model comparisons between the models with raw and transformed data are not meaningful, since the transformation of the initial data is expected to reduce the variance of the dependent variable, hence making the posterior mean deviance between the raw data and the transformed data model incomparable.

Next, in Table 3, the posterior inclusion probabilities $\gamma$ for the variable selection on the response of turnover are presented, using the uniform prior specification. Ideally, the posterior probabilities of inclusion should be close to 0 or 1, for a covariate being included or excluded in the model, respectively. However, covariates are usually selected using a threshold value on the inclusion probabilities. The standard value for this threshold is 0.5, hence this approach is followed for the rest of the analysis.

-- TABLE 3 AROUND HERE --

As can be seen from the results of Table 3, only a few of the candidate independent variables of sustainability practices and performances are included in all models using the threshold value of 0.5. Specifically, the items of standardized business process practices (OPER_PR_3), health and safety practices (SOC_PR_2), long-term relationship with customers performance (OPER_PE_1), waste reduction performance (ENV_PE_2) and health and safety performance (SOC_PE_2) are the ones selected for inclusion in all of the five models. The dummy variable for French SMEs is also included, with the exception of the normal model. Finally, the variables of customer relationship management (CRM) effectiveness practices (OPER_PR_1) and supplier relationship management (SRM) effectiveness performance (OPER_PE_5) are only marginally included in the case of the log-transformed model.

Table 4 shows the results for the second dependent variable of SME economic performance, i.e. the variable of business growth. The goodness-of-fit results are partly similar to the results for the turnover. As regards the log- and square root-transformed models, best fit is exhibited by the log-transformed normal model. For

the raw data models however, it can be observed that the best fit is provided by the normal model (posterior mean deviance: 362.4).

-- TABLE 4 AROUND HERE --

The posterior inclusion probabilities for the hyper g-prior approach for the business growth models are shown below (Table 5). Here, the most important covariates for inclusion are found to be CRM practices (OPER_PR_1), lean practices (OPER_PR_4), health and safety practices (SOC_PR_2), and the country effect of France. Furthermore, the energy consumption and emissions performance (ENV_PE_3) is selected for inclusion except for the Poisson and NB models. Other variables marginally included by some of the models are SRM practices (OPER_PR_2), the adoption of standardized environmental system practice (ENV_PR_1), the long term relationship with customer performance (OPER_PE_1) and the reduction of energy consumption and emissions performance (ENV_PE_3).

-- TABLE 5 AROUND HERE --

Next, we present the posterior medians, along with the corresponding 95% posterior credible intervals for each selected coefficient in the turnover model (Table 6).

As revealed by the parameters' estimates and the corresponding intervals, regarding the sustainability practices of SMEs, we find that standardized business process practices have a strong positive effect on the variable of turnover, according to the perceptions of the SME managers. Also, health and safety practices positively affect the dependent. Mixed results are observed however for the question of the importance of sustainability performance. The operational performance of the long term relationship with customers is positively associated with turnover, whereas specific environmental and social dimensions of performance appear to negatively affect business turnover. Specifically, estimated coefficients of the performance on waste reduction (ENV_PE_2), have a negative sign on turnover in all five tested models. The same partly holds for health and safety performance. Finally, the French

SMEs tend to have lower turnover levels when compared to the British SMEs, as found in 4 out of the 5 models.

-- TABLE 6 AROUND HERE --

Following, the results of the second model are presented, utilizing the economic performance variable of business growth as the dependent economic variable (Table 7).

-- TABLE 7 AROUND HERE --

CRM practices appear to be an important factor for the increase in business growth, a result that holds for all fitted regression models. Also, French SMEs, as was the case with turnover, exhibit lower levels of business growth when compared with British SMEs. Health and safety practices are also an important indicator for business growth, according to SME managers. This result is however marginal for three out of the five fitted models.

