Appendix A

Representative Sources of Measures, Variable Labels, and Coded Studies

Table A1: Organizational Culture

|  |  |  |
| --- | --- | --- |
| **Source of measure** | **Variable label** | **Coded study** |
| *Clan culture* | | |
| Organizational Culture Inventory (Cooke & Rousseau, 1988) | Constructive culture  Affiliative culture | Aarons & Sawitzky (2006)  Simosi & Xenikou (2010) |
| Organizational Culture Profile (O’Reilly et al., 1991) | People orientation  Team orientation | Jaskyte (2010)  Zhang & Jia (2010) |
| Competing Values Framework (Cameron & Quinn, 1999; Denison, 2000; Denison & Mishra, 1995; Quinn & Spreitzer, 1991) | Involvement | Yilmaz & Ergun (2008) |
| Cooperativeness  Group culture | Chang & Lin (2007)  Stock et al. (2010) |
| Empowerment | Denison et al. (2004) |
| *Adhocracy culture* | | |
| Organizational Culture Inventory (Cooke & Rousseau, 1988) | Self-actualizing culture | Simosi & Xenikou (2010) |
| Competing Values Framework (Cameron & Quinn, 1999; Denison, 2000; Denison & Mishra, 1995; Quinn & Spreitzer, 1991) | Adhocracy  Adaptability | Boggs & Fields (2010)  Denison et al. (2014) |
| Creating change  Organizational learning | Denison et al. (2004)  Denison et al. (2004) |
| Open systems | Lamond (2003) |
| *Market culture* | | |
| Organizational Culture Inventory (Cooke & Rousseau, 1988) | Achievement culture | Simosi & Xenikou (2010) |
|  |
| Organizational Culture Profile (O’Reilly et al., 1991) | Aggressiveness | Zhang & Jia (2010) |
| Performance orientation | Sarros et al. (2008) |
| Competing Values Framework (Cameron & Quinn, 1999; Denison, 2000; Denison & Mishra, 1995; Quinn & Spreitzer, 1991) | Mission  Market  Goal and objectives  Strategic direction and intent  Vision | Seong (2011)  Behram & Özdemirci (2014)  Denison et al. (2004)  Denison et al. (2004)  Denison et al. (2004) |
| Market orientation (Deshpandé, Farley, & Webster, 1993; Narver & Slater, 1990) | Market orientation | Zhou et al. (2008) |
| *Hierarchy culture* | | |
| Work Practices Survey (Hofstede et al., 1990) | Bureaucracy | Stamper & Van Dyne (2001) |
| Organizational Culture Profile (O’Reilly et al., 1991) | Stability | Densten & Sarros (2012) |
| Competing Values Framework (Cameron & Quinn, 1999; Denison, 2000; Denison & Mishra, 1995; Quinn & Spreitzer, 1991) | Hierarchical culture  Consistency | Shao et al. (2012)  Chang & Lin (2007) |

Table A2: Correlates of Organizational Culture

| Source of measure | Variable label | Coded study |
| --- | --- | --- |
| *Strategy: Exploration* | | |
| He & Wong (2004) | Exploration [E] | Matzler et al. (2013) |
| Hurley & Hult (1998) | Innovation orientation [E-I] | Zhou et al. (2005) |
| Rumelt (1974) | Diversification strategy [E-V/D] | Goll & Sambharya (1995) |
| Volberda (1996) | Strategic agility [E-F] | Benitez-Amado et al. (2010) |
| Miller (1983) | Corporate entrepreneurship [E-R] | Zahra et al. (2004) |
| *Strategy: Exploitation* | | |
| He & Wong (2004) | Exploitation [EX] | Matzler et al. (2013) |
| Doty et al (1993) | Product market scope [EX-Re] | Yarbrough et al. (2011) |
| Schuler & Jackson (1987) | Quality [EX-P] | Chow & Liu (2009) |
| Miller & Vollmann (1984) | Speed / responsiveness [EX-E] | Stock & McDermott (2001) |
| *Organic Structure* | | |
| MECOR scale (Caetano & Vala,1994) | Organizational structure [Org] | Rebelo & Gomes (2011) |
| Hage & Aiken (1967) | Centralization (reverse coded) [Org-C] | Hult et al. (2000) |
| Hage & Dewar (1973) | Formalization (reverse coded) [Org-F] | Jaskyte (2010) |
| Jaworski & Kohli (1993) | Departmentalization (reverse coded) [Org-S] | Fang & Zou (2009) |
| *Leadership: Task* | | |
| Global Leadership and Organizational Behavior Effectiveness questionnaire (GLOBE; House, Hanges, Javidan, Dorfman, & Gupta, 2004) | Structuring leadership  Autocratic leadership | Dickson et al. (2006)  Dickson et al. (2006) |
| Tsui, Wang, Xin, Zhang, & Fu (2004) | Monitoring | Tsui et al. (2006) |
| Multifactor Leadership Questionnaire (MLQ; Bass & Avolio, 1990) | Contingent reward | Simosi & Xenikou (2010) |
| *Leadership: Relational* | | |
| Tsui, Wang, Xin, Zhang, & Fu (2004) | Relationship building | Tsui et al. (2006) |
| Global Leadership and Organizational Behavior Effectiveness questionnaire (GLOBE; House, Hanges, Javidan, Dorfman, & Gupta, 2004) | Considerate leadership | Dickson et al. (2006) |
| Leadership Practices Inventory (LPI; Kouzes & Posner, 1993) | Encouraging the heart | Jaskyte (2010) |
| *Leadership: Change* | | |
| Multifactor Leadership Questionnaire (MLQ; Bass & Avolio, 1991, 1995, 2004) | Idealized influence  Attributed charisma | Hult et al. (2000)  Hult et al. (2000) |
| Leadership Practices Inventory (LPI; Kouzes & Posner, 1993) | Challenging the process  Inspiring a shared vision | Jaskyte (2004)  Jaskyte (2010) |
|  |  |  |

