lower performance. The source of the deviation originates in conflicting contingencies; cluster and pattern analysis</td>
</tr>
<tr>
<td>Strengths</td>
<td>Simplistic; provides link to natural selection theory</td>
<td>Ability to isolate precisely specified theoretical links, and impacts; systematic replication and extensions can lead to cumulative knowledge</td>
<td>Ability to retain the complex, interrelated nature of linkages; systemic view is maintained; holistic</td>
</tr>
<tr>
<td>Weaknesses</td>
<td>Incapable of testing the complete train of logic underlying contingency theory; no explicit test of the performance element</td>
<td>Specification errors due to invoking ceteris paribus conditions; inability to isolate conflicting contingencies; high likelihood of ‘logical typing’ error due to disaggregation, reductionistic</td>
<td>Complex nature of coalignment makes it difficult to hypothesize about the nature of coalignment; difficulty of generalization</td>
</tr>
</tbody>
</table>

Source: Wagner 2001, p. 95, based on Drazin and Van de Ven (1985); Venkatraman and Prescott (1990); Meyer et al. (1993)

Contingency theory has contributed quite considerably to the subsequent development of matrix-based contingency approaches, foreseeing certain strategies and structures as more suitable in different environmental contexts. According to Goshal and Westney (1994, p. 1), contingency theory provided the major paradigm from all major theories about environment-organization theories that impacts the study of multinational enterprises. Researchers on the multinational corporation propose that each foreign subsidiary operates in unique task environments, and local adaptation enables their effectiveness (cf. Westney 1994, Rosenzeig and Singh 1991, Meffert 1989, Bartlett and Goshal 1989, Ghoshal and Nohria 1989). These international configurations enable and foster dynamism in subsidiaries’ evolution.
Resource-dependence theory also falls into the category of adaptation models and portrays organizations as engaged in active struggles for power over one another and over their environments (Pfeffer and Salancik 1978). Organizations aim to minimize dependency on other organizations and maximize their own discretion. Power is thereby a function of possessing resources needed by others. To manage dependence, organizations maintain buffer inventories, forecast demand, organize alternative sources for input, and arrange for long-term contracts, cooptation or coalitions (Thompson 1967, pp. 20-23). The environment is thereby not described in continua, such as more or less complex or more or less certain, but rather as highly segmented and consisting of other organizations. Powerful organizations are often over-represented on the supervisory board of organizations dependent on them, and interdependencies cause cooperation in various forms. In the internationalization context, power perspective (Crozier and Friedberg 1979) and resource dependency perspective (Pfeffer and Salancik 1978) show intrinsic relevance.

The power perspective also provides an interesting framework in the field of international management research, chiefly because it focuses on the network of relationships and the distribution and reallocation of strategic resources within an organization (Doz and Prahalad 1991). Actors’ behavior only shows bounded rationality and a high level of self-centeredness in the pursuit of various, differing personal goals. Key actors in foreign subsidiaries may thus have an interest in changing their respective roles. A subsidiary may exert itself to gain more autonomy (Birkinshaw and Hood 1998) or transform itself from a mere implementer of organizational strategies and tasks in a strategic partner by creating innovations, for example (cf. Bartlett and Goshal 1989, p. 224). The power perspective can be employed to explain why organizational-internal coherence, psychological intensity, within-company consensus, and the functioning of cultural pervasiveness are affected. If geographically dispersed centers of power emerge in addition to or replacing traditional ones, the organization faces increasing and additional centrifugal forces.

These three models of adaptations, the cognitive theory, the contingency theory and the resource dependence approach, share the assumption of capacity to adapt to environmental changes. They differ in prioritization of individual aspects as key elements in the environment: cognitive theory focuses on complexity, contingency theory on uncertainty, and resource-dependence theory on power relations with other organizations in their environment (Blau and Meyer 1987, p. 120). In contrast to the adaptation model, the selection approach does not foresee organizations as being capable of purposeful adaptation. The reaction to environmental change is found in
remaining static or in maladaptive ways of change, possibly resulting in their termination and the inception of new organizations. The primary focus thus switches from change within organizations to change within populations of many organizations (cf. Singh and Lumsden 1990).

Population ecology theory adopts a rather macroscopic, cross-organizational perspective and, based on evolution theoretical assumptions, analyzes how environmental conditions shape populations of organizations (Weibler 2001, p. 317). Change of complex organizations cannot be goal-oriented, since there are different internal groups with heterogeneous interests. Means-ends relationships are not fully known. Control of key variables is lacking, and organizational inertia impedes organizations from coping with the speed of change in its environment (Hannan and Freeman 1984). “The worst of all possible worlds is to change structure continually to find each time upon reorganization that the environment has already shifted to some new configuration that demands yet a different structure” (Hannan and Freeman 1984, p. 151). Change happens very much as proposed in biology’s evolutionary theory and the Darwinist concept of survival (cf. Darwin 1859). The first precondition for evolution is variations, primarily in the form of newly founded companies and new organizational forms to replace old ones (cf. Hannan and Freeman 1984, p. 150, Aldrich 1979, p. 36). The next stage in evolution is selection. Here, the two “variants” of population ecology approaches in organizational theory differ. While Hannan and Freeman (1984) foresee only the selection of entire organizations, McKelvey and Aldrich (1983) prefer referring to organizational competencies or comps, knowledge elements within the organizations in terms of recipe knowledge, process guidelines, blueprints, or corporate philosophies, to name but a few. Effective comps then rule out ineffective ones and enable organizations to grow faster and become more profitable. The final stage in evolution is retention and reproduction. Successful companies pass on the selected organizational forms by institutionalizing them in the socialization apparatus and in cultural beliefs and values. Further, bureaucratic structures and procedures with respective documents and process guidelines help preservation as well (Aldrich 1979).

In regard to this research project, population ecology emphasizes the role of the environment as the driving force for organizational change and in the end, survival. The notion of struggle for existence warns of what is at stake. Population ecology thus supports research abstracting from a "top management has full control" view and focuses on the strong impact of the environment as the variable triggering off organizational optimization. The environment represents the entirety of all factors imposing limitations on organizations, such as economic conditions or the political and legal situation (Hannan and Freeman 1984, p. 152). Within population ecology, organizations and organizational characteristics, such as its combs or organizational culture, can be perceived as the dependent variable. Therefore, this strand in
organizational theory supports the research question presented in the next chapter and its importance, since nothing less than organizational survival is at risk.

In order to provide a complete picture, population ecology has received criticism in the literature. According to Kieser (1999, pp. 271-275), major criticism refers to (1) assumed bounded rationality, which actually sees headway towards higher system rationality (cf. Luhmann 1973) enabling more sophisticated reactions to the environment; (2) empirical evidence showing that founding new companies is not the dominant mechanism for variation and the elimination of entire organizations is not necessarily the dominant pattern for selection; and finally, (3) there seems to be a limited relevance for top managers due to the encouragement of blind variations, an approach-inherent idiosyncrasy. Nonetheless, population ecology represents an interesting intellectual and theoretical cross-insemination of organizational theory by biology. However, the major purpose of population ecology is to explain the influence of social, economic and political environmental conditions and how they affect the number, size distribution and differences among organizational population (Weibler 2001, p. 317). As such, it is more oriented to mapping statistical aspects of organizational demography and not concentrated enough on the organizational culture, which turns population ecology into a less suitable theoretical foundation.

The classic versions of organizational theories with their original assumptions have undergone some variations, one of which is mentioned here. Closely related to population ecology is the St. Gallen concept of evolutionary management (cf. Kieser and Woywode 1998). It questions again how realistic and feasible a rational approach to organizational transformation is, particularly regarding high intricacy. There is a need for a new rationale in the sense of an evolutionary management, still perceiving the organization as a variable dependent on environments. Two concepts form the foundation of the St. Gallen concept of evolutionary management.

Hayek’s (1980) concept of spontaneous order represents the first to surmise that behavioral rules are the result of evolutionary processes leading to a spontaneous order. Rules do not have to be purposefully created. They evolve through interaction among individuals and with environments in a process of mutation and selection. They are often unconscious and unknown, but nevertheless functional. Behavioral rules are not arbitrary and represent the most important mode of adaptation to the environment (cf. Malik and Probst 1981, p. 129; also Malik 1984; Ulrich 1984b). Thereby, the environment remains a too complex phenomenon preventing organizational members, especially management, from knowing all the relevant cause-effect relationships in order to behave “rationally”. Behavioral rules contain key knowledge and enable social systems to adapt almost autonomously to changing environmental conditions. In the self-organizing process, these behavioral rules themselves are adapted. The “law of requisite variety” formulated by Ashby (1956)
represents the second firm foundation of the St. Gallen concept of evolutionary management. This approach warns that any system’s ability to survive is endangered when its complexity to produce variety does not suffice to solve environmental problems (cf. Malik 1984, p. 192). According to Probst, the complexity of the environment is usually more multifaceted than the system _organization_, but the challenge is to cause for an internal complexity that is sufficiently high (cf. Probst 1981, p. 137). In order not to interfere with the system’s inherent capability of adaptation, thus ensuring its survival, certain management conclusions can be deduced.

Managers need to adapt an attitude of respect, caution and modesty pertaining to the limits of what is feasible (cf. Malik and Probst 1981, p. 123; Probst 1987, p. 114). Management’s role should be restricted to creating favorable conditions for natural adaptation processes to result. The goal is not to arrive at an exact algorithm, how-to-do principles or generalizable case studies (cf. Probst 1987, p. 12), but rather to adopt a systemic view penetrating the interrelatedness of complex reality (cf. Gomez and Probst 1987, 1991). Management should fulfill the meta-function of a catalyst for the creation and maintenance of potential and actual variety. The second role of management is then to funnel and to canalize that variety (cf. Probst 1987, p. 114). Managerial problem-solving simulates and represents the evolutionary process (Dyllick 1982, p. 352). Canalization takes place through the strategic positioning of the organization, and through formulating aims, thus providing a sense of direction (Probst 1987, p. 141).

For the research on hand, this approach fits into the overall scheme of an organization as largely a dependent variable, but addresses and clarifies the role of management better. Interestingly enough, Probst (1987, p. 97) points out the necessity of having structure complemented by sensible interpretations (cf. also Dyllick 1982, p. 12). What Probst and Dyllick implicitly include is the key role of organizational culture as a means of coping with and making more sense of the complex and also possibly paradoxical reality which is rendered more challenging by internationalization.

To abstract again from this variation within this string of evolutionary theory, Hannan and Freeman’s (1977) include elements of organizational culture in their analysis, although this is not their explicit focus. Inertia leads to the inability to adapt. It stems, apart from other factors such as sunk costs for manufacturing plants or equipment, from vested interests and habits (cf. Hannan and Freeman 1977, pp. 70-80). Evolutionary models are of less relevance for this research project, since their main focus is on population demography, not on the micro-level of individual organizations. Their inherent fatalism seems to be in contradiction to two important non-negligible facts: the growing field of theory on adaptation, learning, and organizational
development, supported by a larger emphasis on the human and psychological aspects and the transfer from related sciences, where previous advances are now becoming fruitful in the field of organization and management as well.

Finally, the traditional institutional model (Meyer and Rowan 1977, 1983) deserves attention in the quest for answers to the question how traditional research has dealt with the impact of the environment on organizations. The mechanisms linking the environment and organizations are not particularly clear. The most important elements provided by the environment are intangible beliefs on how organizations ought to be constructed (Blau and Meyer 1987, p. 130). Since the institutional model assumes that organizations are part of the institutional system, they contain value orientations and meaning besides their functional significance (Meyer and Rowan 1977, p. 341; also Scott 1992a, 1992b). The existence of formal structure and administrative procedures conveys to organizational members as well as outsiders the implications that implemented actions are reasonable, rational, and legitimate.

The influence of the environment is thus primarily centered on how organizations are constructed and represented externally, with the actual conduct within organizations departing substantially from formal representations. Organizations primarily reflect the myths of their institutional environment instead of demands of their work activities (Meyer and Rowan 1983, p. 341). Once a new organizational form is expected and legitimized, it is diffused swiftly and without regard to specific environmental elements as existing organizations seek to model themselves to become isomorphic to one another (cf. DiMaggio and Powell 1983). The strong emphasis on the formal way organizations are supposed to be built up once again stresses the structurephility of the approach. Several additional insights can be gained. The institutional model accepts the gap between the formal and externally imposed way of constructing organizations on the one hand, and actual behavior on the other. The latter is not required to be as rational. Furthermore, the institutional model includes behavioral aspects. To sum up, the institutional model represents an approach that acknowledges the impact of the environment on organizations, but allows for degrees of internal freedom, and even for a somewhat irrational behavior. Overall, this reflects to a minor extent an identity or organizational culture beyond the requirements imposed by the environment.

In the context of the question of how internationalization impacts organizational cultures, three aspects emerge. First, the institutional model may explain why, for instance, German companies internationalized in the first place as the (previous) “Exportweltmeister” (Macharzina and Oesterle 1997, p. 5), since internationalization is thus expected and a substantial part of legitimization is gained from the environment (cf. Meyer and Rowan 1977, p. 343). Second, adequately incorporating workforce diversity ensures ongoing political correctness if the environment becomes
more multicultural. Third, local, non-domestic market environments legitimizing good corporate behavior foster within-company variety and cultural heterogeneity, and thus also complexity. Alternatively, one may argue that within an internationalized environment, the expectations imposed on the organizations vary so much that cultural diversity is increased and cultural strength decreased in favor of more local responsiveness (cf. Voigt 1996, p. 81).

**A modern, integrated theory of the firm**

Beyond these classic organizational theory models and their variations, there are modern, integrative approaches, to be discussed in the sequel. One of them is as follows. Transaction-cost theory focuses on the question of why organizations exist at all, even though in the light of traditional economic analysis and assumptions markets serve as an efficient coordination mechanism (cf. Williamson 1975 and 1985; Williamson and Ouchi 1981). Transaction-costs vary when transactions are carried out in hierarchical structures or through markets, which is the basic dichotomization put forward. According to Doz and Prahalad (1991), transaction-cost analysis shows potential to explain the existence of international organizations. However, the predominant assumptions of an economic, rational, opportunistic behavior are one-sided and conceptually distant to the softer, deeper-layer, psychological aspects of trust (Ouchi 1980), normative integration (Hedlund and Rolander 1990) and values relevant in culture-oriented analysis.

Whereas its direct application to the field of organizational culture seems to be limited at first, the transaction-cost theory nonetheless, provides one of the theoretical building-blocks for an innovative cultural theory of the firm, as presented by Weeks and Galunic (2002) at the Academy of Management in Denver in 2002. This innovative theory of the firm explains not only why organizations exist in the first place, i.e. their genesis, but also the issue of organization-specific advantages. Firms are a source of control and show transaction-cost efficiencies, while simultaneously being a source of identity (cf. Smircich 1983). Employees’ altruism grows with their closer identification with the firm. This in turn furthers their knowledge creation and sharing-motivation and that leads to better internal cost structures. The discerning hand of competition will remove those firms that do not minimize transaction-costs or maximize knowledge. Within this new theory, the focus is on memes, units of information stored in the brain that are replicated and expressed as culture. Organizational culture therefore consists of a variety of memes that try to survive and be selected in migration, mutation and re-combination processes. The theory builds on a variety of other theoretical foundations such as transaction-cost economics, the knowledge-based view, and population ecology. It contributes to the theories of the firm and the rather disintegrated field of theory on organizational culture by adding a very dynamic view on the smallest elements of cultures - the memes. However, since the unit of analysis is not on organizations, but rather on the meme’s-eye-view, this
new theory becomes less suitable for cross-company analysis. Despite this, it may be argued that internationalization enlarges the internal environment in which memes can prosper and be selected. New memes are added either through an internationalizing workforce or their evolution in foreign subsidiaries. Thus, it may be derived that due to the meme proliferation, strength of organizational culture in terms of psychological intensity (relative importance of a meme in the overall system), the within-company consensus (because of new memes, or memes in the niches of foreign subsidiaries) and cultural pervasiveness (the relative strength of memes in contrast to others) may suffer. This is so not primarily because empirical evidence is lacking, but because the unit of analysis is too “micro” by nature. This new theory of the firm is therefore less suitable for the research field.

One especially noteworthy effort to shed more light on organizational culture in the international context is to be found in the GLOBE project. Regarding its research questions, the GLOBE projects aims at a better understanding of national cultural influences on leadership and organizational practices (House et al. 2001, p. 489). Thereby, the focus is more on the impact and significance of national culture and the interplay of organizational culture aspects with its environment. Consequently, this project represents a complementary scrutiny of the role and effect of organizational culture in international contexts. It has a broader scope than the very narrowly focused research question of this particular study, which focuses on the one-way impact of corporate internationalization on organizational culture.

**Conclusion**

This section dealing with the impact of an internationalizing environment on organizations allows of the following conclusions: (1) Internationalization of the external environment strongly impacts organization-internal settings and variables. Rosenzweig and Singh (1991, p. 355) suggest further research on how the heterogeneous international environment affects an organization; (2) The prevailing frameworks and theories show a high degree of “structurephilia”, resulting in a very obvious research gap in considering organizational culture; (3) The available models and theories neglect organizational culture in favor of tangible and hard factors, and empirical work is lacking as well; and finally (4) most of the environment-organization models are rather static in nature and primarily address the question why the environment can impact organizational culture. Hence, there is need for a more process-oriented module exploring how internationalization impacts organizational culture. An adequate theoretical foundation is found in organizational learning, dealt with in the next section.
3.4. Literature review Part III: organizational culture’s reaction to internationalization

The previous sections explored how internationalization creates a tension field for organizational culture to fulfill the demands of the changing external environment and shifting demands from other internal variables, primarily strategy. It remains to be explained how organizations overcome this tension field, which, if maintained, would represent a variable misconfiguration and a source of friction loss (Grundy 1998, p. 49), resistance (Dill and Huegler 1987, p. 173) and possibly deteriorating performance (Pascale and Athos 1981; Schwartz and Davis 1981). Tushman and Romanelli (1985, p. 179) especially see in performance pressures the most basic force for reorientation (also Bartlett and Goshal 1989, p. 76).

Internationalization changes the internal and external environments of an organization. This implies that previously proven and successful strategies and behaviors may become outdated, and an effort to upgrade them may be required for continued or new organizational success (Kilman and Covin 1990, p. 525). Coping with changing environments is crucial for organizational success (Lawrence and Lorsch 1967b, p. 5), when encountering environmental changes with organizational changes (Hedberg et al. 1976, Nadler and Tushman 1980). This section conceives of learning as a possibility to cope with constantly changing environments (Dodgson 1993, p. 375).

The academic literature acknowledges the special function organizational learning has for competitive advantage (Levinthal and March 1993, p. 106), and organizational improvement or excellence (Gupta and Fisher 1994). In internationalization research, Sullivan (1994b) and Hitt et al. (1997) interpret internal reconfigurations and adaptations due to changing demands as a consequence of geographic expansion as organizational learning. In organizational learning theory, two major streams can be identified: *behavioral-associationist theories and cognitive-organizational theories* (Bower and Hilgard 1981), or, in a different terminology, stimulus-response explanations versus cognitive explanations (Lefrancois 1982). A behaviorist or stimulus-response perspective views learning as a change of behavior due to experience in a given situation (Bower and Hilgard 1981). The learning process is one of trial and error, leading to a better adaptation to the environment and new behavior. In contrast, cognitive learning theories perceive learning as changes in the states of knowledge due to information processing. Consequently, the immediate outcome of learning is the transformation of knowledge structures through integration of new or improved knowledge; hence, the result is primarily improved knowledge, and not behavior from the outset. Especially the behavioral-associationist approach to organizational learning warrants further attention, as it considers behavior shifts as the result of learning. Interestingly, behavior is an essential and constituting part of organizational culture in Schein’s (1999, p. 16) multiple-layer
model, with deeper levels of culture determining shallower levels such as behavior. Organizational culture is defined as “the solution to external and internal problems that has worked consistently for a group and that is therefore taught to new members as the correct way to perceive, think about, and feel in relations to those problems” (Schein 1985, pp. 19-20), or as “the way we do things around here” (Shapiro 1995, p. 51). In that sense, learning is simultaneously culturizing in the sense of establishing new problem-solving techniques and behaviors in the organizational culture. This includes Hedberg’s (1981, p. 3) necessary unlearning, based on March and Olsen’s (1976) learning cycle. Likewise, the shared cognitive structure enabling the organization to survive in the cognitive perspective alludes to the set of problem-solving techniques equally synonymous for organizational culture (cf. Ford and Backoff 1988). As illustrated next, two aspects of learning are especially relevant in relation to internationalization: (1) coping with complexity, and (2) learning through failure and success.

For Hitt et al. (1997, p. 790), rising complexity in the internationalization process forces organizations to learn, while organizations which already have experience with diversity (e.g., through diversification) are better equipped for geographic expansion. This is in accord with complexity theory (Schroder et al. 1967), claiming that the quality and sophistication of a response depend on the respective quality and frequency of problematic stimuli. The stage-oriented L-model and U-models (cf. Andersen 1997) of internationalization consider this need to grow cognitive capacities. However, a stimuli cacophony may lead to overload, which is why the pace of proceeding has to be modest and reasonably slow. In the opinion of Hitt et al. (1997, p. 790), such overstimulation with an insupportable level of complexity – at higher DOI – causes and thus explains performance downturns.

Cohen and Levinthal (1990) add absorptive capacity as a relevant notion and construct to the discussion. It refers to the ability, conferred by prior related knowledge and experience, of recognizing the value of new information assimilation and applying it to commercial ends (Cohen and Levinthal 1990, p. 128). Developing absorptive capacity in the sense of having once being rendered sensitive to a certain field allows companies to progress faster in their further learning process, and, vice versa. In uncertain environments, absorptive capacity permits the firm to comprehend and assess signals more accurately (Cohen and Levinthal 1990, p. 132). Learning and problem-solving capabilities involve the development of the capacity to assimilate existing knowledge as well as a capacity to create new knowledge (Cohen and Levinthal 1990, p. 130). Nichols (1984) coined the notion of alloplasticity for effective cultures in this context. Originally, alloplasticity is a term used by psychiatrists to describe personalities able to incorporate new learning. Internationalization, leading to a more complex and challenging organizational environment, can thus foster the development of more alloplastic organizational
cultures. Moreover, Lane and Lubatkin (1998) further develop the concept of absorptive capacity and introduce *relative absorptive capacity* since organizations may show varying degrees of learning capacity. If internationalization enhances absorptive capacity and learning capabilities, it also affects organizational culture, which can be understood as the true problem-solving mechanisms (Schein 1985b, pp. 19-20). Geographic diversification is likely to influence the ways in which organizations manage change when diversifying internationally, and how they try to achieve goals with an increasingly more diverse workforce.

Success and failure play a decisive role in learning and developing absorptive capacity. March (1991) warns that both success and failure can be learning-traps (cf. also Levinthal and March 1993; Levitt and March 1988). Organizations have to be careful not to apply competences and routines continually at the expense of exploring new ones. A failure-trap occurs when companies try out new ideas without sufficient time available to gather substantial experience. Then, “failure leads to search and change, which leads to failure, which leads to more search and so on” (Levinthal and March 1993, p. 105-106). Sull (1999, p. 42) warns of *active inertia*, which occurs when long-successful companies experience failure. These companies then engage in over-activity rather than questioning the underlying assumptions of their organization, their strategy, processes or practices and consequently end up aggrandizing the problem since the understanding remains un-revised (Sull 1999, p. 45). According to Starbuck and Hedberg (2001, p. 337), success can not only complicate future change due to expectation of continued success, but may also breed complacency. Analogously, Levinthal and March (1993, p. 110) underline the importance of perception in the sense of over-sampling success in contrast to actual rates of success or failure. These perceptions can become embedded in the organizational culture and preclude organizational learning (Edmondson and Moingeon 1996, p. 23). The assumptions shaping organizational culture can in turn influence the filter for making sense of information from the environment (Kim 1993, p. 39, also Sull 1999, p. 45). This alludes to a radical constructivist view denying a pre-given reality in favor of one created by cognition (von Krogh et al. 1994, p. 58). Constructed perceptions guide behavior, define rationality and thus determine the evaluation of chances or risks (cf. Watzlawick 1984). For this reason, it may be concluded in agreement with Antal et al. (2001, p. 867) that longer periods of success block organizational learning, and crises turn out to be useful triggers and thus catalysts for learning.

A similar discussion on success and failure is proffered in the organizational culture literature. For example, Gagliardi (1986, 132) views both sorts of feedback as essential and proceeds from the thought that an organization’s primary strategy is maintenance of its cultural identity in terms of prevailing values. Change in organizational culture then takes place as a result of the exploration of alternative
The impact of internationalization on organizational culture

problem resolution approaches. Organizations test an array of potential courses of action in order to solve problems. A virtuous circle from the collective experience of success through stabilized values to cohesion and efficiency sustains the continuity of culture, as shown in Figure 14. Nystrom et al. (1976), Starbuck and Hedberg (1977) and Argyris and Schoen (1978) share the idea that success consolidates the belief systems within organizations. However, if the alternatives allowed by the culture are unsuited to new problems, the virtuous circle becomes a vicious circle, thereby impeding change.

Figure 14: Organizational culture change as an incremental process

Again, the role of cultural strength of certain content dimensions is decisive, as organizations would sometimes rather perish than undergo change processes. This can happen, for example, if the companies posses a strong culture which is too rigid and slow to accommodate the increasing dynamics within its environment. As Schein
The impact of internationalization on organizational culture

(1986) notes, strong cultures sometimes lead to derailment of complete industries. Organizational cultures with a strong element of continuity and inflexibility, as well as a tradition of defense mechanisms, act as a powerful hindrance, and such defensives commonly persist in organizational cultures that externalize blame and generate a sense of hopelessness and cynicism (Argyris 1990, p. 45). Gagliardi (1986, p. 128) postulates that in organizations which have a strongly distinctive culture, the quest for other options will be carried out more completely, rapidly and effectively, but for only one reason: the firm must change in order to preserve its identity. However, only those alternative practices are considered that are compatible with the basic culture. Watzlawick et al. (1974) refer to these changes as first-order changes, and Argyris (1976) calls them single-loop-learning. In order to overcome the change to stay the same contradiction, Gagliardi (1986) refers to the core of organizational cultures as well as its manifestations. However, when methods that have traditionally been used to manage problems of external adaptation and internal integration are deemed ineffective, particularly during an internationalization process, a search for alternative action is launched within the organization. Three potential and apparent results can be identified according to Gagliardi (1986, pp. 129-131): cultural change, cultural revolution and cultural incrementalism. If the alternatives explored have been identified as unsuitable, the organization must change fundamentally or perish. Second-order change (Watzlawick et al. 1976), double-loop learning (Argyris 1976) or turnaround learning (Hedberg 1981) occur.

Figure 15: How organizational culture works

![Diagram of how organizational culture works]

Source: Based on Cooke and Szumal, 2000, p. 151
While Gagliardi (1986) does not specifically apply his generic change paths for organizational cultures in the internationalization context, this can be done. Organizations either defend their existing organizational culture, add new elements to it or are forced to trigger a cultural revolution. Figure 14 depicts an alternative to cultural change in the form of an incremental process, in which the perceived success of experiments and changes leads to an altered organizational culture. Initial internationalization may still allow of maintaining the organizational culture in place. But naturally, change has to take place with increasingly negative feedback. Generally, this is a rather myopic view. Besides Starbuck and Hedberg’s (2001) warning of success breeding complacency and impeding renewal, resource endowment and corporate richness should be taken into account. Cooke and Szumal (2000) proposed one of the few comprehensive models in this context, as illustrated in Figure 15. These scholars attribute the actual operating organizational culture to two major antecedents: the overall endowment of a firm with resources, and conversely, the demands externally imposed on the organizations. While structures, systems, technology and skills play a non-negligible role, demands increase owing to higher external complexity resultant from the internationalization process.

A clear definition of concepts and perspectives plays a major role. Barney (1986) provides an interesting alternative view, perceiving organizational culture as an immaterial resource that can lead to competitive advantage if it is rare, hard to imitate, and productive of economic advantages. While Barney (1986) views organizational culture as the resource, Cooke and Szumal (2000, p. 151) regard resources as one independent variable impacting organizational culture. This study focuses on internationalization, or, respectively, the demands of the environment, as the key external independent variable. The framework explains that abundant resources can compensate for an obstructive organizational culture and enable financial success. In this case, corporate richness reduces the perceived pressure and need to change. The empirical study presented in Chapter 5 nonetheless tests for influence of corporate endowment with resources and allows for the interpretation of organizational culture representing a counter-measure for increasing demands.

The focus on cultural evolution
The above-mentioned model of Cooke and Szumal (2000) can be characterized as assuming a rather static influence on organizational culture. The model of Gagliardi (1986) also focuses on discrete change. Once the system receives positive feedback, it practically ceases to evolve any further. This perception may not necessarily be in accordance with the very dynamic concept of internationalization. According to the stage models (cf. Andersen 1993), internationalization is continued once the current stage is completed. Models for organizational change that only assume discrete change are not completely suitable to address the phenomenon of internationalization adequately.
In this regard, Sathe and Davidson (2002) recently published an innovative framework for cultural change, as shown in Figure 16. These authors predict the end of Lewin’s (1951) classic three-stage model of unfreeze-move-freeze. The argument lies in Lewin’s model not being able to overcome the strong-and-adaptive paradox in times of more frequent and profound change. Organizational evolution based on learning leaves the firm in a much better situation in periods when there is no time for refreezing. Sathe and Davidson’s (2002) framework builds conceptually upon Harrison’s (1995) hierarchy of organizational culture and Argyris’ (1993) distinction between model I and II learning. Being a synthesis of previous concepts, Sathe and Davidson (2002) anticipate two zones for change in organizational culture. Their model I incorporates Lewin’s unfreeze-move-freeze concept, a discrete change that is found, for example, in the implementation of a total quality management project (cf. Michaela and Burke 2000).

As such, this model I change alludes to Harrison’s (1995) gratification-driven cultures. Based on Maslow’s (1954) pyramid of needs, Harrison identified development stages in organizational cultures. Lower stages of cultures are primarily driven by survival, self-defense or security and are consequently less amenable to cultural change, because they need to solve their operational problems first. More sophisticated ones focus on self-expression and transcendence. Other authors have similar typologies. Cooke and Szumal (1993) call these more sophisticated cultures constructive (cf. also DiBella and Nevis 1998) while Bass (1998) labels them transformational. Value-driven cultures reflect open model II (cf. Argyris 1993), debates about the right and wrong. Thereby, the main difference between self-expression and transcendence levels resides in the extent of agreement on values against which results and actions are evaluated. Sathe and Davidson (2000) require a reorientation towards the values of a learning organization in order to make the transition from model I to the model II zone. Once an “evaluative attitude” has become embedded in the assumptions of an organizational culture, the organization will learn, evolve, and constantly renew itself with a competitively advantageous agility. It is this kind of adaptive and constructive culture that seems to enable organizations to cope successfully with the ongoing challenges posed by internationalization. Internationalization appears to be providing an environment where there is less time and need for refreezing, since it requires change on an ongoing basis. Thus, Sathe and Davidson’s (2000) model adds the knowledge needed to explain how organizations respond to the pressures posed by internationalization, primarily by synthesizing concepts from other fields and transferring them to the field of organizational culture. While learning is generally the key, this refers to learning for a continuous cultural evolution rather than learning to discover to what position a culture needs to move in order to be refrozen (cf. Lewin 1951).
3.5. Summary of research gaps

The preceding review of the theoretical foundations of internationalization, organizational culture, the internationalization strategy-culture link, and the internationalizing environment-culture link, reveals four obvious research gaps. First, the theory-building process on the DOI-performance link is ongoing. Studies suggest that organization-internal aspects such as learning (Hitt et al. 1999; Ruigrok and Wagner 2003; Sullivan 1994b) or various contingencies (Wagner 2001, pp. 87-112) can play a crucial role in avoiding a deterministic, even fatalistic view of the threshold of internationalization discussed in the literature (cf. Sullivan 1994b). Yet the variable, which literature circumscribes as a set of problem-solving techniques on the cognitive level (Schein 1985a, p. 3), remains strikingly neglected in this strand of research. This necessitates a further refinement of concepts and considered variables in the theory-building process (Snow and Thomas 1994, p. 465). Further research is needed to determine whether organizational culture can be a variable of such a kind that changes during expansion abroad. A selection contingency study on the DOI-culture link thus represents a valuable first step.

Secondly, an endogenesis-based view of the internationalization strategy-culture link remains confined to one single aspect. Organizations must achieve a “fit” between strategy and organizational culture, otherwise dangerous risks and harm might occur (Grundy 1998, p. 49; Ulrich 1998). The higher the importance of internationalization, the more such misfits represent an unacceptable hazard (cf. Davis 1984, p. 15).
Researchers limit their emphasis to prescriptive but largely untested indications of a required congruence with strategy on the one hand and international orientations on the other. Well-structured research fails to assess the direct impact of internationalization on organizational culture if the latter is to be understood in general terms extending beyond the international orientation. Other insights are dispersed and extremely fragmented, such as Harzing’s (1999) work, which identifies shifting coordination patterns, or the results by Glick et al. (1993) which listed liabilities resulting from workforce diversity.

Third, an exogenensis-based perspective allows for a congruent conclusion. Classic organization theory is characterized by a tendency to abstract from the phenomenon of internationalizing environments and assigns only a minor role to organizational culture in contrast to a strong “structurephilia”. This becomes obvious in the existence of a structural contingency theory, while in the meantime no cultural contingency theory, let alone similar empirical work, has emerged. Available models are transferable to the internationalizing environment-culture link, but remain at a high level of abstraction. More recent and integrative capability approaches bridging the gap between endogenesis and exogenesis overcome these shortcomings to some extent (cf. Doz and Prahalad 1991, Hedlund and Rolander 1990, Bartlett and Goshal 1989). They emphasize the decisive role of normative integration (cf. Hedlund 1993) and even see in the development of a transnational organizational culture the core and motor of corporate competitiveness (Bartlett and Goshal 2003, p. 184). Once more, these models remain largely prescriptive, untested and static in nature, neglecting the dynamic side to organizational culture.

Finally, research on organizational culture falls short in embracing internationalization as a new terrain to revive its attractiveness, demonstrate its relevance, and add conceptual or empirical contributions. Meta-theoretical controversies, the panoply of approaches, and incompatible research traditions partly mirror construct complexity and richness, but hinder instead of enable progress in the field. This results in much too “micro” a view on the cost of equally essential identification of inter-company patterns and generalizations. Organizational culture nevertheless emerges as a dynamic construct. Certain conditions foster cultural change, such as deteriorating performance (Antal et al. 2001, Kono and Clegg 1998, Schein 1985b), which occurs in the internationalization process at least during certain phases (Ruigrok and Wagner 2003, Contractor et al. 2003, Gomes and Ramaswamy 1999). Organizational learning serves as the dynamic mechanism overcoming the static tension field created by fit considerations with regard to internationalization. Research nevertheless fails to demonstrate that this is actually the case.
4. Research question, framework and hypotheses

4.1. Research question and conceptual framework
This research deals with the research question: *does internationalization impact organizational culture?* It aims at examining whether there is a correlation between certain degrees of internationalization and specific dimensions of organizational cultures. Figure 17 below provides the conceptual framework for this research project and represents the main variables along with their presumed relationship (cf. Punch 1998, p. 56). Figure 17 below provides the conceptual framework of this research project. The independent variable of internationalization can impact organizational culture as the dependent variable with internal and external dimensions. This study asserts that both the content and the setting dimensions are highly liable to experience impact. The analysis focuses on the direction of this impact, as few insights exist on the variable interdependency, while acknowledging that bi-directional influences may also be prevalent.

**Figure 17: Conceptual framework**

![Diagram of Conceptual Framework]

Source: Author

4.2. Propositions and hypotheses

4.2.1. Proposition 1 on individual content dimensions of organizational culture
This following section introduces the propositions and hypotheses to be tested. The structure is as such. Proposition 1 addresses the individual content dimensions of organizational culture in the internationalization process. Derived hypotheses emphasize key organizational culture dimensions such as managing change, achieving goals, coordinated teamwork, and customer orientation. Each hypothesis is
applied first to U.S. firms and subsequently, to their German counterparts. With regard to the number of hypotheses, this study follows Sutton and Staw’s (1995, p. 377) advice of preferring to test fewer hypotheses, but instead to select those more firmly underpinned by theory, and to explain the why behind them. Proposition 1 states that internationalization affects the content dimension of organizational culture. It is broken down into verifiable hypotheses.

**The influence of internationalization on managing change**

Internationalization entails change. This becomes obvious when deploying the establishment chain in the U-model of internationalization (Johanson and Wiedersheim-Paul 1975, p. 307), when optimizing headquarter concepts (Conference Board 1999), and when creating a locally sensitive, yet integrated, multifocal network of global span (Bartlett and Goshal 1989; Doz and Prahalad 1994). Geographic diversification leads to one of the most complex decision-making environments for organizations (cf. Conference Board 1995), as the quantity and quality of problems rise (Macharzina et al. 2001, p. 632). This compels organizations to change traditional problem solutions to fit new external and internal demands (Kilman and Covin 1990, p. 525; Lawrence and Lorsch 1967b, p. 5; also Nadler and Tushman 1980; Hedberg et al. 1976). Sullivan (1994b) and Hitt et al. (1997) interpret the triggered organizational changes as learning.

The frequency and profundity of changes emerging when diversifying internationally can impact how change is managed within organizations. Internationalization induces change management to become more professional. Professionalism in change equates to higher degrees of flexibility and adaptability. Employees benefit, since they are guided by a clearer idea of how to proceed throughout the process of change and why, shedding hidden agendas (Doppler and Lauterburg 2001, p. 56). This results in a concurrent higher level of confidence in change. Instead of viewing change merely as the result of pressures imposed from higher up in the organization, employees increasingly participate and affect their work place through their ideas and involvement. According to behavioral scientists Tosi and Carroll (1976, p. 510), participation predisposes the people involved to accept change more readily, in addition to their crucial input. This holds true even more when employees believe their concerns and anxieties are listened to and considered during periods of change. When U.S. companies finally diversify into culturally unrelated markets (cf. Davidson 1980, 1983; Johansson and Yip 1994; Tung and Miller 1990; Kogut and Singh 1988), the pressures imposed on the organization and its culture remain high. In addition, the fact that performance drops at higher DOI among U.S. companies (cf. Hitt et al. 1997; Ruigrok and Wagner 2003) ensures that the pressure to change at advanced levels of DOI becomes even greater. Hypothesis 1.1 therefore states:
Hypothesis 1.1: There is a positive linear relationship between ‘degree of internationalization’ and professionalism of ‘managing change’ for U.S. companies.


