### *Table 1. Composition of the Sample (a): Country and Family Ownership*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Country** | **Sample composition**  **in terms of Country** | | **Dominant**  **Family Ownership** | |
|  | Mean (%) | Sd.Dev. | Mean (%) | Sd.Dev. |
| United Kingdom | 41.6% | 0.4932 | 9.6% | 0.191 |
| Germany | 23.9% | 0.4266 | 23.2% | 0.240 |
| France | 23.6% | 0.4249 | 29.2% | 0.286 |
| Italy | 9.6% | 0.2941 | 30.6% | 0.246 |
| Spain | 1.4% | 0.1178 | 27.5% | 0.220 |

### *Table 2. Composition of the Sample (a): Industry and Family Ownership*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Industry** | **Sample composition**  **in terms of Industry** | | **Dominant**  **Family Ownership** | |
|  | Mean (%) | Sd.Dev. | Mean (%) | Sd.Dev. |
| Industrial Goods and Services | 37.4% | 0.4841 | 17.8% | 0.272 |
| Technology | 24.6% | 0.4309 | 19.2% | 0.227 |
| HealthCare | 12.8% | 0.3341 | 21.3% | 0.250 |
| Media | 7.6% | 0.2649 | 14.7% | 0.192 |
| Automotive | 5.6% | 0.2304 | 34.8% | 0.265 |
| Consumer Goods | 5.2% | 0.2221 | 30.5% | 0.242 |
| TelCo | 4.6% | 0.2104 | 20.6% | 0.191 |
| Others | 2.2% | 0.1483 | 2.3% | 0.028 |

*Table 3: Definitions of the Variables*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Variable name** | **Description** | **Source** | **Units** |
| **AGE** | Age of the Firm | ln (Number of years passed since the year of firm establishment year ‘t’ ) | Annual Report; public information; | number |
| **SIZE** | Firm size | Ln (Turnover year ‘t’ ) | Annual Report; | number |
| **ROI** | Return On Investment | ROI as reported in the annual report of the company in year ‘t’ | Annual Report; | number |
| **BA** | Business Acquisition | =1 if the Trademark has been acquired through a business acquisition  =0 otherwise | Annual Report; | binary |
| **NFAM** | Number of Families involved in the Ownership Structure | Number of Families owning shares of the company (at year ‘t’) | Databases FactSet and Orbis | number |
| **BOARD** | Presence of Family in the Board of the Company | Number of Dominant Family Members in the board / Total Members of the Board (at year ‘t’) | Databases FactSet and Orbis | ratio |
| **DFO** | Dominant Family Ownership | Share (%) of the company owned by the family with the highest share (at year ‘t’) | Databases FactSet and Orbis; financial records; newspapers, company websites; | ratio |
| **TAI** | Trademark Acquisition Intensity | (Externally generated Trademark' / 'Total generated Trademark' ) year ‘t’ | Annual Report; | ratio |
| **FI** | Foreign sales Intensity | Foreign sales year ‘t’ / Total sales year ‘t’ | Annual Report; | ratio |

*Table 4: Means, Standard Deviations and Correlation Coefficients*

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Mean** | **St.dev.** | **Min** | **Max** | **FSI** | **AGE** | **SIZE** | **ROI** | **BA** | **NFAM** | **BOARD** | **DFO** |
| FSI | 0.535 | 0.352 | 0.000 | 1.000 |  |  |  |  |  |  |  |  |
| AGE | 3.717 | 0.770 | 2.197 | 5.384 | 0.213\*\*\* |  |  |  |  |  |  |  |
| SIZE | 19.166 | 2.678 | 8.710 | 30.467 | 0.240\*\*\* | 0.534\*\*\* |  |  |  |  |  |  |
| ROI | 0.075 | 0.156 | -0.660 | 1.129 | 0.081\*\* | 0.263\*\*\* | 0.347\*\*\* |  |  |  |  |  |
| BA | 0.183 | 0.387 | 0 | 1 | 0.095\*\* | -0.030 | -0.020 | -0.020 |  |  |  |  |
| NFAM | 1.062 | 1.289 | 0 | 7 | -0.060 | 0.046 | -0.040 | 0.039 | -0.050 |  |  |  |
| BOARD | 0.203 | 0.201 | 0.000 | 0.636 | -0.020 | 0.083\*\* | -0.020 | 0.039 | -0.090\*\*\* | 0.661\*\*\* |  |  |
| DFO | 0.197 | 0.249 | 0.000 | 1.000 | 0.022 | 0.064\* | 0.042 | 0.035 | -0.160\*\*\* | 0.398\*\*\* | 0.607\*\*\* |  |
| TAI | 0.407 | 0.466 | 0.000 | 1.000 | 0.055 | 0.099\*\*\* | 0.183\*\*\* | 0.103\*\*\* | 0.077\*\* | 0.035 | 0.039 | 0.069\* |