Table A2: Correlates of Organizational Culture (cont.)

| Source of measure | Variable label | Coded study |
| --- | --- | --- |
| *High Performance Work Practices (HPWPs)* | | |
| Huselid (1995) | HR practices [HR-AMO] | Chan et al. (2004) |
| Chow (2012) | High Performance HR Practices [HR-AMO] | Chow (2012) |
| Shortell (1995) | Employee quality training [HR-A] | Mrozowski (2001) |
| Homburg, Fassnacht, & Guenther (2003) | Personnel recruitment [HR-A] | Homburg et al. (2003) |
| Delery & Doty (1996) | Performance evaluation [HR-M] | Den Hartog & Verburg (2004) |
| Wang et al. (2003) | HR provided inducements [HR-M] | Song et al. (2009) |
| Delery & Doty (1996) | Information sharing [HR-O] | Den Hartog & Verburg (2004) |
| Shortell (1995) | Employee quality planning involvement [HR-O] | Mrozowski (2001) |
| Delery & Doty (1996) | Information sharing meetings [HR-O] | Den Hartog & Verburg (2004) |

*Note.* Exploration strategy variables: [E] = general exploration; [E-I] = innovation; [E-V/D] = variation/diversification; [E-F] = flexibility; [E-R] = risk-taking/experimentation. Exploitation strategy variables: [EX] = general exploitation; [EX-Re] = refinement; [EX-P] = production; [EX-E] = efficiency. Organic structure variables: [Org] = organic structure; [Org-C] = centralization; [Org-F] = formalization [Org-S] = specialization. HPWPs variables: [HR-AMO] = composite of ability-motivation-opportunity enhancing HPWPs; [HR-A] = ability-enhancing HPWP; [HR-M] = motivation-enhancing HPWP; [HR-O] = opportunity-enhancing HWPW.

Table A3: Organizational Effectiveness Criteria

| Source of measure | Variable label | Coded study |
| --- | --- | --- |
| *Employee*  *Positive attitudes* | | |
| Jaworski & Kohli (1993) | Organizational commitment | Kusku & Zarkada-Fraser (2004) |
| Job Satisfaction Scale (Melia & Peiro, 1989) | Job satisfaction | Guerra et al. (2005) |
| Wood, Chonko, & Hunt (1986) | Employee satisfaction | Zhou et al. (2005) |
| Eisenberger et al. (1997); Rhoades et al. (2001) | Perceived organizational support | Zhang & Jia (2010) |
|  |  |  |
| *Positive behaviors* | | |
| Tsui et al. (1997) | Task performance | Song et al. (2009) |
| Lam, Hui & Law (1999) | Organizational citizenship behavior | Song et al. (2009) |
| Van Dyne et al. (1994) | Voice | Stamper & Van Dyne (2001) |
| Organizational Conflict Scale (Cox, 1998) | Relationship conflict | Guerra et al. (2005) |
| *Objective* | Turnover rate (reverse coded) | Chow & Liu (2009) |
| *Objective* | Absenteeism rate (reverse coded) | Jung & Takeuchi (2010) |
| *Innovation* | | |
| Damanpour (1987); Perri (1993) | Organizational innovativeness | Jaskyte & Kisieliene (2006) |
| Hurley & Hult (1998); Škerlavaj et al. (2010) | Technical innovations | Cerne et al. (2012) |
| Administrative innovations | Cerne et al. (2012) |
| Zahra & Das (1993) | Process innovation | Donate & Guadamillas (2010) |
| *Operational*  *Product/Service quality* | | |
| Webster (1992) | Service quality | Ridnour et al. (2001) |
| Firm product performance measure (Huarng & Chen, 2002) | Defect rate reduction  Product reliability improvement | Jabnoun & Sedrani (2005)  Jabnoun & Sedrani (2005) |
| *Operational Efficiency* |  |  |
| *Self-developed* | Efficiency (ratio between sales and number of employees) | Berson et al. (2008) |
| Hult (1998) | Cycle time | Gonzalez-Padron et al. (2008) |
| *Objective* | Waiting time (reverse coded) | Mohr et al. (2012) |
|  |  |  |
| *Customer* | | |
| Maignan & Ferrell (2000) | Customer loyalty | Kusku & Zarkada-Fraser (2004) |
| Firm product performance measure (Huarng & Chen, 2002) | Customer complaints reduction | Jabnoun & Sedrani (2005) |
| American Customer Satisfaction Index (ACSI; Fornell, Johnson, Anderson, Cha, & Bryant, 1996) | Customer satisfaction | Yarbrough et al. (2011) |
| Denison (2000) | Market share | Denison et al. (2004) |
| Homburg & Pflesser (2000) | Market performance | Maignan et al. (2011) |
| Vorhies & Morgan (2005) | Market effectiveness | Chang et al. (2010) |