This partly explains why the pressure constellation reverses at higher degrees of internationalization. Organizations not only initiate crucial reconfigurations earlier, but also gather experience in unfamiliar and culturally unrelated terrain sooner and more quickly. Organizations identify new internal solutions in a process of creative disruption (Doppler and Lautenberg 2001, p. 29) or creative destruction (cf. Schumpeter 1934). Extending the global reach further tends to be viewed as less challenging than more so (Millington and Bayliss 1990, p. 153; Korhonen 1999, p. 50). Adapted and reconfigured internal settings commence to function and enable the organization to cope better with environmental pressures, mirrored in a recovering performance (cf. Ruigrok and Wagner 2003). Moreover, the latter is supported further by an increased focus on integration and efficiency at high DOI (Voigt 1996, p. 80). However, the fading state of emergency atrophies the positive aspects of crises (Antal et al. 2001; Kono and Clegg 1998; Schein 1993b). This includes enhanced alertness, involvement and commitment to ensure survival of the corporate entity and individuals in the organization. Augmenting market-power (Annavarjula and Belchena 2000, p. 48, Prahalad 1999) and recovering financial performance (Ruigrok and Wagner 2003) make highly internationalized German companies face the temptation and risk of relaxing their efforts. Traces of complacency and less openness to change may easily spread (cf. Cooke and Szumal 2000, p. 153; Starbuck and Hedberg 2001, p. 337). The relevant hypothesis states:

Hypothesis 1.2: The relationship between ‘degree of internationalization’ and ‘managing change’ exhibits an inverted U-curve, with professionalism of change management increasing in earlier stages of internationalization, being high in medium ranges of internationalization, and decreasing at higher levels of internationalization for German companies.
The influence of DOI on goal achievement

Internationalization entails fundamental shifts in the relevant task environment of organizations as outlined in Chapter 2.1.2. As demands made upon the organization multiply, the goal achievement dimension experiences impact. Since internationalization increases the quantity and quality of problems (Macharzina et al. 2001, p. 632) and simultaneously renders parts of existing solutions obsolete, the level of challenges almost overtaxes organizations and their employees. As a result, organizations become more likely to foster achievement orientation (Schonevoigt 1993, p. 29), in the sense of measuring and rewarding individuals and teams according to how well the goals are achieved. It is essential in this situation that organizations should provide their employees with clearly defined feasible goals related to the aims and missions of the business. During the identification of successful patterns for solving problems worthy of future utilization (cf. Schein 1985a, p. 9), organizational members continuously strive to improve as they feel the overall level of challenges rising. To ensure solution quality or support in their implementation, and to tap into and harvest benefits from local as well as functional expertise, the organization enables increased employee participation. Therefore, it is hypothesized for U.S. companies:

Hypothesis 2.1: The relationship between ‘degree of internationalization’ and emphasis on ‘goal achievement’ exhibits a positive linear relationship for U.S. companies.

A comparable logic applies to the German counterparts in the first half of the internationalization process, although some idiosyncrasies do arise. Again, internationalization into culturally unrelated countries leads to incomparably higher environmental jolts and challenges along with detrimental performance effects. This aggravates the situation, but also accelerates reorientation and change (Bartlett and Goshal 1989, p. 76; Kono and Clegg 1998, p. 198; Schein 1993, p. 89; Tushman and Romanelli 1985, p. 179). The aforementioned cessation of a state of emergency in the second half of internationalization at higher DOI explains why efforts for enhanced professionalism in achieving goals slow down, leading to this hypothesis:

Hypothesis 2.2: The relationship between ‘degree of internationalization’ and ‘goal achievement’ exhibits an inverted U-curve, with emphasis on goal achievement increasing in earlier stages of internationalization, being high in medium ranges of internationalization, and decreasing at higher levels of internationalization for German companies.

The influence of DOI on teamwork coordination

Internationalization can also affect teamwork. Committed to solving challenges posed by a less familiar environment, and striving to conceive new organizational solutions, employees and managers at all levels work together to achieve results for the
organization, preferring cooperation to competition. Employees know clearly what is expected of them and understand their impact on other colleagues, teams and functions. As structural differentiation designed to cope with environmental demands (cf. Burns and Stalker 1961, p. 6) has its limits, organizations need to select a different type of employee. Alternatively, present organizational members require training for multicultural environments and teams, but also certain degrees of cultural unlearning (Johann 1994; Schein 1999, p. 115). Once these cross-lateral, heterogeneous teams start trying to find ways to counter global competition (Chen 1997), they require empowerment to implement their work efficiently and effectively (Lin 1998, p. 223). While these teams need to be given authority to make a palpable difference, a sense of community needs to be fostered, requiring corresponding employee communication (Howard 1998, p. 15). The latter functions as a centripetal, integrating force for the increasing global spread and workforce diversity (cf. Albert and Silvermann 1984, p. 13, Heinen 1997, p. 146; Smith and Simmons 1983, p. 377). Therefore, this study hypothesizes for U.S. companies:

**Hypothesis 3.1: The relationship between ‘degree of internationalization’ and ‘managing coordinated teamwork’ coordination exhibits a positive linear relationship for U.S. companies.**

At higher levels of internationalization, the situation changes into one which is no longer characterized only by perceptibly decreasing environmental and performance pressures on German companies. Some liabilities of geographic expansion become stronger at high degrees of internationalization and eventually preponderate (Geringer et al. 1989, p. 112; Gomes and Ramaswamy 1999, pp. 174-175). An increasingly diverse workforce obstructs identification with the company and cohesion (Glick et al. 1993, p. 177, also Jackson and Alvarez 1992). Competitive norms gain ground in two regards: (1) best-suited HR from all over the world compete for the same position in the highest form of internationalization, the transnational companies; and (2) globally dispersed subsidiaries compete for autonomy (Birkinshaw and Hood 1998), for resource allocation and new roles within the network (cf. Bartlett and Goshal 1989, p. 106) or enhancement of relative subsidiary capabilities (Birkinshaw and Hood 1998). Increasing international activities, augmenting autonomy and decentralization of organizational sub-parts eventually compels a growing number of organizational members to focus on their respective sub-entities which, in turn, renders shared value even more important (Humes 1993, p. 109). An appraisal system emphasizing on-the-job performance within smaller units fosters sub-cultures and obliges units to concentrate on their own goals at the expense of corporate interests (Dill 1986, p. 154). The previously described end of state of emergency syndrome emerging at high DOI tops these difficulties in maintaining high levels of constructive teamwork coordination. Therefore, it is hypothesized:
Hypothesis 3.2: The relationship between ‘degree of internationalization’ and ‘managing coordinated teamwork’ exhibits an inverted U-curve, with teamwork coordination increasing in earlier stages of internationalization, being high in medium ranges of internationalization, and decreasing at higher levels of internationalization for German companies.

The influence of DOI on customer orientation
Internationalization entails higher levels of complexity partly because of a greater diversity encountered among foreign cultures and customers (Sanders and Carpenter 1998, p. 158). Even in relatively familiar cultures, some peculiarities necessitate consideration and, as a result, require adapted organizational solutions. At the very least, details of incoterms, international payment or logistics (cf. Welch and Luostarinen 1993, p. 45) create a minimum need for learning. In multinational and transnational internationalization strategies, local adaptation and ensuing extended customer orientation play a key role. In that regard, foreign and more diverse customers show the potential of challenging traditional solutions as to how customer relationships are managed. This includes various aspects of the status quo e.g., prioritizing customer orientation within organizations, attitudes towards customers, policies and procedures involved, their continuous improvement, rewarding customer orientation, and, lastly the actual quality of customer orientation. It is therefore hypothesized:

Hypothesis 4.1: The relationship between ‘degree of internationalization’ and ‘customer orientation’ exhibits a positive linear relationship with priority on ‘customer orientation’ increasing with higher degrees of internationalization for U.S. companies.

German companies frequently pursue a multinational strategy (Voigt 1996, p. 81). Emanating from geographic expansion into culturally unrelated countries (Ruigrok and Wagner 2003), internationalization forces organizational members to cope with an incomparably higher level of environmental heterogeneity, complexity and demands. Motivated to overcome negative performance implications (Kono and Clegg 1998, p. 198, Bartlett and Goshal 1989, p. 76, Tushman and Romanelli 1985, p. 179), firms embark upon a quest for more absorptive capacity (Cohen and Levinthal 1990) and new problem solutions (Kilman and Covin 1990, p. 525; cf. Schein 1985a, p. 3). These adjusted internal settings enable further internationalization with less strain on the organization, as more transferable knowledge and experience is available (Millington and Bayliss 1990, p. 153; Korhonen 1999, p. 50). Degrading efforts result, as improving performance confirms German companies in the belief that they are on the right track. Simultaneously, integration receives a higher strategic and organizational priority at high DOI of German multinationals in their transition to transnationality. Therefore, it is hypothesized:
Hypothesis 4.2: The relationship between ‘degree of internationalization’ and ‘customer orientation’ exhibits an inverted U-curve with priority of customer orientation increasing in earlier stages of internationalization, remaining high in medium ranges of internationalization, and decreasing at higher levels of internationalization for German companies.

4.2.2. Proposition 2 on the setting dimension of organizational culture

Proposition 2 assumes an impact of internationalization on the strength of organizational culture. Thereby, the concept of functional coherence appears to be more suitable than Denison’s (1984) strong culture hypothesis. The latter foresees only positive consequences with increased cultural strength such as improving performance (cf. also Kotter and Heskett 1992; Peters and Waterman 1982) or motivation, involvement and commitment (Deal and Kennedy 1982). In stark contrast, functional coherence considers the required content dimensions for the respective situation as well (cf. also Cooke and Szumal 2000). Organizations diversify their workforce as one way of mirroring the increasingly complex external environment internally and thus improving their interaction with the environment (cf. Ashby 1956; Lumpkin and Dess 1995; Weick 1979, pp. 188-193). Advantages include: (1) added culture-specific cognitive and learning abilities (Welch and Welch 1997), especially at all times of environmental change (Boeker and Goodstein 1991); (2) improved decision-making, increased creativity or innovation, and more successful problem solutions (e.g., Adler 1991; Cox 1991; Cox and Blake 1991); and (3) higher degrees of political correctness in the sense of doing the right thing in a more multicultural world according to DiMaggio and Powell (1983) who positively correlate these institutional advantages with an environment diverse in itself. Thus, Pant and Singh (2001, p. 564) summarize the conventional value-in-diversity view in two primary beneficial consequences: improved performance capabilities and institutional legitimacy, leading in turn to improving overall performance (cf. also Earley and Gibson 2002; Thomas 1999; Morrison 1992; Nemeth 1992, 1986).

More extensive corporate communication and culture development efforts provide the "social glue" (Albert and Silvermann 1984, p. 13; Smith and Simmons 1983, p. 377) or centripetal, integrative force for a geographically outreaching organization. More pervasive programming (cf. Hofstede 1991, p. 262) ensures that everyone knows and understands the business objectives and priorities. The desired effect lies in shared consensus on what to do as well as how to do it, hence a strong belief in a set of shared values for cooperating and achieving objectives. The latter ensures that organizational members even at a great distance do not compromise upon company policies and principles in order to attain operational goals. Basing decisions on optimal objective facts and valuing individual differences, strengths and abilities (cf. Schneeevoigt 1993, p. 29) serve as two examples for maintaining functional coherence. Therefore, the variety of employees’ cultural backgrounds necessitates
more explicit norms and procedures, while previously tacit ones may have sufficed (cf. Weick 1979). Furthermore, internationalization forces organizations to work harder on defining their identities and competencies in order to attract and retain new, global and potentially more mobile human assets (Pant and Singh 2001, p. 562). As Camerer and Vepsalainen (1988) note, effective organizational culture plays a key role in limiting the net costs of retaining such assets.

One key aspect for the U.S. is found in the rather parochial approach to management, as the U.S. represents the cradle of professional management (Schreyoegg 1997, p. 35). American management, with its radiated faith in its ability to solve all problems successfully, its actual backing with generic concepts that are marketed well, leads to a perception of managerial superiority and excellence (Humes 1993, p. 114). A tendency to assume universality and justify transferring American management practices to foreign subsidiaries ensures an increased strength of organizational culture. Encountering culturally related terrain in their preferred foreign markets, U.S. firms see the functionality of their practices confirmed rather than put into question. Increasing performance confirms this approach and does not impose pressures to change. However, as performance eventually drops at higher DOI, U.S. companies continue to foster integration to ensure savings through efficiency advantages and gain control over the emerging performance crisis (cf. Schein 1993b, p. 89).

**Hypothesis 5.1: The relationship between ‘degree of internationalization’ and ‘strength of organizational culture’ exhibits a positive linear relationship with organizational culture strength increasing with higher degrees of internationalization for U.S. companies.**

As German companies could not gather such profound experience with a diverse workforce in their domestic market, there is greater potential for a diversifying workforce entailing advanced degrees of cultural complexity, confusion and conflict (cf. Glick et al. 1993, p. 177; Humes 1993, p. 109; also Jackson and Alvarez 1992; Milliken and Martins 1996, Van Maanen and Laurent 1993). This entails the rise of organizational sub-groups (Martin and Siehl 1983) with coordination as well as education costs becoming a factor due to the need of more explicit standards (Pant and Singh 2001, p. 563). Adversely, cultural diversity and psychological and geographical distances render identification and integration more difficult (Palich and Gomez-Mejia 1997, p. 587). On the other hand, actually tapping into the diverse workforce involves the necessity to decentralize and grant discretion as well as autonomy to foreign employees and subsidiaries. A strong culture appears to be neither feasible nor desirable at high DOI. Spreading memes from abroad also play their part (cf. Weeks and Galunic 2002). The end of state of emergency syndrome accounts at least partly for emerging organizational passivity and impotence in this regard. It is therefore hypothesized:
Hypothesis 5.2: The relationship between ‘degree of internationalization’ and ‘strength of organizational culture’ exhibits an inverted U-curve, with organizational culture strength increasing in earlier stages of internationalization, being high in medium ranges of internationalization, and decreasing at higher levels of internationalization for German companies.

5. Methodology and method

5.1. Selection of suitable methodology

Four major factors determine the research methodology for this research project: the research question, the research goal, the applied concept of organizational culture and particulars in the research project (cf. Remenyi et al. 1998, p. 45). The research question investigates whether internationalization has an impact of internationalization on organizational culture. The research goal is to accumulate initial evidence for cross-company patterns and thus to map the terrain. Subsequent studies may then use the results as input to further illuminate the dynamics present within single settings (cf. Eisenhardt 1989, p. 534). Based on this question and goal, a decision in favor of a quantitative approach has been made and the decision process is outlined henceforth. The methodology in studying organizational culture has been cited by Martin (2001, p. 1) as one of the five meta-controversies that has polarized researchers and paralyzed major progress in recent years. No final conclusion has been reached in this “culture war” (Martin and Frost 1996) among organizational culture researchers to date. However, more research is needed for better comprehension of the construct of the concept and its interplay with other variables. The ongoing debate on the superiority of quantitative over qualitative approaches is particularly heated. Most research projects and researchers emphasize one form or the other, depending on their conviction, training or the nature of the problem (Strauss and Corbin 1990, p. 18).

Matching the methodology with the research question and research goal

‘Methodology’ refers to the underlying paradigm of the progress of scientific practice based on fundamental assumptions about the world, the nature of knowledge, and accordingly how research should be conducted (Hussey and Hussey 1997, p. 48). This research project is based on the positivist research paradigm, set in contrast to its phenomenological counterpart in Table 8. Five major dimensions are applied for differentiating these two research paradigms. According to Hussey and Hussey (1997), these dimensions describe the underlying ontological assumption about the nature of reality, the epistemological assumption about the relationship between researcher and researched object, and the axiological aspect on the role of values. Characteristics of language and overall deductive or inductive process complete the picture.
### Table 8: Assumptions of the two premier research paradigms

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Question</th>
<th>Positivist paradigm</th>
<th>Phenomenological paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontological</td>
<td>What is the nature of reality?</td>
<td>• Reality is objective and singular, apart from the researcher</td>
<td>• Reality is subjective and multiple as seen by participants in a study</td>
</tr>
<tr>
<td>Epistemological</td>
<td>What is the relationship of the researcher to that researched?</td>
<td>• Researcher is independent from that being researched</td>
<td>• Researcher interacts with that being researched</td>
</tr>
<tr>
<td>Axiological</td>
<td>What is the role of the values?</td>
<td>• Value-free and unbiased</td>
<td>• Value-laden and biased</td>
</tr>
<tr>
<td>Rhetorical</td>
<td>What is the language of the research?</td>
<td>• Formal • based on set definitions • impersonal voice • use of accepted quantitative words</td>
<td>• Informal • evolving decisions • personal voice • use of accepted qualitative words</td>
</tr>
<tr>
<td>Methodological</td>
<td>What is the process of research?</td>
<td>• Deductive process, cause and effect • static design – categories isolated before study • context-free • generalizations leading to prediction • explanation and understanding • accurate and reliable through validity and reliability</td>
<td>• Inductive process • mutual simultaneous shaping of factors • emerging design – categories identified during research process • context-bound • patterns, theories developed for understanding • accurate and reliable through verification</td>
</tr>
</tbody>
</table>

Source: Based on Hussey and Hussey 1997, p. 48

In the context of research involving organizational culture, explicit assumptions on these dimensions have to be made explicit, especially so because the academic debate is still going strong. The key benefit of a quantitative approach lies in its ability to actually address and answer the research question in the light of the research goal of cross-company generalization. Quantitative research refers to methods primarily seeking to express information in a numeric mode such as counts or measurements (Remenyi et al. 1998, p. 121). Quantitative inquiry aims at identifying common patterns characterizing a sample or a population in order to derive explanations for cause-and-effect relationships (Bentz and Shapiro 1998, p. 123). This constituting aim makes the quantitative approach suitable for this study. Quantitative research is furthermore rather static but nevertheless structured (Bryman 1999, p. 40). If organizational culture is the dependent variable in an empirical study, this is shown by fixing the construct dimensions prior to the commencement of data collection. More specifically, it is displayed in the recurrence of existing and established instruments of tested and proven quality. The same line of thought is applicable to internationalization, for which established and frequently used ratios exist.
The following sections outline the underlying assumptions of the quantitative approach more closely. Ontology is a set of assumptions about the nature of reality, while epistemology concerns theories of how we know about this nature of reality. It remains challenging to disentangle the two as epistemology itself entails some assumptions of the nature of reality (cf. Martin 2001). According to Chia (1996, p. 31), there is a differentiation in this context between two kinds of ontology: being-realism and becoming-realism. According to being-realism, reality pre-exists independently of observation. Chia regards being-realism as congruent with representational epistemologies. Language is thus unproblematic for representing reality. A study on culture can actually reify culture and represent it accurately through language (Chia 1996, p. 39). In contrast, a becoming-realism focuses on processes such as how the ordering, codifying, and classifying of perceptions, data and abstractions is performed, whereby language is problematic and shapes knowledge itself. In this context, language can alter meanings, hide ambiguities, and circumvent problematic contradictions and uncertainties.

Closely related to the subjectivity-objectivity tension field is the general distinction between emic (insider) and etic (outsider) (Morris et al. 1999). Etic research assumes that the researcher can decide on relevant dimensions of organizational culture based on prior research and theory, thereby leading to the use of a self-report questionnaire in the form of an established instrument. In this manner, the researcher remains an outsider. By contrast, in the emic string of argumentation the researcher aims at learning as much as possible to see the organization as an insider. The research goal of cross-company generalizations precludes a specific, idiosyncratic questionnaire for each company. The research goal, therefore, determines an etic approach. One can reasonably assume that also outsiders can gain insights through self-report questionnaires, at least to a certain extent.

The qualitative, emic approach has a variety of advantages: it discovers and considers more closely the contextual factors (cf. Scandura and Williams 2000, p. 1250); it depicts more complex organizational realities and processes more accurately and fully (Bentz and Shapiro 1998, p. 123); and it retains idiosyncratic subtleties that would otherwise be lost in data standardization and aggregation (Kromrey 1991, p. 433). However, these are of minor importance for the research goal and question on hand. The etic approach elegantly bypasses the emic researcher’s obligation to minimize influence of personal perception, or, in more general terms, the challenge of becoming accepted as an insider (cf. Clifford and Marcus 1986). Again, the research goal renders it impossible to allocate sufficient time for an emic approach in a larger number of companies. This study adopts a being-realism perspective, with an etic researcher applying a pre-set framework for measuring organizational culture. This emphasizes a clear definition of its ontological
and epistemological stance. The study at hand comprehends reality as accurately describable in words, this being a major starting-point and underlying assumption. It is also supported by the established and long-lasting tradition of quantitative research within the field of organizational culture. There seems to be a growing consensus that at least the shallower levels of organizational culture can be gauged in a less ambiguous and more objective mode (Ashkanasy et al. 2000, p. 131). The functionalist approach to organizational culture extents the list of arguments in favor of a quantitative approach.

In summation, one approach perceives every culture as being so unique in its entirety, embedded in such an idiosyncratic context that it is impossible to generalize, while others sort cultural elements into those which are unique, and others as less context-specific (Martin 2001, p. 18). Recognizing organizational culture as unique fosters single-context studies. The intended research goal then focuses on profound descriptions as well as upon ethnographies for more holistic and detailed explanations. Other researchers and studies - such as the one at hand – set out from a different angle and pursue generally valid answers, quasi-causal laws, informed predictions, and statistical analysis of large samples. Overall, the research question, the research goal and the applied concept of organizational culture speak in favor of and even plump for the quantitative approach. Given this precise constellation of research question and goal, the high cost entailed by triangulation would not be justified.

Matching the methodology with the applied understanding of culture

Functionalism and symbolism have been identified as the two predominant ones among several cultural orientations with various theoretical, but also methodological, respectively empirical differences (Smircich 1983). By definition, functionalism and symbolism differ in the key questions posed by the study of culture and their underlying assumptions about the nature of culture are summarized in Table 9 (Schultz 1995, p. 151). The key questions include: What are the contributions of culture to organizational survival as opposed to what does culture mean to members of the organization? In addition, the key assumptions are: culture develops when organizational members learn to solve certain organizational problems, vs.: members create meaning and define the organizational reality to which they react.

Regarding the analytical framework, functionalism operates in a universal and predefined framework of cultural levels and culture develops along a set of predetermined universal dimensions. In contrast, the symbolic perspective views the application of predefined key concepts as dependent upon the organizational culture to be studied. In other words, the application of either a behavioral or a verbal symbol approach of interpretation depends on the unique features of each one of the organizational cultures to be studied. Culture, understood as a unique web of
meaning, thus requires a higher degree of flexibility in the conceptual framework in order to allow of unique cultural descriptions.

### Table 9: Fundamental differences between functionalism and symbolism

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Functionalism</th>
<th>Symbolism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key analytical question</td>
<td>What are the contributions of culture to organizational survival?</td>
<td>What is the meaning of the organization to its members?</td>
</tr>
<tr>
<td>Analytical assumption</td>
<td>Culture develops through organizational problem-solving</td>
<td>Culture is created as an ongoing construction and reconstruction of meaning</td>
</tr>
<tr>
<td>Analytical framework</td>
<td>Universal framework: The levels and functions of culture</td>
<td>Context specific and organization specific</td>
</tr>
<tr>
<td>Analytical mode</td>
<td>Categorical: Listing of cultural elements and discovering the relations between them</td>
<td>Associative: Reading associated meanings and exploring the associations between them</td>
</tr>
<tr>
<td>Analytical method</td>
<td>Clinical</td>
<td>Ethnographic</td>
</tr>
<tr>
<td>Analytical result</td>
<td>Theoretical models emphasizing the general characteristics</td>
<td>Narrative text exploring the uniqueness</td>
</tr>
<tr>
<td>Analytical insight</td>
<td>Diagnosis</td>
<td>Understanding</td>
</tr>
</tbody>
</table>

Source: Schultz 1995, p. 150

Functionalism and symbolism differ in their analytical modes. Functionalism studies culture as a list of its elements such as values, norms and assumptions, and seeks to categorize them independently. In stark contrast, symbolism aims at reading and interpreting the associations with the interdependent symbols. Differing analytical results clearly reflect the difference between functionalism and symbolism. Functionalism seems primarily and especially suited to conducting a diagnosis of an organizational culture in order to support problem-solving and dysfunctions, an approach called "clinical" (Schultz 1995, p. 156). Symbolism, on the contrary, aims and excels at creating an understanding of the organizational culture based on meanings that members of an organization associate with their company. Therefore, the aim of a symbolic interpretation is to obtain knowledge, making it easier to understand culture on its own premises, or, as Spradley (1979) put it, "rather than studying people, ethnography means learning from people" (p. 3). Undoubtedly, a description of an organizational culture might potentially lead to a reflection of members through their way of thinking and might subsequently trigger change processes. But the symbolic approach does not explicitly seek to cause that change and is separated from a follow-up change process based on the information obtained. Cultural diagnosis, based on a precise and predefined set of analytical tools, is able to determine how the organizational culture is composed of various elements and how these elements contribute to the task of problem-solving and therefore contribute significantly to the survival of the organization. Mismatches with other organizational variables or the lack of certain values may then indicate problems and definitely help to explain these problems. Especially for the topic of this research project, the analytical results prescribe the use of a functional approach,
since it is precisely the relationship between organizational culture and internationalization that are focused on. The research conducted within this thesis project aims at providing data input for a clinical approach. If more evidence is gained for the assumed necessity of a matching organizational culture, to name but just one example, a sounder justification for a management of organizational culture is the conclusion. The topic as such casts its decisive vote in favor of functionalism.

Table 10: Differences in applying functionalism and symbolism empirically

<table>
<thead>
<tr>
<th>Feature</th>
<th>Functionalism</th>
<th>Symbolism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent of empirical analysis</td>
<td>A total analytical process</td>
<td>Many small interpretative processes</td>
</tr>
<tr>
<td>Preconditions of analysis</td>
<td>Starts with predefined categories</td>
<td>Demands organizational insight in order to select relevant data</td>
</tr>
<tr>
<td>Data requirements</td>
<td>Sequential collection of much data across the levels and functions</td>
<td>In depth data collected incrementally</td>
</tr>
<tr>
<td>Costs</td>
<td>Very demanding on researcher's time and energy: high costs</td>
<td>Varied costs in research's time and energy: flexible costs</td>
</tr>
</tbody>
</table>

Source: Schultz 1995, p. 158

It has become clear that a multitude of theoretical and methodological differences exist between functionalism and symbolism. Variance in their empirical application complements this list. The chosen functional approach is primarily viewed as the most accessible perspective, as functionalism is well defined. It shows an analytical model that can be easily applied to complete an empirical analysis, and therefore functionalism is often perceived as conceptually attractive and more scientific than symbolism, which is rather vague and often viewed as unscientific (Schultz 1995, pp. 157-158).

5.2. Primary data on organizational culture

5.2.1. Traditional and selected conceptualization of organizational culture

Smit (2001) chose “Assessment of cultures: a way to problem-solving or way to problematic solutions?” as the title of a recent publication on measuring organizational culture. It alludes to advantages and disadvantages inevitably linked with either way of assessing organizational culture discussed below. As Glick (1983) demonstrates, the growing interest in the organizational culture concept led to the development of different self-report questionnaires, while most early studies of organizational culture relied almost exclusively on qualitative methods. This strong mono-method, qualitative bias in the earlier empirical approach of organizational culture criticized by Martin (1992) was initially been founded on two main justifications. The first justification in favor of qualitative approaches is based on the presumed inaccessibility, depth or unconscious quality of culture. Basic assumptions are the most important elements of culture, according to Schein (1999, p. 16). They
exist at a preconscious level and can be traced through a complex interactive process of joint inquiry between insiders and outsiders. Also, Schein (1999, p. 60) argues, quantitative assessment conducted through surveys is unwise because it reflects conceptual categories that are not the respondent’s own, and by so doing presume unwarranted generalization. Secondly, the possible uniqueness of an organizational culture could hardly be captured by an outsider with a priori questions or measures. If organizational culture is conceptualized as a particular set of meanings providing the group with a distinctive character (cf. Smircich 1983), this reflects a social reality that is unique to organizational members. This logic makes it rather difficult – if not impossible – for standardized measures to capture cultural processes accurately.

The diametrical opposite of qualitative measurement bears disadvantages as well. Fundamental theoretical aspects of the concept of organizational culture can be tested only by comparisons across organizations or departments (Xenikou and Furnham 1996, p. 350). Without statistical analysis, communalities across or within companies cannot be tested. Moreover, in order to find out whether subcultures exist in an organization, data collected from different organizational units reveal concrete figures. These two as well as other key questions cannot be addressed and answered until culture can be measured with the same robust, reliable, sensitive and valid instruments allowing systematic comparisons to be made by applying multivariate statistical analysis of the data (cf. Cooke and Rousseau 1988; Xenikou and Furnham 1996). Of significant note, insiders from within the organizations exhibit an ability to share their individual, subjective perceptions of reality, causing self-reporting surveys to be especially useful for organizational culture research (Rentsch 1990, p. 669). Moreover, the claim of inaccessibility through quantitative instruments can be counterbalanced by using this line of thought. According to Schein’s (1999, p. 16) definition, shallower levels of organizational culture are determined by basic assumptions and values, which together represent an integrated whole. However, as cultural elements become more conscious and observable at the shallower levels, they become more accessible to standardized assessment (Rousseau 1990a, p. 162). Generally, it is agreed upon that surveys represent standardized and efficient means of tapping into the shallower levels of Schein’s (1999) typology (Ashkanasy et al. 2000, p. 133). Nonetheless, since organizational culture is perceived as an integrated whole, the shallower levels provide insights into the entire culture. Other approaches to organizational culture positing it as rooted in perceived practices rather than values (e.g., Hofstede et al. 1990) enable a counterbalancing of the inaccessibility claim with less effort. As an interim conclusion, quantitative approaches can play an important role in the empirical research of organizational culture. The number of studies using a quantitative approach and the variety of quantitative instruments developed show their importance as well as their usefulness. Depending on the research questions and objectives, the quantitative approach
shows unique and undoubted advantages. As yet, tools are lacking to research a high number of employees in a larger number of companies, given the frequent – albeit common – resource constraints of required money, time and human resources. In the future, once cross-company panels are set up or individual email addresses become readily available, large-scale surveys of within-company depth and extensive cross-company reach may become feasible. However, to date large-scale empirical studies on organizational culture as a generic source of organizational analysis by and large have not been made (Pettigrew 2000, p. xv). A first attempt in the direction of such studies is the Global Leadership and Organizational Behavior Effectiveness (GLOBE) project. It investigates interrelationships of leadership, societal culture, and organizational culture in 800 organizations in 64 countries with more than 20,000 individuals, led by a team of 180 researchers (Dickson et al. 2000, p. 448). In Germany, for example, the GLOBE project included 50 companies with 457 middle managers (Brodbeck et al. 2002 p. 16).

Quantitative instruments for measuring organizational culture
The emerging interest in the concept of organizational culture ever since the late 1970s and 1980s has led to the development of various self-report questionnaires. Overall, the obvious lack of consensus concerning questionnaire format or style has thereby caused criticism (see Frost et al. 1991, Furnham 1997, Ott 1989, Rousseau 1990a), besides the frequently encountered lack of theoretical foundation (Ashkanasy et al. 2000, p. 144). This section continues with a classification of these instruments, along with an overview on major instruments proposed in the academic literature. Ashkanasy et al. (2000, p. 134) presented a framework which classifies quantitative instruments for organizational culture as either typing or profile scales, as shown in Figure 18. Typing surveys categorize organizations into particular taxonomies or mutually exclusive categories, and use standardized instruments to yield discrete sets of organizational culture types (e.g., Glaser 1983; Handy 1979; Lessem 1990; Margerison 1979). Those types are usually accompanied by descriptions allowing respondents to understand, to compare and to reposition their type-category membership. Visions for change can be communicated, and the corresponding cultural change progress monitored more easily (cf. e.g. Ashkanasy and Holmes 1995). Needless to say, the concept of discontinuous categories neglecting mixture types as identified by Deal and Kennedy (1982) has its practical limitations. In contrast, profile surveys are primarily concerned with description of an organization's culture. These descriptions take place by measuring the strengths and weaknesses of a variety of dimensions. Allen and Dyer (1980), Kilmann and Saxton (1983), Cooke and Lafferty (1986) propose key gauge instruments at the behavioral level. Furthermore, a variety of instruments approaching organizational culture quantitatively exist, on the level of beliefs or values, resulting in different dimension scores and scores profiles for organizations. The multiple dimensions used for categorization are not necessarily mutually exclusive.
As Figure 18 shows, three types of profiling surveys can be identified: the most common being effectiveness surveys followed by descriptive surveys and fit profiles. The effectiveness surveys assess those values associated with a higher organizational effectiveness. Descriptive surveys restrict themselves to measurement of cultural aspects without evaluation. Fit profiles describe the degree of congruency between individuals and organizations. Researchers apply a vast variety of content dimensions when measuring organizational culture, as shown in Table 11. According to Rousseau (1990a), the Corporate Culture Survey (CCS) of Glaser (1983), the Organizational Beliefs Questionnaire (OBQ) of Sashkin (1984), the Organizational Culture Inventory (OCI) of Cooke and Lafferty and the Culture Gap Survey (CGS) of Kilmann and Saxton (1983) have traditionally been classified as the most established ones. Further models emerged, which include more application-specific approaches, such as the Culture Due Diligence (CDD) tool by Carlton (1997) for the preparation and optimization of M&A efforts. However, Ashkanasy et al. (2000, p. 135) observes how little significant development of survey measures after 1992 has been made, the GLOBE instrument for measuring organizational culture and leadership being one of the few notable exceptions.
### Table 11: Selected approaches on measuring organizational culture

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Measured organizational culture dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooke and Lafferty (1983): Organizational Culture</td>
<td>120 short items of 12 subscales on the behavioral norms level: humanistic orientation and helpfulness, affiliation, achievement, self-actualization, approval, conventionality, dependence, avoidance, positional power, competitiveness and perfectionism</td>
</tr>
<tr>
<td>Inventory (OCI)</td>
<td></td>
</tr>
<tr>
<td>Sashkin (1990): Organizational Culture Assessment</td>
<td>30 items on five major dimensions organizational culture on behavioral and value level: managing change, achieving goals, coordinated teamwork, customer orientation, and overall cultural strength</td>
</tr>
<tr>
<td>Questionnaire (OCAQ)</td>
<td></td>
</tr>
<tr>
<td>O'Reilly, Chatman, Caldwell (1991): Organizational</td>
<td>54 dimensions on the value level: Flexibility, adaptability, stability, predictability, being innovative, opportunity awareness, willingness to experiment, risk-taking, care, autonomy, rule orientation, focus on analysis, love for details, precision, team orientation, information sharing, focus on one strong culture, people orientation, fairness, respect for the individual, tolerance, informality, being easy going, being calm, support, being aggressive, decisiveness, action orientation, taking initiative, being reflective, achievement orientation, demands, individual responsibility, performance expectations, opportunities for growth, pay and praise for performance, security of employment, conflict confrontation, peer friendships, fitting in, collaboration, job enthusiasm, intensity of work, rule constraints, quality emphasis, social responsibility, result orientation, philosophy clarity, competitiveness, professional organization</td>
</tr>
<tr>
<td>culture profile (OCP)</td>
<td></td>
</tr>
<tr>
<td>The Vector Group/Carlton (1997): Cultural Due</td>
<td>12 major dimensions on various aspects of organizational culture: intened direction and results, key measures, key business drivers, infrastructure, organizational practices, leadership and management practices, supervisory practices, work practices, technology use, physical environment, perceptions and expectations, cultural indicators and artifacts</td>
</tr>
<tr>
<td>Diligence</td>
<td></td>
</tr>
<tr>
<td>Van Muijen et al. (1999): The FOCUS Questionnaire</td>
<td>75 items for 7 major dimensions: predominance of an external or internal orientation, flexibility, innovation, goals, control, rules, support</td>
</tr>
<tr>
<td>Denison (1990): The Denison organizational culture</td>
<td>12 major dimensions on various aspects of organizational culture: strategic direction and intent, goals and objectives, vision, coordination and integration, agreement, core values, capability development, team orientation, empowerment, creating change, customer focus, organizational learning</td>
</tr>
<tr>
<td>model</td>
<td></td>
</tr>
<tr>
<td>Hagberg Consulting Group (2002): Cultural Assessment</td>
<td>46 various aspects of organizational culture: loyalty, tradition, ethics and values, supportiveness corporate citizenship, family environment, valuing excellence, respect for the individual, confidence, teamwork, respect for seniority, formal structure, diversity, work ethic, fun, trust, autonomy, results orientation, learning organization, openness, participation, goal clarity, pedigree, innovation, intellectuality, change orientation, expressiveness, financial urgency, conformity, freedom from politics, sociability, hierarchy, customer focus, conflict, centralization, concern for image, competition, time horizon, risk taking, paranoia, externally focused, job security, leader-centricity, time urgency pressure and stress, aggressiveness</td>
</tr>
<tr>
<td>Tool (CAT)</td>
<td></td>
</tr>
<tr>
<td>Sashkin (1984): Organizational Beliefs Questionnaire</td>
<td>Ten subscales with 50 items on the value level: work should be fun, being the best, innovation, attention to detail, worth and value of people, quality, communicating to get the job done, growth/profit/other indicators of success, hands-on management, importance of a shared philosophy</td>
</tr>
<tr>
<td>(OBQ)</td>
<td></td>
</tr>
<tr>
<td>Glaser (1983): Organizational Culture Survey (OCS)</td>
<td>Value level aspects of organizational culture along five major dimensions and 30 questions: atmosphere, involvement, communication, supervision, meetings</td>
</tr>
<tr>
<td>Kilman and Saxton (1983): Culture Gap Survey</td>
<td>Behavioral norm level along two major dimensions: technical vs. human concern, short-term vs. long-term orientation, creating a 2x2 framework consisting of four sub-scales: task support, task innovation, social relations and personal freedom</td>
</tr>
<tr>
<td>(CGS)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author
The selected conceptualization of organizational culture – the OCAQ

A decision had to be made in the research process as to how to measure organizational culture. A common question in research is whether to use an already existing research instrument or to construct a new one, while hardly any standard decision rules exist (Punch 1998, p. 96). Given the rather explorative nature of the research project, the author relied on an established instrument with known positive psychometric characteristics in the academic literature instead of creating a new one, which is not the purpose of this research project and would also require extensive empirical pre-testing. Creating a new instrument to measure organizational culture can be a challenging process, representing rather an art in itself given the extreme complexity of the construct (cf. Ashkanasy et al. 2000, pp. 140-144, also Sackmann 1997). Heeding warnings from De Witte and van Muijen (1999, p. 590), these researchers indicate that the development and validation cost of new instruments for organizational cultures are extremely high. Punch (1998, p. 97) argues in favor of the use of existing instruments when construct complexity is high. As a positive by-product, researchers can learn more about the properties of the existing ones, and results are more easily comparable across studies. Additionally, the focus was on the selection of the most suitable available instrument that would measure a variety of dimensions of organizational culture, in general. The decision criteria on which the selection of the instrument was based were: a) the availability of the instrument for academic research purposes and willingness to cooperate on the part of instrument developers; b) the applicability to the intended empirical research design; c) the relevance of included dimensions of organizational culture; and finally d) the assessment of the instrument in academic literature.