The results on the remaining covariates are not strongly conclusive however, as either there is no statistically significant outcome in terms of achieving the threshold of 0.5 for variable selection or covariates been selected with a threshold near the borderline of 0.5 are marginally significant according to the parameter estimates results. For instance, SRM practices (OPER_PR_2) although being selected for inclusion with inclusion probabilities threshold values just above 0.5 in the normal and square root –transformed models, the corresponding credible intervals are indicative of a marginal significance on the dependent variable of business growth. The same holds for operational lean practices (OPER_PR_4) and the practice of adopting a standardized environmental system (ENV_PR_1).

The operational performance of long term relationship with customers (OPER_PER_1), and the environmental performance of reduction of energy consumption and emissions (ENV_PER_3) negatively affect business growth to a marginal degree.

Figures 1 and 2 are a visual presentation of the models' fit, plotting together the observed and estimated by the models' outcome variables of turnover and business growth. It is noteworthy that when utilizing the normal and log transformed normal models, we get a few negative predictions, which for the latter model is expected due to the values of ones in the dependent variable.

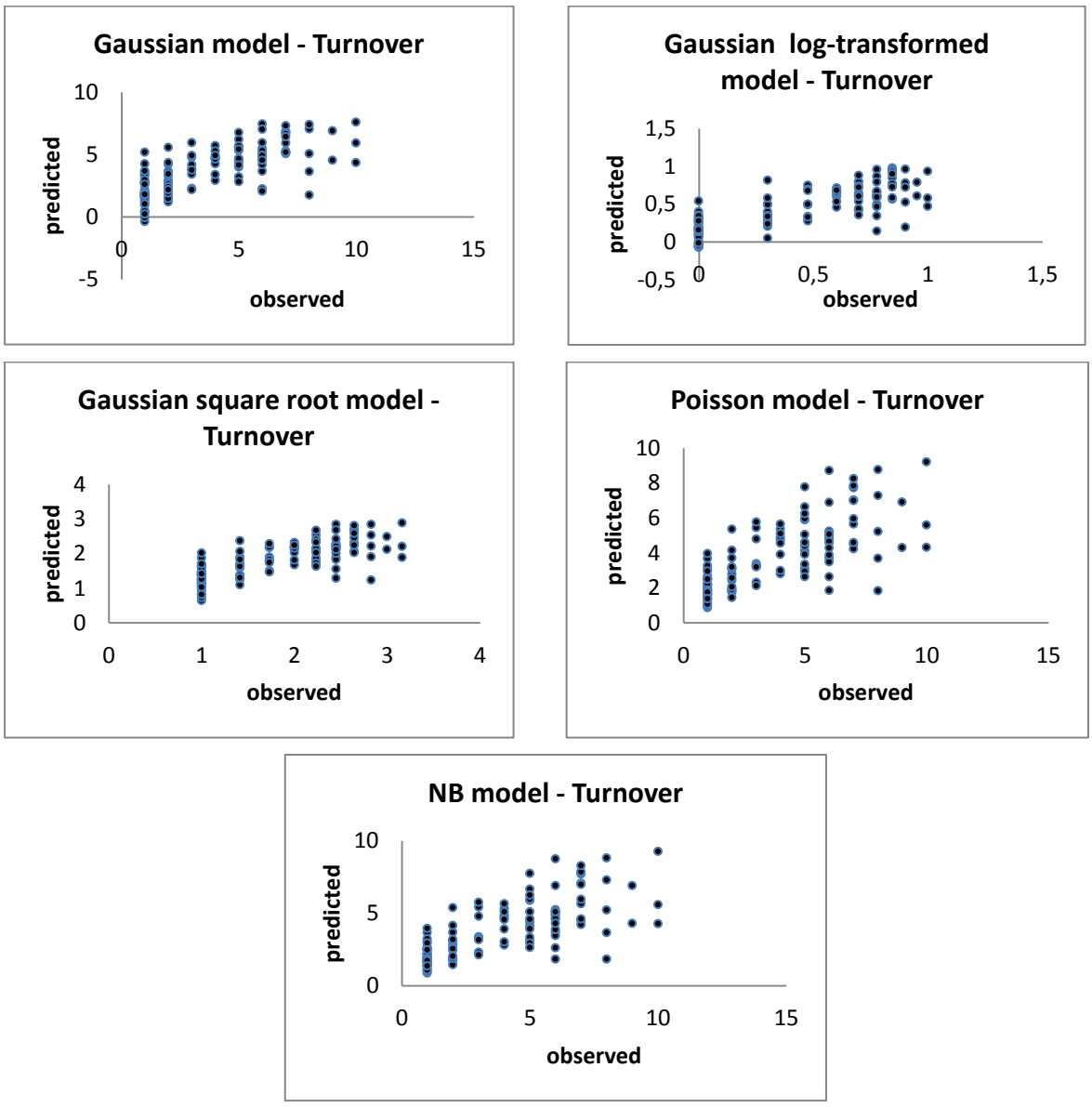


**Figure 1:** Scatterplot of observed and estimated values of turnover for the fitted models

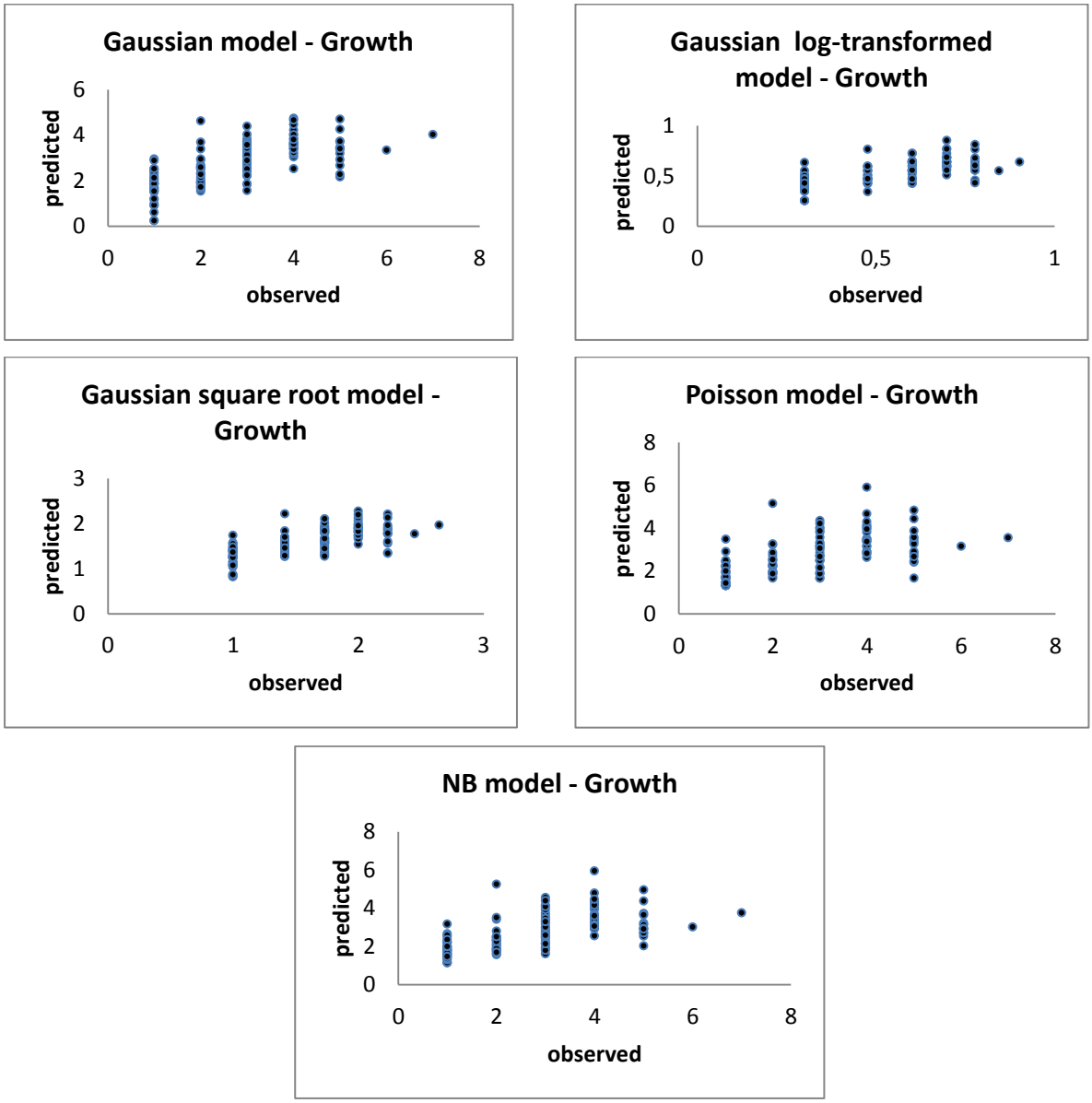


**Figure 2:** Scatterplot of observed and estimated values of business growth for the fitted models

## 5 Discussion

Sustainability is nowadays highlighted as the key to long-range business planning in order to facilitate performance refinements and improvements for the common good. With this in mind, we assert that there is a tangible need to develop a

better and clearer understanding of the moderating role sustainability has on SME economic performance.