Table A3: Organizational Effectiveness Criteria (cont.)

| Source of measure | Variable label | Coded study |
| --- | --- | --- |
| *Financial* | | |
| Covin, Slevin, & Covin (1990) | Profitability (subjective) | Seong (2011) |
| *Objective* | Return on assets | Zhou et al. (2008) |
| *Objective* | Return on sales | Tsui et al. (2006) |
| Denison (2000) | Sales growth | Denison et al. (2004) |
| *Objective* | Revenue growth (corrected) | Christensen & Gordon (1999) |

Appendix B

Coding Information for Samples Included in the Meta-analyses

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Study | Sample size  (no. of units) | No. of correlations included  (raw / aggregated) | Organizational culture | Correlates | Effectiveness | Data source |
| Aarons & Sawitzky (2006) | 49 | 1 / 1 | C | - | EM | P |
| Aier (2014) | 138 | 6 / 6 | C, A, M, H | - | - | P |
| Andersen et al. (2009) | 164 | 6 / 4 | A, M, H | - | - | P |
| Bae & Lawler (2000) | 138 | 3 / 3 | C | SR, HR | - | P |
| Baird et al. (2007) | 184 | 10 / 7 | C, A, M, H | - | - | P |
| Bajdo & Dickson (2001) | 114 | 1 / 1 | C | HR | - | P |
| Behram & Özdemirci (2014) | 187 | 45 / 24 | C, A, M, H | SR | CU, FI | P |
| Benitez-Amado et al. (2010) | 203 | 3 / 3 | A | SR, LT | - | P |
| Berson et al. (2008) | 26 | 15 / 15 | C, A, H | - | EM, OP, FI | P |
| Boggs & Fields (2010) | 53 | 21 / 16 | C, A, M, H | HR | FI | P |
| Brockman & Morgan (2003) | 323 | 6 / 6 | C, A | - | IN, FI | P |
| Büschgens & Bausch (2012; Sample 1) | 110 | 21 / 16 | C, A, M, H | - | IN, OP | U |
| Büschgens & Bausch (2012; Sample 2) | 91 | 21 / 16 | C, A, M, H | - | IN, OP | U |
| Çakar & Ertürk (2010; Sample 1) | 43 | 6 / 6 | C, A, M | - | IN | P |
| Çakar & Ertürk (2010; Sample 2) | 50 | 6 / 6 | C, A, M | - | IN | P |
| Carmeli (2004) | 73 | 1 / 1 | H | - | FI | P |
| Carmeli & Tishler (2004) | 93 | 15 / 7 | H | HR | CU, FI | P |
| Catana & Catana (2010) | 13 | 6 / 4 | C, A, M | - | - | P |
| Cegarra-Navarro & Martínez-Martínez (2009) | 100 | 1 / 1 | - | - | IN, OP | P |
| Cerne et al. (2012) | 112 | 3 / 2 | A | - | IN | P |
| Chan et al. (2004) | 49 | 36 / 18 | C, A, M, H | SR, HR | - | P |
| Chandler et al. (2000) | 23 | 3 / 3 | A | HR | FI | P |
| Chang & Lin (2007) | 87 | 6 / 6 | C, A, M, H | - | - | P |
| Chang et al. (2010) | 209 | 10 / 7 | M | HR | CU, FI | P |
| Chen (2011) | 138 | 1 / 1 | M | LC | - | P |
| Chow (2012) | 243 | 10 / 7 | C, M, H | HR | - | P |
| \*Chow & Liu (2007) | 132 | 21 / 16 | C, M, H | SR, SI, HR | - | P |
| Chow & Liu (2009) | 451 | 28 / 22 | C, M, H | SI, HR | EM, IN | P |
| Christensen & Gordon (1999; Sample 1) | 119 | 21 / 5 | C, A, M | - | - | P |
| Christensen & Gordon (1999; Sample 2) | 13 | 7 / 3 | C, A, M | - | FI | P |