Significance levels: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Table 5. Panel Regression Analysis - Fixed Effects.*

|  |  |  |  |
| --- | --- | --- | --- |
| Dep Var = FI | (1) | (2) | (3) |
|  |  |  |  |
| Y09 | 0.0343\* | 0.0330\* | 0.0314 |
|  | (0.0195) | (0.0194) | (0.0194) |
| Y10 | 0.0246 | 0.0220 | 0.0207 |
|  | (0.0243) | (0.0242) | (0.0242) |
| Y11 | -0.00328 | -0.00548 | -0.00806 |
|  | (0.0298) | (0.0297) | (0.0297) |
| AGE | -0.0317 | 0.00460 | 0.0340 |
|  | (0.256) | (0.256) | (0.256) |
| SIZE | 0.00159 | 0.000943 | 0.00140 |
|  | (0.00883) | (0.00881) | (0.00879) |
| ROI | 0.215\*\*\* | 0.204\*\*\* | 0.199\*\*\* |
|  | (0.0705) | (0.0704) | (0.0704) |
| BA | 0.0254 | 0.0234 | 0.0227 |
|  | (0.0229) | (0.0229) | (0.0228) |
| NFAM | 0.00293 | -0.00249 | -0.00477 |
|  | (0.0339) | (0.0339) | (0.0338) |
| BOARD | 0.00483 | 0.0428 | 0.0421 |
|  | (0.209) | (0.210) | (0.209) |
| DFO | -0.141 | -0.148 | -0.0613 |
|  | (0.136) | (0.136) | (0.145) |
| TAI |  | 0.0492\*\* | 0.0778\*\*\* |
|  |  | (0.0233) | (0.0287) |
| TAI\_DFO |  |  | -0.162\* |
|  |  |  | (0.0951) |
| Constant | 0.612 | 0.471 | 0.343 |
|  | (0.930) | (0.929) | (0.931) |
|  |  |  |  |
| Observations | 712 | 712 | 712 |
| R-squared | 0.03011 | 0.03841 | 0.04382 |
| Number of ID | 186 | 186 | 186 |
| Standard errors in parentheses | | |  |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | |  |

*Table 6. Panel Regression Analysis – Pooled OLS*

|  |  |  |  |
| --- | --- | --- | --- |
| Dep Var = FI | (1) | (2) | (3) |
|  |  |  |  |
| Y09 | 0.0316 | 0.0316 | 0.0312 |
|  | (0.0349) | (0.0349) | (0.0348) |
| Y10 | 0.00802 | 0.00822 | 0.00971 |
|  | (0.0366) | (0.0367) | (0.0365) |
| Y11 | 0.00926 | 0.00959 | 0.0111 |
|  | (0.0358) | (0.0358) | (0.0357) |
| UK | 0.284\*\* | 0.286\*\*\* | 0.289\*\*\* |
|  | (0.111) | (0.111) | (0.110) |
| GE | 0.239\*\* | 0.243\*\* | 0.233\*\* |
|  | (0.110) | (0.111) | (0.110) |
| FR | 0.133 | 0.135 | 0.133 |
|  | (0.109) | (0.109) | (0.109) |
| IT | 0.235\*\* | 0.234\*\* | 0.248\*\* |
|  | (0.114) | (0.114) | (0.113) |
| Ind | -0.0984\*\* | -0.0990\*\* | -0.100\*\* |
|  | (0.0426) | (0.0427) | (0.0426) |
| Tech | -0.0120 | -0.0122 | -0.0230 |
|  | (0.0462) | (0.0462) | (0.0463) |
| HC | 0.0716 | 0.0698 | 0.0660 |
|  | (0.0523) | (0.0526) | (0.0524) |
| Media | -0.193\*\*\* | -0.196\*\*\* | -0.204\*\*\* |
|  | (0.0577) | (0.0582) | (0.0581) |
| TelCo | -0.309\*\*\* | -0.309\*\*\* | -0.312\*\*\* |
|  | (0.0721) | (0.0721) | (0.0719) |
| AGE | 0.0632\*\*\* | 0.0632\*\*\* | 0.0617\*\*\* |
|  | (0.0201) | (0.0201) | (0.0201) |
| SIZE | 0.0325\*\*\* | 0.0321\*\*\* | 0.0320\*\*\* |
|  | (0.00636) | (0.00643) | (0.00641) |
| ROI | -0.0313 | -0.0335 | -0.0462 |
|  | (0.0894) | (0.0897) | (0.0896) |
| BA | 0.0661\* | 0.0651\* | 0.0634\* |
|  | (0.0369) | (0.0371) | (0.0370) |
| NFAM | -0.00749 | -0.00768 | -0.00728 |
|  | (0.0131) | (0.0131) | (0.0131) |
| BOARD | -0.0770 | -0.0742 | -0.0948 |
|  | (0.0992) | (0.0996) | (0.0997) |
| DFO | 0.125\* | 0.122\* | 0.253\*\*\* |
|  | (0.0658) | (0.0662) | (0.0863) |
| TAI |  | 0.00986 | 0.0576\* |
|  |  | (0.0283) | (0.0348) |
| TAI\_DFO |  |  | -0.257\*\* |
|  |  |  | (0.110) |
| Constant | -0.514\*\*\* | -0.514\*\*\* | -0.520\*\*\* |
|  | (0.177) | (0.177) | (0.177) |
|  |  |  |  |
| Observations | 712 | 712 | 712 |
| R-squared | 0.16395 | 0.16410 | 0.17071 |
| Standard errors in parentheses | |  |  |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | |  |  |