In this paper, we sought to examine the effects of individual sustainability practices and performance dimensions on the economic performance of SMEs, using a carefully chosen sample of SMEs from three countries. Specifically, we examined which operational, environmental and social practices/performance aspects are the most accurate predictors of SME economic performance. The latter was estimated through business growth and turnover, according to the perceptions of the managers/owners of the selected SME sample, using regression-type methodology. The conceptual framework and proposed assessment methodology developed in this paper attempt to meet calls for more theory-building research on SME sustainability (*Ates et al., 2013; Jansson et al., 2017*) and offer several advantages.

Specifically, in order to derive valid and robust results, Bayesian regression models were employed based on various specifications of the distribution of the dependent variables of economic performance measured on a Likert scale, as well as on typical transformations of the latter. More importantly, the results of a typical OLS regression based on assigning a normal distribution on the dependent variable have been compared with more suitable distributions for positive count data, such as the Poisson and the NB. Additionally, for selecting the most important covariates we opted for Bayesian variable selection based on the hyper g-prior specification.

By observing the outcomes, we have seen that only a few of the potential for inclusion explanatory variables were selected, having an inclusion probability that is above 0.5. Thus, despite the relatively large number of covariates (24), all of the fitted models choose a very parsimonious specification, with only a few regressors being included in the model with a threshold probability exceeding 50%. Especially for the covariates near the borderline selection threshold of 0.5, the results in most cases were marginally statistically important, suggesting that potentially a higher cut-off value could be utilized instead of the 0.5 threshold value for covariate selection.