Appendix B (cont.)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Study | Sample size  (no. of units) | No. of correlations included  (raw / aggregated) | Organizational culture | Correlates | Effectiveness | Data source |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Christensen & Gordon (1999; Sample 3) | 13 | 7 / 3 | C, A, M | - | FI | P |
| Christensen & Gordon (1999; Sample 4) | 7 | 7 / 3 | C, A, M | - | FI | P |
| Christensen & Gordon (1999; Sample 5) | 29 | 7 / 3 | C, A, M | - | FI | P |
| Christensen & Gordon (1999; Sample 6) | 7 | 7 / 3 | C, A, M | - | FI | P |
| Christensen & Gordon (1999; Sample 7) | 8 | 7 / 3 | C, A, M | - | FI | P |
| Damanpour et al. (2012) | 127 | 1 / 1 | C, M | - | - | P |
| Den Hartog & Verburg (2004) | 175 | 136 / 17 | C, A, M, H | HR | EM | P |
| Denison & Mishra (1995; Sample 1) | 674 | 12 / 9 | C, A, M | - | EM, OP, FI | P |
| Denison & Mishra (1995; Sample 2) | 220 | 3 / 3 | C, A, M | - | FI | P |
| Denison & Mishra (1995; Sample 3) | 409 | 3 / 3 | C, A, M | - | FI | P |
| Denison et al. (2004; Sample 1) | 20 | 120 / 40 | C, A, M, H | - | EM, IN, OP, CU, FI | P |
| Denison et al. (2004; Sample 2) | 13 | 120 / 40 | C, A, M, H | - | EM, IN, OP, CU, FI | P |
| Denison et al. (2004; Sample 3) | 18 | 120 / 40 | C, A, M, H | - | EM, IN, OP, CU, FI | P |
| Denison et al. (2004; Sample 4) | 92 | 120 / 40 | C, A, M, H | - | EM, IN, OP, CU, FI | P |
| Denison et al. (2004; Sample 5) | 38 | 120 / 40 | C, A, M, H | - | EM, IN, OP, CU, FI | P |
| Denison et al. (2004; Sample 6) | 17 | 120 / 40 | C, A, M, H | - | EM, IN, OP, CU, FI | P |
| Denison et al. (2004; Sample 7) | 20 | 120 / 40 | C, A, M, H | - | EM, IN, OP, CU, FI | P |
| Denison et al. (2004; Sample 8) | 7 | 120 / 40 | C, A, M, H | - | EM, IN, OP, CU, FI | P |
| Denison et al. (2004; Sample 9) | 34 | 120 / 40 | C, A, M, H | - | EM, IN, OP, CU, FI | P |
| Denison et al. (2014) | 155 | 45 / 37 | C, A, M, H | - | EM, IN, OP, CU, FI | P |
| Densten & Sarros (2012) | 635 | 66 / 18 | A, M, H | LT, LR, LC | - | P |
| Dickson et al. (2006) | 103 | 3 / 2 | H | LT, LR | - | P |
| Donate & Guadamillas (2010) | 111 | 5 / 2 | M | - | IN | P |
| Dwyer et al. (2003) | 177 | 10 / 7 | C, A | - | FI | P |
| Erdogan et al. (2006) | 30 | 6 / 4 | C, M | LR | - | P |
| Fang & Zou (2009) | 114 | 28/16 | A | ST | FI | P |
| Flores et al. (2012) | 230 | 6 / 6 | C, A | LR | FI | P |
| Gao & Low (2012) | 93 | 44 / 9 | M, H | HR | OP, CU, FI | P |
| Gimenez-Espin et al. (2013) | 451 | 6 / 6 | C, A, M, H | - | - | P |