As to point a), two observations warrant mention. First, while authors of academic publications refer extensively to their own instruments, it is usually not mentioned that these instruments are also, if not primarily, sold in consulting services. This leads to a general interest in a tight control on the spread of the instrument and lack of interest in providing the instrument without payment. The high transaction-cost for negotiating access is noteworthy. This includes financial cost as well as a lengthy interaction process to obtain access to the instrument. Obviously, it is the same case for the variety of organizational culture instruments offered by consulting companies. In order to obtain permission to use the OCI, more than four months were necessary after submitting extensive material on how, where and when the instrument would be applied. Overcoming this obstacle by achieving access to the instrument, however, represents only half the battle. In order to ensure the correct application of the instrument, in particular the ability to clarify the exact meanings in the translation process, the cooperation of the instrument developers is beneficial. Prof. Marshall Sashkin of George Washington University, the originator of the Organizational Culture Assessment Questionnaire (OCAQ) turned out to be one such benevolent partner, genuinely interested in this research project.
The next selection criterion refers to point b). Some instruments are simply too unwieldy to be applied in a large-scale survey initiated by an outsider. For studies originated from outside, the companies where no within-company superior “commanded” the participation (e.g., Xenikou and Furnham 1996), the questionnaire must be manageable in length. The OCI, for example, has been pre-tested on a group of Ph.D. students at the University of St. Gallen. It turned out to be too time-consuming for too many respondents having to address all 120 items. By comparison, the five dimensions of the OCAQ, each addressing six sub-items, ensured a better alternative and a more suitable solution to the tension field of covering a sufficiently large variety of cultural dimensions and, in particular, being concise enough to ensure acceptable response-rates. Besides these rather practical but nonetheless crucial requirements, the selected instrument had to be established in the academic literature, and had to include dimensions of organizational culture that were of relevance to the research question in terms of derivable propositions and hypotheses. In contrast to most other instruments, the OCAQ included dimensions deemed to be of high relevance to the study: adaptability and cultural strength.

Additionally, some instruments have been developed by means of a “thorough literature review” (e.g., O’Reilly 1991 for the Organizational Culture Profile, Glaser et al. 1987 for the Organizational Culture Survey). The authors did not always address the question as to why certain dimensions are included. Other instruments show a stronger, clearer theoretical foundation, such as Denison’s (1990) model and Sashkin’s (2001) OCAQ, which is another factor speaking in favor of its application. Rousseau (1990a, p. 170) strongly advocates the more explicit and profound theoretical foundations undergirding the content of instruments. Overall, only the OCAQ fulfilled the author’s requirements for the selection of an appropriate instrument for the empirical study.

The quality assessment of various instruments depends largely on publications of the developers themselves and may therefore be biased in terms of each author viewing their instrument as superior, especially in terms of actually measuring organizational culture. There are only a few cross-instrument studies regarding their quality (e.g., Ashkanasy et al. 2000; Rousseau 1990a). These meta-overviews are able to provide insights on major existing models, but fail to include models developed by scientists in consulting companies. They also fall short of providing a concrete point of orientation, since no relation can be established to the specific research project under consideration. The above-mentioned rationalization includes often-neglected aspects in review, such as non-commercial availability. Also, the literature treats organizational culture as a complex construct (e.g., Schein 1999) and the more aspects that can be included, the better. This may have contributed to the development of longer instruments (e.g., Cooke and Lafferty 1983; O’Reilley 1991).
However, longer instruments are more difficult to apply, especially in research projects undertaken by an outsider. To summarize, the selection of instrument depends heavily on the specific research projects, while some minimum requirements nevertheless have to be fulfilled, such as the reported quality of the instrument. The psychometric properties of the OCAQ have been reported to be positive in a sequence of studies (e.g., Coyler 1997; Sashkin 1994; Sawner 2000).

**Description of the OCAQ**

From the beginning of the renaissance of organizational culture as a topic for organizational research, patterns of organizational culture have been associated with the positive or negative performance of organizations (cf. Cameron and Whetten 1983; Denison 1990; Wilkens and Ouchi 1983). The resulting key question refers to the patterns which relate to success or failure. As part of his theory of action and as shown in Figure 19, Harvard sociologist Parsons (1960) foresees four critical functions for organizational survival, better known as the A-G-I-L scheme referring to adaptation (A), goal-attainment (G), integration (I), and latent pattern maintenance (L). The A-G-I-L scheme constitutes the theoretical foundation of Sashkin’s (1990) OCAQ, which this study applies to the quantification of organizational culture.

**Figure 19: Parsons’ four basic organizational functions**

<table>
<thead>
<tr>
<th>External focus</th>
<th>Means</th>
<th>Ends</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADAPTATION</td>
<td>changing to meet new or changing environmental conditions</td>
<td>GOAL-ATTAINMENT activity related to the production and delivery of output</td>
</tr>
<tr>
<td>Internal focus</td>
<td>LATENT PATTERN MAINTENANCE (VALUES) set of basic beliefs shared by most members of the organization</td>
<td>INTEGRATION formal and informal patterns of coordination (rules, norms, etc.)</td>
</tr>
</tbody>
</table>

Source: Based on Parsons 1960

Sashkin (1990) operationalizes these functions as managing change, achieving goals, coordinating teamwork and building a strong-shared culture. Additionally, as Sashkin (2001, p. 6) outlines, he included a fifth scale on the OCAQ as part of the goal-attainment function, i.e., a focus on customer satisfaction. The latter has been deemed an additional important but often neglected element for effective goal-attainment. Table 12 lists the scales and respective items. Each of the five OCAQ scales has six items totaling 30 questionnaire items. Each item uses a five-point Likert-type scale (1=completely true, 2=mostly true, 3=partly true, 4=slightly true, or 5=not true).

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4 The OCAQ is proprietary information. Please contact Prof. Marshall Sashkin at George Washington University directly to request an official copy, the necessary scoring key and user manual.
<table>
<thead>
<tr>
<th>OCAQ dimensions</th>
<th>OCAQ items:</th>
</tr>
</thead>
</table>
| OCAQ Scale 1: Managing change | • People are flexible and adaptable when changes are necessary  
• People feel that most change is the result of pressures imposed from higher up in the organization  
• People have a clear idea of why and how to proceed throughout the process of change  
• People believe that change happens too quickly and causes too much disruption  
• People believe they can influence and affect their work place through their ideas and involvement  
• People believe that their concerns and anxieties during periods of change are heard and considered |
| OCAQ Scale 2: Achieving goals | • Individuals and teams have clearly defined goals that relate to the goals and mission of the business  
• People and teams are often expected to reach goals which they believe are unattainable  
• Individuals and teams are measured and rewarded according to how well goals are achieved  
• Individuals and teams participate in defining specific goals  
• We constantly stretch our goals, to continuously improve  
• Individuals, teams, and functional areas often have incompatible goals |
| OCAQ Scale 3: Coordinated teamwork | • Teams often lack the authority needed to get the job done effectively  
• People believe in teamwork, the "what's in it for us" approach rather than "what's in it for me"  
• People lack the interpersonal and technical skills they need to work effectively in teams  
• People know what is expected of them and understand their impact on other people, teams, functions  
• People believe in working together collaboratively, preferring cooperation over competition  
• Managers at all levels work together as a team to achieve results for the organization |
| OCAQ Scale 4: Customer orientation | • We give highest priority and support to meeting the customer’s needs and to solving their problems  
• Our policies and procedures help U.S. to provide the service our customers want and need  
• People often see customer and client problems as someone else’s responsibility  
• People are always looking for new ways to better serve clients and customers  
• Employees who do the best job of serving customers are more likely to be recognized or rewarded  
• Problems of customers with our products are almost always resolved to their satisfaction |
| OCAQ Scale 5: Cultural strength | • People value and make use of one another’s unique strengths and different abilities  
• Everyone knows and understands our business objectives and priorities  
• People sometimes compromise company policies or principles to reach operational goals  
• Business decisions are most often made on the basis of facts, not just perceptions or assumptions  
• People have access to timely and accurate information about what is really happening in the organization and why  
• Everyone strongly believes in a set of shared values for cooperating and reaching mutual objectives |

Source: Based on Sashkin 2001, pp. 2-3
The impact of internationalization on organizational culture

Total scale scores can be calculated by assigning five points to a “completely true” answer, four points to a “mostly true”, three points to a “partly true”, two points for a “slightly true”, and finally one point for a “not true” answer, thus quantifying organizational culture. This applies to the majority of items. Several items are inverted to prevent a responding routine biased towards one end of the scale. For those, the respective inverted scoring key applies, and five points are allocated for a “not true” answer. Thus, scale scores can range from a low of six to a high of 30, as shown in Table 13. Sashkin (2001) issues OCAQ norms for categorizing different scores on the scales as depicted. A more detailed explanation of the five scales, which include managing change, achieving goals, coordinated teamwork, customer orientation and overall cultural strength, is given in the table below. In general, the OCAQ includes values as well as behavioral aspects and can best be categorized as a profiling instrument.

Table 13: OCAQ norms for categorizing scale scores

<table>
<thead>
<tr>
<th>Scores</th>
<th>Dimension</th>
<th>Managing change</th>
<th>Achieving goals</th>
<th>Coordinated teamwork</th>
<th>Customer orientation</th>
<th>Cultural strength</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high</td>
<td></td>
<td>30</td>
<td>28-30</td>
<td>28-30</td>
<td>25-30</td>
<td>26-30</td>
<td>119+</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>19-25</td>
<td>16-22</td>
<td>18-23</td>
<td>15-20</td>
<td>17-21</td>
<td>87-107</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>15-18</td>
<td>11-15</td>
<td>14-17</td>
<td>11-14</td>
<td>13-16</td>
<td>76-86</td>
</tr>
<tr>
<td>Very low</td>
<td></td>
<td>6-14</td>
<td>6-10</td>
<td>6-13</td>
<td>6-10</td>
<td>6-12</td>
<td>30-75</td>
</tr>
</tbody>
</table>

Source: Sashkin 2001, p. 9

OCAQ Scale 1, the “managing change” scale, assesses the degree to which respondents see the organization as effectively adapting to and managing change. Including a dimension on change is very common in cultural studies and instruments, as shown by Detert et al. (2000, p. 854). The specific items in the OCAQ ask about actual success in dealing with change and about the presence (or absence) of the sort of positive values just described. An important question is whether organizational members are able to affect their work environment, especially since a lack of influence is likely to hinder the effective management of change. People save their energy and time without any possibility to influence (Sashkin 2001).

OCAQ Scale 2, “achieving goals”, measures: (a) the degree to which an organization is effective in achieving goals; (b) the extent to which there are coherent and aligned goals; and (c) the degree to which shared values support organizational improvement. What values or beliefs can thus help an organization achieve its goals? In terms of values, organizational achievement is supported by the basic value or

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5 Strictly speaking, Likert scales do not employ a metric scale. However, in practice Likert scales are treated as measuring on the interval level (Bryman and Cramer 1992, p. 66). In this study, this is further justified through added variation among company scores through this combination of six items into one scale and through combining all scales to a scale sum. The overall span of the latter ranges from as low as six to 150.
need to achieve. The organization will attain its goals more easily if its members share the belief that it is important to do so. Another positive value tested for with the OCAQ is that of improving, in quality as well as in performance. It is based on the concept of *kaizen*, the belief in a never-ending search for improvement.

**OCAQ Scale 3**, "coordinated teamwork", is the measure of the extent to which the efforts of individuals and groups within the organization are bound together, coordinated and sequenced, so that everyone’s work efforts coalesce effectively. With work environments becoming increasingly complex, there is a need for more effective ways of meeting unpredictable coordination demands. In other words, this necessitates new ways for organizational members to mutually adjust their actions to take unplanned and unpredicted circumstances into account. The OCAQ therefore explicitly addresses empowerment, team skills and training. Likewise, it is critical that organizational culture aspects support effective coordination, the value of collaboration, and the belief that "we are in this together and must, therefore, work together to achieve common task goals". By contrast, competition to see who can "do best" independently of others is a particularly unhelpful characteristic. Of course, effective organizations do not simply ignore competition; they value it, not only internally but also with other organizations. Within their own, internal cultures, effective organizations typically emphasize the value of teamwork and cooperation. Besides competitive norms, the OCAQ includes the question as to what extent the idea of teamwork is actually lived up to by managers on all levels.

**OCAQ Scale 4**, "Customer orientation" assesses the extent to which organizational activities are directed towards identifying and meeting the needs of clients and customers. Perrow (1984) has examined the nature of organizational goals. He observed that while organizations often have specific product or service goals - a standard of quality or a type of product or service for which the organization is known - the crucial question is whether these internally derived and defined goals correspond to what clients or customers want from that organization. The values that support effective customer relationship management are not simply an overriding belief in the importance of the client or customer. There are certain beliefs associated with varying degrees of effectiveness among customer orientation strategies. For example, in some organizations people believe that the organization should create new products and then try to develop customer demand. A rather different strategy is based on the belief that new products or services should be natural extensions of existing product or service lines. Thus, OCAQ Scale 4 measures the extent to which organizational activities are directed toward identifying and meeting the needs and goals of customers, as Figure 20 describes. OCAQ Scale 4 simultaneously examines the extent to which basic and strategic values supporting an effective customer orientation (CO) are present.
OCAQ Scale 5, “Cultural strength”, represents the final scale of the OCAQ. Besides the question as to what content dimensions shape organizational culture, this setting dimension is also crucial. The setting dimension is understood as the characteristics of organizational culture beyond its individual content dimension. Examples for content dimensions are OCAQ Scales 1-4. The setting dimension primarily refers to the strength of organizational culture.

In the literature on organizational culture, Payne (2000) proposes a comprehensive approach to organizational culture strength, characterizing strength along three dimensions: pervasiveness, within-company consensus, and psychological intensity, as detailed in Figure 21. Pervasiveness indicates the range of behaviors and beliefs that the culture imposes on its members. Some organizations have more pervasive cultures than others, with the Catholic Church encompassing a large number of dress standards, interpersonal relations (celibacy), rituals with which members should comply. The Armed Forces also represent organizations with a predominating and pervasive compulsion to conform, far more so than any standard business organizations (Payne 2001, p. 110). In this regard, the cube indicates that a culture will be stronger where its influence on members is pervasive. The vertical dimension in the cube is labeled consensus. It refers to the degree of within-company agreement about “the way we do things around here” (Shapiro 1995, p. 51). For several authors, the degree of within-company consensus indicates cultural strength (e.g., Sathe 1983, Ouchi and Price 1978). Different environmental conditions, departmental and functional tasks, heterogeneous educational and vocational backgrounds render integration and within-company consensus challenging but highly revealing as to the strength of organizational culture. The final dimension in the cube is termed psychological intensity. It refers to (1) the layer of corporate culture elements organizational members accept, e.g., only behaviors or also assumptions, and (2) the degree to which organizational members take these corporate assumptions, values, behaviors and beliefs for granted and work in accordance with them (Payne 2001, p. 110).
The impact of internationalization on organizational culture

**Figure 21: Cultural strength cube**

For example, religious organizations tend to create higher levels of intensity in their members, while weaker cultures only succeed in influencing attitudes and behaviors. Organizational members usually have to adopt at least the elements of behavioral and attitudinal requirements of the organization. It is of particular importance that customer relationships should be in tune and consistent with organizational values. In strong cultures, according to Payne (2001, p. 110), many employees conform behaviorally and accept the values of the organization as well. This understanding of strength is also found in Willmont’s (1993) alignment terminology when referring to cultural strength as “the closeness of the alignment of the content of employees’ purpose with the normative framework laid down by the cultural engineers of the corporation” (p. 522). Likewise, Louis (1985, p. 80) uses the notion of “psychological penetration” relating to employees’ assumptions that are affected by organizational cultures. Payne’s three-dimensional framework fulfils Saffold's (1988) suggestion for a better conceptualization of cultural strength, prescribing that both categories of dimensions need to be included: one referring to a measure of cultural dispersion and a second capturing the potency of organizational culture. Through its three-dimensionality, it is more comprehensive than approaches with a narrower focus. To sum up, one can deduce that the setting dimension is an important and informative dimension besides the content of any organization’s culture, and this setting dimension is multifaceted, like the cultural content.

OCAQ Scale 5 also applies a differentiated and multifaceted comprehension of the strength of organizational culture. Simultaneously, it goes beyond the basic idea that a strong culture will provide greater stability of organizational functioning (e.g., Schein 1984, Deal and Kennedy 1983), regardless of the actual context. The notion of
functional coherence acknowledges that it is not necessarily true that a strong culture – where everyone strictly adheres to a clear set of common values and beliefs – will inevitably help an organization to survive and be effective. Whether a strong culture is beneficial depends on value types. When the culture is based on values that run counter to functions of managing change, goal achievement, customer orientation, and coordinated teamwork – or when values actually work against the effective performance of these functions – then a strong culture might actually hamper organizational survival. Sashkin (2001, p.8) warns of the most negative condition possible: a strong but dysfunctional organizational culture.

Indicators for overall functional coherence and cultural strength represented in OCAQ Scale 5 are described herewith. First, the OCAQ assesses aspects of transparency of the information policy and actual insularity in practice. More specifically, it analyzes whether individuals have timely and accurate access to what is really going on in the organization and why. The OCAQ perceives an organizational culture as more functional when individual strength profiles are valued and used. In addition, the more rational decisions are made, the more functional an organizational culture is. A system in which traditions and assumptions but not facts influence and determine decisions may act as a proxy for a strong culture. It is, however, a less functional means of coping with an ever-changing world entailing new challenges. Sashkin (2001) includes the degree of within-company consensus, i.e., a widely shared knowledge and understanding within the organization on what business objectives and priorities really are. Moreover, the OCAQ depicts the general thoroughgoingness of actual use of company policies and principles, including the extent to which organizational members sometimes compromise them in their daily operations. Finally, psychological intensity, or the question of how strongly organizational members believe in a set of shared values for cooperation and mutual goal-achievement, indicates another nuance of cultural strength.

Additional survey items
This setting dimension of organizational culture is an often-neglected aspect. This accounts for the strength of the OCAQ, which takes it into account. In fact, this aspect has been deemed important enough to include three additional items directly proposed by Payne (2001). Within-company consensus is simply but effectively depicted by the question “whether there is a high degree of agreement about the way we do things around here” (see Item 31 of the questionnaire in the Appendix). Pervasiveness is conceptualized with the item on the range of behaviors and beliefs the company imposes on its members (see Item 32) and finally, (see Item 33) psychological intensity has been conceptualized by asking whether the values of employees and those fostered by the company are largely congruent. Willmont (1993) supports this view of understanding cultural strength as alignment. Apart from rendering the picture on cultural strength more complete, including these additional
dimensions turns them into control items in the sense of a partial parallel test. Along with three additional items on organizational cultures’ strength, more general background questions have been posed in the form of statements to be evaluated. Their aims are primarily to gain a clearer understanding of individual situations of companies and to take the context of each company into measured account. The uniqueness, if present, can thus be better captured by not only the idiosyncratic profile along the six major scales with its 30 OCAQ dimensions on one hand, but also by these context items on the other.

Item 34 asks whether the organizational culture is deemed beneficial and suitable for the internationalization process in general. Item 35 investigates whether the company is perceived as relatively well endowed with financial, knowledge and human resources. The logic for inclusion of this item resides in Cooke and Szumal’s (2000, p. 152) proposition that abundant resources tend to induce organizational inertia. This piece of information on resource endowment may facilitate the analysis of an organization’s culture considerably. Two additional items were included regarding the strategies of local adaptation (item 37), as well as the internal integration of international activities (item 36). As a result, a more detailed and complete picture becomes attainable.

According to Schoenfeldt (1984, p. 78), the measuring device ranks among the most important segments of any study. One of the major strengths of the OCAQ is its strong theoretical foundation. Parsons’ AGIL scheme endows the OCAQ and the empirical part of this thesis with solid foundation, whereas other approaches are based on a “thorough literature review” (e.g., O’Reilly et al. 1991). Particularly the notion of functional coherence acknowledges that the evaluation of cultural strength depends on situational factors and content dimensions. Differences with regard to other understandings of an organizational culture’s strength do not render the instrument less valuable, but rather underline its interest and intention to address key aspects of the most important string within various approaches to strength, namely whether or not an organizational culture shows coherence that is actually functional. The important aspect of organizational culture strength are analyzed, in particular depth, by means of additional items suggested by the comprehensive framework of Payne (2001). Furthermore, the OCAQ is relatively easy to administer and allows insights into organizations’ cultures. This is a first step for either a cross-company analysis like the current study, or a diagnostic tool for building a better-functioning organization. An additional point in favor of the selection of the OCAQ is Sashkin’s experience in developing and applying survey instruments. Besides the OCAQ, Sashkin developed the Conflict Style Inventory (Sashkin 1996), the Leader Behavior Questionnaire (1996a), the Managing By Motivation Questionnaire (Sashkin 1996b), the Self-management Assessment Questionnaire (Fulmer and Sashkin 1995), the Customer Service Satisfaction Assessment Inventory (Sashkin and Williams 1992),
the Managerial Decision-making Assessment Inventory (Sashkin 1991) and also the Organizational Behavior Questionnaire (Sashkin 1984). Moreover, the tools for measuring organizational culture are almost exclusively proprietary information marketed by their developers or their respective consulting affiliations. Negotiating access to the instrument and its cost-friendly use can easily result in a lengthy process, a fact that is neglected in the numerous publications characterizing these quantitative instruments. Because of this interest in the research question, Professor Sashkin granted access to the instrument and provided valuable information on how to use it. Winning an interested and cooperative partner in him was another argument in favor of the OCAQ. The OCAQ's strengths are directly linked to inherent limitations. Within-company depth and richer descriptions can be triggered with the OCAQ, but necessitate further analysis to clarify how a current organizational culture has emerged and why. For the research approach applied in this study, however, the OCAQ fulfils the requirement to gather important, comparable data across organizations in order to address the research question, especially since additional items enhance and round off the analysis.

5.2.2. The fax-based survey method for primary data on organizational culture
In general, a survey has been deemed an appropriate method to gain a good basic orientation on organizational culture. Unlike any other, it facilitates the assembly of a larger set of quantitative data across multiple companies (Kobi and Wuethrich 1986, p. 95). A survey shows a high level of efficiency in terms of speed and cost when generating large amounts of data (Snow and Thomas 1994, p. 462). It continues to be one of the most commonly used forms of data collection in organizations today (Church and Waclawski 2001, p. 1). Larger numbers of respondents can be approached even in a geographically dispersed setting (Mangione 1998, p. 399). Interviews would become too costly in terms of financial and temporal resources if a larger number of respondents in two countries were to be reached. Yet it simultaneously eliminates the problem of interviewer biases (Schnell et al. 1995, p. 333). The survey approach has been deemed appropriate to answer what and how questions (Pinsonneault and Kraemer 1993, p. 3). This applies to the context of organizational culture as well, since the fragmented literature on how best to approach organizational culture finds at least some consensus on the fact that shallower culture levels can be described quantitatively with a survey (Ashkanasy et al. 2000, p. 133). While numerous quantitative tools have been developed, the OCAQ described above with the easy-to-use, familiar Likert scale (Punch 1998, p. 97) endows this study with a comprehensive, reliable, valid and well-established instrument for quantitatively approaching organizational culture. The data obtained can then be analyzed with multivariate statistical analysis software, such as SPSS in this case, to identify cross-company patterns after hypotheses testing. This procedure shows consistency with the positivist research paradigm, the functionalist
approach to culture, the integration paradigm, and the research question. Hence, the
survey method allows the pursuit of the research goal while encompassing several
additional advantages over other means of data collection.

The respondents, who are described below, were approached with a fax-based
survey. The fax version of the survey ensures further speed, cost and administration
advantages (Cobanoglu et al. 2001, p. 444). Centralized digital faxing systems offer a
much lower cost per document than postage. The cost and administration
advantages are especially noteworthy in this “paperless - less paper” approach,
considering the intended larger sample size.

Theoretically, the same advantages of a fax-based survey apply to an
implementation based on an email containing the survey, or an online survey. For the
time being, professional corporate database do not (yet) provide a complete list of the
email addresses necessary to carry out such a survey. Making contact with the
respondents is a problem of particular significance when considering email or web-
based surveys (Dillman 1999, p. 23). As previous research suggests, non-deliverable
surveys in mail or fax methods are less problematic than in web-based surveys,
because people change their email addresses much more frequently, making
forwarding more difficult (Zatz 2000, p. 100). Corporate communication departments
and secretaries may forward faxes, but were believed to be less inclined to forward
email surveys sent to general corporate email address such as “info@company.de”.
In comparison, fax numbers of senior top managers and their departments are
considered much more readily available. Internet-based surveys may therefore suffer
from higher non-recipient rates. Additionally, it is reasonable to assume that emails
containing a survey are deleted more easily than a paper version of a fax. Since not
all respondents are likely to have equal access and skill levels for using internet
technologies, a respondents’ bias cannot be excluded (Zhang 2000, p. 58). These
aspects play an ever more significant role when one considers that the target group
consists of employee representatives and top executive managers, especially elderly
ones, who may show a tendency to not being as technologically “savvy” as their
younger counterparts. Additional constraints reside in the time- and money-
consuming development process of an email or web-based survey (Remenyi et al.
1998, p. 157). Factors that could also hinder success include the risk of technical
difficulties such as server downtimes, low-speed network connections, or browser
incompatibility (Fink and Kosecoff 1998, p. 157).

While internet-based surveys can provide explanations and help functions (Fink and
Kosecoff 1998, p. 8), such help can also be obtained by including a phone or fax
number in a fax-based survey. If the items on the questionnaire are straightforward
and easy to understand, the need for interaction (cf. Mangione 1998, p. 401) can be
minimized. It also holds true for the need for interaction on the part of the researcher,
if the questionnaire items include mention of all the essential information the researcher desires. Finally, when all these problems have been addressed, the internet surveys are still a relatively new method. Profound experience and research guidelines are still lacking (Zhang 2000, p. 66) or, at the very least, at a nascent stage. In the end, the non-availability of email addresses and additional disadvantages of web-based surveys led to the elimination of this approach. Time, administration and cost disadvantages militate against personal interviews or a mailing.

The fax-based survey was applied because of its strengths. While there are shortcomings, there are practicable remedies. The most significant limitations in the chosen context are potential administrative errors by the researcher (Berekoven et al. 1996, p. 113). Furthermore, low response-rates can significantly influence the possibility to generalize (Snow and Thomas 1994, p. 462). How these challenges have been met is explained in the section on data collection below.

Since organizational culture is measured at one point in time only, the selected research process is based on comparative analysis, linking specific conditions at one point in time. Even though such a cross-sectional analysis is conceptually somewhat limited in explaining causality, this way of proceeding has a long tradition in organizational research and is frequently applied to test law-alike relationships between variables (cf. Udy 1965, p. 688; also Schreyoegg 1995, p. 159). It exceeds the time horizon usually available to discover differences between two completely different sets of organizational cultures over time in each of the same larger number of organizations. According to Remenyi (1998, p. 45), practical feasibility is an additional critical evaluation criterion for the research methodology and method. The goal of this research project is to gather initial evidence of the impact of internationalization on organizational culture. Subsequent and more purely longitudinal studies may fill this gap and address weaknesses of this frequently used comparative, cross-sectional analysis.

**Data collection process**

This section describes the survey administration as well as the means to ensure achievement of a critical response-rate. To maximize efficiency in the administration process, faxing in the U.S. has been carried out in cooperation with California-based Tava Corporation. This system has not only proven to be the least expensive but also the most flexible for the MS-Word based formatting of the questionnaire. Lotus Notes, by contrast, still features limited formatting functions for faxed surveys, leading to its exclusion as an option. Mail merging allowed the personalization of the cover letter and the survey (see Appendix for the cover letter and sample questionnaire). Actual cost per fax was 0.06 U.S. cents per page delivered. In a very few cases, where only a corporate fax number was available, faxes were sent out in consecutive waves to
avoid arrival of several faxes of the same type in the central communication department on a given day. Changed fax numbers or undelivered faxes appeared in the fax broadcast report and were followed up immediately. The fax-back system was organized with a fax-system provided by jconnect. Companies were given a fax number in Philadelphia – the location of the cooperation partner university for this research project – to return the one-page survey questionnaire. The digital jconnect service converted incoming faxes into an email and instantly forwarded them to the researcher’s desktop for easier administration, creating an additional back-up file for data security reasons and ovating the need for any paper on the researcher’s part. An added bonus of these procedures was the minimization of the risk of administrative errors on the part of the researcher (Berekoven et al. 1996, p. 113).

Likewise, the survey administration in Germany aimed at being as efficient as possible. Zurich-based Xpedite carried out the fax broadcast. Cost per personalized delivered page was 0.10 SFR. The fax-back system was once more organized with jconnect, providing a fax line for returning the faxes and forwarding them immediately to a central folder in the email program of the researcher. A Swiss as well as a U.S. local phone number – a hotline so to speak – was provided, and call forwarding to the researcher’s mobile phone ensured an opportunity for respondents to interact or to clarify any questions, if necessary.

Traditionally, surveys of top management have been plagued by low response-rates (Gulati and Westphal 1999, p. 489, also Snow and Thomas 1994, p. 462). While survey research methods offer unique inferential power, this very power depends on the cumulative results of many individual decisions of the sample persons who participate. To ensure a proper level of this inferential power, a variety of measures have been taken to ensure a critical and increased response-rate. According to Groves et al. (1992), the three major factors influencing survey participation comprise societal-level factors, attributes of the survey design, and characteristics of the sample person. Little can be done concerning the societal-level factors and sample person characteristics other than respecting the actual situation in tailoring the survey design. One aspect which could be categorized as a societal-level factor and respondents’ characteristics is a phenomenon called over-surveying, describing a reduced response-rate due to too many surveys being received by the targeted respondents (cf. Schleifer 1986). Therefore, the selection of employee representatives as a target group in Germany was a first solution. As true key informants on “the way we do things around here” (Shapiro 1995, p. 51), this group has been deemed to suffer less from over-surveying than their counterparts in executive management positions.

Several measures in the survey design have been taken to ensure a critically high response-rate. The psychological predisposition to participate in the survey has been
enhanced by the brevity of the questionnaire, a one-page format. Survey length was enhanced positively related to the higher levels of stress for respondents (Graham and Cable 2001, p. 29), positively correlated with item-skipping (Church 2001, p. 960) and negatively associated with data quality because of decreasing levels of involvement and attention (Douglas 1995, p. 38). In-depth pre-tests optimized the format of the one-page design, revealing a preference for and the psychological advantage of having to fill out a one-page questionnaire only. In that regard, the survey design took the time constraints of the target group into consideration (Dillmann 1978, p. 12). These time constraints seem to be especially valid for U.S. executives (Bickart and Schmittlein 1999, p. 286). These pre-tests also influenced the decision in favor of the OCAQ and against other, lengthier instruments, in particular the OCI with 120 items, which turned out to be too time-consuming. The familiar and easy-to-use five-point Likert scale has ensured a short time requirement for participation. By asking for impressions and opinions instead of for hard facts that may not be easily available, or which can cause concerns, e.g., in the case of sensitive financial data (Cooper and Emery 1995, p. 306), the objections to participating were indeed lessened.

A covering letter was added describing the purpose of the survey. It also created interest among the respondents by explaining how the results would be relevant to them and by offering a research report. Using the logo of prestigious schools, in the U.S. The Wharton School of the University of Pennsylvania, on the one hand and in the German-speaking area the University of St. Gallen on the other, along with the name and signature of a professor, intended to show that the survey originated from a legitimate, experienced source. This was done because people are more likely to participate in a survey coming from a properly constituted authority (Bushman 1984). The incentive of offering an executive summary of the research project served as reciprocation that has since been linked with an enhanced response-rate (Groves et al. 1992, p. 480; Childers 1996; Singer et al. 1999). Again, the association of the survey with established business schools in both the German speaking area and the U.S. supported the functioning of this reciprocation effect. A university of good standing and reputation would not compromise the promise of confidentiality - an additional means to enhance response-rates (cf. Singer et al. 1993).

Furthermore, the covering letter aimed at creating interest in the study, while simultaneously avoiding the term internationalization. Explicit reference to internationalization as the true external variable was assumed to lead to a non-response bias from non-international companies (cf. Northey et al. 2002, p. 73). Besides avoiding any influence on answers, this ensures that firms with lower DOI ratios also participate in the study and are thus adequately represented. Thus, the covering letter explained the reason for the study in terms of increased external demands causing pressures on organizations and their organizational cultures. A
strong cooperation partner was selected for the U.S. survey: The Wharton School at the University of Pennsylvania. This enabled the author to use the logo of one of the best American business schools as well as a Wharton professor's name for the U.S. survey. Obviously, the name of a Swiss university, relatively unknown in the U.S., would have led to a lower response-rate than that of one of the top business schools in the U.S. Another underlying assumption was found in the thought that U.S. companies would rather respond to a US-based survey than to a foreign one. Inquiring about financial data has been associated with a decreased willingness to answer (Cooper and Emory 1995, p. 306), therefore the questionnaire deliberately excluded such questions. Other sources, in particular databases and annual reports, were tapped into for secondary corporate information. Considerable efforts led to the identification of personal fax numbers of targeted respondents to ensure they received the survey quickly and directly. Non-respondents were sent a second questionnaire four weeks after the initial fax. Follow-up phone calls completed this task list.

Table 14: Means to enhance response-rates

<table>
<thead>
<tr>
<th>Applied means enhancing response-rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Restricted and minimal survey length of one page only with familiar, easy to use Likert scale</td>
</tr>
<tr>
<td>2. Interest creating, personalized cover letter outlining survey background, assuring confidentiality</td>
</tr>
<tr>
<td>3. Promised reward for participating in the survey in the form of a research report</td>
</tr>
<tr>
<td>4. Using logos of premier schools as well as a professor’s signature</td>
</tr>
<tr>
<td>5. No request for financial data or other non-readily available information</td>
</tr>
<tr>
<td>6. Identification of personal fax numbers instead of readily available corporate fax numbers</td>
</tr>
<tr>
<td>7. Second wave of follow-up questionnaires to non-respondents and personal follow-up calls</td>
</tr>
</tbody>
</table>

Source: Author

5.2.3. Respondents in the U.S. study

For the study at hand, two countries were selected for a number of reasons. Firstly, considering more than just one country allows for comparison and strengthens the string of studies not exclusively focusing on the U.S. Secondly, these two countries represent key economies with archetypical, opposite paths for internationalization as well as respective performance pressure constellations (cf. Ruigrok and Wagner 2003), allowing for the study of two extreme cases. Research has to take these national idiosyncrasies and different impacts into account. Thirdly, there is previous research on both countries, enabling one to build up more knowledge.

Targeted organizations in the U.S. include the 1,000 largest companies in the U.S. by sales figures. They were selected because larger companies are more inclined to engage in international operations, as indicated by Calof (1994, p. 63), increasing the relevance of the research into them. Including the 1,000 largest companies allows for a considerable size span, which can lead to interesting results. Only public companies would publish required secondary data on internationalization, which is
why the Fortune 500 or Fortune 1,000 lists find no application since they contain private companies. Therefore, the set of companies that is deemed to be most appropriate for the U.S. survey are the 1,000 largest companies listed at the New York Stock Exchange (NYSE), the largest and most established stock exchange market in the US. Commercial databases such as Hoover’s provide detailed information on NYSE-listed companies and their executives, facilitating the research for secondary information.

As for the respondents, a specific type was selected as the target group, namely “key informants”, who, according to Rousseau (1990a, p. 171), are understanding individuals regarded as having special or more complete knowledge, often drawn from the organization’s elite, e.g., its top management. Key informant research has a long tradition in organizational study (cf., e.g., Blau and Falbe 1976, Pugh et al. 1969), and organizational culture research in specific (e.g., Denison and Mishra 1995, Kotter and Hesket 1992, Gordon and DiTomaso 1992). Key informants are relied upon and targeted for veridical information, i.e., assumed to be reliable, accurate and consensually valid. Due to the endowment of the upper echelon with better information, its adopted bird’s eye view, and power to influence, this group of key informants is often used in studies on organizational culture. It is most important to remark that the upper echelon needs to have a comprehension of the dominant organizational culture only, as this study relies on the integration paradigm. In the U.S., the targeted group of selected respondents consists of the following group of top managers: The key persons in charge of (1) HR and training; (2) corporate strategy and development; (3) corporate finance; and finally the group of (4) general counsels and corporate secretaries. As organigrams and structures differ, exact titles obviously vary. Overall, four persons are targeted per company. The thesis topic has a particular relevance for the selected target group, leading to a certain level of interest in participation in the study. The CEOs and Chairmen are often too remote from daily operations to give appropriate answers beyond impressions biased towards desirability. With a probability close to certainty, CEOs would not fill out this survey, because over-surveying led to more than 25 surveys per day per CEO on average. The database of names and contact information such as job titles and fax numbers was compiled with data provided by Hoover Online, the most detailed database on executives and top managers available in the US. Hoover provides an individual web page with key information per executive for almost all publicly listed companies of considerable size. A subscription for Hoover Online – in its extended version – is available through The Wharton School’s Lippincott Library.

5.2.4. Respondents in the German study
As for the German sample, the special nature of German corporate laws and a particular institutional aspect of corporate governance are used for selecting
respondents to ensure that the most suitable group of key informants were approached in each country. The supervisory board of larger German companies with the legal form of an "Aktiengesellschaft" consists partly of employee representatives as institutional and structural evidence of the pluralistic, two-layer structure of German corporate governance (cf. Wunderer 1995). The five major corporate laws include the Aktiengesetz, Mitbestimmungsgesetz (MitbestG) for large companies with more than 2000 employees, Betriebsverfassungsgesetz (BetrVG) for smaller and mid-sized companies with more than 500 employees, Montanmitbestimmungsgesetz (Montan-MitbestG) and Mitbestimmungs-ergaenzungsgesetz (MitbestErgG) for companies in the coal and steel industries. As a general guideline, companies with fewer than 500 employees do not have employee representation on the supervisory board, since they are not legally required to (cf. Article 76.V, BetrVG). The equivalent holds true for smaller and medium family-owned businesses, to which there are exceptions (cf. Meyer-Lohmann 1997, p. 56). In general, the MitbestG prescribes an equal number of shareholder and employee representations (cf. BetriebsVG for further details). For supervisory boards of six or more people, official union representatives find minor representation, too, but remain unconsidered here, since at least for the time of their union representation they are usually not full-time employees within the organization.