*Figure 1. Foreign sales Intensity as a function of Trademark Acquisition Intensity and Dominant Family Ownership*

Marginal Impact on FI

Trademark Acquisition Intensity



**APPENDIX ‘A’ – RANDOM EFFECTS**

|  |  |  |  |
| --- | --- | --- | --- |
|  | (1) | (2) | (3) |
|  |  |  |  |
| UK | 0.251\*\* | 0.261\*\* | 0.263\*\* |
|  | (0.125) | (0.125) | (0.125) |
| GE | 0.237\* | 0.254\*\* | 0.245\*\* |
|  | (0.125) | (0.126) | (0.125) |
| FR | 0.133 | 0.141 | 0.139 |
|  | (0.123) | (0.123) | (0.123) |
| IT | 0.238\* | 0.235\* | 0.245\* |
|  | (0.137) | (0.137) | (0.137) |
| Ind | -0.126\* | -0.127\* | -0.127\* |
|  | (0.0761) | (0.0763) | (0.0760) |
| Tech | -0.0386 | -0.0377 | -0.0440 |
|  | (0.0827) | (0.0829) | (0.0826) |
| HC | 0.0231 | 0.0160 | 0.0160 |
|  | (0.0917) | (0.0919) | (0.0916) |
| Media | -0.209\*\* | -0.218\*\* | -0.223\*\* |
|  | (0.103) | (0.104) | (0.103) |
| TelCo | -0.309\*\* | -0.304\*\* | -0.306\*\* |
|  | (0.127) | (0.127) | (0.127) |
| AGE | 0.0734\*\* | 0.0738\*\* | 0.0729\*\* |
|  | (0.0341) | (0.0341) | (0.0340) |
| SIZE | 0.0140\*\* | 0.0129\* | 0.0133\* |
|  | (0.00707) | (0.00707) | (0.00705) |
| ROI | 0.128\*\* | 0.121\*\* | 0.117\* |
|  | (0.0605) | (0.0604) | (0.0602) |
| BA | 0.0352\* | 0.0329\* | 0.0330\* |
|  | (0.0201) | (0.0200) | (0.0200) |
| NFAM | -0.00284 | -0.00515 | -0.00581 |
|  | (0.0193) | (0.0194) | (0.0193) |
| BOARD | -0.0335 | -0.0111 | -0.0215 |
|  | (0.134) | (0.134) | (0.134) |
| DFO | 0.0113 | 0.000959 | 0.102 |
|  | (0.0899) | (0.0900) | (0.101) |
| TAI |  | 0.0466\*\* | 0.0809\*\*\* |
|  |  | (0.0220) | (0.0269) |
| TAI\_DFO |  |  | -0.194\*\* |
|  |  |  | (0.0885) |
| Constant | -0.148 | -0.154 | -0.169 |
|  | (0.230) | (0.231) | (0.230) |
|  |  |  |  |
| Observations | 712 | 712 | 712 |
| Number of ID | 186 | 186 | 186 |
| Standard errors in parentheses | |  |  |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | |  |  |

**APPENDIX ‘B’ – ‘DFO’ AS DUMMY VARIABLE (FIXED EFFECTS)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | (1) | (2) | (3) |
|  |  |  |  |
| AGE | -0.0352 | -0.0153 | -0.000744 |
|  | (0.157) | (0.157) | (0.156) |
| SIZE | 0.00220 | 0.00158 | 0.00192 |
|  | (0.00883) | (0.00881) | (0.00878) |
| ROI | 0.171\*\* | 0.160\*\* | 0.152\*\* |
|  | (0.0679) | (0.0678) | (0.0677) |
| BA | 0.0327 | 0.0302 | 0.0299 |
|  | (0.0207) | (0.0207) | (0.0206) |
| NFAM | 0.00812 | 0.00277 | 0.000131 |
|  | (0.0339) | (0.0339) | (0.0338) |
| BOARD | -0.0626 | -0.0285 | -0.00825 |
|  | (0.202) | (0.202) | (0.202) |
| DFOdummy | -0.0598 | -0.0587 | -0.00831 |
|  | (0.0540) | (0.0538) | (0.0583) |
| TAI |  | 0.0496\*\* | 0.0718\*\*\* |
|  |  | (0.0234) | (0.0253) |
| TAI\_DFOdummy |  |  | -0.131\*\* |
|  |  |  | (0.0590) |
| Constant | 0.620 | 0.538 | 0.469 |
|  | (0.590) | (0.589) | (0.588) |
|  |  |  |  |
| Observations | 712 | 712 | 712 |
| Number of ID | 186 | 186 | 186 |
| Standard errors in parentheses | | |  |
| \*\*\* p<0.01, \*\* p<0.05, \* p<0.1 | | |  |