Appendix B (cont.)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Study | Sample size  (no. of units) | No. of correlations included  (raw / aggregated) | Organizational culture | Correlates | Effectiveness | Data source |
| Givens (2012) | 43 | 28 / 16 | C, A, M, H | HR | FI | P |
| Goll & Sambharya (1995) | 92 | 6 / 4 | H | SR | FI | P |
| Gonzalez-Padron et al. (2008) | 200 | 5 / 5 | C, A | SR | OP | P |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Guerra et al. (2005) | 50 | 15 / 11 | C, A, M, H | - | EM | P |
| Haas & Hwang (2007) | 200 | 1 / 1 | C, M | - | - | P |
| Haas et al. (2002) | 6 | 3 / 3 | C, M | LR | - | P |
| \*Hartnell et al. (2016) | 119 | 10 / 10 | C, M | LT, LR | FI | P |
| Homburg et al. (2003) | 271 | 14 / 5 | M | HR | FI | P |
| Huang & Tsai (2013) | 106 | 3 / 3 | H | SR | EM | P |
| \*Hult et al. (2000; Sample 1) | 355 | 55 / 18 | C, H | ST, LR, LC | OP | P |
| Hult et al. (2000; Sample 2) | 200 | 55 / 18 | C, H | ST, LR, LC | OP | P |
| Hung et al. (2010) | 355 | 36 / 14 | C | SR | OP, CU, FI | P |
| Jabnoun & Sedrani (2005) | 81 | 18 / 12 | C, M, H | HR | OP, CU, FI | P |
| Jaskyte (2004) | 19 | 78 / 26 | C, A, M, H | LR, LC | IN | P |
| Jaskyte (2010) | 79 | 35 / 12 | C, A, M, H | ST, LR, LC | - | P |
| Jaskyte & Kisieliene (2006) | 21 | 36 / 18 | C, A, M, H | LR | IN | P |
| Jung & Takeuchi (2010) | 225 | 15 / 11 | C | HR, LR | EM, OP | P |
| Kalyar & Rafi (2013) | 50 | 3 / 2 | A | - | IN | P |
| Keskin et al. (2005) | 178 | 1 / 1 | C, A | - | - | P |
| Kim et al. (2010) | 102 | 3 / 2 | A, H | - | - | P |
| \*Kinicki et al. (2010) | 91 | 78 / 32 | C, A, M, H | LT, LR | EM, FI | U |
| Kinicki et al. (2012) | 119 | 10 / 10 | C, A, M | LC | FI | U |
| Kotrba et al. (2012) | 137 | 28 / 11 | C, A, M, H | - | FI | P |
| Koufteros et al. (2007) | 224 | 21 / 8 | C, M, H | ST | - | P |
| Kowalczyk & Pawlish (2002) | 6 | 10 / 8 | C, A, M, H | - | OP | P |
| Kriemadis et al. (2012) | 33 | 6 / 4 | C, A, M | - | - | P |
| Kusku & Zarkada-Fraser (2004) | 178 | 28 / 12 | C, M, H | - | EM, CU | P |
| Lægreid et al. (2011) | 121 | 6 / 4 | M | ST, HR | - | P |
| Lai & Lee (2007) | 154 | 3 / 3 | A, M, H | - | - | P |
| Lamond (2003) | 462 | 6 / 6 | C, A, M, H | - | - | P |
| Leisen et al. (2002) | 128 | 28 / 12 | C, A, M, H | - | OP | P |
| Lejeune & Vas (2009) | 31 | 21 / 21 | C, A, M, H | HR | EM, CU | P |
| Li et al. (2008) | 37 | 3 / 3 | C, A, M | - | - | P |
| Mahalinga Shiva & Suar (2012) | 312 | 45 / 18 | C, A, M, H | LR, LC | - | P |