Employee representatives on the supervisory board form a truly suitable group of key informants, since they come from the organization’s core. They also have the overall bird’s eye view and top management knowledge of the organization through their participation and control function in the supervisory board (cf. Semmler 1996, pp. 59-60). Coordination with peers for proper representation ensures involvement and alertness. Employee representatives not only update and coordinate each other in their activities in workers’ councils, of which they are usually also members, but organize themselves into so-called “bench-meetings” before the official supervisory board meetings (Pistor 1999, p. 190). Employee representatives have been with the company long enough to win the trust of their peers and larger groups of colleagues. Literally and by the intention of corporate law in Germany, they represent the employees of the company and speak for them. To recapitulate, employee representatives come from deep within the organization, have been elected to speak officially on behalf of their peers, and are involved in top management issues addressed by the supervisory board. Employee representatives thus constitute a very suitable group of key informants, if not the ideal one. The goal of selecting samples of respondents is to have access to required information. In that sense, the respondents in Germany have been chosen according to the principle “best and most suitable

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6 It is precisely and exclusively their endowment with profound knowledge on the organization which turns employee representatives into an interesting target group. While strong employee representation has become somewhat controversial in recent disputes on securing Germany as a major business location, the reason for considering employee representatives resides by no means in any intent to enter this discussion, but simply because they know the organization very well.
group of respondents in each country” rather than trying to fulfill the principle of “same respondents in each country”, which would inevitably not have used the German corporate governance system to the full potential offered. Regarding the list of names and contact information of employee representatives in Germany, a Hoppenstedt database has been used and crosschecked with annual reports, corporate internet homepages or corporate communication departments to ensure the respondents’ names are current and accurate. In Germany, there are 352 publicly listed companies with employee representation on their supervisory board. While corporate size influences the actual number of employee representatives to some extent, four employee representatives on average have been approached in this study. Considering public companies in Germany ensures that necessary secondary data, for example on size and internationalization, are readily available.

The language of the survey in Germany is German, and a panel of bilingual researchers at proficiency level checked translations of the OCAQ. The intention of back translation is usually to control the quality of the translation, since the original researchers quite often do not sufficiently understand the language into which the instrument has been translated (van Muijen et al. 1999, p. 558). As Hofstede (1984) put it “a careful check by a bilingual panel, if readers are familiar with the content matter, is less time-consuming and may be as effective” (p. 29). A bilingual group of researchers at Ph.D. level at The Wharton School, University of Pennsylvania, PA, USA, and the University of St. Gallen, in St. Gallen, Switzerland, was involved in translating the OCAQ into German thus ensuring sense congruence and readability. The major criterion speaking against outsourcing the translation of the instrument, e.g., to translation service companies such as Berlitz, resides in the following facts. Such translators are generally unfamiliar with the background of the topic as well as having no opportunity for an interactive communication with Prof. Sashkin, the instrument originator, to ensure, that the actual meaning of the item is adequately translated.

5.2.5. Note on international comparative studies on organizational cultures

This section comprises aspects for consideration in studying organizational culture internationally. Holzmüller (1995, p. 57) calls the approach of using an internationally standardized instrument in combination with an internationally standardized data interpretation process “etic”. In order to avoid implementation of a mere pseudo-etic approach, respective equivalence considerations are outlined. More specifically, frame-of-reference effects, equivalence restrictions and culture-related response biases are addressed in this context. Dickson et al. (2000, p. 457) point out potential frame-of-reference effects, which researchers have to bear in mind when researching organizational culture internationally. Originally based on Katz and Kahn (1966), the term frame-of-reference effects refers to the fact that respondents
on organizational culture measures tend to make their rating against the backdrop of other organizations within their own country. This is even more applicable to employees and respondents not working for multinational organizations. Meaningful comparisons are therefore rendered difficult. One corrective is found in a standardization of organizational score for each country (cf. the examples of Bajdo and Dickson 1999, Dickson 1998) or, in other words, to separate data into country-specific analysis wherever possible. The latter approach has been chosen for this study.

Even though the scale items have been properly translated with a research team at proficiency level in both languages, it must be borne in mind that overall cultural context has the potential to exert significant influence on responses to the same item in different cultures. d'Iribarne (1997, p. 31) notes that it is not unrealistic to assume that whereas an American will tend to speak of “breaking a rule”, a Frenchman might prefer “interpreting the spirit of the rule intelligently” (p. 44). Thus, score differences between French and U.S. respondents on questions relating to rules may not necessarily reflect corresponding levels of formalization in their organizations. Extensive comparative research on respective response behavior for U.S. and German companies in a setting comparable to that of this study is practically nonexistent. Nonetheless, academic literature provides valuable insights for equivalence and comparability (Punnett and Shenkar 1996, p. 40).

Is organizational culture culture-bound? Punnett and Shenkar (1996, pp. 43-44) point out that international differences may exist in terms of functional equivalence and conceptual equivalence. “Function equivalence exists when the behavior in question has developed in response to a problem shared by two cultural groups, even though the behavior in one society does not appear to be related to its counterpart in another society. These functional equivalences must pre-exist as naturally occurring phenomena (...). Without this equivalence, it is suggested, no valid cross-cultural behavioral comparison may be made” (Berry 1969, p. 122). To put it succinctly, concepts are functionally equivalent if they have the same role in a particular system. Conceptual equivalence is related and refers to whether a concept has the same meaning, not necessarily prominence, in countries studied (Punnett and Shenkar 1996, p. 43). U.S. and German companies are likely to benefit equally from the integrative, motivational and coordinative function of organizational culture. Hence, functional equivalence can be assumed by and large. However, essential dimensions of a questionnaire may possess different meanings in other cultures, so that considerations on conceptual, category, calibration, translation and metric equivalence limit direct comparability of scale scores to some extent across countries.
Although it is regarded as less decisive, it is nonetheless worth noting – for the reason of completeness – that culture-based response biases may occur, in general. Hitherto, the most common research instrument in cross-cultural research has been, and will most likely continue to be, the questionnaire (cf. Bhagat et al. 1990). In varopis societies, the responding pattern differs (Hui and Triandis 1989, Triandis 1994). Cultural differences consist in the content of what is socially desirable, with social desirability heavily influencing responding behavior. In this context, d'Iribarne (1997) mentions the U.S. model of “fair contract”, the French “logic of honor”, and the Dutch “consensus” guiding organizational functioning in these three countries.

Besides social desirability, another culture-based response bias arises from differing response behavior, e.g., excessive use of endpoints of the scale known as extreme response set bias (Hui and Triandis 1989). The Japanese are most likely and Thai least likely to give midpoint responses (Stening and Everett 1994). Respondents from the People’s Republic of China show a clear tendency to give entirely bimodal answers on the 5-point Likert scale (Adler et al. 1989). While the latter culture-related response bias has been associated primarily with Asia, it cannot be completely excluded that desirability of answers can differ in Germany and the U.S., favoring the separation of the studies to a large extent and speaking against using the two datasets as a combined one. Two more sample equivalence aspects argue in favor of keeping the U.S. and the German study separate. Generally speaking, U.S. companies tend to be less international and larger than their German counterparts. Ease of comparison is therefore not always given. Also, the groups of respondents differ in terms of their status and position. The U.S. sample includes top managers, while their German counterparts consist of well-informed employee representatives. It is just the different positioning in the hierarchy that may influence the strength and direction of a perception (Glaser et al. 1987, p. 184). It is also unclear to what extent the U.S. respondents may actually give a more idealistic view, which again underlines the importance of keeping the studies separate.

5.3. Secondary data on internationalization

5.3.1. Traditional and selected conceptualization for internationalization

Reviewing conceptualizations of internationalization reveals a variety of applied approaches, yet no consensus has as yet emerged on the best way to carry it out (Sullivan 1996, p. 179). The number of indicators and the reasons favoring one over others divide academic opinion. According to Sullivan (1994a, p. 331) single-item proxies of internationalization reflect different connotations that exist in the notion of internationalization and include structural indicators, performance indicators and attitudinal indicators. As Table 15 reveals, structural indicators depict the international entanglement of a corporation at a certain point in time (cf. Doerrenbaecher 2000, p.
The impact of internationalization on organizational culture

Foreign activities can be described with a variety of individual indicators, such as the number of countries a company is active in, or the number of foreign subsidiaries in absolute or relative figures (cf., e.g., Stopford and Wells 1972). The amount of foreign assets to total assets (FATA) is an important figure (e.g., Daniels and Bracker 1989, Ramaswamy 1995).

### Table 15: Individual internationalization indicators

<table>
<thead>
<tr>
<th>Structural indicators</th>
<th>Performance indicators</th>
<th>Attitudinal indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Relating to foreign activities</td>
<td>1. Foreign sales</td>
<td>1. ‘Soft’ indicators</td>
</tr>
<tr>
<td>• Number of countries a company is active in</td>
<td>• Demand: amount of foreign sales by customer location (Exports from home country plus revenues of foreign affiliates minus their revenues from exports to the home country)</td>
<td>• Ethno-, poly-, regio- or geocentric management style according to: organizational complexity, authority, decision making, communication flows, recruiting, staffing, control</td>
</tr>
<tr>
<td>• Number or proportion of foreign affiliates</td>
<td>• Supply: Amount of sales of foreign affiliates (sum of revenues of foreign affiliates)</td>
<td></td>
</tr>
<tr>
<td>• Number or proportion of cases of non-capital involvement abroad (e.g., strategic alliance alliances, franchised operations)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Amount or proportion of foreign assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Amount or proportion of value added abroad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Amount or proportion of sourcing abroad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Number or proportion of foreign employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Relating to governance structures</td>
<td>2. Operating income abroad</td>
<td>2. ‘Hard’ indicators</td>
</tr>
<tr>
<td>• Number of stock markets on which a company is listed</td>
<td>• Sum of operating income of foreign affiliates</td>
<td>• International experience of top managers (e.g., cumulative experience of the years top managers spent working abroad weighed by total years of their working experience)</td>
</tr>
<tr>
<td>• Amount or proportion of shares owned by foreigners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Number or proportion of non-nationals in the board of directors</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Doerrenbaecher 2000, p. 120

The second group of structural indicators in Table 15 focuses on the governance structure and incorporates information either on how many international stock markets list the respective shares, how many foreign shareholders exist, or how many foreign nationals serve on the board of directors. Concerning performance, individual indicators include figures and ratios on operating income and foreign sales abroad. In particular, FSTS represents the most widely used ratio (Ramaswamy et al. 1996, p. 167), although there is no shortage of measures, in general (cf. Sullivan 1994a). Attitudinal indicators round off the list of individual indicators for internationalization by describing either softer aspects such as overall orientation of management styles, based for example on Perlmutter’s (1969) typology, or the harder, quantitative aspects of years of work experience of top managers (Sullivan 1994a).
1994a, p. 332). Perriard (1995) adds to the variety of ratio indicators. He applies the Gini-Index to mirror the degree to which regional distribution of a certain indicator of an organization complies with the total distribution of this indicator worldwide. The idea of considering regional diversification is furthermore considered in Schmidt’s (1981) application of the Herfindahl-Index in order to position organizations on a homogeneity-heterogeneity continuum regarding their foreign activities. Letto-Gillies (1998) enriches available options with the idea of considering the network extension in terms of number of countries with subsidiaries. Kutschker (1993) contributes the idea of including cultural distance and a specific weight for cultural distances in the analysis of internationalization. In contrast, Sullivan (1994) addresses psychic dispersion differentiated according to different zones. While representing an additional way of measuring internationalization, data availability is crucial for these measures of regional diversification. Yet the same criticism of lacking comprehensiveness as brought forward against individual indicators applies. Single-item indicators facilitate replication (Sullivan 1994a, p. 326) and avoid the challenging question of how to link multiple individual dimensions in the most appropriate way, since variable combination can be problematic (cf. Ramaswamy et al. 1996). Given the multitude of possibilities, identifying the best single-item indicator is challenging and runs the risk of representing only a limited portion of a multi-attribute construct (Sullivan 1994a, p. 326).

### Table 16: The measurement of regional diversification

<table>
<thead>
<tr>
<th>Regional concentration</th>
<th>Network extension</th>
<th>Geographical and cultural distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homogeneous versus heterogeneous distribution of foreign activities (Schmidt 1981)</td>
<td>Network spread index (Letto-Gillies 1998): number of foreign countries in which a company owns affiliates as a proportion of total number of countries in which foreign direct investment has occurred minus one, which refers to the home country of the company</td>
<td>Countries are weighted according to their geographic and cultural distance to the home country (Kutschker 1993)</td>
</tr>
<tr>
<td>Extent to which the regional distribution of a certain indicator at a given company complies with the total distribution of this indicator in the world (Perriard 1995)</td>
<td></td>
<td>Psychic dispersion index (Sullivan 1994): number of zones with different cognitive maps relating to management principles in which a company is active (out of 10 zones worldwide)</td>
</tr>
</tbody>
</table>

Source: Doerrenbaecher 2000, p. 121

Frequent use of FSTS does not necessarily mean other indicators such as OSTS (overseas subsidiaries as a percentage of total subsidiaries) or FPTP (foreign profit to total profit) are flawed, while every single-item indicator has inherent limitations. The use of a single-item estimator of a construct brings with it the risk that any unusual circumstances distorting the normal validity of the measure will taint and ruin results. Sullivan (1994a, p. 337) cites as an example the ratio of FSTS, which can be inflated or deflated by a conceptually irrelevant factor bearing no relation to actual
internationalization. The concrete example refers to firms consolidating foreign sales from different currencies into a single numeraire at times of extraordinary currency value oscillations. Hence, it is by no means certain that individual indicators will necessarily lead to the same result (Germann et al. 1999, p. 7). Is an index the solution?

Composite indices overcome the drawbacks of individual indicators since they reflect the construct multidimensionality more adequately and at least partly balance out contingent influences and transfer pricing manipulations. Three major standard indicators are proposed in the literature (Doerrenbaecher 2000, p. 123; Sullivan 1994a, p. 337). UNCTAD’s (1995) Transnationality Index comprises FSTS, FATA and FETE. This Transnationality Index takes the average of these three ratios in order to exclude a bias resulting from an industry effect. Labor, capital or export intensive industries are thus more equally depicted. For jetto-Gillies (1998), UNCTAD’s Transnationality Index does not adequately consider the spread of foreign activities abroad, and she therefore suggests a Transnational Activities Spread Index. The latter multiplies UNCTAD’s Transnationality Index by the number of foreign countries in which a company owns affiliates as a proportion of total number of countries in which foreign direct investment has occurred minus one, which refers to the home country of the company. For Sullivan (1994a, p. 325), internationalization always has three attributes: performance depicts what goes on overseas (cf. Vernon 1971); structural aspects describe what resources are overseas (cf. Stopford and Wells 1972); and attitudinal aspects mirroring top management’s international orientation (cf. Perlmutter 1969). The suggested index comprises five factors:

\[
\text{DOI}_{\text{INTS}} = \text{FSTS} + \text{FATA} + \text{OSTS} + \text{Tmie} + \text{PDIO}
\]

As mentioned earlier, FSTS refers to the ratio of foreign sales to total sales, and FATA stands for foreign assets to total assets, OSTS represents proportion of overseas subsidiaries to total subsidiaries, TMIE measures top managers’ international experience, while PDIO indicates psychic dispersion of international operations. Undoubtedly, DOI_{INTS} is more comprehensive than any single-item indicator. Is an index the best solution for measuring internationalization? While Ramaswamy et al. (1996) extensively discuss theoretical and methodological flaws, their essential criticism against DOI_{INTS} and indexes in general are (1) more or less arbitrary decisions on which items to include and how many; (2) the challenging question on how to combine these items; and (3) how to arrive at an indicator for internationalization that most suitably reflects the actual and unique pattern in the DOI. Ramaswamy et al. (1996, pp. 169-170), for example, criticized that DOI_{INTS} calculated for several companies have the same total value as the sum of five indicators of internationalization. However, these companies differed largely in their psychological and structural-financial dimensions of internationalization.
Comprehensiveness is the strength of Sullivan’s (1994a) approach in terms of inclusion of performance, structural and attitudinal aspects. Nonetheless, it remains questionable whether even such an extensive approach adequately covers all aspects of the internationalization phenomenon (Doerrenbaecher 2000, p. 125). The linear addition of index components can give rise to discussion (cf. Ramaswamy et al. 1996), but this just shows that the debate on ways to measure internationalization is still going on. As Sullivan (1994a, p. 339) already indicated, his original sample did not represent non-American firms. If he had calculated DOIINTS for German firms, he would soon have become aware of the restricted data availability in Germany primarily because of different reporting laws. Data availability is a necessary precondition for application of any of these composites as well as individual indicators (Doerrenbaecher 2000, p. 119). Of course, availability refers to them as secondary data material. But there are also difficulties associated with gathering them as primary data. In gathering DOI data, researchers may face respondents' reluctance to share data, and consequently only the data-availability of a critical percentage of the organizations studied makes its use meaningful. Moreover, some financial data on internationalization may not be readily available for respondents, which increases the time and effort needed to respond to surveys and thus quite logically correlates negatively with willingness to participate (Cooper and Emery 1995, p. 306). Inquiring about internationalization data besides additional questionnaire items extends the overall length of the survey as well as response time, and hence may decrease response-rates (Church 2001, p. 960; Douglas 1995, p. 38; Graham and Cable 2001, p. 29), restricting potential for generalizations.

**Selected approach to measure internationalization**

More information seems to be provided by companies in the U.S. and therefore by financial information organizations such as Thompson Financial. The respective current Statement of Financial Accounting Standards (SFAS 131) in the U.S. regulates, "an enterprise shall report (...) geographic information unless it is impracticable to do so" and specifies total foreign revenues and long-lived assets as required disclosures. This disclosure requirement for FSTS and FATA data finds minor limitation in practice, as the "impracticable to do so" key provision enables firms to opt out if they convince their auditor that they cannot reliably provide this information, or if it is deemed immaterial.7

In contrast, corporate law and foreign business structures in Germany allow the researcher only to use FSTS as secondary data as the selected, nonetheless strong, indicator for internationalization. German law, the Handelsgesetzbuch (HGB), does

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7 To some extent, cross-comparability is furthermore restricted, e.g., if companies provide non-monetary quantity information, such as for example barrels of beer sold abroad in relation to total barrels produced, instead of such geographic information weighted with relevant price information.
not prescribe reporting on foreign business, in general. According to § 297 I 2 HGB, only public companies are required to report on segments. Based on § 342 I 1.1 HGB the Administrative Council of the German Accounting Standards Committee (GASC) (Deutsches Rechnungslegungs Standard Committee DRSC) elects the German Accounting Standards Board (GASB) for establishing respective guidelines. German Accounting Standard 3 (GAS 3) prescribes either a product or geographic segment oriented reporting. The size criteria of International Accounting Standards (IAS) also apply to German public companies; in other words, foreign business is reported when revenues, profits or assets abroad exceed the 10% mark (Buchholz 2001, p. 213). Hence, relying solely on annual reports may lead to an under-representation of companies with low DOI and relatively high sample averages for DOI indicators. While more internationalization data is available on several of Germany’s top 100 or 200 firms, the strong export focus likely to be found in lower ranks enables researchers to use FSTS as the major indicator for DOI only, because other data is simply not reported and hence, not available on a crucial percentage of companies.

The future will bring about changes in reporting on foreign business. A trend towards harmonization has been started, as frequently suggested (cf. Wilson 1994). The EU decided in its Commission Regulation No. 1606/2002 from July 7, 2002, to require publicly listed German companies to report according to IAS (International Accounting Standards) from 2005 on. Until then, the IAS will be amended content-wise and renamed into IFRS (International Financial Reporting Standards). Furthermore, a German Corporate Governance Code was published by the German Ministry of Justice in November 2002, suggesting, though not yet legally requiring, the adoption of international accounting standards. In a status quo analysis on the top 100 publicly listed German companies, Management Consultancy Towers Perrin (2003, pp. 14-15) reveals that full compliance with this code requires more time especially regarding international reporting standards; but until 2005, most public companies in Germany will have made the transition. As a consequence, German foreign business reporting is certain to become more open and easier to understand for foreign investors. Such changes may enable researchers in subsequent studies to broaden the chosen conceptualization of internationalization, which resides in FSTS for the study in Germany. Clear interpretability characterizes FSTS as a single-item index. Its application seems especially appropriate to studies with a rather complex dependent variable, as organizational culture is within this context. As U.S. companies have to publish FATA data, if substantial, this study will consider this second ratio as well. The analysis will be carried out primarily with the most current data on internationalization available at the time of the analysis, the FSTS_{2001} and FATA_{2001}\text{ratios}. These elaborations on secondary data refer to the major analysis and thus the core of the empirical studies in the U.S. and Germany. As Hitt et al.

\footnote{Statistical analysis ended in late 2002. Major commercial databases will be able to provide secondary data digitally from June 2003 on.}
(1997, p. 789) point out, companies differ in their capacity to handle complexity, e.g., due to prior experience through product diversification. Minimizing the time lapse between measuring DOI and organizational culture avoids the difficulty that impact of internationalization on organizational culture in organizations highly capable of coping with complexity and diversity has already worn off by the time organizational culture is measured. As the U.S. study has a more extensive conceptualization of the DOI indicator through considering a second proxy, the German study is extended with an additional dynamic analysis in order to put equal weight on both empirical parts. Further analysis will shed light on the impact of internationalization from previous years, more specifically using FSTS1997 and a growth index of internationalization from 1997 to 2001. Thereby, this dynamism index considers only data from these two years in order neither to smooth out larger jolts nor to disguise important tendencies. The section on “further analysis” thus includes a differentiated view on links between strategies of internationalization and respective organizational cultures. However, this additional analysis aims solely at providing further insights to interpret the results of the hypotheses testing better.

5.3.2. Data sources
The secondary data on financial internationalization are drawn from publicly available sources. Worldscope from Thompson Financial serves as the major source of secondary data on the financial characteristics of German companies. The Worldscope data were available at the online information system of the library of the University of St. Gallen and also at The Wharton School’s Lippincott Library. The data could be downloaded digitally. Annual reports as well as personal calls to investor relations departments enabled the author to overcome database incompleteness and ensuring data accuracy. For the U.S., the database Compact SEC is a better data source, as it comprises the fillings to the U.S. Securities and Exchange Commission supervising public companies and provides richer data than annual reports. As the quality of databases in regard to data accuracy shows an error rate or no entry rate of roughly 20% on internationalization data, cross-checking database entries with online SEC fillings, annual reports, and corporate communication or investor relation departments via call or email becomes absolutely inevitable. To the extent that DOI data were gathered directly from companies, they become primary data in nature.

5.4. Control variables
During regression analysis for testing the impact of internationalization on organizational culture, this study considers three control variables. First, organizational size can play an influence since, for example, for Hitt et al. (1990) larger companies are more inert. The natural logarithm of total assets conceptualizes
The impact of internationalization on organizational culture

size. Secondly, Daniels and Bracker (1989, p. 48) indicate that specific industry conditions enable companies in certain industries to gain more from foreign operations than others. Analogously, Ogbonna (2002) indicates industry-specific patterns in regard to organizational culture. Since the literature on both constructs alludes to possible industry idiosyncracies, this study incorporates industry membership in the form of the first category digit of the official standard industry classification (SIC):

Industry 0: Agriculture, forestry, and fishing
Industry 1: Mining and construction
Industry 2-3: Manufacturing
Industry 4: Transportation, communication, electric, gas, and sanitary services
Industry 5: Wholesale trade, retail trade
Industry 6: Finance, insurance, and real estate
Industry 7-8: Services

Industry category 9, "Public administration", within the official SIC classification has been excluded from the analysis in Germany, where no such publicly listed organization exist. Thirdly, a subjective measure based on primary data of endowment with financial, human or knowledge resources has been considered, based on the aforementioned role of resources for organizational culture and learning (cf. Cooke and Szumal 2000).

5.5. Evaluation

Does the methodology and method permit appropriate addressing of the research question and goal? Is it consistent with the applied theoretical and conceptual foundation of the key variables? How modern or innovative is it? Is it *doable* in terms of a realistic time and cost budget? These are critical questions when evaluating the chosen approach. The methodology and method constitute main reasons for the ‘culture war’ mentioned previously. Nonetheless, the chosen quantitative approach allows one to address and answer the research question as to whether cross-company evidence exists for an impact of geographic expansion on organizational culture based on tested hypotheses. This study is therefore characterized by clear *anti-methodolatry*9 (Janesick 1994, p. 215) in the sense of the methodology and the method being clearly determined by the research question and the research goal (cf. also Black 1999, p. 47). The research goal is to derive generic and cross-company insights into the internationalization-cultures link, examined, observed and statistically underpinned with a larger sample of companies. Data gathered in order to find

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9 Janesick used the term methodolatry, a combination of method and idolatry, to describe a preoccupation with selecting methods to the exclusion of the actual substance of the story being told. Methodolatry thus means putting method before content, method before research question (cf. Janesick 1994, p. 215).
The impact of internationalization on organizational culture

evidence has to be precise, specific, objective and large-scale to allow cross-
company comparisons and identification of respective patterns. The quantitative
approach reflects the early stage of research into the DOI-culture link. Insights into
general patterns provide a valuable contribution and can thus sensitize researchers
to crucial aspects to be researched in more detail in subsequent, again resource
intensive, qualitative research.

The chosen approach to methodology and method is not only in accordance with the
research question and the overall research goal, but also in tune with the applied
concept of organizational culture. Functionalism, as the selected concept of
organizational culture, is more closely related to positivism. In contrast, symbolism, or
the metaphor, approach is linked with a phenomenological, qualitative approach
focusing to a larger extent on the context as well as on interpretation (cf. Schultz
1995, Martinsuo 1999). An established instrument for measuring organizational
culture has been applied, with surveys meanwhile having been an accepted and
frequently used approach for more than 20 years. Schein’s (1993a) main criticism of
the quantitative approach to organizational culture is not fully applicable to the
chosen method and the OCAQ. According to him, “one has to understand the depth
of the phenomena one is surveying, and I do not see that deeper knowledge of
culture is going to come about using instruments that are based on organization
theories that never considered culture as an issue to be dealt with in the first place”
(Schein 1993, p. 705).

By contrast, the OCAQ is based directly on the strong theoretical foundation of
Parson’s (1960) functional prerequisites for organizational survival and was
specifically designed to measure these in an organization’s culture. Having access to
and support from the OCAQ originator leads to the proper application and
interpretation of the instrument. To fax the survey ensures cost, time and
administrative advantages and lower non-recipient rates than internet-based surveys
in the context of this study. The fax as a medium is more tailored to the target group,
which is easier to reach with a fax than with unknown and unpublished email
addresses. Nonetheless, the internet plays a considerable role in broadcasting the
faxes as well as in regard to the fax-back system. Large-scale surveys on the topic
itself are lacking, which also holds true for respective international ones. The
innovative approach of considering the employee representatives in Germany
enables this study to target the most suitable group of respondents available in both
countries.

Although China may change rankings in the future, the U.S. is still the world’s largest
economy. In Europe it is Germany. Hence, two key economies have been chosen for
this empirical study, ensuring relevance. Furthermore, this study as the first of its kind
includes two countries with fundamentally different pathways to internationalization
and respective performance implications. The choice of targeted respondents is thus sensitive to international difference and studies important, yet extreme opposites. This allows for interesting insights into the phenomenon in two diametrically opposed settings. This study is in line with insights from previous research warning that future studies need to be sensitive to international differences. The crosschecking of secondary data ensures highest data accuracy on the independent variable, while the chosen conceptualization of internationalization can also look back on a long quantitative tradition. With FSTS in Germany and FSTS as well as FATA in the US, this study relies on what has to be published by companies in both countries.

Therefore, the conclusion is drawn that the methodology and method are deemed suitable and allow for a modern way of gaining more knowledge about organizational culture. Approaching employee representatives in Germany is an innovative approach to gathering knowledge from those employees who know the organization extremely well. In sum, the methodology and method suit the research question. They are in tune with the applied conceptual foundation and enable an innovative, international study with unique primary data to be made.
6. The empirical study in the U.S.

6.1. Descriptive statistics

The 1,000 largest by sales and publicly listed U.S. companies were approached with a questionnaire to four of their top managers. Overall, 259 surveys were returned from 211 different companies. For studies applying the integration paradigm for organizational culture, the cross-company response-rate is crucial. It amounts to 21.1%. This response-rate is comparable to Goll and Sambharya (1995) adopting a similar design of an externally triggered survey on soft factors. In 32 cases, two questionnaires per company and in eight cases three per company were returned. This results in 1.23 questionnaires per company on average, and compared to the number of informants targeted per organization, a respective within-company response-rate of 31%. Compared to what may be called the heyday of high response-rates in the 1980s (Snow and Thomas 1994, p. 462), the response-rate in the U.S. survey is relatively low, considering the high number of surveys sent out in total. Over-surveying in the U.S., and of top management in particular, partly accounts for this. While the absolute and precise figure is hard to judge, a percentage of companies have implemented a “no survey” policy, General Motors as a prime example, since the flood of questionnaires had become simply overwhelming in recent years. Top managers produce very low response-rates, in general (Gulati and Westphal 1999, p. 489). Moreover, the corporate scandals of 2002 in several U.S. firms contributed to an atmosphere where executives made sure their corporate governance and reporting practices were in line instead of using company time to participate in surveys. Also, the survey topic may not create as much attention as other pressing issues in the short term (cf. Fowler 2002, p. 65). Lower response-rates seem to be common in contemporary surveys within the U.S., unless there is a unique motivator. Response-rates below 20% in surveys are not uncommon (Fowler 2002, p. 65). Therefore, the cross-company response-rate of 21.1% is rather positive. Table 17 indicates that there is no response bias either for size or industry.

Table 17: Logit analysis for the U.S. sample

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Statistics</th>
<th>B</th>
<th>Std. error</th>
<th>Wald</th>
<th>Df</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I 1: Mining and construction</td>
<td></td>
<td>0.199</td>
<td>0.368</td>
<td>0.294</td>
<td>1</td>
<td>1.221</td>
</tr>
<tr>
<td>I 2-3: Manufacturing</td>
<td></td>
<td>0.369</td>
<td>0.250</td>
<td>2.176</td>
<td>1</td>
<td>1.446</td>
</tr>
<tr>
<td>I 4: Transportation, communication</td>
<td></td>
<td>0.326</td>
<td>0.289</td>
<td>1.271</td>
<td>1</td>
<td>1.386</td>
</tr>
<tr>
<td>I 5: Wholesale and retail trade</td>
<td></td>
<td>-0.304</td>
<td>0.315</td>
<td>0.932</td>
<td>1</td>
<td>0.738</td>
</tr>
<tr>
<td>I 6: Finance, insurance</td>
<td></td>
<td>-0.234</td>
<td>0.311</td>
<td>0.564</td>
<td>1</td>
<td>0.791</td>
</tr>
<tr>
<td>I 7-8: Services</td>
<td></td>
<td>-0.500</td>
<td>0.365</td>
<td>1.874</td>
<td>1</td>
<td>0.607</td>
</tr>
<tr>
<td>I 9: Public administration</td>
<td></td>
<td>-3.527</td>
<td>13.500</td>
<td>0.068</td>
<td>1</td>
<td>0.029</td>
</tr>
<tr>
<td>Size (Log of assets)</td>
<td></td>
<td>0.194</td>
<td>0.147</td>
<td>1.738</td>
<td>1</td>
<td>1.214</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>-2.865</td>
<td>0.959</td>
<td>8.916**</td>
<td>1</td>
<td>0.057</td>
</tr>
</tbody>
</table>

* p<0.01  ** p<0.05  *** p<0.1

Source: Author
The impact of internationalization on organizational culture

As for the position of respondents, an additional logit analysis reveals that survey participants from strategy and HR functions showed a particularly high interest in participating in the study. This is not really surprising since the questionnaire topic is of more immediate relevance to HR and strategy, which explains this position influence, as Table 18 shows.

<table>
<thead>
<tr>
<th>Position</th>
<th>Statistics</th>
<th>B</th>
<th>Std. error</th>
<th>Wald</th>
<th>Df</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of Strategy and Development</td>
<td>1.165</td>
<td>0.313</td>
<td><strong>13.803</strong></td>
<td>1</td>
<td>3.207</td>
<td></td>
</tr>
<tr>
<td>Head of Human Resources</td>
<td>0.654</td>
<td>0.285</td>
<td><strong>5.274</strong></td>
<td>1</td>
<td>1.924</td>
<td></td>
</tr>
<tr>
<td>Head of Finance</td>
<td>0.238</td>
<td>0.252</td>
<td>0.892</td>
<td>1</td>
<td>1.269</td>
<td></td>
</tr>
<tr>
<td>General Counsel and Corporate Secretary</td>
<td>0.109</td>
<td>0.296</td>
<td>0.135</td>
<td>1</td>
<td>1.115</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-4.585</td>
<td>0.157</td>
<td><strong>853.583</strong></td>
<td>1</td>
<td>0.010</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.01 **p<0.05 ***p<0.1 Source: Author

FSTS and FATA ratios in the U.S. sample

Figure 22 and subsequently Table 19 provide an overview on internationalization ratios in the sample as well as further descriptives. FATA is an indicator of a more advanced degree of internationalization, as it involves FDI. Thus, a FATA range of 50-60% can be considered very high. It is therefore less surprising that more companies are represented in medium and higher ranges of FSTS ratios than in FATA ratios. The large domestic market may also account for FSTS ratios being lower than in the German sample (see Chapter 7.1). In such a context, even substantial foreign sales can easily account for a lower overall percentage of corporate sales.

Additionally, as Daniels and Bracker (1989, p. 47) indicate, fewer data points are expected beyond an optimum level of internationalizing, as companies would internationalize further only if advantages prevailed, and would otherwise decrease their proportion of foreign to total operations. As calls to investor relations departments aimed to overcome database incompleteness on secondary data, smaller FSTS and FATA ratios are also represented in the sample. The Federal Accounting Standards Board and Securities Exchange Commission guidelines require publicly traded firms to report foreign sales separately if such revenue exceeds 10% of overall company sales. Since most public databases, such as Computstat, Fortune and Forbes, use 10-Ks and annual reports to compile firm level foreign sales statistics, most prior studies such as Daniels et Bracker (1984), Gehringer et al. (1989), Siddharthan and Lall (1982) have implicitly adopted the 10% cut-off (Gomes and Ramaswamy 1999, p. 185; see however Riahi-Belkaoui 1998). Those studies exclude and ignore the potentially substantial group of U.S. companies with lower FSTS and FATA ratios. These groups amount to a considerable 24% in the case of FSTS, and 33% as for FATA in this study.
Table 19 provides descriptive statistics for the key independent and dependent variables. Since FATA indicates more advanced internationalization, as it involves FDI (cf. Johanson and Wiedersheim-Paul 1975, p. 307), the percentage figure for FSTS is higher than for FATA. Therefore, 135 companies show FSTS, while only 107 of them have assets abroad. No company in the sample had foreign assets without at least some foreign sales. A FSTS ratio of 27% is precisely as high as in Sullivan’s (1994b) study, but may be lower than in other studies because of the consideration of less internationalized companies. As indicated, it is not surprising that the overall FATA ratios as an indicator for a more advanced degree of internationalization are lower, especially given the large domestic market size in the U.S.

Figure 22 presents the frequency distribution of respondents after initial sample purification has been carried out in order to identify and eliminate outliers through a nearest-neighbor cluster analysis. Three companies with a very high FATA ratio between 78-88% have thus been removed from the database, as their item scores were so different from all other companies in the U.S. group of respondents that they clustered in the very last clustering step only. The remaining number of companies with FATA abroad considered in the analysis amounts to 104. Purely domestic U.S. companies have been removed from the sample, as they are largely irrelevant to the research question. Since there are no international public administration companies in the U.S., industry category 9 will not be considered further.

<table>
<thead>
<tr>
<th>Variables</th>
<th>FSTS</th>
<th>FATA</th>
<th>OCAQ Scale 1</th>
<th>OCAQ Scale 2</th>
<th>OCAQ Scale 3</th>
<th>OCAQ Scale 4</th>
<th>OCAQ Scale 5</th>
<th>Sum of all scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>135</td>
<td>104</td>
<td>135</td>
<td>135</td>
<td>135</td>
<td>135</td>
<td>135</td>
<td>135</td>
</tr>
<tr>
<td>Mean</td>
<td>27.07</td>
<td>17.78</td>
<td>19.36</td>
<td>22.24</td>
<td>21.44</td>
<td>22.97</td>
<td>21.83</td>
<td>107.83</td>
</tr>
<tr>
<td>Median</td>
<td>26.31</td>
<td>14.70</td>
<td>19</td>
<td>23</td>
<td>22</td>
<td>23</td>
<td>22</td>
<td>110</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.2</td>
<td>0.3</td>
<td>11</td>
<td>13</td>
<td>13</td>
<td>11</td>
<td>9</td>
<td>69</td>
</tr>
<tr>
<td>Maximum</td>
<td>88</td>
<td>54.89</td>
<td>30</td>
<td>29</td>
<td>30</td>
<td>30</td>
<td>28</td>
<td>136</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-0.2030</td>
<td>0.126</td>
<td>0.073</td>
<td>-0.533</td>
<td>0.003</td>
<td>1.462</td>
<td>0.728</td>
<td>-0.361</td>
</tr>
<tr>
<td>Std. error of kurtosis</td>
<td>0.4142</td>
<td>0.469</td>
<td>0.414</td>
<td>0.414</td>
<td>0.414</td>
<td>0.414</td>
<td>0.414</td>
<td>0.414</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.5196</td>
<td>0.935</td>
<td>0.154</td>
<td>-0.366</td>
<td>-0.135</td>
<td>-1.013</td>
<td>-0.718</td>
<td>-0.384</td>
</tr>
<tr>
<td>Std. error of skewness</td>
<td>0.2085</td>
<td>0.237</td>
<td>0.209</td>
<td>0.209</td>
<td>0.209</td>
<td>0.209</td>
<td>0.209</td>
<td>0.209</td>
</tr>
</tbody>
</table>

Source: Author

As indicated in the description of the OCAQ and its norms for categorizing scale score (cf. Table 13, p. 99), the slightly varying mean and median among OCAQ dimensions mirror scale idiosyncrasies and do not present any further problems. Table 20 reveals that with a Pearson coefficient of 0.323, FSTS and FATA correlate
very weakly, yet in a statistically significant way. Interestingly enough, there is a rather weak but still significant correlation between the subjective perceptions of being well endowed with resources and actual, more objective asset figures.

**Figure 22: Distribution of FSTS and FATA ratios in the U.S. sample**

\[ N_{\text{FSTS}} = 135, \quad N_{\text{FATA}} = 104 \]

Source: Author
The impact of internationalization on organizational culture

Table 20: Correlation matrix of independent and dependent variables in the U.S. study

<table>
<thead>
<tr>
<th>Variables</th>
<th>FSTS</th>
<th>FATA</th>
<th>Resource endowment</th>
</tr>
</thead>
<tbody>
<tr>
<td>FATA</td>
<td>0.323**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource endowment</td>
<td>-0.016</td>
<td>-0.137</td>
<td></td>
</tr>
<tr>
<td>Size (log of total asset)</td>
<td>0.047</td>
<td>-0.195***</td>
<td>-0.347**</td>
</tr>
</tbody>
</table>

*p<0.01 **p<0.05 ***p<0.1

Source: Author

6.2. Results of hypotheses testing in the US

5.2.1. Impact of internationalization on corporate adaptability and change

During the statistical analysis of the U.S. data based on regression analysis, one of the first and meaningful revelations resides in the fact that FSTS does not impact organizational culture in contrast to FATA. Table 21 provides the statistics for the regression analysis. Internationalization is conceptualized with FSTS on the left and FATA on the right. Augmenting FATA rates have a positive linear effect on the first content dimension of organizational culture. Companies with higher proportions of their assets abroad show a more professional change management. Based on FATA as the indicator for internationalization, and given a sufficiently high t-value and level of significance, the Hypothesis 1.1 on a linear impact can be accepted. As a consequence, internationalization does impact change management in the U.S., but only if geographic expansion reaches a deeper level, namely, when assets are internationalized.