Appendix B (cont.)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Study | Sample size  (no. of units) | No. of correlations included  (raw / aggregated) | Organizational culture | Correlates | Effectiveness | Data source |
| Maignan et al. (2011) | 151 | 3 / 3 | C | - | EM, CU | P |
| \*Marsh (2005) | 187 | 28 / 22 | C, A, M, H | LT, LC | FI | U |
| Martin & Grbac (2003) | 282 | 83 / 5 | M | - | CU, FI | P |
| Matzler et al. (2013) | 232 | 21 / 21 | C, A, M, H | SR, SI | IN | P |
| McDermott & Stock (1999) | 97 | 10 / 10 | C, A, M, H | - | OP | P |
| Melo (2012) | 295 | 1 / 1 | - | SR, HR | - | P |
| Mohr et al. (2012) | 114 | 10 / 7 | C | - | EM, OP, CU | P |
| Mrozowski (2001) | 146 | 15 / 11 | C, A, M, H | HR | - | U |
| Nahm et al. (2004) | 224 | 3 / 3 | C, M, H | - | - | P |
| Naranjo Valencia et al. (2010) | 420 | 3 / 3 | A, H | - | IN | P |
| Nekrep (2009) | 60 | 4 / 3 | - | - | EM, OP, CU, FI | P |
| Ngo & Loi (2008) | 181 | 3 / 3 | A | HR | EM | P |
| O'Regan et al. (2006) | 194 | 3 / 3 | A | - | IN | P |
| Ou (2011) | 63 | 66 / 23 | C, A, M, H | LR, LC | EM | U |
| Plewa (2009; Sample 1) | 62 | 3 / 3 | A, M, H | - | - | P |
| Plewa (2009; Sample 2) | 62 | 3 / 3 | A, M, H | - | - | P |
| Prajogo & McDermott (2005) | 194 | 4 / 4 | C, A, M, H | HR | - | P |
| \*Prajogo & McDermott (2011) | 194 | 21 / 16 | C, A, M, H | - | IN, OP | P |
| Rad (2006) | 12 | 6 / 4 | A, H | - | OP | P |
| Rebelo & Gomes (2011) | 107 | 3 / 2 | A | ST | - | P |
| Rhodes et al. (2008) | 223 | 16 / 5 | C, A | - | IN | P |
| Ridnour et al. (2001) | 86 | 4 / 3 | M | HR | EM, OP | P |
| Roi (2006) | 94 | 6 / 4 | A | LC | FI | U |
| Ruppel & Harrington (2001) | 44 | 6 / 6 | C, A, M, H | - | - | P |
| Russo et al. (2013) | 46 | 10 / 2 | M, H | HR | - | P |
| Sarros et al. (2005) | 1918 | 6 / 6 | C, A, M, H | - | - | P |
| Sarros et al. (2008) | 1158 | 28 / 5 | M | LR, LC | - | P |
| \*Seong (2011) | 162 | 21 / 16 | C, A, M, H | HR | FI | U |
| Shao et al. (2012) | 75 | 36 / 17 | C, A, M, H | LR, LC | - | U |
| Simosi & Xenikou (2010) | 34 | 10 / 7 | C, A, M | LT | - | U |
| Song et al. (2009) | 33 | 21 / 13 | C, A, M | HR, LT | EM | P |
| Stamper & Van Dyne (2001) | 6 | 3 / 2 | H | - | EM | P |
| Stock & McDermott (2001) | 97 | 21 / 7 | C, H | SI | - | P |
| Stock et al. (2007) | 549 | 10 / 10 | C, A, M, H | - | OP | P |
| Stock et al. (2010) | 202 | 10 / 10 | C, A, M, H | - | OP | U |

Appendix B (cont.)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Study | Sample size  (no. of units) | No. of correlations included  (raw / aggregated) | Organizational culture | Correlates | Effectiveness | Data source |
| Stock et al. (2013) | 216 | 6 / 2 | A | - | IN | U |
| Tellis et al. (2009) | 1544 | 4 / 2 | A, M | - | IN | U |
| Tsamenyi & Mills (2002) | 89 | 4 / 2 | A, M | HR | - | P |
| Tsui et al. (2006; Sample 1) | 542 | 36 / 23 | C, A, M, H | LT, LR, LC | - | P |
| Tsui et al. (2006; Sample 2) | 152 | 55 / 31 | C, A, M, H | LT, LR, LC | FI | P |
| Vo & Nguyen (2011) | 43 | 6 / 6 | C, A, M, H | - | - | U |
| Wang et al. (2011) | 212 | 3 / 3 | C, A, H | - | - | U |
| Wei & Lau (2008) | 600 | 15 / 6 | M | ST, HR | FI | P |
| Wei et al. (2011) | 223 | 6 / 6 | A | ST, HR | IN | P |
| Wei et al. (2014) | 180 | 6 / 6 | C, A, M | - | FI | P |
| Yarbrough et al. (2011) | 151 | 45 / 30 | C, A, M, H | SI | OP, CU, FI | U |
| Yilmaz & Ergun (2008) | 100 | 45 / 29 | C, A, M, H | - | EM, IN, OP, FI | U |
| Yilmaz et al. (2005) | 134 | 1 / 1 | A, M | - | - | P |
| Zahra et al. (2004) | 536 | 5 / 4 | M | SR | FI | P |
| Zajec & Roblek (2011) | 24 | 3 / 3 | C, A, M | - | - | U |
| Zeng & Luo (2013) | 106 | 6 / 6 | C, A, M, H | - | - | U |
| Zhang & Jia (2010) | 139 | 10 / 10 | C, M | HR | EM, IN | P |
| \*Zheng et al. (2010) | 301 | 10 / 10 | C, A, M, H | ST | - | U |
| Zhou et al. (2005) | 180 | 10 / 7 | C | SR, LC | EM | P |
| Zhou et al. (2008) | 180 | 15 / 11 | M | LC | EM, OP, FI | U |

*Note.* For coding content: C = clan culture; A = adhocracy culture; M = market culture; H = hierarchy culture; SR = strategy (exploration); SI = strategy (exploitation); ST = organic organizational structure; LT = leadership (task); TR = leadership (relational); LC = leadership (change); HR = HPWPs; EM = employee outcomes; IN = innovation outcomes; OP = operational outcomes; CU = customer outcomes; FI = finance outcomes. For data source, P = published; U = unpublished (dissertation, unpublished manuscript, or published sample but with additional author provided data).

\* Studies excluded after outlier analyses.

Appendix C

Publication Bias and Outlier Detection

Table 1 shows that some of our meta-analytic correlations are based on relatively small number of studies (*k* < 10), raising the concern that our results may be distorted by publication biases (Ferguson & Brannick, 2012) or outliers (Cortina, 2003). Although recent research suggests that publication biases are not a major threat for meta-analyses (Paterson et al., 2016; Dalton, Aguinis, Dalton, Bosco, & Pierce, 2012), we conducted trim-and-fill analyses (Duval & Tweedie, 2000) using Wilcoxon distribution and funnel plots. This approach is widely used in behavioral science and biomedical meta-analyses because it is easy to use, generates results similar to more complex methods, and provides estimated effect sizes after correcting for publication bias (Schmidt & Hunter, 2015). We reported the number of potentially missing effect sizes imputed by trim-and-fill analysis (Δ*K*) and the estimated correlations (*adj-r*) after including those missing effect sizes (i.e., after correcting for publication bias). As shown in Table 2, correlations between exploitation strategy and market culture, task leadership and adhocracy culture, task leadership and market culture, and relational leadership and adhocracy culture had some potentially missing effect sizes, suggesting that publication biases were present in these four relationships but not in other relationships. The adjusted *r’s* of these relationships (.28, .27, .269, and .30, respectively) were different from the sample size weighted mean correlation  (.32, .30, .271, and .35, respectively), but were not substantial to invalidate the effect sizes.

For outlier detection, we adopted Huffcutt and Arthur’s procedures (Beal, Corey, & Dunlap, 2002; Huffcutt & Arthur, 1995) to calculate modified SAMD statistics involving Fisher’s z transformation. We used the cut-off of three (Leslie, Mayer, & Kravitz, 2014) and identified eight studies (i.e., Chow & Liu, 2007; Hartnell, Kinicki, Lambert, Fugate, & Corner, 2016; Hult, Hurley, Giunipero, & Nichols, 2000; Kinicki, Fugate, Hartnell, & Corner, 2011; Marsh, 2005; Prajogo & McDermott, 2005; Seong, 2011; Zheng, Yang, & McLean, 2010) each with more than three outliers. We carefully examined each study, found no reporting errors, and decided to retain the studies in the analysis. For robustness check, we excluded these eight studies and replicated the meta-analyses. The meta-analytic correlations were generally lower than without exclusion because most of the outliers were exceedingly higher correlations; however, the result patterns remained the same. Therefore, we reported the results including those eight studies, as they represented a more conservative test of the hypotheses.

Appendix D

Meta-Analysis Results of Organizational Culture Dimensions and Organizational Effectiveness Criteria