Table 21 reveals what considerable impact a comprehensive endowment with financial, human and knowledge resources can have. The richer the organizations and the better endowed, the higher the organizational culture scores in regard to change management. This insight empirically contradicts Cooke and Szumal’s (2000) proposition foreseeing a contrary effect. Companies with higher levels of resource endowment seem to have more financial, human and knowledge resources available to implement and apply professional change management procedures.

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Further analysis revealed that the basic statistical assumptions of the linear regression model are fulfilled. Analysis confirmed a residuals' expectancy value of 0. Homoscedasticity has been analyzed with respective scatterplots showing no clear pattern, indicating non-violation of the basic assumption. As for non-autocorrelation of residuals, a Durbin-Watson test has been carried out. Being close to the expected value of about two in the Durbin-Watson statistics, the actual value of 2.163 indicates the fulfillment of the assumption. A one-sample Kolmogorov-Smirnov test examined the normal distribution of residuals by comparing observed values with a theoretical distribution. The asumption. Sig. (2-tailed) value of 0.934 indicates assumption fulfillment. Multicollinearity does not represent a problem due to considerably low or insignificant coefficient correlations. To conclude, regression analysis can be used without problems, and the same holds for the German sample, as congruent tests revealed.

As companies within industry category ‘1.0: Agriculture, forestry, and fishing’ do not report foreign assets, they are not further considered in the FATA-based analysis.

The negative B in Table 21 stems from item 35 being inverted with 1=completely true, 5=not true.
The impact of internationalization on organizational culture

Table 21: Statistics on impact of DOI on change management in the U.S.

<table>
<thead>
<tr>
<th>Internationalization conceptualized with FSTS</th>
<th>Internationalization conceptualized with FATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>Results</td>
</tr>
<tr>
<td>(Constant)</td>
<td>16.854* (1.958)</td>
</tr>
<tr>
<td>FSTS_01</td>
<td>-0.005 (0.016)</td>
</tr>
<tr>
<td>Res. endowment</td>
<td>-1.048* (0.305)</td>
</tr>
<tr>
<td>I 0: Agriculture, forestry</td>
<td>-2.471 (3.235)</td>
</tr>
<tr>
<td>I 1: Mining and construction</td>
<td>-0.879 (1.224)</td>
</tr>
<tr>
<td>I 4: Transp., communication</td>
<td>-1.472 (1.088)</td>
</tr>
<tr>
<td>I 5: Wholesale, retail trade</td>
<td>0.593 (1.050)</td>
</tr>
<tr>
<td>I 6: Finance, insurance</td>
<td>-1.403 (1.153)</td>
</tr>
<tr>
<td>I 7-8: Services</td>
<td>0.561 (1.289)</td>
</tr>
<tr>
<td>Size (Log of asset)</td>
<td>0.622* (0.203)</td>
</tr>
</tbody>
</table>

Model summary: 
\[ r^2 = 0.195, \] \[ \text{adj. } r^2 = 0.129, \] \[ F = 2.942^* \]

Model summary: 
\[ r^2 = 0.292, \] \[ \text{adj. } r^2 = 0.223, \] \[ F = 4.231^* \]

* p<0.01 ** p<0.05 *** p<0.1, 'I_2-3: Manufacturing' serves as control industry, N_{FSTS}=135, N_{FATA}=104

Source: Author

Figure 23 shows the positive impact of internationalization on organizational culture scores. A similar and again significant effect seems to originate from corporate size in terms of (log of) total assets. As indicated by Lawrence and Lorsch (1967b, p. 5), the environment can lead to varying demands on organizations.

**Figure 23: Impact of DOI on managing change in U.S. companies**

Source: Author
Industry-specific environments impose different levels of uncertainty, frequencies of change and idiosyncrasies upon organizations, which underlines the crucial role industry plays (cf. also Ogbonna 2002). Industry dummy variables aim to discover shifts in the position of the identified DOI-culture relationship. In this analysis, they lead to a downward shift of the line depicting the positive linear relationship in industry category in ‘I_6: Finance and insurance’ with ‘I_2-3: Manufacturing’ serving as control industry. Overall, considering control variables leads to a considerably more suitable and significant model. The analysis, interpretation and discussion of these findings are extended in Chapter 8.

6.2.2. Impact of internationalization on goal achievement

OCAQ Scale 2 focuses on goal achievement in U.S. companies. In contrast to OCAQ Scale 1, neither FSTS nor FATA influence the organizational culture dimension in U.S. companies. A FATA t-value of 1.139 at a significance level of 0.258 represents no substantial impact. Statistics in Table 22 suggest the rejection of Hypothesis 2.1.

Table 22: Impact of internationalization on goal achievement in U.S. companies

<table>
<thead>
<tr>
<th>Internationalization conceptualized with FSTS</th>
<th>Internationalization conceptualized with FATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>Results</td>
</tr>
<tr>
<td>(Constant)</td>
<td>OCAQ Scale 2 Beta (Std. error)</td>
</tr>
<tr>
<td>FSTS_01</td>
<td>-0.015 (0.016)</td>
</tr>
<tr>
<td>Res. endowment</td>
<td>-1.479* (0.319)</td>
</tr>
<tr>
<td>I: Agriculture, forestry</td>
<td>-2.082 (3.386)</td>
</tr>
<tr>
<td>I: Mining and construction</td>
<td>0.420 (1.282)</td>
</tr>
<tr>
<td>I: Transp., communication</td>
<td>-1.653 (1.139)</td>
</tr>
<tr>
<td>I: Wholesale, retail trade</td>
<td>-0.538 (1.099)</td>
</tr>
<tr>
<td>I: Finance, insurance</td>
<td>-1.565 (1.207)</td>
</tr>
<tr>
<td>I: Services</td>
<td>1.356 (1.349)</td>
</tr>
<tr>
<td>Size (Log of asset)</td>
<td>0.526** (0.213)</td>
</tr>
</tbody>
</table>

Model summary:

\[ r^2 = 0.264, \quad \text{adj. } r^2 = 0.204, \quad F = 4.352^* \]

\[ r^2 = 0.288, \quad \text{adj. } r^2 = 0.218, \quad F = 4.137^* \]

*p<0.01 **p<0.05 ***p<0.1, ‘I_2-3: Manufacturing’ serves as control industry, N_FSTS=135, N_FATA=104

Source: Author

6.2.3. Impact of internationalization on coordinated teamwork

In regard to OCAQ Scale 3 dealing with teamwork coordination, a similar situation to that in OCAQ Scale 1 occurs. While FSTS as the independent variable does not lead to a statistical significant impact on teamwork coordination, such an impact exists for FATA, as statistics in Table 23 demonstrate. The level of significance for the crucial FATA variable in the equation is 0.052, indicating a rather weak, but nonetheless significant impact. Therefore, based on FATA as the indicator for internationalization, and noticing the level of significance, Hypothesis 3.1 is accepted.
Table 23: Impact of DOI on coordinated teamwork in U.S. companies

<table>
<thead>
<tr>
<th>Internationalization conceptualized with FSTS</th>
<th>OCAQ Scale 3 Beta (Std. error)</th>
<th>Internationalization conceptualized with FATA</th>
<th>OCAQ Scale 3 Beta (Std. error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>Results</td>
<td>Variables</td>
<td>Results</td>
</tr>
<tr>
<td>(Constant)</td>
<td>22.080* (1.904)</td>
<td>(Constant)</td>
<td>19.076* (2.413)</td>
</tr>
<tr>
<td>FSTS_01</td>
<td>-0.002 (0.015)</td>
<td>FATA_01</td>
<td>0.047*** (0.023)</td>
</tr>
<tr>
<td>Res. endowment</td>
<td>-1.566* (0.296)</td>
<td>Res. endowment</td>
<td>-1.124* (0.310)</td>
</tr>
<tr>
<td>I 0: Agriculture, forestry</td>
<td>-5.617*** (3.145)</td>
<td>I 0: Agriculture, forestry</td>
<td></td>
</tr>
<tr>
<td>I 1: Mining and construction</td>
<td>-0.292 (1.190)</td>
<td>I 1: Mining and construction</td>
<td>-0.035 (1.451)</td>
</tr>
<tr>
<td>I 4: Transp., communication</td>
<td>-1.522 (1.058)</td>
<td>I 4: Transp., communication</td>
<td>-0.416 (1.086)</td>
</tr>
<tr>
<td>I 5: Wholesale, retail trade</td>
<td>-1.514 (1.021)</td>
<td>I 5: Wholesale, retail trade</td>
<td>-2.495** (1.163)</td>
</tr>
<tr>
<td>I 6: Finance, insurance</td>
<td>-1.063 (1.121)</td>
<td>I 6: Finance, insurance</td>
<td>-0.845 (1.129)</td>
</tr>
<tr>
<td>I 7-8: Services</td>
<td>-1.538 (1.253)</td>
<td>I 7-8: Services</td>
<td>-0.122 (1.458)</td>
</tr>
<tr>
<td>Size (Log of asset)</td>
<td>0.411** (0.198)</td>
<td>Size (Log of asset)</td>
<td>0.511** (0.226)</td>
</tr>
</tbody>
</table>

Model summary: \( r^2=0.301, \) adj. \( r^2=0.243, \) \( F=5.214^* \)

Model summary: \( r^2=0.337, \) adj. \( r^2=0.273, \) \( F=5.218^* \)

*\( p<0.01 \) **\( p<0.05 \) ***\( p<0.1 \) ‘I 2-3: Manufacturing’ serves as control industry, \( N_{\text{FSTS}}=135, N_{\text{FATA}}=104 \)

Source: Author

As it is the case for OCAQ Scale 1, there is a notable and significant impact of corporate size as well as resource endowment, both positively affecting teamwork coordination scores. An industry effect for ‘I 5: Wholesale trade and retail trade’ entails a slight correction in terms of a downward shift of the position of this positive monotonic line. Figure 24 shows the impact of FATA ratios on teamwork coordination scores.

Figure 24: Impact of DOI on teamwork coordination in U.S. companies

Source: Author
6.2.4. Impact of internationalization on customer orientation

Customer orientation represents the next crucial content dimension of organizational culture considered in this study. While FSTS continues to leave organizational cultures unaffected, FATA does show an impact at the significance level of 0.087, which is still lower than the acceptable range of $p<0.1$. The latter allows the conclusion that although not necessarily as strong as this is the case with OCAQ Scale 1, there is an existing and significant impact of FATA in the U.S. Based on this consideration and this significance level, sufficient evidence for Hypothesis 4.1 is found. Table 24 delivers statistical details and hints at the necessity to consider industry effects. They show in shifts of the respective positive monotonic line. For industry category ‘I_7-8: Services’, this line repositioning is quite substantial, but represents a logical result. This indicates that companies score significantly higher in this field compared to other industries in their geographic expansion process abroad. If service industries expand abroad, they show an especially high degree of customer orientation.

The enclosed section on “further analysis” will provide a more detailed exploration of this phenomenon, as overall customer orientation scores may simultaneously depend on the respective strategy for competing internationally. Regardless of these internationalization strategies, companies become more customer oriented when they internationalize their asset sets. Again, size and resource effects play a role. Figure 25 provides an overview on the positive linear impact FATA has on customer orientation in the U.S.

Table 24: Impact of DOI on customer orientation in U.S. companies

<table>
<thead>
<tr>
<th>Internationalization conceptualized with FSTS</th>
<th>OCAQ Scale 4</th>
<th>Internationalization conceptualized with FATA</th>
<th>OCAQ Scale 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>Results</td>
<td>B Std. error</td>
<td>Variables</td>
</tr>
<tr>
<td>(Constant)</td>
<td>26.615* (2.158)</td>
<td></td>
<td>(Constant)</td>
</tr>
<tr>
<td>FSTS_01</td>
<td>-0.007 (0.017)</td>
<td></td>
<td>FATA_01</td>
</tr>
<tr>
<td>Res. endowment</td>
<td>-1.117* (0.336)</td>
<td></td>
<td>Res. endowment</td>
</tr>
<tr>
<td>I 0: Agriculture, forestry</td>
<td>-9.326** (3.564)</td>
<td></td>
<td>I 0: Agriculture, forestry</td>
</tr>
<tr>
<td>I 1: Mining and construction</td>
<td>-1.029 (1.349)</td>
<td></td>
<td>I 1: Mining and construction</td>
</tr>
<tr>
<td>I 4: Transp., communication</td>
<td>0.559 (1.198)</td>
<td></td>
<td>I 4: Transp., communication</td>
</tr>
<tr>
<td>I 5: Wholesale, retail trade</td>
<td>0.191 (1.157)</td>
<td></td>
<td>I 5: Wholesale, retail trade</td>
</tr>
<tr>
<td>I 6: Finance, insurance</td>
<td>0.151 (1.270)</td>
<td></td>
<td>I 6: Finance, insurance</td>
</tr>
<tr>
<td>I 7-8: Services</td>
<td>2.187 (1.420)</td>
<td></td>
<td>I 7-8: Services</td>
</tr>
<tr>
<td>Size (Log of asset)</td>
<td>-0.134 (0.224)</td>
<td></td>
<td>Size (Log of asset)</td>
</tr>
<tr>
<td>Model summary:</td>
<td>$r^2=0.161$, adj. $r^2=0.091$, $F=2.317**$</td>
<td></td>
<td>Model summary:</td>
</tr>
</tbody>
</table>

*p<0.01 **p<0.05 ***p<0.1, ‘I_2-3: Manufacturing’ serves as control industry, $N_{FSTS}=135$, $N_{FATA}=104$

Source: Author
6.2.5. Impact of internationalization on cultural strength

The analysis continues with the setting dimension of organizational culture, or, to put it briefly, its strength. Again, Table 25 evidences that FSTS does not impact organizational culture in contrast to FATA. With a t-value of the FSTS coefficient of 2.355 at a level of significance of 0.021, this study accepts Hypothesis 5.1 without restrictions. To sum up, there is a positive, linear relationship between between the two key variables.

Table 25: Impact of DOI on cultural strength in U.S. companies

<table>
<thead>
<tr>
<th>Internationalization conceptualized with FSTS</th>
<th>Internationalization conceptualized with FATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>OCAQ Scale 5 B (Std. error)</td>
</tr>
<tr>
<td>(Constant)</td>
<td>20.948* (1.841)</td>
</tr>
<tr>
<td>FSTS_01</td>
<td>-0.008 (0.015)</td>
</tr>
<tr>
<td>Res. endowment</td>
<td>-1.473* (0.286)</td>
</tr>
<tr>
<td>I_0: Agriculture, forestry</td>
<td>2.483 (3.041)</td>
</tr>
<tr>
<td>I_1: Mining and construction</td>
<td>0.236 (1.151)</td>
</tr>
<tr>
<td>I_4: Transp., communication</td>
<td>-0.702 (1.022)</td>
</tr>
<tr>
<td>I_5: Wholesale, retail trade</td>
<td>-0.882 (0.987)</td>
</tr>
<tr>
<td>I_6: Finance, insurance</td>
<td>-1.214 (1.084)</td>
</tr>
<tr>
<td>I_7-8: Services</td>
<td>-0.504 (1.211)</td>
</tr>
<tr>
<td>Size (Log of asset)</td>
<td>0.549* (0.191)</td>
</tr>
</tbody>
</table>

Model summary:
- $r^2=0.310$, adj. $r^2=0.256$, $F=5.502^*$
- $r^2=0.390$, adj. $r^2=0.331$, $F=6.556^*$

*p<0.01 **p<0.05 ***p<0.1; 'I_2-3: Manufacturing' serves as control industry, N_{FSTS}=135, N_{FATA}=104

Source: Author

- 134 -
The impact of internationalization on organizational culture

Table 25 provides the statistical justification for accepting the hypothesis and simultaneously indicates that the linear relation shown in Figure 25 has a slightly different position in various industries. When compared to the control industry 'I_2-3: Manufacturing', a position adjustment becomes necessary for the 'I_5: Wholesale and retail trade' and 'I_6: Finance and insurance' industries. Familiar resource and size effects recur.

**Figure 26: Impact of DOI on cultural strength in U.S. companies**

![Graph showing the impact of DOI on cultural strength](image)

Source: Author

**6.2.6. Impact of internationalization on total organizational culture scores**

The originator of the OCAQ foresees the possibility to aggregate individual subscales to a total organizational culture score (cf. Shashkin 2001). Such a major resultant scale enables the analysis of how internationalization impacts organizational culture in more general terms. Even in the combination of all scales, FSTS continues to leave organizational culture unaffected. In contrast, the impact of FATA in the form of a positive linear link is noteworthy and particularly strong and evident in this resultant of all scale scores, as statistics in Table 26 show. In combining all industry effects, this resulting positive relationship only needs a downward repositioning for 'I_5: Wholesale and retail trade'. Here, companies appear to be able to internationalize with a lower level of overall organizational culture score. The positive impact of resource endowment and corporate size appears again. The overall $r^2$ of the regression function can be deemed positive and high for cross-sectional studies. Figure 27 shows this positive impact of FATA on the sum of all organizational culture scale scores. For further analysis in the next sub-chapter, an additional sigmoid curve with a quadratic ($FATA^2$) and cubic ($FATA^3$) term is added to the linear model.
## Table 26: Impact of DOI on total culture scores in U.S. companies

<table>
<thead>
<tr>
<th>Variables</th>
<th>Internationalization conceptualized with FSTS</th>
<th>Internationalization conceptualized with FATA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum of scales B (Std. error)</td>
<td>Sum of scales B (Std. error)</td>
</tr>
<tr>
<td>(Constant)</td>
<td>108.327* (8.081)</td>
<td>95.598* (10.334)</td>
</tr>
<tr>
<td>FSTS_01</td>
<td>-0.037 (0.065)</td>
<td>0.236** (0.102)</td>
</tr>
<tr>
<td>Res. endowment</td>
<td>-6.685* (1.258)</td>
<td>-5.435* (1.328)</td>
</tr>
<tr>
<td>I_0: Agriculture, forestry</td>
<td>-17.014 (13.346)</td>
<td>I_0: Agriculture, forestry</td>
</tr>
<tr>
<td>I 1: Mining and construction</td>
<td>-1.543 (5.052)</td>
<td>I 1: Mining and construction -2.573 (6.214)</td>
</tr>
<tr>
<td>I 5: Wholesale, retail trade</td>
<td>-2.149 (4.333)</td>
<td>I 5: Wholesale, retail trade -10.987** (4.980)</td>
</tr>
<tr>
<td>I 7-8: Services</td>
<td>2.062 (5.318)</td>
<td>I 7-8: Services 10.175 (6.244)</td>
</tr>
<tr>
<td>Size (Log of asset)</td>
<td>1.975** (0.841)</td>
<td>Size (Log of asset) 2.503* (0.970)</td>
</tr>
</tbody>
</table>

Model summary:

\[ r^2 = 0.286, \text{ adj. } r^2 = 0.227, \text{ F}=4.847^* \]

Model summary:

\[ r^2 = 0.396, \text{ adj. } r^2 = 0.337, \text{ F}=6.725^* \]

*p<0.01 **p<0.05 ***p<0.1; ‘I_2-3: Manufacturing’ serves as control industry, N\text{FSTS}=135, N\text{FATA}=104

Source: Author

## Figure 27: Impact of DOI on the sum of all scales in U.S. companies

![Impact of DOI on the sum of all scales in U.S. companies](image)

Source: Author
6.2.7. Further analysis

This sub-chapter provides an overview on further analysis carried out with the U.S. dataset. It explores four additional aspects: (1) control for a potential linear or sigmoid relationship of the DOI-culture link beyond the hypothesized linear one; (2) impact of internationalization strategy on organizational culture; (3) impact of an enabling organizational culture; and finally (4) cross-checking some results with control items.

(1) Control for a potential linear or sigmoid relationship of the DOI-culture link

As Gomes and Ramaswamy (1999, p. 179) explain, many U.S.-oriented studies on the DOI-performance link neglect to address the possibility of curvilinear variable dependencies – either theoretically or empirically. Therefore, Table 27 lists test results for non-linear relationships at least to provide empirical testing. An interpretation and a discussion follow in Chapter 8.

![Table 27: Non-linearity in the impact of DOI on culture in U.S. companies](image)

**Table 27: Non-linearity in the impact of DOI on culture in U.S. companies**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>DOI conceptualized with FSTS (Quadratic B (Std. error))</th>
<th>DOI conceptualized with FSTS (Sigmoid B (Std. error))</th>
<th>DOI conceptualized with FATA (Quadratic B (Std. error))</th>
<th>DOI conceptualized with FATA (Sigmoid B (Std. error))</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>106.656* (8.292)</td>
<td>108.244* (8.404)</td>
<td>94.848* (10.688)</td>
<td>94.285* (10.541)</td>
</tr>
<tr>
<td>FSTS_01</td>
<td>0.174 (0.203)</td>
<td>0.178 (0.262)</td>
<td>0.378 (0.337)</td>
<td>1.688** (0.795)</td>
</tr>
<tr>
<td>FSTS_squared</td>
<td>-0.003 (0.002)</td>
<td>-0.001 (0.005)</td>
<td>-0.003 (0.006)</td>
<td>-0.069*** (0.037)</td>
</tr>
<tr>
<td>FSTS_sigmoid</td>
<td>0.000 (0.000)</td>
<td>0.000 (0.000)</td>
<td>0.000* (0.000)</td>
<td>0.000*** (0.000)</td>
</tr>
<tr>
<td>Resource endowment</td>
<td>-6.858* (1.275)</td>
<td>-7.031* (1.273)</td>
<td>-5.358* (1.347)</td>
<td>-6.148* (1.398)</td>
</tr>
<tr>
<td>I_0: Agriculture, forestry, and fishing</td>
<td>-17.487 (13.406)</td>
<td>-17.454 (13.350)</td>
<td>-2.595 (6.245)</td>
<td>-3.154 (6.166)</td>
</tr>
<tr>
<td>I_1: Mining and construction</td>
<td>-0.321 (5.190)</td>
<td>-3.083 (5.417)</td>
<td>-1.448 (4.840)</td>
<td>0.922 (4.494)</td>
</tr>
<tr>
<td>I_4: Transportation, communication</td>
<td>-2.830 (4.840)</td>
<td>-1.593 (4.886)</td>
<td>-10.665** (5.058)</td>
<td>-7.515 (5.283)</td>
</tr>
<tr>
<td>I_5: Wholesale and retail trade</td>
<td>-1.681 (4.373)</td>
<td>-2.276 (4.729)</td>
<td>-6.715 (4.910)</td>
<td>-6.635 (4.842)</td>
</tr>
<tr>
<td>I_7-8: Services</td>
<td>2.773 (5.380)</td>
<td>0.669 (5.718)</td>
<td>2.473** (0.978)</td>
<td>2.027** (0.995)</td>
</tr>
<tr>
<td>Size (Log of asset)</td>
<td>1.897** (0.850)</td>
<td>1.637*** (0.863)</td>
<td>94.483* (10.688)</td>
<td>94.285* (10.541)</td>
</tr>
<tr>
<td>Model summary:</td>
<td>$r^2=0.293$, $\text{adj. } r^2=0.228$, $F=4.452^*$</td>
<td>$r^2=0.300$, $\text{adj. } r^2=0.225$, $F=4.008^*$</td>
<td>$r^2=0.398$, $\text{adj. } r^2=0.331$, $F=5.942^*$</td>
<td>$r^2=0.421$, $\text{adj. } r^2=0.349$, $F=5.628^*$</td>
</tr>
</tbody>
</table>

*p<0.01 **p<0.05 ***p<0.1, 'l_2-3: Manufacturing' serves as control industry, N_{FSTS}=135, N_{FATA}=104

Source: Author
Since previous analysis brought forth the conclusion that patterns show strongest on the sum of all scales, Table 27 lists results for this summary scale. No such non-linear relationship exists for FSTS, nor for any quadratic pattern set in motion by FATA. This holds true for the fifteen sub-tests for individual OCAQ scales. FATA-oriented further analysis contains an interesting insight. A sigmoid pattern simultaneously contained in the data allows for an additional insight. As Table 27 indicates and Table 28 further elaborates, an S-curve meandering around the positive linear trend does not disprove or negate the linear variable relationship, but results in an even better model fit. This applies to OCAQ Scale 1, Scale 3 and the sum of all scales. More data points on higher FATA ratios are needed in order to illuminate the state of U.S. companies with globally dispersed assets. While the actual improvement of the model is small, it is nonetheless worth mentioning. Statistics in Table 28 include the most relevant points for orientation as the adjusted $r^2$ increase and even more importantly, the standard error decreases with all t-values remaining significant. The sigmoid model is able to explain slightly more of the variance. Figure 27 summarizes this analysis by depicting the overall upward trend best modeled with a cubic function. Simultaneously, there is need to investigate various aspects of organizational culture in a more differentiated way due to the sigmoid model not showing for Scale 4 or Scale 5 where the linear model remains the one best fit. In summary, statistical analysis of the curvilinear relationship between internationalization and organizational culture is a worthwhile endeavor, as the discussion in Chapter 8 will show.

### Table 28: Linear and non-linear impact of internationalization in U.S. firms

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Scale</th>
<th>OCAQ Scale 1 Linear</th>
<th>OCAQ Scale 1 Sigmoid</th>
<th>OCAQ Scale 3 Linear</th>
<th>OCAQ Scale 3 Sigmoid</th>
<th>Sum of all scales Linear</th>
<th>Sum of all scales Sigmoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adj. $r^2$</td>
<td></td>
<td>0.223</td>
<td>0.276</td>
<td>0.273</td>
<td>0.308</td>
<td>0.337</td>
<td>0.349</td>
</tr>
<tr>
<td>Std. error</td>
<td></td>
<td>2.905</td>
<td>2.804</td>
<td>2.788</td>
<td>2.719</td>
<td>11.935</td>
<td>11.828</td>
</tr>
<tr>
<td>F value</td>
<td></td>
<td>4.232</td>
<td>4.433</td>
<td>5.219</td>
<td>5.008</td>
<td>6.727</td>
<td>5.828</td>
</tr>
<tr>
<td>level of significance</td>
<td></td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>t of FATA</td>
<td></td>
<td>2.103</td>
<td>2.734</td>
<td>1.974</td>
<td>2.571</td>
<td>2.306</td>
<td>2.122</td>
</tr>
<tr>
<td>level of significance</td>
<td></td>
<td>0.039</td>
<td>0.074</td>
<td>0.052</td>
<td>0.012</td>
<td>0.024</td>
<td>0.037</td>
</tr>
<tr>
<td>t of FATA squared</td>
<td></td>
<td>-2.081</td>
<td>-0.041</td>
<td>-2.058</td>
<td>-0.043</td>
<td>-1.863</td>
<td>-0.066</td>
</tr>
<tr>
<td>level of significance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t of FATA sigmoid</td>
<td></td>
<td>1.721</td>
<td>0.089</td>
<td>1.878</td>
<td>0.078</td>
<td>1.813</td>
<td>0.074</td>
</tr>
<tr>
<td>level of significance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author

(2) Impact of internationalization strategy

This following section deals with a deeper layer of internationalization beyond the conceptualization through FSTS or FATA since they are unable to mirror various strategies for geographic expansion abroad appropriately. Hence, two additional items (items 36 and 37) on integration and responsiveness are included in the survey. These two matrix-spanning dimensions continue to recur as an idealized form
for international activities (cf. Earley and Gibson 2002, p. 19, Harzing 1999, Engelhard and Daehn 1997, Kapler 1997, Conference Board 1996, Voigt 1995, UNCTAD 1995, p. 24), ever since Fayerweather (1969) presented his unification-fragmentation framework. More recent approaches such as network models (e.g., Axelsson and Easton 1992) remain harder to conceptualize. Reapplying these two dimensions warrants a further comment. Doz and Prahalad (1991) refer to their own research on the ‘process school’ and the work of Bartlett, Goshal, Hedlund, Hamel as a “new paradigm” (p. 145) with a “rich organization theory of the DMNC” (p. 158). However, Melin (1992, pp. 107-108) questioned the paradigm establishment process, the prescriptive nature of publications and the weak empirical foundation. Accordingly, this study applies these two dimensions rather to mirror the construct complexity better, and acknowledges inherent weaknesses. This additional layer of complexity is shown in the different role customer orientation plays in various strategies, to name but just one example. Figure 28 provides an overview of the distribution of integration-adaptation combinations.

Figure 28: Distribution of internationalization strategies in U.S. companies

```
<table>
<thead>
<tr>
<th>Degree of internal integration</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of local adaptation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1</td>
<td>3.0%</td>
<td>0.8%</td>
<td>0.8%</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>4.5%</td>
<td>3.0%</td>
<td>1.5%</td>
<td>25.0%</td>
<td>34.8%</td>
</tr>
<tr>
<td>3</td>
<td>0.8%</td>
<td>2.3%</td>
<td>8.3%</td>
<td>3.0%</td>
<td>0.8%</td>
</tr>
<tr>
<td>4</td>
<td>3.0%</td>
<td>6.1%</td>
<td>22.7%</td>
<td>4.5%</td>
<td>36.4%</td>
</tr>
<tr>
<td>5</td>
<td>0.8%</td>
<td>2.3%</td>
<td>8.3%</td>
<td>3.0%</td>
<td>0.8%</td>
</tr>
<tr>
<td>N=85</td>
<td>4.5%</td>
<td>11.4%</td>
<td>19.7%</td>
<td>34.1%</td>
<td>30.3%</td>
</tr>
</tbody>
</table>
```

Source: Author
The impact of internationalization on organizational culture

Overall, a resulting matrix comprises four major internationalization quadrants. Only scores of 4 and 5 of the respective item values corrected for the inversion lead to a classification as either a global (quadrant 2), multinational (quadrant 3) or transnational (quadrant 4) company. Quadrant 1 includes all other companies. According to their self-assessment, U.S. publicly listed companies place a high emphasis on integration as well as adaptation, given the large percentage of companies represented in quadrant 4. Based on the strategy-culture fit discussion in Chapter 3.3., it is an interesting question whether the four internationalization strategies show differing patterns in their culture. Indeed, their organizational cultures differ, to judge by statistics shown in Table 29. Small group sizes are usually dogged by the risk of larger standard deviations. This is not the case here, while even bigger group sizes remain desirable. T-tests in Table 30 and Table 31 demonstrate that organizational cultures of international companies differ from those of transnational companies, and that organizational cultures differentiate multinational and transnational companies.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Statistics</th>
<th>International grouping</th>
<th>N</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Std. error mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCAQ 1 Managing change</td>
<td>1-international</td>
<td>18</td>
<td>18.78</td>
<td>3.040</td>
<td>0.717</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2-global</td>
<td>6</td>
<td>18.17</td>
<td>3.251</td>
<td>1.327</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3-multinational</td>
<td>11</td>
<td>18.59</td>
<td>2.223</td>
<td>0.670</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-transnational</td>
<td>50</td>
<td>19.93</td>
<td>3.304</td>
<td>0.467</td>
<td></td>
</tr>
<tr>
<td>OCAQ 2 Achieving goals</td>
<td>1-international</td>
<td>18</td>
<td>20.50</td>
<td>3.585</td>
<td>0.845</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2-global</td>
<td>6</td>
<td>21.83</td>
<td>2.927</td>
<td>1.195</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3-multinational</td>
<td>11</td>
<td>21.00</td>
<td>4.123</td>
<td>1.243</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-transnational</td>
<td>50</td>
<td>22.84</td>
<td>3.279</td>
<td>0.464</td>
<td></td>
</tr>
<tr>
<td>OCAQ 3 Coordinated teamwork</td>
<td>1-international</td>
<td>18</td>
<td>20.67</td>
<td>3.498</td>
<td>0.824</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2-global</td>
<td>6</td>
<td>21.00</td>
<td>2.966</td>
<td>1.211</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3-multinational</td>
<td>11</td>
<td>20.36</td>
<td>2.976</td>
<td>0.897</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-transnational</td>
<td>50</td>
<td>22.28</td>
<td>2.718</td>
<td>0.384</td>
<td></td>
</tr>
<tr>
<td>OCAQ 4 Customer orientation</td>
<td>1-international</td>
<td>18</td>
<td>21.22</td>
<td>4.152</td>
<td>0.979</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2-global</td>
<td>6</td>
<td>21.83</td>
<td>3.545</td>
<td>1.447</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3-multinational</td>
<td>11</td>
<td>21.91</td>
<td>3.015</td>
<td>0.909</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-transnational</td>
<td>50</td>
<td>23.64</td>
<td>3.009</td>
<td>0.425</td>
<td></td>
</tr>
<tr>
<td>OCAQ 5 Cultural strength</td>
<td>1-international</td>
<td>18</td>
<td>19.67</td>
<td>4.298</td>
<td>1.013</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2-global</td>
<td>6</td>
<td>22.17</td>
<td>3.710</td>
<td>1.515</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3-multinational</td>
<td>11</td>
<td>20.09</td>
<td>2.663</td>
<td>0.803</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-transnational</td>
<td>50</td>
<td>22.68</td>
<td>3.033</td>
<td>0.429</td>
<td></td>
</tr>
<tr>
<td>Sum of all scales</td>
<td>1-international</td>
<td>18</td>
<td>100.83</td>
<td>16.263</td>
<td>3.833</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2-global</td>
<td>6</td>
<td>105.00</td>
<td>14.478</td>
<td>5.910</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3-multinational</td>
<td>11</td>
<td>101.95</td>
<td>11.564</td>
<td>3.487</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-transnational</td>
<td>50</td>
<td>111.37</td>
<td>12.838</td>
<td>1.816</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author

---

13 Levene tests for equality of group variance have been applied to identify and select the suitable t-test procedure. High significance values of Levene tests suggest t-tests based on the assumption of equal variances for both groups.
Table 30 demonstrates that transnational companies have different organizational cultures from international ones. The cultural textures vary significantly in regard to goal achievement, teamwork coordination, customer orientation, cultural strength and their overall scale scores. In particular, it is no surprise to find empirical evidence for transnational companies scoring higher on functional coherence, teamwork coordination, and customer orientation. These aspects indicate the dual foci of integration and adaptation. While the group mean for transnational companies exceeds its pendant in international companies, this fails to achieve high significance.

Table 30: Comparing international with transnational U.S. organizations

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Statistics</th>
<th>t</th>
<th>df</th>
<th>Mean difference</th>
<th>Std. error</th>
<th>95% confidence interval</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCAQ 1 Managing change</td>
<td></td>
<td>-1.294</td>
<td>66</td>
<td>-1.15</td>
<td>0.890</td>
<td>-2.929 - 0.625</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCAQ 2 Achieving goals</td>
<td></td>
<td>-2.533**</td>
<td>66</td>
<td>-2.34</td>
<td>0.924</td>
<td>-4.184 - 0.496</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCAQ 3 Coord. teamwork</td>
<td></td>
<td>-1.997***</td>
<td>66</td>
<td>-1.61</td>
<td>0.808</td>
<td>-3.226 - 0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCAQ 4 Customer orientation</td>
<td></td>
<td>-2.633**</td>
<td>66</td>
<td>-2.41</td>
<td>0.918</td>
<td>-4.251 - 0.584</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCAQ 5 Cultural strength</td>
<td></td>
<td>-3.220*</td>
<td>66</td>
<td>-3.01</td>
<td>0.936</td>
<td>-4.882 - 1.145</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum of all scales</td>
<td></td>
<td>-2.777*</td>
<td>66</td>
<td>-10.53</td>
<td>3.794</td>
<td>-18.111 - 2.962</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<0.01  **p<0.05  ***p<0.1, N_{INTERNATIONAL}=18, N_{TRANSATIONAL}=50

Source: Author

Comparing organizational cultures in multinational and transnational companies, it is again not surprising to learn that transnational companies place higher emphasis on teamwork coordination and functional coherence for prolonged integration (cf. Fese and Blies 1997, p. 298). Interestingly, transnational companies in the sample are able to outperform multinational companies in customer orientation, most likely because they have to continually ensure that these strategic intentions remain fulfilled and internal integration does not entail distraction. Thus, initial empirical evidence confirms a match between internationalization strategies and organizational culture.

Table 31: Comparing multinational with transnational companies from the U.S.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Statistics</th>
<th>t</th>
<th>df</th>
<th>Mean difference</th>
<th>Std. error</th>
<th>95% confidence interval</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCAQ 1 Managing change</td>
<td></td>
<td>-1.278</td>
<td>59</td>
<td>-1.34</td>
<td>1.048</td>
<td>-3.436 - 0.758</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCAQ 2 Achieving goals</td>
<td></td>
<td>-1.608</td>
<td>59</td>
<td>-1.84</td>
<td>1.144</td>
<td>-4.130 - 0.450</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCAQ 3 Coord. teamwork</td>
<td></td>
<td>-2.082**</td>
<td>59</td>
<td>-1.92</td>
<td>0.920</td>
<td>-3.758 - 0.075</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCAQ 4 Customer orientation</td>
<td></td>
<td>-1.727***</td>
<td>59</td>
<td>-1.73</td>
<td>1.002</td>
<td>-3.737 - 0.275</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCAQ 5 Cultural strength</td>
<td></td>
<td>-2.614**</td>
<td>59</td>
<td>-2.59</td>
<td>0.990</td>
<td>-4.571 - 0.607</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum of all scales</td>
<td></td>
<td>-2.238**</td>
<td>59</td>
<td>-9.42</td>
<td>4.206</td>
<td>-17.832 - 0.998</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<0.01  **p<0.05  ***p<0.1, N_{MULTINATIONAL}=11, N_{TRANSATIONAL}=50

Source: Author
(3) Impact of an enabling organizational culture on internationalization

Taking the analysis on internationalization one step further, the following analysis associates the above-mentioned categorization of responding companies with an additional survey item. Respondents indicated to what extent their organizational culture promotes internationalization efforts. 54% of multinational and 50% of transnational companies report that their organizational culture actually has such a positive effect on their geographic expansion efforts, in contrast to only 16% of global and 5% of international companies. In order to avoid any friction loss (Grundy 1998, p. 49, Ulrich 1998) in regard of either present or future DOI-culture constellations, companies may well benefit from a regular check on the appropriateness of their organizational cultures. Fritz et al. (2002) or Chen and Starosta (2000) provide tools for assessing readiness for internationalization.

As DOI ratios and organizational culture scores span roughly the same period of time, they can be analyzed further. Relating to the item on organizational culture promoting internationalization as the independent variable with FSTS and FATA, an additional interesting insight emerges. The more companies think their organizational culture supports geographic expansion abroad, the higher their DOI on both indicators. This is seen in statistics in Table 32. The resulting conclusion is evident. A reverse impact from organizational culture on internationalization exists as well in an analysis of “putting the cart before the horse”. These findings confirm results by Dosoglu-Guner (1999) that there is a simultaneous reverse impact of organizational culture on internationalization. This is an essential insight for demonstrating the complexity inherent in the variable relationship and can serve as crucial input for further theory building on the contingent nature of organizational culture as well as internationalization.