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variable | | *k* | *N* | *r* |  | 95% CI | 80% CV | *Q* | | *I2* | Δ*K* | *adj-r* |
| *Employee* | |  |  |  |  |  |  |  |  |  |  |  |
|  | Clan | 26 | 3,111 | .37 | .43 | [.35, .51] | [.17, .68] | 149.01 | \*\* | 17.44% | 10 | .28 |
|  | Adhocracy | 19 | 1,805 | .36 | .43 | [.35, .50] | [.23, .62] | 62.17 | \*\* | 30.56% | 8 | .27 |
|  | Market | 22 | 2,632 | .29 | .34 | [.24, .43] | [.07, .60] | 135.10 | \*\* | 16.28% | 8 | .22 |
|  | Hierarchy | 21 | 1,691 | .31 | .38 | [.27, .49] | [.07, .69] | 118.40 | \*\* | 17.73% | 4 | .27 |
| *Innovation* | |  |  |  |  |  |  |  |  |  |  |  |
|  | Clan | 23 | 2,410 | .36 | .43 | [.37, .49] | [.26, .60] | 66.08 | \*\* | 34.80% | 0 | .36 |
|  | Adhocracy | 28 | 4,579 | .35 | .43 | [.37, .49] | [.24, .63] | 121.82 | \*\* | 22.99% | 8 | .31 |
|  | Market | 23 | 3,519 | .33 | .41 | [.35, .46] | [.25, .56] | 69.40 | \*\* | 33.14% | 2 | .33 |
|  | Hierarchy | 19 | 2,052 | .21 | .27 | [.15, .39] | [-.06, .59] | 146.82 | \*\* | 12.94% | 3 | .20 |
| *Operational* | |  |  |  |  |  |  |  |  |  |  |  |
|  | Clan | 30 | 4,465 | .22 | .25 | [.17, .34] | [-.04, .55] | 259.00 | \*\* | 11.58% | 8 | .16 |
|  | Adhocracy | 25 | 3,131 | .29 | .34 | [.29, .39] | [.21, .47] | 55.98 | \*\* | 44.66% | 2 | .29 |
|  | Market | 25 | 3,156 | .33 | .38 | [.32, .44] | [.22, .54] | 71.80 | \*\* | 34.82% | 9 | .28 |
|  | Hierarchy | 26 | 2,825 | .26 | .31 | [.25, .37] | [.14, .48] | 72.88 | \*\* | 35.68% | 6 | .24 |
| *Customer* | |  |  |  |  |  |  |  |  |  |  |  |
|  | Clan | 17 | 1,581 | .26 | .31 | [.24, .38] | [.16, .46] | 36.93 | \*\* | 46.04% | 0 | .26 |
|  | Adhocracy | 13 | 783 | .21 | .26 | [.16, .35] | [.09, .42] | 25.75 | \* | 50.49% | 1 | .20 |
|  | Market | 18 | 1,626 | .34 | .41 | [.32, .51] | [.16, .67] | 73.54 | \*\* | 24.48% | 0 | .34 |
|  | Hierarchy | 16 | 1,147 | .21 | .26 | [.15, .37] | [.00, .52] | 61.80 | \*\* | 25.89% | 0 | .21 |
| *Financial* | |  |  |  |  |  |  |  |  |  |  |  |
|  | Clan | 38 | 4,592 | .12 | .13 | [.09, .18] | [-.02, .29] | 105.68 | \*\* | 35.96% | 1 | .13 |
|  | Adhocracy | 39 | 4,349 | .13 | .14 | [.09, .19] | [-.02, .30] | 107.67 | \*\* | 36.22% | 6 | .11 |
|  | Market | 41 | 5,733 | .20 | .23 | [.18, .27] | [.06, .39] | 138.04 | \*\* | 29.70% | 9 | .17 |
|  | Hierarchy | 26 | 2,060 | .19 | .22 | [.14, .29] | [.00, .43] | 84.41 | \*\* | 30.80% | 7 | .13 |

*Note.* *k* = number of studies; *N* = total number of organizations; *r* = sample size weighted mean correlation;  = estimated population correlation (sample size weighted mean correlation corrected for unreliability in both measures); CI = confidence interval; CV = credibility interval; *Q* = Chi-square test of homogeneity; *I2* = proportion of observed variance in the observed correlation due to statistical artifacts. Δ*K* = number of filled studies in trim & fill analysis; *adj-r* = adjusted *r* after adding filled studies in trim & fill analysis.

\* *p* < .05. \*\* *p* < .01.

Appendix E

Detection of Negative Suppression in Organizational Effectiveness Criteria

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Employee | | Employee | | Innovation | | Operational | | Customer | | Financial | |
|  | Model 1a | Model 1b | Model 2a | Model 2b | Model  3a | Model 3b | Model 4a | Model 4b | Model 5a | Model 5b | Model 6a | Model 6b |
| Leadership | .23\*\* | -.17\*\* |  | -.17\*\* |  | .23\*\* | .07\*\* | -.31\*\* | ―a | ―a |  | .01 |
| HPWPs |  | -.08\*\* | .21\*\* | -.08\*\* |  | .22\*\* |  | .09\*\* |  | .25\*\* |  | .38\*\* |
| Clan |  | .23\*\* |  | .23\*\* |  | .14\*\* |  | .02 |  | .12\*\* | .13\*\* | -.12\*\* |
| Adhocracy |  | .32\*\* |  | .32\*\* |  | .09\*\* |  | .27\*\* | .26\*\* | -.09\*\* |  | -.01 |
| Market |  | .03 |  | .03 |  | .10\*\* |  | .19\*\* |  | .29\*\* |  | .02 |
| Hierarchy |  | .25\*\* |  | .25\*\* | .27\*\* | -.07\*\* |  | .23\*\* |  | -.01 |  | .14\*\* |
| Total *R* (*R2*) | .23 (.05) | .53 (.28) | .21 (.04) | .53 (.28) | .27 (.07) | .56 (.32) | .07 (.01) | .49 (.24) | .26 (.07) | .49 (.24) | .13 (.02) | .40 (.16) |
| Δ*R2*model a to model b |  | .23\*\* |  | .24\*\* |  | .25\*\* |  | .23\*\* |  | .17\*\* |  | .14\*\* |

\*\* *p* < .01.

a Variable excluded from analysis because of missing data in meta-analytic correlation matrix.