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>FSTS B (Std. Error)</th>
<th>FATA B (Std. Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>26.067** (11.290)</td>
<td>51.206* (8.927)</td>
</tr>
<tr>
<td>Culture promoting internationalization</td>
<td>-5.428* (1.497)</td>
<td>-4.963* (1.201)</td>
</tr>
<tr>
<td>Resource endowment</td>
<td>2.301 (1.878)</td>
<td>-0.964 (1.432)</td>
</tr>
<tr>
<td>I 0: Agriculture, forestry, fishing</td>
<td>-17.534 (18.427)</td>
<td></td>
</tr>
<tr>
<td>I 1: Mining and construction</td>
<td>-15.212** (6.820)</td>
<td>-2.458 (6.120)</td>
</tr>
<tr>
<td>I 4: Transportation, communication</td>
<td>-13.192** (6.079)</td>
<td>-5.085 (4.541)</td>
</tr>
<tr>
<td>I 5: Wholesale and retail trade</td>
<td>1.846 (5.974)</td>
<td>12.721* (4.735)</td>
</tr>
<tr>
<td>I 7-8: Services</td>
<td>-10.640 (7.268)</td>
<td>-9.703 (6.061)</td>
</tr>
<tr>
<td>Size (log of total asset)</td>
<td>1.779 (1.149)</td>
<td>-2.348** (0.919)</td>
</tr>
<tr>
<td>Model summary</td>
<td>$r^2=0.236,\text{ adj. }r^2=0.172$</td>
<td>$r^2=0.362,\text{ adj. }r^2=0.299$</td>
</tr>
</tbody>
</table>

* $p<0.01 \quad ** p<0.05 \quad *** p<0.1, \quad I2-3: \text{ Manufacturing serves as control industry, } N_{\text{FSTS}}=133, N_{\text{FATA}}=102$

Source: Author

- 142 -
(4) Cross-checking some of the results with control items

The final section of further analysis has two intentions. First, three control items should cross-check results. Secondly, by applying different indicators, an additional piece of information can be gained. Control items on the strength of organizational culture include the level of within-company consensus, cultural pervasiveness, and psychological intensity. This analysis confirms previous results on OCAQ Scale 5 for both DOI indicators.

Table 33: Results from the control items in the U.S. study

<table>
<thead>
<tr>
<th>DOI indicator and items</th>
<th>FSTS-based analysis</th>
<th>FATA-based analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum of all control items B (Std. Error)</td>
<td>Item 31: Within-company consensus B (Std. Error)</td>
</tr>
<tr>
<td>(Constant)</td>
<td>12.221* (1.254)</td>
<td>3.461* (0.702)</td>
</tr>
<tr>
<td>DOI indicator (FSTS, FATA)</td>
<td>0.001 (0.010)</td>
<td>0.624* (0.209)</td>
</tr>
<tr>
<td>Resource endowment</td>
<td>-0.980* (0.198)</td>
<td>-0.394* (0.094)</td>
</tr>
<tr>
<td>I.0: Agriculture, forestry, fishing</td>
<td>-2.087 (2.066)</td>
<td></td>
</tr>
<tr>
<td>I.1: Mining and construction</td>
<td>-0.812 (0.826)</td>
<td>0.090 (0.449)</td>
</tr>
<tr>
<td>I.4: Transportation, communication</td>
<td>0.921 (0.699)</td>
<td>0.300 (0.344)</td>
</tr>
<tr>
<td>I.5: Wholesale and retail trade</td>
<td>0.343 (0.672)</td>
<td>-0.016 (0.350)</td>
</tr>
<tr>
<td>I.6: Finance, insurance</td>
<td>0.205 (0.742)</td>
<td>0.121 (0.347)</td>
</tr>
<tr>
<td>I.7-8: Services</td>
<td>0.460 (0.825)</td>
<td>1.011* (0.460)</td>
</tr>
<tr>
<td>Size (log of total assets)</td>
<td>-0.017 (0.131)</td>
<td>0.032 (0.068)</td>
</tr>
<tr>
<td>Model summary</td>
<td>r²=0.220</td>
<td>adj. r²=0.153</td>
</tr>
</tbody>
</table>

*p<0.01 **p<0.05 ***p<0.1, ‘I.2-3: Manufacturing’ serves as control industry, N_{FSTS}=135, N_{FATA}=104

Source: Author

This further analysis indicates empirically that cultural strength in itself is a complex variable. The impact of internationalization on cultural strength succeeds primarily in increasing within-company consensus. However, psychological intensity and pervasiveness cannot be affected to the same degree. Internationalizing companies ensure that their employees know and apply the correct modes of behavior, but deeper levels cannot be reached to the same extent. These results are independent of firm size and only minor industry corrections are needed.
7. The empirical study in Germany

7.1. Descriptive statistics

This chapter provides more background of the empirical study in Germany and includes descriptive statistics on companies participating in the study. Hypotheses testing results are contained within the subsequent sub-chapter 7.2. From the group of 352 German publicly listed companies fulfilling the size-requirement for having employee representation on their supervisory board, 126 of the firms responded. Therefore the cross-company response-rate, which is the more important one in studies based on the integration paradigm, is more than 35%. This can be deemed to be sufficiently high. On average, 1.2 out of four broadcast questionnaires per company were returned. However, 26 companies have been removed from the sample, as 14 of them have no foreign sales, eight did not disclose FSTS data, and four are subsidiaries of foreign companies. Subsidiaries of foreign multinationals may benefit from the network advantages of their parent organizations, which is likely to alleviate some of the burdens associated with the geographic expansion process. The final group of firms analyzed thus consists of 100 public German companies.

An emerging, unexpected and previously neglected phenomenon became evident in feedback letters and increased to some extent within-company depth of information: coordination among employee representatives. As typical employee representatives are concurrently members of the company’s workers’ councils, and coordinate themselves in bench meetings before supervisory board meeting (cf. Pistor 1999), or even sharing offices sometimes, the responses reflect a larger group of respondents than the actual within-company response-rate indicates. As Keeter et al. (2000) show, as important as the response-rate is the question of whether there are response biases. Therefore, Fowler (2002, p. 43) suggests systematically searching and testing for a non-response bias in the sense of fundamental differences in the group of company representatives participating and those not participating. There are three categories of non-respondents not providing data: (1) those whom the data collection procedures did not reach, thereby not giving them a chance to answer; (2) those who were asked to provide data but refused to do so for some reason; and (3) those asked to provide data who were willing to do so, but were unable to, for instance, because the fax number for faxing back the surveys did not function. The digital and paperless implementation of the study in conjunction with the identification of the personal fax numbers of targeted respondents constitute two key means for reducing the non-response-rates of type (1) and (3). Regarding number (2), a logit analysis checks whether the responding companies show any pattern of industry or size biases. Table 34 reveals that there is no significant industry bias for any of the industries considered. The table simultaneously reveals that larger companies are slightly more likely to respond to the survey. A second wave of survey broadcasting together with personal follow-up calls led to more success among slightly larger
companies which may reflect a more formal way of responding to fax inquiries than that of smaller organizations, who tended to be more wary of participating in this survey. Figure 29 shows the actual size distribution of companies in the set of respondents.

Table 34: Logit analysis for the Germany study analysis for the U.S. sample

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Statistics</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I: 1: Mining and construction</td>
<td></td>
<td>-5.594</td>
<td>13.511</td>
<td>0.171</td>
<td>1</td>
<td>0.004</td>
</tr>
<tr>
<td>I: 2-3: Manufacturing</td>
<td></td>
<td>-5.639</td>
<td>13.500</td>
<td>0.175</td>
<td>1</td>
<td>0.004</td>
</tr>
<tr>
<td>I: 4: Transportation, communication</td>
<td></td>
<td>-4.963</td>
<td>13.508</td>
<td>0.135</td>
<td>1</td>
<td>0.007</td>
</tr>
<tr>
<td>I: 5: Wholesale and retail trade</td>
<td></td>
<td>-7.023</td>
<td>13.507</td>
<td>0.270</td>
<td>1</td>
<td>0.001</td>
</tr>
<tr>
<td>I: 6: Finance, insurance</td>
<td></td>
<td>-7.581</td>
<td>13.508</td>
<td>0.315</td>
<td>1</td>
<td>0.001</td>
</tr>
<tr>
<td>I: 7-8: Services</td>
<td></td>
<td>-5.862</td>
<td>13.506</td>
<td>0.188</td>
<td>1</td>
<td>0.003</td>
</tr>
<tr>
<td>Size (Log of asset)</td>
<td></td>
<td>0.330</td>
<td>0.077</td>
<td>18.408*</td>
<td>1</td>
<td>1.391</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>3.197</td>
<td>13.507</td>
<td>0.056</td>
<td>1</td>
<td>24.461</td>
</tr>
</tbody>
</table>

*p<0.01 **p<0.05 ***p<0.1
Source: Author

Table 35 provides the descriptive statistics on the independent variable FSTS as well as on OCAQ scales. Figure 29 adds an overview on the DOI of the 100 respondents. The study comprises a rather broad range of internationalized companies with very low and very high DOI ratios that range from a minimum of 0.2% to a maximum of 84.85%. As such, this study is more inclusive of the group of hardly internationalized companies with a DOI of less than 10% as compared to the bulk of studies, for example, on the DOI-performance link, which adopt a 10% cut-off, as they rely solely on secondary data (Gomes and Ramaswamy 1999, p. 185). Therefore, it is less surprising that the DOI mean of 50% in this study is lower than the 60% in another recent study on internationalization in the German context presented by Wagner (2001, pp. 33-57).

Table 35: Descriptive statistics for the key variables in the German study

<table>
<thead>
<tr>
<th>Descriptive Variables</th>
<th>FSTS</th>
<th>OCAQ Scale 1</th>
<th>OCAQ Scale 2</th>
<th>OCAQ Scale 3</th>
<th>OCAQ Scale 4</th>
<th>OCAQ Scale 5</th>
<th>Sum of all scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Mean</td>
<td>50.94</td>
<td>17.86</td>
<td>17.83</td>
<td>18.26</td>
<td>21.24</td>
<td>18.57</td>
<td>93.74</td>
</tr>
<tr>
<td>Median</td>
<td>57.07</td>
<td>18</td>
<td>17</td>
<td>18</td>
<td>21</td>
<td>19</td>
<td>93</td>
</tr>
<tr>
<td>Std. error</td>
<td>2.449</td>
<td>0.384</td>
<td>0.355</td>
<td>0.346</td>
<td>0.345</td>
<td>0.379</td>
<td>1.557</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.2</td>
<td>10</td>
<td>7</td>
<td>11</td>
<td>14</td>
<td>12</td>
<td>62</td>
</tr>
<tr>
<td>Maximum</td>
<td>84.85</td>
<td>25</td>
<td>28</td>
<td>25</td>
<td>29</td>
<td>25</td>
<td>121</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-1.083</td>
<td>-0.856</td>
<td>0.079</td>
<td>-0.664</td>
<td>-0.613</td>
<td>-1.139</td>
<td>-1.052</td>
</tr>
<tr>
<td>Std. error of kurtosis</td>
<td>0.478</td>
<td>0.485</td>
<td>0.481</td>
<td>0.483</td>
<td>0.488</td>
<td>0.485</td>
<td>0.481</td>
</tr>
<tr>
<td>Skewness</td>
<td>-0.445</td>
<td>-0.041</td>
<td>0.117</td>
<td>0.032</td>
<td>-0.146</td>
<td>-0.156</td>
<td>0.035</td>
</tr>
<tr>
<td>Std. error of skewness</td>
<td>0.241</td>
<td>0.245</td>
<td>0.243</td>
<td>0.244</td>
<td>0.246</td>
<td>0.245</td>
<td>0.243</td>
</tr>
</tbody>
</table>

Source: Author

- 145 -
The impact of internationalization on organizational culture

The median of FSTS amounts to 57%. A Pearson coefficient of 0.238 significant at the p<0.05 level for the DOI-size link indicates only a very weak correlation. In contrast, the Pearson coefficient for resource endowment and FSTS of -0.115 as well as resource endowment and size of -0.055 are not significant and even weaker.

Figure 29: Size distribution and DOI of German companies in the sample

Source: Author
7.2. Results of hypotheses testing in Germany

7.2.1. Impact of internationalization on managing change

This section presents the result of testing Hypothesis 1.2 asserting a bell-curve for the relationship between DOI and “managing change” scores. The major result of the multivariate regression analysis indeed reveals an inverted U-curve describing in a statistically significant way the relationship between internationalization, measured by the ratio of FSTS, and managing change for the German group of respondents, as shown in Table 36. Both key terms of the quadratic function show a significance level below 0.01 for t-values above 2. The negative B of the quadratic term indicates, and the partial derivatives with respect to FSTS confirm, the existence of a global maximum at a DOI of 47% shown in Figure 30.

Table 36: Impact of DOI on organizational culture in Germany

<table>
<thead>
<tr>
<th>Variables in the equation</th>
<th>OCAQ Scale 1: Managing change (B, Std. Error)</th>
<th>OCAQ Scale 2: Achieving goals (B, Std. Error)</th>
<th>OCAQ Scale 3: Coord. teamwork (B, Std. Error)</th>
<th>OCAQ Scale 4: Customer orientation (B, Std. Error)</th>
<th>OCAQ Scale 5: Cultural strength (B, Std. Error)</th>
<th>Sum of all scales (B, Std. Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSTS</td>
<td>0.167* (0.062)</td>
<td>0.181* (0.061)</td>
<td>0.150* (0.059)</td>
<td>0.152* (0.058)</td>
<td>0.152* (0.065)</td>
<td>0.804* (0.252)</td>
</tr>
<tr>
<td>FSTS_squared_x1.000</td>
<td>-0.019* (0.665)</td>
<td>-0.194* (0.657)</td>
<td>-0.182* (0.632)</td>
<td>-0.174* (0.623)</td>
<td>-0.157* (0.698)</td>
<td>-0.907* (2.679)</td>
</tr>
<tr>
<td>Resource endowment</td>
<td>-1.450* (0.368)</td>
<td>-0.967* (0.363)</td>
<td>-1.204* (0.348)</td>
<td>-1.282* (0.342)</td>
<td>-1.172* (0.384)</td>
<td>-6.2667* (1.480)</td>
</tr>
<tr>
<td>1.0: Agriculture, forestry, fishing</td>
<td>3.510 (3.330)</td>
<td>-1.738 (3.292)</td>
<td>-1.140 (3.161)</td>
<td>1.682 (3.080)</td>
<td>1.944 (3.468)</td>
<td>4.341 (13.424)</td>
</tr>
<tr>
<td>1.1: Mining and construction</td>
<td>-0.290 (1.536)</td>
<td>1.128 (1.519)</td>
<td>-0.369 (1.459)</td>
<td>1.588 (1.424)</td>
<td>0.090 (1.601)</td>
<td>2.103 (6.195)</td>
</tr>
<tr>
<td>1.4: Transport, communication</td>
<td>-3.160** (1.453)</td>
<td>-3.579** (1.436)</td>
<td>-2.182 (1.527)</td>
<td>-0.903 (1.352)</td>
<td>-2.394 (1.514)</td>
<td>-13.035** (5.858)</td>
</tr>
<tr>
<td>1.5: Wholesale and retail trade</td>
<td>-3.022*** (1.545)</td>
<td>-1.763 (1.527)</td>
<td>-2.648*** (1.466)</td>
<td>-3.187** (1.434)</td>
<td>-3.777** (1.611)</td>
<td>-14.455** (6.226)</td>
</tr>
<tr>
<td>1.6: Finance, insurance</td>
<td>-3.632*** (2.007)</td>
<td>-4.160** (1.985)</td>
<td>-2.215 (1.916)</td>
<td>-2.972 (1.870)</td>
<td>-2.729 (2.106)</td>
<td>-16.789** (8.095)</td>
</tr>
<tr>
<td>1.7-8: Services</td>
<td>2.780** (1.228)</td>
<td>2.221*** (1.213)</td>
<td>3.113* (1.165)</td>
<td>2.221*** (1.136)</td>
<td>1.304 (1.279)</td>
<td>12.091** (4.948)</td>
</tr>
<tr>
<td>Size (log of total asset)</td>
<td>-0.007 (0.195)</td>
<td>0.189 (0.193)</td>
<td>0.076 (0.187)</td>
<td>0.124 (0.184)</td>
<td>-0.018 (0.206)</td>
<td>0.58496 (0.788)</td>
</tr>
<tr>
<td>Model summary</td>
<td>$r^2=0.356$ (adj. $r^2=0.368$)</td>
<td>$r^2=0.268$ (adj. $r^2=0.279$)</td>
<td>$r^2=0.274$ (adj. $r^2=0.307$)</td>
<td>$r^2=0.222$ (adj. $r^2=0.254$)</td>
<td>$r^2=0.369$ (adj. $r^2=0.392$)</td>
<td>$r^2=0.295$ (adj. $r^2=0.362$)</td>
</tr>
</tbody>
</table>

*p<0.01 **p<0.05 ***p<0.1, ‘I’2-3: Manufacturing serves as control industry, N=100

Source: Author
The impact of internationalization on organizational culture

It is interesting that this maximum occurs at a lower FSTS ratio than the global minimum for the DOI-performance link identified by Ruigrok and Wagner (2003). While further analysis is needed, internationalization seems to sharpen organizational culture before performance starts to recover. As the statistical analysis in Table 36 demonstrates, the empirical evidence confirms hypothesis 1.2. Internationalization impacts the way change is managed in organizations in the German study. Shift effects for the identified bell-curve occur for three industries. For industry category ‘I_4: Transportation and communication’, ‘I_5: Wholesale trade and retail trade’, and ‘I_6: Finance and insurance’, the bell-curve is shifted downwards. For category ‘I_7-8: Services’, the same curve describing the DOI-culture link shifts upwards compared to the control industry ‘I_2-3: Manufacturing’, indicating on average higher scores in change management as a key element of organizational culture pertaining to this category. Figure 30 delineates the inverted U-curve. Considering control variables results in a better-fitting statistical model. Significant size effects do not appear. This insight seems to slightly contradict Hitt et al. (1990) predicting a higher degree of inertia among larger firms. Internationalization along with its challenges seems to impose high enough demands to overcome an increasing organizational interia.

**Figure 30: Impact DOI on managing change in German companies**

![Graph showing the impact of DOI on managing change in German companies](image)

Source: Author

Table 36 contains another interesting insight. There is a positive impact of a comprehensive endowment with resources. The richer the organizations and the better endowed with financial, human and knowledge resources, the more the organizations are professionalizing their change management. Conversely,
companies with a worse resource endowment score lower on change management. This insight disconfirms empirically Cooke and Szumal’s (2000) proposition. More specifically, the included control variable refers to the subjective assessment of organizational members in regard to their resource endowment. The Pearson correlation coefficient of -0.055 for the objective total asset indicator and the subjective perception of resource endowment is extremely small and insignificant. As the actual amount of total asset does not show any significant impact, this clearly indicates the higher importance and relevance of the subjective perception and thus of psychological factors for change and organizational culture. To conclude, Figure 30 presents the identified inverted U-curve of the confirmed Hypothesis 1.2. Further discussion and interpretation are contained in Chapter 8.

7.2.2. Impact of internationalization on goal achievement
Statistics in Table 36 confirm Hypothesis 2.2, along with the recurrence of industry and resource effects. The FSTS terms of the quadratic curve depicting an inverted U are significant at the p<0.01 level with t-values above the value two. Of note are the downward shift effects for the two industry categories of ‘_4: Transportation and communication’, and ‘_6: Finance and insurance’, and the upward shift of this bell-curve again for the category ‘_7-8: Services’. Once again, the analysis confirms that the subjective perception of a relative endowment with resources matters. Figure 31 depicts this pattern of the DOI-culture link, which resembles more a cross between a bell-curve and an inverted J.

**Figure 31: Impact of DOI on achieving goals in German companies**

![Graph showing the impact of DOI on achieving goals in German companies](image_url)
For the 58% of the companies in the sample with a DOI above 50%, organizational culture scores drop after a global maximum. However, respective scores do not reach such low levels as the international environment presumably still imposes considerable demands on organizations and their cultures. Again, the inclusion and consideration of control variables in terms of industry and resource endowment leads to a better curve fit. In summary, internationalization even impacts the way in which the German companies in the sample pursue their goals.

7.2.3. Impact of internationalization on teamwork

Backed by statistics in Table 36, multivariate regression analysis confirms Hypothesis 3.2. As before, respective bell-curves show slightly differing positions in various industries. A perception of being very well endowed with varied resources promotes teamwork and its coordination. Corporate size does not influence these results. Figure 32 delineates actual observation and the inherent inverted U-curve pattern.

**Figure 32: Impact of DOI on coordinated teamwork in German companies**

![Diagram showing the impact of DOI on coordinated teamwork.]

Source: Author

7.2.4. Impact of internationalization on customer orientation

Hypothesis 4.2 states that there is an impact of internationalization on customer orientation. Customer orientation scores increase in the first half of the internationalization process, but decrease in the second half. Based on statistics in Table 36, such a relationship in the form of an inverted U-curve applies to German
companies. It is not surprising that for ‘I_7-8: Services’, the bell-curve has to be shifted upwards, as this industry field is more customer oriented in nature and generally shows higher customer orientation scores. In contrast, industry category ‘I_5: Wholesale trade and retail trade’ sees its U-curve repositioned at a lower level of customer orientation scores when compared to the control industry ‘I_2-3: Manufacturing’. Figure 33 depicts the identified U-curve. Through the inclusion of additional items, this study aims to be sensitive to and more informative about the situational context of organizational cultures, as suggested by (Martin 2002). One of the additional items is the subjective perception of resource endowment. As in the four other OCAQ dimensions, Table 36 clearly indicates the positive impact of an impression of being well endowed with resources on customer orientation scores as a key element of organizational culture. The better endowed the organizational members feel, the more customer orientation benefits, as the means of various types of resources needed to excel are available to them. Respective aspects, as conceptualized in OCAQ Scale 2, comprise the priority assigned to customer orientation, attitudes towards customer orientation, policies and procedures involved, continuous improvement of customer orientation, rewarding customer orientation, and lastly, the actual quality of customer orientation.

**Figure 33: Impact of DOI on customer orientation in German companies**

![Graph showing the impact of DOI on customer orientation in German companies](image)

Source: Author

### 7.2.5. Impact of internationalization on cultural strength

Besides the content dimensions addressed above, the overall setting of organizational culture represents a second key dimension. This section investigated whether the degree of internationalization also affects the strength of organizational...
The impact of internationalization on organizational culture

culture after such an impact has become obvious on the content dimensions of managing change, achieving goals, teamwork coordination, and customer orientation. The results of multivariate analysis in Table 36 suggest acceptance of Hypothesis 5.2. In Germany, internationalization leads to stronger organizational culture and higher functional coherence in the first half of internationalization process. However, at higher DOI rates, a reverse effect preponderates. The resulting curve rather resembles an inverted J again. Besides high DOI ratios, the subjective endowment with resources explains the level of functional coherence scores. A downward shift of this bell-curve is made in industry category ‘1.5: Wholesale trade and retail trade’. Apart from this industry effect, corporate size does not influence the results in a statistically significant way.

**Figure 34: Impact of DOI on cultural strength of German companies**

![](image)

Source: Author

7.2.6. Impact of internationalization on total organizational culture scores

Shashkin (2001) foresees the possibility of aggregating individual subscales to a total organizational culture score, enabling the analysis of how internationalization impacts organizational culture in more general terms. A regression analysis shown in Table 36 based on t-values of a standardized FSTS coefficient of \( t = 3.185 \) (Sig. = 0.002) and of a squared FSTS of \( t = -3.385 \) (Sig. = 0.001) confirms that internationalization impacts organizational culture in total. Figure 35 shows the inverted U-curve for the sum of all scales. Again, industry and resource effects known from testing previous hypotheses apply. A t-test for equality of group means investigates whether the
The impact of internationalization on organizational culture

Convexity of the bell-curve is substantial. Two groups were compared. Group A consists of companies with a DOI lower than 20%, leading to the group label “early internationalizers”. Group B comprises organizations with a DOI from 33% to 66%, a rough 15% interval around global turning-point of a DOI of 47% of the inverted U-curve. Group B differs from group A with a mean difference of 9.43 (Sig. 0.057).

**Figure 35: Impact of DOI on total scale scores of German companies**

Hence, the analysis reveals two results. First, the impact of internationalization on organizational culture in the German samples shows in an inverted U-curve for the sum of all scale scores. Second, “early internationalizers” differ significantly with regard to overall organizational culture scores from those companies which are more advanced in the internationalization process, and which are already able to achieve between one third and two thirds of their sales abroad.

7.2.7. Further analysis

The instant analysis aims to reveal more of the information contained in the available dataset on internationalization’s impact on organizational culture. This section explores seven additional aspects: (1) checking for a potential linear or sigmoid relationship of the DOI-culture link; (2) impact of previous internationalization on organizational culture; (3) impact of internationalization strategies; (4) impact of an enabling organizational culture; (5) impact of geographic expansion on employee orientation; and finally (6) cross-checking some of the results with control items.
(1) Control for a potential linear or sigmoid relationship of the DOI-culture link

Previous studies on the internationalization-performance link have revealed two important aspects of relevance for this section. Firstly, more complex curves may apply, e.g. a sigmoid, S-curve (Contractor et al. 2003), and secondly, multiple studies neglect curve forms other than those hypothesized (Gomes and Ramaswamy 1999, p. 179). To avoid this pitfall and to demonstrate awareness of alternative variable relationships, these respective tests emerged. In spite of this development towards more sophisticated curves, analysis should not dismiss from the outset the possible existence of a relatively simple linear relationship. Table 37 and Table 38 show the respective tests for a linear impact and a sigmoid link.

Table 37: Analysis for a linear impact in the DOI-culture link in German companies

<table>
<thead>
<tr>
<th>Variables in the equation</th>
<th>Scale Results</th>
<th>OCAQ Scale 1: Managing change B (Std. Error)</th>
<th>OCAQ Scale 2: Achieving goals B (Std. Error)</th>
<th>OCAQ Scale 3: Coord. teamwork B (Std. Error)</th>
<th>OCAQ Scale 4: Customer orientation B (Std. Error)</th>
<th>OCAQ Scale 5: Cultural strength B (Std. Error)</th>
<th>Sum of all scales B (Std. Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td>22.652* (2.701)</td>
<td>18.578* (2.709)</td>
<td>20.379* (2.739)</td>
<td>23.283* (2.652)</td>
<td>22.274* (2.980)</td>
<td>103.696* (11.051)</td>
</tr>
<tr>
<td>FSTS</td>
<td></td>
<td>-0.023*** (0.013)</td>
<td>-0.008 (0.013)</td>
<td>-0.027*** (0.014)</td>
<td>-0.019 (0.013)</td>
<td>-0.006 (0.015)</td>
<td>-0.093 (0.057)</td>
</tr>
<tr>
<td>Resource endowment</td>
<td></td>
<td>-1.910* (0.324)</td>
<td>-1.594 (0.324)</td>
<td>-1.485* (0.329)</td>
<td>-1.492 (0.314)</td>
<td>-1.495* (0.357)</td>
<td>-7.960* (1.324)</td>
</tr>
<tr>
<td>I.0: Agriculture, forestry, fishing</td>
<td>5.649*** (3.060)</td>
<td>-0.174 (3.085)</td>
<td>0.815 (3.114)</td>
<td>3.623 (2.962)</td>
<td>3.718 (3.325)</td>
<td>13.979 (12.587)</td>
<td>6.734 (5.886)</td>
</tr>
<tr>
<td>I.1: Mining and construction</td>
<td>0.778 (1.430)</td>
<td>2.052 (1.443)</td>
<td>0.611 (1.456)</td>
<td>2.480*** (1.387)</td>
<td>0.891 (1.556)</td>
<td>6.734 (5.886)</td>
<td>13.979 (12.587)</td>
</tr>
<tr>
<td>I.4: Transport., communication</td>
<td>-2.733** (1.351)</td>
<td>-3.196** (1.362)</td>
<td>-1.985 (1.521)</td>
<td>-0.428 (1.315)</td>
<td>-1.996 (1.470)</td>
<td>-11.014*** (5.559)</td>
<td>-11.014*** (5.559)</td>
</tr>
<tr>
<td>I.5: Wholesale and retail trade</td>
<td>-2.881** (1.413)</td>
<td>-1.433 (1.424)</td>
<td>-2.315 (1.438)</td>
<td>-2.945** (1.371)</td>
<td>-3.637** (1.535)</td>
<td>-3.317 (1.958)</td>
<td>-21.120* (7.366)</td>
</tr>
<tr>
<td>I.6: Finance, insurance</td>
<td>-4.606** (1.790)</td>
<td>-4.555** (1.805)</td>
<td>-3.203*** (1.829)</td>
<td>-3.739** (1.754)</td>
<td>-3.417 (1.958)</td>
<td>-10.736*** (4.626)</td>
<td>-21.120* (7.366)</td>
</tr>
<tr>
<td>I.7-8: Services</td>
<td>2.523** (1.125)</td>
<td>2.068*** (1.134)</td>
<td>2.956** (1.144)</td>
<td>1.865*** (1.090)</td>
<td>1.002 (1.225)</td>
<td>10.736*** (4.626)</td>
<td>10.736*** (4.626)</td>
</tr>
<tr>
<td>Size (log of total asset)</td>
<td>0.080 (0.179)</td>
<td>0.248 (0.179)</td>
<td>0.190 (0.183)</td>
<td>0.175 (0.176)</td>
<td>0.031 (0.196)</td>
<td>0.988 (0.7340)</td>
<td>0.988 (0.7340)</td>
</tr>
<tr>
<td>Model summary</td>
<td></td>
<td>+2=0.420 ad.</td>
<td>+2=0.327 ad.</td>
<td>+2=0.278 ad.</td>
<td>+2=0.319 ad.</td>
<td>+2=0.277 ad.</td>
<td>+2=0.410 ad.</td>
</tr>
</tbody>
</table>

*p<0.01 **p<0.05 ***p<0.01, 'I_2-3: Manufacturing serves as control industry, N=100
Source: Author
The impact of internationalization on organizational culture

In the case of OCAQ Scale 1, the FSTS t-value of -1.710 (Sig. 0.091) remains under the critical value of two, indicating a rather limited explanatory power of the DOI measure in the equation. Analogously, the linear model for OCAQ Scale 3 with a FSTS t-value of -1.914 (Sig. 0.059) is rejected in favor of the more suitable quadratic model. Results for the sigmoid impact are even more straightforward. Statistics deny such an approach. None of the three constituent variables show significant t-values simultaneously. The quadratic model represents the best statistical fit for the dataset on German companies.

Table 38: Analysis for a sigmoid impact in the DOI-culture link in Germany

<table>
<thead>
<tr>
<th>Scale Results</th>
<th>OCAQ Scale 1: Managing change B (Std. Error)</th>
<th>OCAQ Scale 2: Achieving goals B (Std. Error)</th>
<th>OCAQ Scale 3: Coord. teamwork B (Std. Error)</th>
<th>OCAQ Scale 4: Customer orientation B (Std. Error)</th>
<th>OCAQ Scale 5: Cultural strength B (Std. Error)</th>
<th>Sum of all scales B (Std. Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSTS</td>
<td>0.125 (0.115)</td>
<td>0.122 (0.114)</td>
<td>0.159 (0.110)</td>
<td>0.240** (0.107)</td>
<td>0.220*** (0.120)</td>
<td>0.863*** (0.466)</td>
</tr>
<tr>
<td>FSTS_squared x1.000</td>
<td>-0.697 (2.916)</td>
<td>-0.235 (2.871)</td>
<td>-2.092 (2.780)</td>
<td>-4.319 (2.707)</td>
<td>-3.579 (3.027)</td>
<td>-10.810 (11.729)</td>
</tr>
<tr>
<td>FSTS_sigmoid x1.000</td>
<td>-0.009 (0.022)</td>
<td>-0.001 (0.001)</td>
<td>0.002 (0.002)</td>
<td>0.001 (0.002)</td>
<td>0.001 (0.008)</td>
<td>0.001 (0.008)</td>
</tr>
<tr>
<td>Resource endowment</td>
<td>-1.479* (0.375)</td>
<td>-1.007* (0.370)</td>
<td>-1.198* (0.356)</td>
<td>-1.217*** (0.348)</td>
<td>-1.125* (0.392)</td>
<td>-6.225* (1.513)</td>
</tr>
<tr>
<td>I_0: Agriculture, forestry, fishing</td>
<td>3.357 (3.365)</td>
<td>-1.944 (3.321)</td>
<td>-1.107 (3.197)</td>
<td>2.008 (3.099)</td>
<td>2.198 (3.499)</td>
<td>4.553 (13.573)</td>
</tr>
<tr>
<td>I_1: Mining and construction</td>
<td>-0.103 (1.604)</td>
<td>1.391 (1.585)</td>
<td>-0.411 (1.528)</td>
<td>1.193 (1.481)</td>
<td>-0.216 (1.668)</td>
<td>1.834 (6.477)</td>
</tr>
<tr>
<td>I_4: Transport., communication</td>
<td>-3.069** (1.482)</td>
<td>-3.423** (1.464)</td>
<td>-2.213 (1.567)</td>
<td>-1.127 (1.372)</td>
<td>-2.576*** (1.542)</td>
<td>-13.195** (5.985)</td>
</tr>
<tr>
<td>I_5: Wholesale and retail trade</td>
<td>-2.999*** (1.554)</td>
<td>-1.727 (1.533)</td>
<td>-2.654*** (1.477)</td>
<td>-3.233** (1.435)</td>
<td>-3.812** (1.617)</td>
<td>-14.492** (6.267)</td>
</tr>
<tr>
<td>I_6: Finance, insurance</td>
<td>-3.529*** (2.031)</td>
<td>-4.017*** (2.006)</td>
<td>-2.240 (1.943)</td>
<td>-3.171*** (1.881)</td>
<td>-2.898 (2.127)</td>
<td>-16.935** (8.198)</td>
</tr>
<tr>
<td>I_7-8: Services</td>
<td>2.817** (1.238)</td>
<td>2.277*** (1.221)</td>
<td>3.105* (1.175)</td>
<td>2.134*** (1.140)</td>
<td>1.243 (1.286)</td>
<td>12.035** (4.991)</td>
</tr>
<tr>
<td>Size (log of total asset)</td>
<td>-0.012 (0.197)</td>
<td>0.182 (0.194)</td>
<td>0.078 (0.189)</td>
<td>0.132 (0.184)</td>
<td>-0.009 (0.207)</td>
<td>0.592 (0.794)</td>
</tr>
<tr>
<td>Model summary</td>
<td>$r^2=0.358$ adj.</td>
<td>$r^2=0.271$ adj.</td>
<td>$r^2=0.274$ adj.</td>
<td>$r^2=0.315$ adj.</td>
<td>$r^2=0.277$ adj.</td>
<td>$r^2=0.370$ adj.</td>
</tr>
<tr>
<td></td>
<td>$F=4.153*$</td>
<td>$F=2.840*$</td>
<td>$F=2.853*$</td>
<td>$F=3.380*$</td>
<td>$F=3.582*$</td>
<td>$F=4.478*$</td>
</tr>
</tbody>
</table>

*p<0.01  **p<0.05  ***p<0.1, 'I_2-3: Manufacturing serves as control industry, N=100

Source: Author
(2) Impact of previous internationalization and its speed on culture

This section explores two aspects. Firstly, does previous internationalization impact organizational culture even five years later? Secondly, does the speed of internationalization, in terms of the growth rate from 1997-2001, affect organizational culture? Given the restricted data availability and disclosure, a rather simple but nonetheless insightful way of conceptualizing past internationalization focuses on the FSTS<sub>1997</sub>. The growth index stems from relating FSTS<sub>2001</sub> to FSTS<sub>1997</sub>. Table 37 shows that FSTS<sub>1997</sub> does not impact organizational culture five years later. The analysis comprises linear and non-linear models such as the quadratic and sigmoid. Previous analysis of the hypotheses tested above revealed that effects of internationalization are strongest in the “sum of all scales” index, which is why results in Table 37 focus on these sum scales. Respective tests have been carried out for the 15 sub-tests for a linear, quadratic and sigmoid on each of the five OCAQ sub-scales. As they show the same result of FSTS<sub>1997</sub> not impacting culture, they have been omitted. Regarding the speed of internationalization in these five years, analysis identifies an inverted U-curve as shown in Table 40. Therefore, nearest-neighbor cluster analysis identifies several outliers of extremely high internationalization rates, which primarily stem from initial FSTS ratios below one. 11 companies with an internationalization growth ratio of more than 100% in the 1997-2001 timeframe have thus been excluded from the analysis. Furthermore, as seven companies do not disclose FSTS<sub>1997</sub>, the sample size entering the analysis includes 82 companies. Figure 36 depicts the identified inverted U-curve. Table 40 indicates that industry differences apply.

Table 39: Impact of previous internationalization on culture in Germany

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Model and statistics</th>
<th>Linear model</th>
<th>Quadratic model</th>
<th>Sigmoid model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum of all scales: B (Std. Error)</td>
<td>Sum of all scales: B (Std. Error)</td>
<td>Sum of all scales: B (Std. Error)</td>
<td></td>
</tr>
<tr>
<td>FSTS</td>
<td>0.043 (0.067)</td>
<td>0.282 (0.229)</td>
<td>0.893 (0.541)</td>
<td></td>
</tr>
<tr>
<td>FSTS squared</td>
<td>-0.002 (0.002)</td>
<td>-0.021 (0.015)</td>
<td>0.144 (0.124)</td>
<td></td>
</tr>
<tr>
<td>FSTS sigmoid 1.000</td>
<td>-6.221* (1.611)</td>
<td>-6.1272* (1.612)</td>
<td>-5.963* (1.612)</td>
<td></td>
</tr>
<tr>
<td>Resource endowment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I 0: Agriculture, forestry, fishing</td>
<td>5.738 (14.244)</td>
<td>5.147 (14.239)</td>
<td>7.431 (14.310)</td>
<td></td>
</tr>
<tr>
<td>I 1: Mining and construction</td>
<td>4.188 (6.581)</td>
<td>3.365 (6.618)</td>
<td>2.498 (6.632)</td>
<td></td>
</tr>
<tr>
<td>I 4: Transport, communication</td>
<td>-10.841*** (6.398)</td>
<td>-10.204 (6.418)</td>
<td>-9.376 (6.431)</td>
<td></td>
</tr>
<tr>
<td>Size (log of total asset)</td>
<td>0.366 (0.835)</td>
<td>0.326 (0.835)</td>
<td>0.417 (0.835)</td>
<td></td>
</tr>
<tr>
<td>Model summary</td>
<td>r²=0.285</td>
<td>r²=0.295</td>
<td>r²=0.308</td>
<td></td>
</tr>
<tr>
<td></td>
<td>adj. r²=0.207</td>
<td>adj. r²=0.209</td>
<td>adj. r²=0.214</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F=3.673*</td>
<td>F=3.341*</td>
<td>F=3.281*</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.01 **p<0.05 ***p<0.1, ’l_2-3: Manufacturing serves as control industry, N=96

Source: Author
The impact of internationalization on organizational culture

<table>
<thead>
<tr>
<th>Variables in the equation</th>
<th>Scale results</th>
<th>Sum of all scale scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>74.758* (11.287)</td>
<td></td>
</tr>
<tr>
<td>FSTS</td>
<td>46.840** (20.237)</td>
<td></td>
</tr>
<tr>
<td>FOSTS_squared</td>
<td>-23.003** (9.012)</td>
<td></td>
</tr>
<tr>
<td>I_0: Agriculture, forestry, and fishing</td>
<td>10.548 (14.901)</td>
<td></td>
</tr>
<tr>
<td>I_1: Mining and construction</td>
<td>9.803 (9.404)</td>
<td></td>
</tr>
<tr>
<td>I_4: Transportation, communication</td>
<td>-0.903 (8.779)</td>
<td></td>
</tr>
<tr>
<td>I_5: Wholesale and retail trade</td>
<td>-4.842 (8.759)</td>
<td></td>
</tr>
<tr>
<td>I_6: Finance, insurance</td>
<td>-15.522** (7.760)</td>
<td></td>
</tr>
<tr>
<td>I_7-8: Services</td>
<td>18.193*** (10.634)</td>
<td></td>
</tr>
<tr>
<td>Model summary</td>
<td></td>
<td>$r^2=0.213, \text{adj. } r^2=0.123, F=2.362**$</td>
</tr>
</tbody>
</table>

Source: Author

The results are logical: the faster and more precipitate the foray into foreign markets, the less coherently the patterns can be maintained. Substantial M&A efforts decrease consensus on functioning solutions and impede incremental developments in intended directions (Dunphy and Stace 1988, p. 320). Culture clashes between headquarters and subsidiaries emerge (Hicks 1998, p. 57). Such culture encounters represent substantial risk (Schein 1999, p. 174).

Figure 36: Impact of interationalization speed on organizational culture

Source: Author
The impact of internationalization on organizational culture

A second, but not necessarily more likely, explanation resides in substantial international experience enabling rapid further internationalization and less need to find new internal solutions (cf. Johanson and Vahlne 1977). Next, trade agreements and emerging regional economic blocks can provide opportunities to capitalize on ownership, location, and internationalization advantages simultaneously (cf. Dunning 1979). However, the down-slope in culture scores mirror the restricted possibility for the inevitably growing number of organizational members to acculturate. In contrast, ongoing de-internationalization entails a less demanding environment as well as a reversal of effects of internationalization liabilities. Figure 36 shows how de-internationalizations lowers organizational culture scores.

(3) Impact of internationalization strategy

This section deals with a deeper layer of internationalization beyond the conceptualization through FSTS, as the latter is unable to mirror various strategies for geographic expansion abroad appropriately. As was the case in the U.S. study, two survey items regarding international strategies support the analysis. Figure 37 provides an overview on the distribution of integration-adaptation combinations.

**Figure 37: Distribution of internationalization strategies in German companies**

<table>
<thead>
<tr>
<th>Degree of internal integration</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of local adaptation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>3.1%</td>
<td>2.1%</td>
<td>2.1%</td>
<td>7.2%</td>
<td>21.7%</td>
</tr>
<tr>
<td>3</td>
<td>7.2%</td>
<td>7.2%</td>
<td>29.9%</td>
<td>8.2%</td>
<td>52.6%</td>
</tr>
<tr>
<td>4</td>
<td>2.1%</td>
<td>7.2%</td>
<td>4.1%</td>
<td>1%</td>
<td>14.4%</td>
</tr>
<tr>
<td>5</td>
<td>3.1%</td>
<td>2.1%</td>
<td>4.1%</td>
<td>1%</td>
<td>11.3%</td>
</tr>
</tbody>
</table>

N=97
Source: Author

- 158 -
Overall, four major internationalization quadrants are included. Only scores of 4 and 5 of the item values, corrected for the inversion, lead to a classification of either being global (quadrant 2), multinational (quadrant 3) or transnational (quadrant 4), while all other companies remain in quadrant 1. Based on the self-assessment, German publicly listed companies in the dataset place strong emphasis on integration as well as adaptation, since 58% perceive themselves as being transnational. Table 41 lists basic statistics for these groups. While larger sub-groups are always more desirable, the standard errors of smaller groups remain sufficiently low. Several differences among group means already become obvious. Three selected examples serve to demonstrate that differing internationalization strategies often match a corresponding organizational culture.

| Table 41: Group descriptives for international companies from Germany |
|------------------|------------------|---------------------|---------------------|
| **Scale**        | **Statistics**   | **International grouping** | **N** | **Mean** | **Std. deviation** | **Std. error mean** |
| OCAQ 1 Managing change |                  | 1-international | 18 | 16.50 | 3.974 | 0.936 |
|                   |                  | 2-global      | 16 | 17.68 | 3.439 | 0.859 |
|                   |                  | 3-multinational | 7 | 18.00 | 2.516 | 0.951 |
|                   |                  | 4-transnational | 56 | 18.31 | 3.980 | 0.541 |
| OCAQ 2 Achieving goals |                  | 1-international | 18 | 15.38 | 3.882 | 0.915 |
|                   |                  | 2-global      | 16 | 18.37 | 3.117 | 0.779 |
|                   |                  | 3-multinational | 7 | 18.14 | 1.951 | 0.737 |
|                   |                  | 4-transnational | 56 | 18.41 | 3.468 | 0.463 |
| OCAQ 3 Coordinated teamwork |                  | 1-international | 18 | 16.27 | 3.268 | 0.770 |
|                   |                  | 2-global      | 16 | 18.62 | 3.757 | 0.939 |
|                   |                  | 3-multinational | 7 | 17.57 | 2.439 | 0.922 |
|                   |                  | 4-transnational | 56 | 18.92 | 3.296 | 0.440 |
| OCAQ 4 Customer orientation |                  | 1-international | 18 | 19.16 | 3.222 | 0.759 |
|                   |                  | 2-global      | 15 | 20.33 | 3.436 | 0.887 |
|                   |                  | 3-multinational | 7 | 21.14 | 4.059 | 1.534 |
|                   |                  | 4-transnational | 56 | 22.22 | 3.038 | 0.413 |
| OCAQ 5 Cultural strength |                  | 1-international | 18 | 16.50 | 3.240 | 0.763 |
|                   |                  | 2-global      | 16 | 19.06 | 3.275 | 0.818 |
|                   |                  | 3-multinational | 7 | 16.85 | 3.387 | 1.280 |
|                   |                  | 4-transnational | 56 | 19.46 | 3.785 | 0.515 |
| Sum of all scales |                  | 1-international | 18 | 83.83 | 15.674 | 3.694 |
|                   |                  | 2-global      | 16 | 93.93 | 14.336 | 3.584 |
|                   |                  | 3-multinational | 7 | 91.71 | 11.729 | 4.433 |
|                   |                  | 4-transnational | 56 | 97.37 | 15.254 | 2.038 |

Source: Author

First, the organizational cultures of international and global companies differ, based on statistics shown in Table 42. Global companies score significantly higher on achieving goals, coordinating teamwork, functional strength, and, lastly, overall cultural scores. These dimensions are crucial for implementing a global strategy of

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14 Levene tests for equality of group variance have been applied to identify and select the suitable t-test procedure. High significance values of Levene tests suggest t-tests based on the assumption of equal variances for both groups.
The impact of internationalization on organizational culture

integration. These findings are in tune with Kedia et al. (2002) proposing such highly integrated and coordinated decision-making and leadership styles. The findings also coincide with Frese and Blies (1997, p. 299) foreseeing such a differentiation. As expected, organizational cultures of global companies do not show higher levels of customer orientation when compared to the international ones.

Table 42: Comparing international with global organizations from Germany

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Statistics</th>
<th>t</th>
<th>df</th>
<th>Mean difference</th>
<th>Std. error</th>
<th>95% confidence interval</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCAQ 1 Managing change</td>
<td>-0.925</td>
<td>32</td>
<td></td>
<td>-1.18</td>
<td>1.282</td>
<td>-3.800</td>
<td>1.425</td>
<td></td>
</tr>
<tr>
<td>OCAQ 2 Achieving goals</td>
<td>-2.451**</td>
<td>32</td>
<td></td>
<td>-2.98</td>
<td>1.217</td>
<td>-5.467</td>
<td>-0.505</td>
<td></td>
</tr>
<tr>
<td>OCAQ 3 Coord. teamwork</td>
<td>-1.948***</td>
<td>32</td>
<td></td>
<td>-2.34</td>
<td>1.204</td>
<td>-4.801</td>
<td>0.107</td>
<td></td>
</tr>
<tr>
<td>OCAQ 4 Customer orientation</td>
<td>-1.005</td>
<td>32</td>
<td></td>
<td>-1.16</td>
<td>1.160</td>
<td>-3.534</td>
<td>1.201</td>
<td></td>
</tr>
<tr>
<td>OCAQ 5 Cultural strength</td>
<td>-2.289**</td>
<td>32</td>
<td></td>
<td>-2.56</td>
<td>1.119</td>
<td>-4.842</td>
<td>-0.283</td>
<td></td>
</tr>
<tr>
<td>Sum of all scales</td>
<td>-1.952**</td>
<td>32</td>
<td></td>
<td>-10.10</td>
<td>5.175</td>
<td>-20.646</td>
<td>0.437</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.01 **p<0.05 ***p<0.1, N_{INTERNATIONAL}=18, N_{GLOBAL}=56
Source: Author

Secondly, by juxtaposing international companies with transnational ones with regard to their respective organizational cultures, fundamental and statistically significant differences become obvious. As Table 43 shows, transnational companies outperform their international pendants on literally all content as well as setting dimensions. Obviously, this becomes necessary to maintain an integrated network

Table 43: Comparing international with transnational organizations from Germany

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Statistics</th>
<th>t</th>
<th>df</th>
<th>Mean difference</th>
<th>Std. error</th>
<th>95% confidence interval</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCAQ 1 Managing change</td>
<td>-1.675***</td>
<td>72</td>
<td></td>
<td>-1.81</td>
<td>1.082</td>
<td>-3.975</td>
<td>0.345</td>
<td></td>
</tr>
<tr>
<td>OCAQ 2 Achieving goals</td>
<td>-3.123*</td>
<td>72</td>
<td></td>
<td>-3.02</td>
<td>0.967</td>
<td>-4.950</td>
<td>-1.093</td>
<td></td>
</tr>
<tr>
<td>OCAQ 3 Coord. teamwork</td>
<td>-2.973*</td>
<td>72</td>
<td></td>
<td>-2.65</td>
<td>0.891</td>
<td>-4.428</td>
<td>-0.874</td>
<td></td>
</tr>
<tr>
<td>OCAQ 4 Customer orientation</td>
<td>-3.640*</td>
<td>72</td>
<td></td>
<td>-3.05</td>
<td>0.839</td>
<td>-4.730</td>
<td>-1.381</td>
<td></td>
</tr>
<tr>
<td>OCAQ 5 Cultural strength</td>
<td>-2.974*</td>
<td>72</td>
<td></td>
<td>-2.96</td>
<td>0.996</td>
<td>-4.950</td>
<td>-0.976</td>
<td></td>
</tr>
<tr>
<td>Sum of all scales</td>
<td>-3.254*</td>
<td>72</td>
<td></td>
<td>-13.5</td>
<td>4.160</td>
<td>-21.835</td>
<td>-5.248</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.01 **p<0.05 ***p<0.1, N_{INTERNATIONAL}=18, N_{TRANSNATIONAL}=56
Source: Author

Thirdly, when comparing multinational with transnational companies with regard to their organizational cultures, it is not surprising to find that transnational companies differ significantly in fostering a higher level of functional coherence. Table 44 demonstrates that transnational companies place greater emphasis on internal integration, which subsequently fosters a stronger organizational culture.
The impact of internationalization on organizational culture

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Statistics</th>
<th>t</th>
<th>df</th>
<th>Mean difference</th>
<th>Std. error</th>
<th>95% confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower          Upper</td>
</tr>
<tr>
<td>OCAQ 1 Managing change</td>
<td>-0.203</td>
<td>61</td>
<td></td>
<td>-0.31</td>
<td>1.549</td>
<td>-3.415          2.785</td>
</tr>
<tr>
<td>OCAQ 2 Achieving goals</td>
<td>-0.199</td>
<td>61</td>
<td></td>
<td>-0.26</td>
<td>1.342</td>
<td>-2.953          2.417</td>
</tr>
<tr>
<td>OCAQ 3 Coord. teamwork</td>
<td>-1.050</td>
<td>61</td>
<td></td>
<td>-1.35</td>
<td>1.291</td>
<td>-3.940          1.226</td>
</tr>
<tr>
<td>OCAQ 4 Customer orientation</td>
<td>-0.851</td>
<td>61</td>
<td></td>
<td>-1.07</td>
<td>1.268</td>
<td>-3.617          1.459</td>
</tr>
<tr>
<td>OCAQ 5 Cultural strength</td>
<td>-1.731***</td>
<td>61</td>
<td></td>
<td>-2.60</td>
<td>1.505</td>
<td>-5.618          0.406</td>
</tr>
<tr>
<td>Sum of all scales</td>
<td>-0.944</td>
<td>61</td>
<td></td>
<td>-5.66</td>
<td>5.991</td>
<td>-17.641         6.320</td>
</tr>
</tbody>
</table>

*p<0.01  **p<0.05  ***p<0.1, NMULTINATIONAL=7, NTRANSATIONAL=16

Source: Author

Hence, scrutinizing only these three examples already allows of the deduction that organizations pursuing different internationalization strategies vary significantly in their organizational cultures. This does not imply, however, that the most professional, ideal organizational culture constellation is reserved for and restricted to high DOI ratios. Even though the majority of transnational companies are highly internationalized, there is a group of about a third of the companies in the sample striving for multiple foci with a DOI below 50%, as Figure 38 depicts.

**Figure 38: DOI of transnational companies from Germany**

Source: Author
(4) Impact of an enabling organizational culture

The German survey included an item on the extent to which organizational members feel that their organizational culture promotes internationalization. In response, 38% of multinational and 27% of transnational companies report such a positive effect for their internationalization, by contrast to only 12% of global and a mere 11% of international companies. If such percentages of companies in the German sample admit that their organizational cultures are not really conducive of geographic expansion, this clearly indicates room for improvement and a necessity for culture development efforts. These percentages are even lower than in the U.S. study. Obviously, larger group sizes entail more stable results, but, nonetheless, even in the largest group of transnational companies, the self-assessment by organizational members of their culture is rather negative and non-negligible.

As DOI ratios and organizational culture scores span roughly the same period of time, they can be further analyzed. An additional insight emerges when relating this factor as an independent variable with FSTS and FATA. The more a company thinks its organizational culture furthers geographic expansion abroad, the higher its DOI. Hence, statistics in Table 45 allow of the conclusion that a reverse impact from organizational culture on internationalization also exists.

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>FSTS B (Std. Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>3.560 (21.863)</td>
</tr>
<tr>
<td>Impression of enabling culture</td>
<td>-5.715** (2.822)</td>
</tr>
<tr>
<td>Resource endowment</td>
<td>2.639 (3.047)</td>
</tr>
<tr>
<td>I 0: Agriculture, forestry, fishing</td>
<td>17.229 (23.939)</td>
</tr>
<tr>
<td>I 1: Mining and construction</td>
<td>-15.404 (10.993)</td>
</tr>
<tr>
<td>I 4: Transportation, communication</td>
<td>-14.106 (10.362)</td>
</tr>
<tr>
<td>I 5: Wholesale and retail trade</td>
<td>-9.492 (10.924)</td>
</tr>
<tr>
<td>I 6: Finance, insurance</td>
<td>-30.020** (14.102)</td>
</tr>
<tr>
<td>I 7-8: Services</td>
<td>-7.551 (8.694)</td>
</tr>
<tr>
<td>Size (log of total asset)</td>
<td>3.972* (1.337)</td>
</tr>
</tbody>
</table>

Model summary: \( r^2 = 0.196, \text{ adj. } r^2 = 0.111, F = 2.324^* \)

*Source: Author

(5) Internationalization and employee orientation

A closer analysis of OCAQ items reveals that several can be viewed as a description of how the organization deals with its employees. The OCAQ therefore contains indicators for employee orientation listed in Table 46. A positive employee orientation, for example, is shown in employee participation and the possibility for bottom-up change processes. In contrast, the perception of change merely resulting
from higher up in the organization in a top-down approach indicates a less favorable situation. Education and training are necessary for the logic and validity of any new approach to be accepted. Extended training helps in building up confidence that change does not happen too quickly or cause too much disruption yet endows human resources with the skill set required to master the growing challenges. Management has to take employees’ worries and anxieties into consideration. Employee orientation finally becomes evident when the organization communicates full and accurate information on what is actually going on and why.

**Table 46: OCAQ items for employee orientation**

<table>
<thead>
<tr>
<th>Conceptualization of employee orientation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. People feel that most change is the result of pressures imposed from higher up in the organization</td>
</tr>
<tr>
<td>2. People believe that change happens too quickly and causes too much disruption</td>
</tr>
<tr>
<td>3. People believe that their concerns and anxieties during periods of change are heard and considered</td>
</tr>
<tr>
<td>4. People and teams are often expected to reach goals which they believe are unattainable</td>
</tr>
<tr>
<td>5. People lack the interpersonal and technical skills they need to work effectively in teams</td>
</tr>
<tr>
<td>6. People have access to timely and accurate information about what's really happening in the organization and why</td>
</tr>
</tbody>
</table>

Source: Author

Similarly to the findings of previous hypotheses tests in Germany, internationalization seems to impact employee orientation. Statistics shown in Table 47 indicate that there is a significant relation in the form of a bell-curve. The first half of the internationalization process sees employee orientation increasing as a number of pressures challenge German companies and their organizational cultures. All employees are encouraged to contribute to mastering the required changes.

**Table 47: Impact of DOI on employee orientation in Germany**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Scale results</th>
<th>Employee orientation B (Std. Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td>14.539* (3.422)</td>
</tr>
<tr>
<td>FSTS</td>
<td></td>
<td>0.173** (0.067)</td>
</tr>
<tr>
<td>FOSTS squared x1.000</td>
<td></td>
<td>-1.791* (0.728)</td>
</tr>
<tr>
<td>Resource endowment</td>
<td></td>
<td>-0.838** (0.393)</td>
</tr>
<tr>
<td>I, 0: Agriculture, forestry, and fishing</td>
<td></td>
<td>1.231 (3.569)</td>
</tr>
<tr>
<td>I, 1: Mining and construction</td>
<td></td>
<td>-0.736 (1.648)</td>
</tr>
<tr>
<td>I, 4: Transportation, communication</td>
<td></td>
<td>-4.938* (1.724)</td>
</tr>
<tr>
<td>I, 5: Wholesale and retail trade</td>
<td></td>
<td>-2.965** (1.656)</td>
</tr>
<tr>
<td>I, 6: Finance, insurance</td>
<td></td>
<td>-6.000* (2.164)</td>
</tr>
<tr>
<td>I, 7-8: Services</td>
<td></td>
<td>1.565 (1.315)</td>
</tr>
<tr>
<td>Size (log of total assets)</td>
<td></td>
<td>0.135 (0.212)</td>
</tr>
</tbody>
</table>

Model summary: $r^2 = 0.287$, adj. $r^2 = 0.202$, $F = 3.375^*$

*p<0.01 **p<0.05 ***p<0.1, ‘i’ 2-3: Manufacturing serves as control industry, N=100

Source: Author
These pressures stem from three sources: (1) the changing nature of the organizational environment; (2) the need to conceive new internal solutions for this altering context; and (3) a deteriorating performance, as results by Ruigrok and Wagner (2003) suggest. However, the slackening state of emergency in the second half of the internationalization process seems to lead to decreased efforts, probably because of the continuing high cost of employee orientation, respectively its necessity; given the recovering performance and the improved market positions.

Indeed, the above-tested hypotheses indicate that organizational culture represents a tool for addressing challenges imposed upon the organization in the geographic expansion process. Statistics shown in Table 47 indicate, nonetheless, that organizational efforts for employee orientation decrease at high DOI. In a statistically significant way, a bell-curve best describes the DOI-employee orientation link. The following Chapter 8 presents a more extended interpretation of this phenomenon, which presents one of the most insightful results of the further analysis. However, this section’s analysis focuses on the impact of internationalization only. Possible life-cycle effects (Schein 1985b, pp. 271-272, McKelvey 1982, Kimberly and Miles 1980) represent content for subsequent studies. Size effects do not occur.

(6) Cross-checking results of the impact of internationalization on culture
The questionnaire contained three additional items on the strength of organizational culture. Their aim is to gather initial evidence as to whether the impact of internationalization on organizational culture strength also holds good for a different construct conceptualization in three alternative items proposed by a different author. Results in Table 48 indicate that items 31, 33 and the sum of all three item scores show an inverted U regarding the impact of internationalization on organizational culture strength.

This can be interpreted as evidence that the results of the confirmed hypothesis 5.2 are not necessarily restricted to the way Sashkin (2001) operationalizes strength of organizational culture. The same results are confirmed by a partial parallel test. The perception on cultural pervasiveness, in terms of whether an organization imposes a wide range of behaviors on its members, seems to be a rather company-specific aspect, depending on either the initial culture prior to internationalization or the necessity to implement pervasive culture in the specific organizational situation. In any case, the impact of geographic is weaker here. Comparably to the U.S. study, expansion abroad does not succeed in positively impacting the psychological intensity with which members adhere to an organizational culture at high DOI. This further analysis with control items strengthens the evidence of the overall results. However, the inverted U-curve identified across multiple dimensions needs further discussion in the subsequent Chapter 8, since the decline at a higher DOI may give rise to criticism.
Table 48: Results from the control items in the German study

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Items</th>
<th>Item 31: Within-company consensus B (Std. Error)</th>
<th>Item 32: Cultural pervasiveness B (Std. Error)</th>
<th>Item 33: Psychological intensity B (Std. Error)</th>
<th>Sum of all control items B (Std. Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td>2.884* (0.846)</td>
<td>2.816*** (0.963)</td>
<td>3.148* (0.747)</td>
<td>8.848* (1.979)</td>
</tr>
<tr>
<td>FSTS</td>
<td></td>
<td>0.038** (0.017)</td>
<td>0.032*** (0.019)</td>
<td>0.034** (0.015)</td>
<td>0.104** (0.039)</td>
</tr>
<tr>
<td>FSTS_squared x1.000</td>
<td></td>
<td>-0.420** (0.180)</td>
<td>-0.303 (0.202)</td>
<td>-0.390** (0.156)</td>
<td>-0.112* (0.415)</td>
</tr>
<tr>
<td>Resource endowment</td>
<td></td>
<td>-0.310* (0.098)</td>
<td>-0.209*** (0.111)</td>
<td>-0.221** (0.086)</td>
<td>-0.740* (0.229)</td>
</tr>
<tr>
<td>I.0: Agriculture, forestry, fishing</td>
<td></td>
<td>0.518 (0.888)</td>
<td>0.723 (1.011)</td>
<td>0.721 (0.784)</td>
<td>1.962 (2.079)</td>
</tr>
<tr>
<td>I.1: Mining and construction</td>
<td></td>
<td>0.523 (0.410)</td>
<td>0.559 (0.467)</td>
<td>0.396 (0.362)</td>
<td>1.477 (0.960)</td>
</tr>
<tr>
<td>I.4: Transportation, communication</td>
<td></td>
<td>-0.166 (0.388)</td>
<td>-0.745*** (0.441)</td>
<td>0.008 (0.342)</td>
<td>-0.903 (0.907)</td>
</tr>
<tr>
<td>I.5: Wholesale and retail trade</td>
<td></td>
<td>-0.376 (0.412)</td>
<td>0.035 (0.469)</td>
<td>-0.276 (0.364)</td>
<td>-0.617 (0.964)</td>
</tr>
<tr>
<td>I.6: Finance, insurance</td>
<td></td>
<td>-0.813 (0.536)</td>
<td>-0.397 (0.610)</td>
<td>-0.440 (0.473)</td>
<td>-1.650 (1.254)</td>
</tr>
<tr>
<td>I.7-8: Services</td>
<td></td>
<td>0.313 (0.327)</td>
<td>-0.395 (0.373)</td>
<td>0.162 (0.289)</td>
<td>0.081 (0.766)</td>
</tr>
<tr>
<td>Size (log of total assets)</td>
<td></td>
<td>0.018 (0.052)</td>
<td>-0.009 (0.059)</td>
<td>-0.013 (0.046)</td>
<td>-0.004 (0.122)</td>
</tr>
<tr>
<td>Model summary</td>
<td></td>
<td>$r^2 = 0.239$ adj. $r^2 = 0.150$, $F=2.673*$</td>
<td>$r^2 = 0.176$ adj. $r^2 = -0.079$, $F=1.810***$</td>
<td>$r^2 = 0.199$ adj. $r^2 = 0.105$, $F=2.113**$</td>
<td>$r^2 = 0.270$ adj. $r^2 = 0.184$, $F=3.142*$</td>
</tr>
</tbody>
</table>

*p<0.01 **p<0.05 ***p<0.1, ‘I.2-3: Manufacturing’ serves as control industry, N_{FSTS}=135, N_{FATA}=104

Source: Author
8. Summary, discussion of findings, and conclusions

8.1. Findings on impact of internationalization on culture

The empirical results, by and large, support the central proposition of this study that internationalization impacts organizational culture. As hypothesized, higher degrees of internationalization affect content dimensions such as: change management, goal achievement, coordinated teamwork, as well as the contrasting factor of customer orientation, and the setting dimension of cultural strength. Country-specific idiosyncracies do apply. Table 49 depicts the results of the hypotheses tested. For the sample taken in Germany, a bell-curve exists with a global maximum of roughly 47% for the DOI-culture link. For the U.S. sample, a positive linear relationship emerges, while there is evidence for further dynamism in the DOI-culture link. The subsequent sections present, discuss and interpret key findings, with critical references to the extant literature on the subject.

Role of DOI conceptualization

This study indisputably shows that the discussion on suitability of DOI indicators (cf. Sullivan 1994a, 1996; Ramaswamy et al. 1996) and variable conceptualization as a source of problems is justified. FATA impacts organizational culture in the U.S. study, while FSTS does not. Since Daniels and Bracker (1989) find no difference in the impact of FATA or FSTS on performance, cross-extrapolation of potential variable impact is hazardous. Relying solely on FSTS in the U.S. study would entail incomplete and improper conclusions and possibly contradictory results, with subsequent studies applying a different DOI conceptualization. However, past publications fall short in two respects considering these results. Firstly, the discussion on DOI conceptualizations must be related more to specific contexts in which respective proxies are to be applied. The complexity of dependent variables such as those of multifaceted, multidimensional organizational cultures calls for a fitting simplicity of a corresponding DOI indicator as the independent variable. This is of the utmost importance in order to keep the complexity of the project and analysis manageable, the hypotheses sufficiently straightforward, and the results interpretable. Secondly, this study reveals a shortcoming inherent when applying DOI indicators based on secondary data and delivers evidence for its relevance. Studies relying only on secondary sources may be primarily motivated by convenient, inexpensive data availability, yet it turns out to be systemically flawed. The implicit acceptance of the 10% cut-off (Gomes and Ramaswamy 1999, p. 185), and non-consideration of all respective companies represents a non-negligible room for improvement, to put it positively. For German companies, expansion into culturally unrelated markets stimulates and subsequently necessitates learning early on. In the U.S. context, the large domestic market may disguise smaller DOI ratios, which can represent quite substantial absolute figures and success abroad.
### Table 49: Overview on results from Germany and the U.S.

<table>
<thead>
<tr>
<th>OCAQ scales</th>
<th>Germany FSTS</th>
<th>US FSTS</th>
<th>FATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale 1: Managing change</td>
<td>OC</td>
<td>OC</td>
<td>OC</td>
</tr>
<tr>
<td></td>
<td><img src="image1" alt="" /></td>
<td><img src="image2" alt="" /></td>
<td><img src="image3" alt="" /></td>
</tr>
<tr>
<td>Scale 2: Goal achievement</td>
<td>OC</td>
<td>OC</td>
<td>OC</td>
</tr>
<tr>
<td></td>
<td><img src="image4" alt="" /></td>
<td><img src="image5" alt="" /></td>
<td><img src="image6" alt="" /></td>
</tr>
<tr>
<td>Scale 3: Coordinated teamwork</td>
<td>OC</td>
<td>OC</td>
<td>OC</td>
</tr>
<tr>
<td></td>
<td><img src="image7" alt="" /></td>
<td><img src="image8" alt="" /></td>
<td><img src="image9" alt="" /></td>
</tr>
<tr>
<td>Scale 4: Customer orientation</td>
<td>OC</td>
<td>OC</td>
<td>OC</td>
</tr>
<tr>
<td></td>
<td><img src="image10" alt="" /></td>
<td><img src="image11" alt="" /></td>
<td><img src="image12" alt="" /></td>
</tr>
<tr>
<td>Scale 5: Functional coherence</td>
<td>OC</td>
<td>OC</td>
<td>OC</td>
</tr>
<tr>
<td></td>
<td><img src="image13" alt="" /></td>
<td><img src="image14" alt="" /></td>
<td><img src="image15" alt="" /></td>
</tr>
<tr>
<td>Sum of all scale scores</td>
<td>OC</td>
<td>OC</td>
<td>OC</td>
</tr>
<tr>
<td></td>
<td><img src="image16" alt="" /></td>
<td><img src="image17" alt="" /></td>
<td><img src="image18" alt="" /></td>
</tr>
</tbody>
</table>

Source: Author

The percentage of companies with rather small DOI rates can amount to one quarter, respectively one third, of all international companies as shown in this study. The ex ante exclusion of such high percentages of companies from any further statistical analysis severely limits such studies. The situation and explanatory power are
worsened further if companies with higher DOI ratios represent too small a sub-group to impact statistical analysis adequately, or serve as a foundation for meaningful, interpretable results (e.g., Contractor 2003). To summarize, this study suggests that the discussion on the suitability of DOI indicators considers their application context more adequately, as originally indicated by Doerrenbaecher (2000, p. 19).

**Role of content and setting dimensions of organizational culture**

In general, internationalization impacts content and setting dimensions as hypothesized, at least when internationalization reaches an advanced, noticeable stage of asset internationalization. This lowers the need to repeat ex post explanations and rationales. How can the results be related to the extant literature? A first insight resides in this study’s results corresponding with the importance assigned to internationalization paths (Ruigrok and Wagner 2003). Foreign sales in culturally related countries do not challenge established organizational cultures in the U.S. in a statistically significant way. This holds true until the asset configuration becomes more international. The rejected Hypothesis 2.1. on the impact of DOI on OCAQ Scale 2 in the U.S. warrants further mention. A sensible explanation for the hypothesis rejection may be a strong conviction of the superiority of American management models and management practices (cf. Humes 1993, p. 114), which is especially persistent in this dimension and would change the last. Traces of a heritage of belief in the strong culture hypothesis (Denison 1984) and the impact of the relevant U.S. literature from the 1980s (Kotter and Heskett 1992; Peters and Waterman 1982) also cannot be ruled out completely. Periods of success give rise to misattribution of causal factors (Cooke and Szumal 2000), and alternatives would run diametrically counter to previous solutions. An assumed deteriorating performance at higher DOI ratios, in combination with culturally unrelated markets, are likely to represent two key factors for U.S. companies continually striving for strong cultures. Again, these results are in agreement with the literature on organizational learning (Antal et al. 2001) and organizational culture change (Gagliardi 1986; Kono and Clegg 1998; Schein 1993b).

An additional interpretation of the linear and curvilinear impact of internationalization focuses on a different field in which results are in accordance with previous literature. Internationalization has been associated with liabilities (Lu and Beamish 2001, p. 582), for example in the form of higher internal cost for organizing and governance (Geringer et al. 1989, p. 112, Gomes and Ramaswamy 1999, pp. 174-175). Changing organizational culture entails two types of cost. Firstly, geographic expansion leads to financial cost, and samples include expenses for crisis meetings, consultants’ advice, and corporate universities’ implementation of the necessary trainings. Secondly, non-monetary, cost on the psychological and emotional level can be substantial, as cultural change entails anxieties (Schein 1993, p. 89) and coerced unlearning of previously successful tools, behaviors and values (Schein 1999, p. 115;
The impact of internationalization on organizational culture

Johann 1994; Hedberg 1981; March and Olsen 1976). Extending beyond the applied functionalist understanding, organizational culture serves as a source of identity in terms of organizations not having, but being a culture (Smircich 1983). Organizations provide a sense of belonging and meaning (Doppler and Lauterburg 2001, p. 30). Abrupt and fundamental change is fraught with sudden loss of meaning (Karathanos et al. 1994). These non-monetary costs and liabilities can weigh heavily and show familiar, varying dynamism (cf. Zaheer and Mosakowski 1997). In summary, these costs represent another string of neglected liabilities of internationalization (cf. Eriksson et al. 1997, p. 338) and of internal cost of organizing an international company (Brown 1976, p. 39). Finally, the results seem to be in harmony with the change management literature emphasizing positive aspects of crises, since learning and adaptation occur for future success (cf. Branagan 2001, p. 241; Donaldson 1999; Dressler 1995; Neiman 2002).

**Role of organizational learning**

This study confirms the suitability and applicability of a learning perspective in analyzing the impact of internationalization. Learning and access to further knowledge constitute the preconditions and results of internationalization for Johanson and Vahlne (1977, p. 23). Learning serves as the explanation and the process at work for shaping DOI-performance curves (Hitt et al. 1997; Sullivan 1994b). Besides this rather output-oriented analysis on performance, this study shows that companies actually do learn. It emphasizes the need to open the black box between DOI and performance, which has been labeled as learning (cf. Hitt et al. 1997; Ruigrok and Wagner 2003; Sullivan 1994b) and to shed much-needed light on internal changes occurring in geographic expansion abroad (Hitt et al. 1997, p. 183). From a behavioral-associationist perspective, behavior shifts results from organizational learning (Bower and Hilgard 1981). Simultaneously, behavior is a constituent of organizational culture in Schein’s (1999, p. 16) multiple-layer model. Culture, in the form of behavior and value patterns, is a result of groups learning to cope with the problems of external adaptation and internal integration (Schein 1985a, p. 9). Now, if it can be shown that values and behaviors change, then it can be demonstrated that learning is the result of coping with external and internal problems. This study reveals precisely such behavioral and value shifts, and therefore learning. In the light of it being a way of mastering the arduous activities consequent upon internationalization, the “mysterious and seemingly irrational things that go on in human systems” (Schein 1984, p. 4) – a circumscription for organization culture – eventually appear quite rational.

As regards the idea of an undifferentiated internationalization threshold (cf. Geringer et al. 1989) already vehemently challenged by Sullivan (1994b, p. 166), this study can contribute the idea of organizational culture being a key influencing as well as buffering mechanism. Unfortunately, Wagner’s (2001, pp. 87-112) contingency
framework for the DOI-performance link neglects the softer aspect of organizational culture to date. Even though resulting from a cross-sectional analysis, the bell-curve identified for Germany indicates a strong dynamic nature of organizational culture. Cultures can become more adaptive and flexible when change is necessary. Teamwork coordination improves when working out new solutions for the altering tasks. This is also backed up by DOI\textsuperscript{1997} not showing any impact on organizational cultures five years later, allowing for the interpretation that absorptive capacity (Cohen and Levinthal 1990), flexibility, and adaptability can emerge in a shorter time period, or, for that matter, disappear after negative learning cycles. The identified inverted U-curve for the speed of internationalization indicates that negative learning cycles are not the only reasons for relaxed efforts. Fundamental and rapid de-internationalization does not necessitate grosso modo as alloplastic organizational cultures in a ceteris paribus view (cf. Nichols 1984). In regard to the discussion whether levels of absorptive capacity differ across companies, per se, (cf. Lane and Lubatkin 1998) interpreting this study’s results suggests that regardless of the initial degree, absorptive capacity or alloplasticity seem to be more contingent upon the level of challenges that organizations face. Put in a more abstract way, this thesis evidences Merton’s (1949) theory of functionalism holding that organizations adapt sub-parts to reach higher levels of functionality. Analogously, this simultaneously emphasizes the usefulness and importance of the functionalist approach to organizational culture (cf. Schultz 1995).

Limited experience with unfamiliar foreign markets along with deteriorating performances emerge as favorable preconditions for learning and cultural change (Antal et al. 2001; Kono and Clegg 1998; Schein 1985b). Nonetheless, this study considers Bell and Young’s (1998) proposition that a modern approach to internationalization research benefits from multiple theoretical foundations and also demonstrates its usefulness. It incorporates multiple theories to delineate the static tension field created by internationalization with contingency, consistency, configurationalism or congruence theory (cf. Tushman and Andersen 1997), and subsequently describes how learning serves as the key mechanism to overcome this static strain-presenting tension field in a dynamic perspective. Thus, this study is able to shed light upon a major change occurring in internationalization and confirms the importance of an integrated, dynamic learning perspective through demonstrating learning.

Role of resources
Besides insights on the impact of internationalization, new information has been uncovered regarding the effect of resources on organizational culture. Cooke and Szumal’s (2000) proposition of a model on “how culture works” (p. 147) has a list of positive aspects. It tries to be comprehensive and pays tribute to organizational culture possibly being contingent in nature by considering antecedents of culture in
the form of resources and demands as well as outcomes such as effectiveness. Through the consideration of additional contingencies, the framework aims to explain why even organizations with dysfunctional cultures appear to be successful. It also sheds light on why attempts to overcome the negative effects of defensive cultures, by directly using structures or technologies to control behavior, may appear to be effective, at least temporarily, along certain criteria of effectiveness (Cooke and Szumal 2000, p. 152). Extensive empirical testing covers the more attention-ensuring culture-performance link. According to these authors, initial empirical efforts reveal potential gaps between strategy and organizational culture that can be attributed to resource and demand levels. Furthermore, these authors successfully test for impact from resources and demands on outcomes deriving, yet without explicitly testing, the detrimental effects of positive resource endowment. The latter allows even deconstructive cultures to appear successful, and reinforces rather dysfunctional organizational cultures through misattribution of success. Cooke and Szumal (2000) admit that their “model of how culture works, in consideration of organizational resources and demands, requires further testing and possible elaboration. Particularly useful would be multivariate studies across industries permitting analyses of the potentially contradictory direct and indirect effects of resources and effectiveness.” (p. 161). As well, the authors suggest more research of this type, as societal norms prevailing in certain countries may lead to more defensive cultures (Cooke and Szumal 2000, p. 161).

Complexity emanates from framework comprehensiveness, and empirical testing of such a framework is challenging. These authors provide suggestions for additional research and underline the need for further supplementary testing. However, they omit any explicit mention of testing the direct impact of resources and demands on organizational culture. This thesis project delivers initial empirical evidence for this gap. Statistical analysis enables the conclusion that internationalization entailing higher demands sharpens the functionality of organizational culture. Simultaneously, it intuitively refutes the unfavorable impact of a rich resource endowment. Augmenting endowment with resources positively affects organizational culture scores, which contradicts the aforementioned framework. Resuming Cooke and Szumal’s (2000, p. 161) advice, this has been confirmed in two countries. While Cooke and Szumal (2000, p. 151) indicate that societal norms can overrule other contingencies, the identified positive effect applies to the U.S. and German contexts. What can serve as a possible explanation for the positive impact of resources on organizational culture? One approach sees resources providing an enabling effect for culture. With the financial resources becoming increasingly available, change management projects become more affordable, teamwork coordination costs matter less, education and training budgets increase, and socializing events become affordable in order to boost social coherence. All in all, these factors decrease psychological distance as a liability to diversity. Better endowment with human
resources includes not only functional experts, but also sufficient human resource capacity to initiate group development efforts instead of overburdening and burning out human resources. Finally, a better endowment with knowledge resources can obviously be linked to more constructivism, as this includes knowledge of the superiority of certain management tools and constructivity, as such. This is more pertaining to a context of rising demands, such as internationalization, where situational factors favor positive developments, and for survival reasons rule out deconstructive developments. Hence, there is reason and statistical evidence to assume that resources positively impact organizational culture. However, the probability of contingency perspectives rendering this picture more differentiated and adequate in the future cannot be ruled out entirely. In summary, this study partly confirms and partly disproves Cooke and Szumal’s (2000) model on organizational culture and thus contributes to the advancement of the field of organizational culture as well.

**Role of organizational culture conceptualization and research design**

A brief note is deemed necessary on conceptualizing organizational culture and the overall research design. For reasons such as oversurveying and a phase of corporate scandals in the U.S. in the course of 2002, there is less willingness to participate in surveys. Both surveys carried out in the U.S. as well as Germany led to a sufficiently high number of data points to implement analysis, but any further reduction of response-rates could entail negative consequences. The “it’s just one page” argument of the OCAQ most probably ensured the achieved response-rates, in conjunction with other survey design factors. Moreover, to have implemented an international, comparative study to pay tribute to ideosyncracies of various kinds was, indeed, beneficial.

**Reliability, validity and generalizability**

For research to progress and to contribute to knowledge, it is important to reflect on the methods employed (Scandura et Williams 2000, p. 1248). Considerations of reliability, validity and generalizability are included. One way of assuring the application of a reliable and valid survey is to use an established and tested instrument, particularly when construct complexity is high (Punch 1998, p. 97). Thus, researchers avoid the challenges (Ashkanasy et al. 2000, pp. 140-144) and cost (De Witte and van Muijen 1999, p. 590) associated with new instruments. Years of experience by the OCAQ originator with organizational culture instruments and the OCAQ itself, respective tests and refinements of the OCAQ over time, and the application of established gauging procedures based on key informants along with the integration paradigm speak in favor of a high degree of construct and content validity (cf. Black 1999, p. 35). However, researchers have to accept the fact that every measurement instrument has two sides and this holds true for the second key construct in this study, as well (cf. Ramaswamy et al. 1996; Sullivan 1994a, 1996).
The impact of internationalization on organizational culture

The extensive review of the possible impact of internationalization, the discussion of results in light of the extant literature, the conceptual causality empirically confirmed, by and large, by significant t-values of regression coefficients, ensure internal validity. Statistical analysis with control variables and group differences from two international samples of sufficient response-rate support the conclusion of a given necessary minimum degree of statistical conclusion validity (Austin et al 1998, p. 164). The impact of internationalization has been shown in samples from two countries, and a scaled-down version of a parallel test on reliability with non-OCAQ control items on functional coherence strengthened the argument and results of the study. External validity refers to generalizibility (Black 1999, p. 49). This study identified a cross-company pattern with internationalization impacting organizational culture that is revealed in respective linear and curvilinear results. Generalization is voluntarily limited, since ceteris paribus propositions remain difficult. This study clearly demonstrates the decisive role of contextual factors. Knowledge spill-overs from researchers, consultants and other practitioners to internationalizing companies can and hopefully will enable them to master internationalization and develop their cultures better, to name but just one factor accounting for dynamics affecting results of this study. A relevant concrete implication for practice will be mentioned in Section 8.3. A variety of distance-compressing and distance-bridging factors emerging in theoretical analysis or in practice can alter the impact of internationalization (cf. Child et al. 2000). Hence, external validity including the aspects of generalization across settings and times appears to be a less desirable goal, given the nature and dynamics of the research constructs. A slight size bias in the German sample is noteworthy, which is why the results are even more valid for larger German companies. However, if larger companies already show an inverted U, then smaller companies with fewer resources and fewer international management skills may be hit even more by the impact of internationalization. Preliminary and most urgent suggestions for future research are added below. In conclusion, this study adopts a cautious stance towards undifferentiated extrapolations to other settings. It resists the temptations to provide more sensational findings in favor of smaller and more well-founded steps in research. It warns against oversimplification of construct and construct interaction complexity as well as inherent dynamism. Finally, it discourages the use of too vehement language (cf. Sandelands and Drazin 1989).

8.2. Implications for theory

There are implications for internationalization research, organizational culture research, and DOI-culture research that deserve elaboration. The first implication resides in organizational culture finding its way into internationalization research, as a considerable impact of DOI on the set of internal problem-solving techniques, in other words organizational culture (1985a, p. 3), becomes obvious. This entails a higher emphasis on the impact of DOI on internal aspects as suggested and initiated by Wagner (Wagner 2001, pp. 87-112). As depicted in Figure 39, previous research
revealed a standard U-curve for the impact of DOI on performance for the German context (Ruigrok and Wagner 2003). This study identifies a bell-curve for the effect DOI has on organizational culture. There is room for an interpretation that internationalization triggers changes in organizational culture, and these changes are part of the previously referred to internal reconfigurations (Ruigrok and Wagner, p. 69; Sullivan 1994b). This in turn enables improving organizational performance in the international arena. This study applies a selection contingency approach and excludes explicit performance implications for complexity reasons. However, a glance at the curves clearly reveals the logic of an explicit consideration of organizational culture in DOI-performance research. Organizational cultures become more functional when needed, and relaxing organizational strain allows for less sharpened functionality. The question emerges whether proactive change management, and more specifically, a more proactive organizational culture development can prevent the negative performance implication in the first place. Winter et al. (1997) present the relevant tools for enabling learning. Its practical implication is further scrutinized in Section 8.3.

**Figure 39: Impact of DOI on performance and culture in German companies**

[Diagram showing U-curve and bell-curve with labels:]

- Traditional U-curve for the DOI-performance link (Ruigrok and Wagner 2003)
- Identified bell-curve for the DOI-organizational culture link

Source: Author

Connecting U.S. findings with the extant literature on DOI-performance links is slightly more challenging. Organizational culture scores increase in the internationalization process. A sigmoid curve revealed in further analysis indicates that pressure on and actual change of organizational culture is particularly great in DOI ranges below 10%. A turning-point appears at a FATA ratio of roughly 20%, while overall scores remain on a relatively high absolute level, before culture scores increase even further at DOI ratios above 45%, in other words, in very high DOI ranges. Comparing these ratios to other studies is difficult, if not impossible. The
The impact of internationalization on organizational culture

major reasons for this are twofold. First, other studies neglect DOI ranges up to 10% because of the convenient reliance on secondary data not containing this range. The justifying argument resides in a widely held belief “that initial forays into overseas markets are most likely predicated on export relationships rather than foreign direct investment” (Gomes and Ramaswamy 1999, p. 173). Obviously, this does not hold for lower ratios of FATA.15 The second reason impeding comparisons of these turning-points resides in the use of indices. Thus, a phase-oriented view as proposed by Contractor et al. (2003) and Riahi-Belkaoui (1998) appears to be very sensible.

The intended contribution of this research project resides in description and explanation as essential steps in theory building. Prediction is excluded, given the early stage of research and the need for extensive tests of predictive validity (Snow and Thomas 1994, p. 466). Also, performance is only implicitly included in this selection contingency analysis. Nonetheless, there is room for a provocative statement, especially since other studies do not consider the FATA range up to 10%. In the case of more advanced, FDI-based internationalization (cf. Johanson and Wiedersheim-Paul 1975, p. 307), the strong increase of organizational culture scores at low FATA levels can be linked to fundamental challenges and liabilities of assets abroad. However, it would not be surprising if future studies discovered an element of performance-driven change (cf. Donaldson 1999) at this early stage of asset internationalization augmenting the pressure for actual cultural change.

In the subsequent phase of improved performance, strain on organizational culture and actual organizational culture scores drop slightly, although still kept high because of environmental and organizational challenges requiring new internal settings. Unified at high FATA ratios, the twin pressures from external demands and performance again challenge organizational culture to a considerable extent, leading in turn to the identified upward slope. Hence, the provocative statement is that future research is likely to discover an S-curve for the FATA-DOI link in the U.S. Yet again, this remains a speculative attempt to interpret the findings of this study in the light of the extant literature. The impact a specific DOI indicator can have has already been mentioned above. Succinctly stated, as long as studies such as this one continue to add challenging questions regarding previously identified DOI-performance links, the quest for the right curve based on more differentiated analysis will continue. This includes the necessity for empirical evidence and therefore appropriate data, especially on low and high FATA levels. Proactive management, for example based on the implications for practice as presented in the following, may render the search for deterministic curves with cross-company generalizability even more difficult.

15 Interestingly enough, Gomes and Ramaswamy (1999) use an asset-based index themselves, which runs counter to their argument why excluding the DOI range below 10% is not “debilitating” (Gomes and Ramaswamy 1999, p. 173).
The implications for organizational culture and organizational culture research are threefold. This study shows that organizational culture is contingent in nature. In particular, a functionalist perspective benefits from learning more about the contingencies in order to see through the patterns of circumstances shaping organizational cultures. This study confirms the overall level of demands and available resources to be two primary contingencies, although, with a slightly different relationship, as proposed by Cooke and Szumal (2000). Wilderom et al. (2000) suggest the application of contingency frameworks to the organizational culture-performance link, as bivariate models prove to be too simplistic, producing contradictory results. By revealing more about the contingent nature of organizational culture, the culture-performance research may open up an avenue for further differentiation. Finally, the fact that organizational culture changes in the internationalization process not only indicates the ongoing importance of organizational culture, but also points at a new field of research, which has been initiated with this study. Summarizing the aforementioned specifications, one may say that there are substantial implications for theory.

8.3. Implications for practice

Figure 40 shows an idealized and a more realistic implication a proactive organizational culture development may have for internationalizing German companies. While the original core of international business theory promised increasing benefits from internationalization, a more realistic view allows for the time lags that internal reconfigurations, and organizational culture changes may involve. As alluded to by Ruigrok (2000, p. 53), the system-wide change of complementary management practices (cf. Milgrom and Roberts 1992) may require time in order to bear fruit. Proactive culture development may result in a less convex standard U-curve. The gray area nonetheless represents room for improvement from a more realistic point of view if organizational culture development occurs earlier. For a situation analysis on readiness for internationalization, there are other measurements besides the OCAQ, such as, for example, the work by Fritz et al. (2002) or Chen and Starosta (2000). Comprehensive models for organizational culture evolution and revolution exist (cf. Bate 1994), and consulting services for culture development have been proliferating since the beginning of the 1990s.

Figure 41 indicates what this implies for organizational culture. Avoiding greater performance downturns requires the organizational culture to achieve the maximum of flexibility and functional coherence early, already at a lower DOI. Therefore, if an organization reaches this OC sooner and starts to reflect rising external complexity internally (Ashby 1956), the organization is simply better prepared to deal with it. Thus, the change curve for organizational culture scores is steeper not only in an idealized view, but also in a more realistic one if organizations anticipate the need for organizational culture development more proactively. This interpretation refers to
The impact of internationalization on organizational culture

the gray area in the first half of the geographic expansion in Figure 41. In this respect, highly international companies do indeed reap the financial benefits promised in core international business theory. Simultaneously, several dimensions of organizational culture become less employee-friendly at higher DOIs. Although the aforementioned aspects represent a sensible explanation, they do not necessarily equate with a justification. It may be argued that highly international organizations may not have attained a true global optimum, or may already have passed it. Financial performance is rated higher, employee and customer orientation lower. Organizational culture and therefore the entire organization seems to be less prepared for future environmental shocks or the challenges of competing on a truly global scale. From a more sociopolitical perspective, which is not explored further in the context of this study, this can add fuel to the fire in arguments against globalization (cf. Streuten 2001, Mueller and Kornmeier 2001).

**Figure 40: Room for improvement in change for German companies**

![Image of a diagram showing idealized and realistic views of organizational performance and DOI relationship. The idealized view includes an arrow labeled Original promise of IB theory, Room for improvement, Traditional U-curve (Ruigrok and Wagner 2003). The realistic view includes an arrow labeled Potential U-curve with more proactivity, Room for improvement, Traditional U-curve (Ruigrok and Wagner 2003). The source is credited to the Author.]

- 177 -
The impact of internationalization on organizational culture

Figure 41: Culture-oriented room for improvement for German companies

**Idealized view:**
Proactive culture change primarily driven by a more demanding environment/internationalization strategy

**Realistic view:**
Potential bell-curve with more proactivity

Source: Author

In the first half of the internationalization process, organizational culture shows a remarkably positive development in adjusting itself to the requirements of the environment. Internal complexity, respectively flexibility, increasingly reflects external terrains. This is still the case at higher DOI, as environmental pressures diminish. However, the question as to what an ideal organizational culture is should not be determined only by its functionality in a specific, in this case internationalizing, task environment. Nor should the development of further strengths in the form of a powerful market position lead to diminishing efforts or lessening desire to improve. A continuously agile organizational culture has the clear potential to serve as a sustainable competitive advantage in the future (cf. Barney 1986; also Goranson 1999; Goldman et al. 1995), not to speak of the benefits of high employee and
customer orientation for increased competitiveness (cf. Howard 1998; Marr 1987). The degree to which employee concerns are taken into consideration, and the extent of efforts for customers even in times of increasing performance play a role in overall assessment. This is more germane in Germany, known for a more pluralistic corporate governance system, aiming to implement more than just shareholder orientation (cf. Bleicher and Paul 1992). German corporate governance and codetermination generally foresee a strong representation of employees’ interests, even in a law-based institutional form in the supervisory board (cf. Monks and Minow 2001 for a more detailed review). According to Pistor (1999), this fostered social peace in the past. In her opinion, codetermination initially delays key decisions, but later facilitates their implementation. Employee representatives specialize in employee matters such as workplace, social concerns and remuneration. Shareholder representation emphasizes the financial soundness of corporate actions. This division of labor allows for a more balanced control of management, and supposedly better-quality decisions if multiple stakeholders are considered. While Pistor (1999) mention some system flaws, its benefits seem to outweigh its cost. Therefore, the motivation for changes in organizational culture should progress beyond the mere necessity imposed by the environment. It should incorporate a normative element based on German corporate governance or prescriptive management extending far beyond the profit maximization maxim unceasingly fostering an ideal way of managing which could show its advantages in high employee and customer orientation.

This leads to the question of what a legitimate organizational culture is, alluding to a culture-oriented interpretation of DiMaggio and Powell’s (1983) institutional approach to political correctness. What legitimizing environment does an internationalizing organization face and respond to (cf. Meyer and Rowan 1977, p. 343)? Is it the German cultural context, which lays great stress on employee orientation (Brodbeck et al. 2002)? Does the internationalizing environment justify a decrease in the importance of traditional German corporate governance or the cultural values in the German-speaking culture cluster? Are internationalizing companies forced to abandon their origins at some point to gain legitimization from a changed environment by adapting to the typically Anglo-American financial result orientation?

Freeman (1984) suggests finding an orientation to and acceptance of degrees of power to positively impact the future of the organization, seeing the only social responsibility of companies in profit enhancement. Particularly powerful shareholders represent such strong stakeholders (cf. La Porta et al. 1999). In contrast, a normative-critical stakeholder management (Ulrich 2001, p. 442) demands equal consideration of all groups regardless of impact potency or strategy. Internationalization does in fact force geographically expanding companies, especially German ones, to reflect upon their self-identity and governance. If they
The impact of internationalization on organizational culture
decide to conform to international standards and thus to the international institutional
environment (Rosenzweig and Singh 1991, p. 340), they cannot rule out the dilemma
of less legitimization in the form of criticism directed towards some practices from the
home environment. Based on a cultural interpretation of the institutional approach
(DiMaggio and Powell 1983), this undoubtedly represents a hazarded downside and
is a drawback of internationalization.
While internationalization should bring about some changes as a natural
consequence, for example, in order to keep the company’s shares attractive to
foreign investors, Peck and Ruigrok’s (1999) study did not reveal far-reaching and
instantaneous changes or convergence with Anglo-American corporate governance
when investigating a larger sample of public companies in Germany. There is reason
to assume that in a welcome symbiosis, the employee and customer orientation
helps companies of a medium DOI to achieve their interest in improving performance.
For highly internationalized German companies, however, this study identified lower
customer and employee orientation scores in a situation of high corporate financial
performance. There is risk that employee and customer orientation are regarded as a
mere means to an end that is now achieved at high DOI. To conclude that this study
provides evidence of a shift away from stakeholder-value orientation of highly
internationalized German companies may be risky, as further research is deemed
necessary. One conclusion seems plausible, however. German public companies
with a high DOI have a lot to catching up to do, should they aspire to achieve multiple
stakeholder satisfaction beyond the single focus on positive financial performance, as
Figure 42 depicts.

**Figure 42: Orientations at medium and highly internationalized German firms**

<table>
<thead>
<tr>
<th>Balanced orientations at medium DOI:</th>
<th>One-sided, extendable orientations at high DOI:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance orientation</td>
<td>Performance orientation</td>
</tr>
<tr>
<td>Employee orientation</td>
<td>Employee orientation</td>
</tr>
<tr>
<td>Customer orientation</td>
<td>Customer orientation</td>
</tr>
</tbody>
</table>

Source: Author
As for their U.S. counterparts, the implications for practice are different. Based on the identified DOI-culture link, U.S. companies seem to master the challenges of internationalization better. Experience with a more diverse workforce in their domestic market is likely to represent a valuable asset. The increase of minorities in the U.S. workforce and among customer groups entails an enhanced experience with diversity and complexity. In this regard, home market munificence matters (Wan and Hoskisson 2003). An even better anticipation of complexity as the key challenge of internationalization at higher DOI ratios, where previous research (e.g., Gomez and Ramaswamy 1999) revealed a negative performance implication, represents the only room for improvement in an otherwise almost ideal DOI-culture co-development. This raises the question of the possibility of “no pain, yet gain” (Nathan and Kvoor-Misra 2002, p. 245) in crisis prevention addressed herewith.

**Vicarious learning as the solution**

This study shows that crises can spark valuable change. Crises stimulate learning and prompt the desire to change (Boulé et al. 1996, p. 25). However, for Nathan and Kvoor-Nishra (2002), there are less painful and costly ways to learn. Vicarious learning in general takes diverse forms, such as modeling, emergency drills, joint experimentation, advice seeking, role-playing, simulating, and benchmarking (cf. Decker 1986; Garvin 1993; Popper and Lipshitz 1992; Levitt and March 1988). Kim (1996) outlines that an artificially, systematically and strategically created state of emergency, for example through setting ambitious goals, fosters accelerated learning. By example, Reger et al. (1994) apply the notion of creating “earthquakes” to change organizational mindsets. Management is less defensive in these cases, as it can retain control over the escalation and the consequences of the crisis. Respective procedures and routines for vicarious learning can be imitated by contact with other organizations, with consultants or university research institutes (cf. DiMaggio and Powell 1983). Elliott et al. (2000, p. 17) mention that the potential of vicarious learning remains surprisingly untapped, since companies often wrongly perceive crises as too individual to derive or extrapolate value. In stark contrast, this study shows a very focused area and source of crises, namely internationalization. Concrete need is identified in regard to the necessity to develop organizational culture, and specific dimensions are proposed where change happens. The unambiguous implication for practice of this study is to foster vicarious learning to prevent or at least decrease larger extents of organizational (culture) crises. The need for this has been shown, initial tools for readiness for internationalization going beyond the OCAQ exist (Chen and Starosta 2000; Fritz et al. 2002), and comprehensive change models can be found in the respective culture and the organizational development literature (cf. Bate 1994). By applying the lessons learned of this study, organizations should be able to master the challenges, to reap benefits and to minimize liabilities in the internationalization process even better.
8.4. Limitations and suggestions for future research

By positioning this first study of the impact of internationalization on organizational culture, decisions were taken in the research process to provide a cross-company overview on the impact of internationalization on organizational cultures in two countries, differing fundamentally in their internationalization path and performance implications. The complexity inherent in this research field has been reduced by working with several assumptions and limitations, which simultaneously represent opportunities for future research. The author sees three major directions for future research: (1) research purpose enlargement; (2) conceptual extension; and (3) enhancement of the methodological and empirical side.

Research purpose enhancement

The author suggests the first major direction for future research is an enhancement of the research purpose. As little knowledge was available, this study aims to provide an overview – to establish the terrain. Being rather explorative and descriptive in nature, this study demonstrates that there is an impact of internationalization on organizational culture. When more in-depth knowledge is available, in particular for companies of lower and very high DOI, further research is suggested in order to move to the right on a continuum ranging from explorative and descriptive to normative and predictive (cf. Snow and Thomas 1994, p. 466). Pioneering work in the direction of comprehensive cultural development by Bate et al. (1997) needs extension and application to the international context. Further research can, for example, lead to concrete recommendations on how German companies can proactively anticipate the need for more alloplastic organizational cultures when they plan to internationalize beyond their moderate DOI, thus possibly avoiding some performance decrease. Conversely, further research into highly internationalized organizations may reveal how this group of companies can manage to maintain higher scores for customer orientation and keep a flexible, striving workforce, “glued” (Albert and Silvermann 1984, p. 13, Smith and Simmons 1983, p. 377) together in a positive sense. Growth potential limited to certain regions, increasing pressures to perform from shareholders, and the appearance of stronger competitors through consolidation on a global scale, or from internationalization of Chinese conglomerates, to name but just a few factors, will ensure that alloplastic cultures continue to be of use in the future. In that sense, culture indeed has the potential to serve as a competitive advantage (cf. Barney 1986). If managed appropriately, it may well be a sustainable one.

Conceptual enhancement

In regard to (2), extensions are conceivable as well as necessary for both constructs of internationalization as well as organizational culture. The academic literature contains several propositions for further and different conceptualizations of the internationalization construct (cf. Doerrenbaecher 2000). While data availability from
The impact of internationalization on organizational culture

secondary sources is restricted in Germany, future studies are encouraged to gather at present not readily available internationalization data as primary data. The U.S. has better potential for the inclusion of more DOI indicators, as more data is available on the way organizations internationalize, e.g., through M&A versus organic growth abroad. Future research questions can thus be more specialized. Instead of a general query such as whether internationalization impacts organizational culture, researchers can investigate the role of situational factors. As far as the U.S. is concerned, the impact on organizational culture only shows when a measure for a more advanced stage of internationalization than FSTS represents is applied. A ratio of foreign employees to all employees is hence very likely to indicate a strong impact on organizational culture as well, although data availability from secondary sources seems to be restricted to the largest U.S. companies. The necessity and desirability of conceptual enhancement also applies to organizational culture. This study has been primarily based on the integration paradigm in research traditions of organizational culture. Prevailing in academic literature, the integration paradigm is based on the assumed existence of a dominant organizational culture that is internally consistent and widely shared, fulfilling the important function of social "glue" (Albert and Silvermann 1984, p. 13, Smith and Simmons 1983, p. 377). Owing to this asserted consistency and consensus, a partial analysis with key informants from within organizational cores allows for a fairly accurate picture of the whole (Martin 2002).

Further research is encouraged not to engage in the culture war (Martin and Frost 1996, p. 599) about which paradigm is right, a discussion already paralyzing major progress on the construct. Subsequent studies should rather view the potential inherent in every approach to contributing to knowledge. By necessity, differentiation and ambiguity require a more micro-view, focusing on fewer companies in favor of more in-depth analysis of individual companies. As this study reveals, a decrease in culture strength at higher DOI justifies and calls for further research based on a differentiation or even on an ambiguity view. This is a clear sign that there are ways to end the culture war. One solution has been proposed by Martin (2002, p. 119), suggesting the inclusion of all three culture paradigms in every research project on organizational culture and on every company. While this approach deserves credit for attempting to reconcile the three major camps and for rendering discussion on organizational culture more constructive, it literally represents the end of large-scale cross-company studies on organizational cultures due to extensive focus on individual companies. The author suggests a different solution. As each paradigm involves differing conceptual assumptions and methodological consequences, I propose a sequential procedure in applying the paradigms. This study is able to provide initial evidence that internationalization does indeed impact organizational culture. This cross-company generalization shows itself in the respective curvilinear links. Still based on the integration paradigm, future longitudinal studies can confirm
and further extend this study’s findings. In contrast, subsequent studies based on differentiation and ambiguity have the clear potential for contributing knowledge on inconsistencies as well as paradoxes emerging within organizational culture in the internationalization process. This holds true especially for highly internationalized German companies, for which this study has shown that their organizational cultures lose momentum and score lower on key dimensions. In particular, this study indicates that integration increases until a medium DOI. Further studies applying a differentiation view have the potential to confirm or disprove the increasing integration until medium DOI and the opposite effect in the second half of internationalization, where stronger sub-group differentiations are expected. The author deem it necessary to undertake analysis based on ambiguity only when more knowledge has been gathered on differentiation. Of further importance: an additional aspect for conceptual enhancement is the inclusion of further key variables. This study includes two, namely internationalization and organizational culture. Re-integration into other research on the internationalization process can render the overall insights more complete.

**Methodology enhancement**

The third direction suggested for further research concerns the methodological and empirical dimension. This last dimension is not independent of the other two. Future research requires specialization in sub-fields. Research into organizations with very low and high DOI is one path, e.g., in the form of a “before-and-after” design. In the U.S. especially, studies on organizations with higher FATA ratios reveal strong potential to complement this study’s findings. Researching countries with similar internationalization into culturally related or unrelated countries can provide further evidence in favor of or against this study. A stronger focus on within-company changes strengthens validity and can lead to rich, insightful descriptions, complementing the cross-company approach chosen for this first study in this new research field. To sum up, potentials for future research are plentiful. These results practically necessitate further research, given the identified effects internationalization has on cultural flexibility, customer and employee orientation, and possibly also on performance. There is a need to enhance understanding of the role of organizational culture in internationalization research and take it into consideration in future academic studies. The likelihood of organizations benefiting from culturally sensitive internationalization efforts is significant.

**8.5. Conclusions**

Researching the impact of internationalization on organizational culture represents a challenge, as both constructs are complex. Wars are waged in the organizational culture field (Martin and Frost 1996, p. 599). Disputes over intellectual superiority and the correct curves of the DOI-performance link indicates the state of the field as being in flux. Linking these two constructs can thus be a rather unorthodox variable
combination. Internationalization research has neglected the extended consideration of softer factors such as organizational culture in empirical studies or, more abstractly, internal changes triggered by internationalization (Sullivan 1997, p. 183). Simultaneously, organizational learning (Hitt et al. 1997, Ruigrok and Wagner 2003, Sullivan 1994b) or contingency frameworks (Wagner 2001, pp. 87-112) emphasize the need to scrutinize internal factors and, therefore, more micro-approaches. Analogously, past organizational culture research has overemphasized the micro-view based on the differentiation and ambiguity paradigm, and has not embraced the opportunity for an exploration of the international context adequately, either as a challenge concerning new content, or as a chance for reviving its importance and showing its relevance.

However, this study represents a worthwhile endeavor, not primarily because both key variables have been directly associated with performance and are therefore important, or because it addresses a wide-open gap in research, but first and foremost because there are results. Internationalization does indeed have an impact on organizational culture, as shown with multiple content- as well as setting-dimensions of organizational cultures. This study identifies organizational cultures as an internal buffer (cf. Levinthal and March 1993, p. 97) and simplifier for internationalization as a complexifier. The evidence comprises companies from two dissimilar archetypal countries in regard to their internationalization paths and respective learning-pressures. Internationalization and organizational culture are more than two pieces of a jigsaw that need to fit together to be effective in the geographic expansion process. The jigsaw comparison neglects the possibility of shaping or cutting both pieces and still arriving at an edifying picture for the future. I therefore conclude that the crucial research on internationalization continues to make progress and organizational culture continues to matter.
The impact of internationalization on organizational culture

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The impact of internationalization on organizational culture


The impact of internationalization on organizational culture


The impact of internationalization on organizational culture


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The impact of internationalization on organizational culture


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Appendices
A. Cover letter for the U.S. survey

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Fax

To: "Name"
Position: "Title"
Company: "Firm"
Fax: "Fax"
From: Marshall M. Meyer and Wolfgang Amann
Date: August 5, 2002
Pages: 2 (incl. cover)

Increasing competitive pressures continuously challenge US companies to improve the performance of their human, knowledge and financial resources. We are therefore studying how increasing external demands impact corporations and their organizational cultures.

From our research we would like to derive results of use to you as a top manager. Hence, we kindly ask you for your support by filling out the enclosed short questionnaire. When answering please describe the real and not an idealized situation of the company. If you have any questions, please do not hesitate to contact us either by phone (215 435 6875) or email (amannw@wharton.upenn.edu). Please rest assured that we treat your response anonymously. We analyze the data only on an aggregated level and without reference to individual companies or respondents. As a special thank you gift, we would send you the executive summary reporting our key findings.

We are looking forward to your response and thank you for your appreciated support.

Sincerely,

Marshall M. Meyer

Wolfgang Amann

The Wharton School
University of Pennsylvania
The impact of internationalization on organizational culture

B. Questionnaire for the U.S. survey

PLEASE FAX BACK TO: +1 215 893 4755

Wharton

Please indicate to what extent the following statements hold true for your organization!
(1=completely true, 2=mostly true, 3=partly true, 4=slightly true, or 5=not true):

In this organization...

1. People are flexible and adaptable when changes are necessary, 0 2 4 6 8
2. Individuals and teams have clearly defined goals that relate to the goals and mission of the business, 0 2 4 6 8
3. Teams often lack the authority needed to get the job done effectively, 0 2 4 6 8
4. We give highest priority and support to meeting the customers’ needs and to solving their problems, 0 2 4 6 8
5. People value and make use of one another’s unique strengths and different abilities, 0 2 4 6 8
6. People feel that most change is the result of pressures imposed from higher up in the organization, 0 2 4 6 8
7. People and teams are often expected to reach goals, which they believe are unattainable, 0 2 4 6 8
8. People believe in teamwork, the “what’s in it for us” approach rather than “what’s in it for me”, 0 2 4 6 8
9. Our policies and procedures help us to provide the service our customers want and need, 0 2 4 6 8

10. Everyone knows and understands our business objectives and priorities, 0 2 4 6 8
11. People have a clear idea of why and how to proceed throughout the process of change, 0 2 4 6 8
12. Individuals and teams are measured and rewarded according to how well goals are achieved, 0 2 4 6 8
13. People lack the interpersonal and technical skills they need to work effectively in teams, 0 2 4 6 8
14. People often see customer and client problems as someone else’s responsibility, 0 2 4 6 8
15. People sometimes compromise company policies or principles to reach operational goals, 0 2 4 6 8
16. People believe that change happens too quickly and causes too much disruption, 0 2 4 6 8
17. Individuals and teams participate in defining specific goals, 0 2 4 6 8
18. People know what’s expected of them and understand their impact on either people, teams, functions, 0 2 4 6 8
19. People are always looking for new ways to better serve clients and customers, 0 2 4 6 8

20. Business decisions are most often made on the basis of facts, not just perceptions or assumptions, 0 2 4 6 8
21. People believe they can influence and affect their work place through their ideas and involvement, 0 2 4 6 8
22. We constantly stretch our goals, to continuously improve, 0 2 4 6 8
23. People believe in working together collaboratively, preferring cooperation over competition, 0 2 4 6 8
24. Employees who do the best job of serving customers are more likely to be recognized or rewarded, 0 2 4 6 8
25. People have access to timely and accurate information about what’s really happening in the organization and why, 0 2 4 6 8
26. People believe that their concerns and anxieties during periods of change are heard and considered, 0 2 4 6 8
27. Individuals, teams, and functional areas often have incompatible goals, 0 2 4 6 8
28. Managers at all levels work together as a team to achieve results for the organization, 0 2 4 6 8

29. Problems of customers with our products are almost always resolved to their satisfaction, 0 2 4 6 8
30. Everyone strongly believes in a set of shared values for cooperating and reaching mutual objectives, 0 2 4 6 8
31. There is a high level of agreement about the way that we do things in this company, 0 2 4 6 8
32. The company imposes a wide range of behaviors and beliefs on its members, 0 2 4 6 8
33. The values of employees and those fostered by the company are largely the same, 0 2 4 6 8
34. Our organizational culture promotes internationalization (or would promote it), 0 2 4 6 8
35. Our firm is well endowed with resources (e.g. financial, knowledge, people), 0 2 4 6 8
36. It is important for us to integrate our international activities as much as possible, 0 2 4 6 8
37. It is important for us to adapt our products internationally to local requirements, 0 2 4 6 8

Thank you, «Addressing». Are you or your colleagues at «Firm» interested in a research report? 0 Yes 0 No
C. Cover letter for the German survey

Sehr geehrte/dame [Anrede],

Zunehmender Kosten-, Leistungs- und Zeidruck fordern die Angestellten immer mehr heraus. An der Universität St.Gallen untersuchen wir daher in diesen Tagen, wie sich diese steigenden Anforderungen auf Unternehmen und deren Unternehmenskulturen auswirken.

Da wir an um so praxisnahen Ergebnissen interessiert sind, brauchen wir Ihre Mithilfe in Form Ihrer uns sehr wichtigen Meinung. Wir möchten Sie daher einladen, an unserer Umfrage teilzunehmen und den kurzen beigefügten Fragebogen auszufüllen. Die Teilnahme ist natürlich freiwillig und wir bitten um Entschuldigung für die Anfrage, sollten Sie grundsätzlich kein Interesse an dieser Studie haben. Wir würden uns allerdings sehr über Ihren Fragebogen und Ihr Mitwirken freuen.

Bei Rückfragen stehen wir Ihnen jederzeit gerne entweder telefonisch (0041 1 274 2674) oder per Email (Wolfgang.Amann@unisg.ch) zur Verfügung. Sie können sich dabei sicher sein, dass wir Ihre Antworten streng vertraulich behandeln. Als kleines Dankeschön für Ihr Mitwirken können wir Ihnen auf Wunsch die wichtigsten Ergebnisse der Umfrage in einem anonymisierten Forschungsbericht zusenden. Es handelt sich dabei um die größte Studie dieser Art in Deutschland und wir bedanken uns bereits im voraus, sollten auch Sie daran mitwirken.

Mit freundlichen Grüßen,

Ihr

[Unterschriften]

Prof. Dr. Winfried Ruigrok

Dipl.-Kfm. Wolfgang Amann
D. Questionnaire for the German survey

Bitte zurückfaxen an die Faxnummer: 0041 1 355 3222

Bitte kreuzen Sie an, wie sehr folgende Aussagen über Ihre Firma insgesamt zutreffen (1 = trifft voll zu, 2 = trifft überwiegend zu, 3 = trifft teils zu, 4 = trifft eher nicht zu, 5 = trifft nicht zu):

1. Die Kollegen sind flexibel und anpassungsfähig, wenn Veränderungen nötig sind.  
2. Unsere Teams und jeder Einzelne haben klare Ziele im Einklang mit den Firmenziele.  
3. Teams haben oft nicht die Entscheidungskompetenz für ein effektives Arbeiten.  
4. Wir konzentrieren uns voll und ganz auf die Kundenbedürfnisse und Problemlösungen.  
5. Man schätzt und nutzt die besonderen Eigenschaften und Stärken jedes einzelnen.  
6. Man konnte meinen, dass die meisten Veränderungen durch Druck von oben entstehen.  
7. Von Kollegen und Teams wird oft erwartet, das Unmögliche möglich zu machen.  
8. Wir glauben an Teamarbeit im Sinne von "wie profitieren wir", nicht "wie profitieren ich".  

11. Es bestehen klare Vorstellungen, wie man bei Veränderungen vorgeht und warum.  
16. Veränderungen werden oft als zu schnell und zu abrupt empfunden.  
18. Jeder ist sich seiner Rolle im Gesamtunternehmen bewusst.  
19. Man sucht kontinuierlich nach besseren Möglichkeiten, den Kunden zu befriedigen.  

20. Tatsachen, und nicht Wahrnehmungen oder Vermutungen, bestimmen Entscheidungen.  
22. Wir stecken uns ständig höhere Ziele, um immer besser zu werden.  
23. Wir glauben an gute Zusammenarbeit und lehnen Wettbewerb untereinander eher ab.  
25. Man wird gut darüber informiert, was wirklich in der Firma vorgeht.  
27. Einzelne Kollegen, Teams und Funktionsbereiche haben oft unvereinbare Ziele.  
28. Manager aller Ebenen arbeiten gemeinsam als Team, um Ergebnisse zu erreichen.  

29. Kundenbeschwerden werden fast immer zu deren voller Zufriedenheit gelöst.  
30. Jeder glaubt fest an gemeinsame Werte für die Zusammenarbeit und Zielerreichung.  
31. Es besteht Einigkeit darüber, wie Dinge in unserer Firma erledigt werden sollen.  
32. Die Firma gibt den Mitarbeitern für viele Bereiche ideale Verhaltensweisen vor.  
33. Die Werte der Mitarbeiter und die von der Firma geforderten sind weitgehend identisch.  
34. Unsere Firmenkultur fördert unsere Internationalisierung (oder würde sie fördern).  
36. Es ist uns wichtig, unsere internationalen Aktivitäten intern bestmöglich zu integrieren.  
37. Es ist uns wichtig, international jeweils lokal angepasste Produkte anzubieten.  

Vielen Dank für Ihre gewertschätzte Unterstützung. «Name». Sind Sie oder die «Companyname» generell daran interessiert, einen anonymisierten Forschungsbericht zu erhalten?  
Ja 0 Nein

- lxxii -
CURRICULUM VITAE

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CONSULTING AND INDUSTRY EXPERIENCE

THE ABADON GROUP, COLOGNE, GERMANY / COWDREY, CO, USA
11/1997 - Present Consultant, responsible for corporate and business development.

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DAIMLERCHRYSLER AG, STUTTGART, GERMANY
12/1998 - 03/2001 Project leader "Modern Management Organization" in the Corporate
Organization department.

Before 1997 various internships e.g. with ABB, Andersen, P&G, Westinghouse.

EDUCATION AND RESEARCH EXPERIENCE

UNIVERSITY OF ST.GALLEN (HSG), ST.GALLEN, SWITZERLAND

THE WHARTON SCHOOL, UNIV. OF PENNSYLVANIA, PHILADELPHIA, PA/USA
01/2001 - 12/2002 Visiting researcher, research field: the internationalization-culture link
in U.S. companies.

FRIEDRICH-ALEXANDER UNIVERSITY (FAU), NUREMBERG, GERMANY
11/1992 - 05/1998 Business program with semesters at Indiana Univ. (USA) and Sophia
Univ. (Japan), focus: Int. Management and Marketing.