As regards the model comparisons, it may be stated that although the various modeling specifications generally exhibited similar results on the parameters significance, there were also many exceptions, especially concerning those covariates at the borderline of selection. Model fit results showed some contradictory results when utilizing the raw data of the dependent variables, since both normal and Poisson distributional specifications provided the best fit, on different occasions however.

Generally, OLS regression does not produce significantly different results to the alternative specifications. However, the NB and Poisson models, at least for the first model, have shown to yield better performance as regards model fit than the OLS regression model. Superiority of the fit of the normal model in the case of the growth dependent variable may be merely attributed to the fact that the latter variable appears to be slightly less skewed in comparison to the dependent variable of turnover ($\alpha_3$ = 0.497 and 0.441 for the variables of turnover and economic growth, respectively). Hence, the asymmetry of the discrete variable should be taken into account when choosing a suitable distribution for the response in regression modeling. The logarithmic transformation on the other hand, has shown superior performance in comparison to the square root transformation of the data.

In relation to the association between economic indicators and sustainability practices and performances, turnover was found to be positively associated with standardized business processes and health and safety practices. A positive association with turnover was also verified for the long-term relationship with customers' performance, whereas waste reduction and health and safety performance was found to negatively affect turnover.

The positive statistically significant association between health and safety practices and turnover can be attributed to the fact that usually this type of practice is publicized as part of the companies PR initiatives, which in turn may result in a positive effect on its economic growth. Furthermore, health and safety performance is more directly connected to the actual results of the actions and the spending on these actions. The actual spending may have a direct negative result on the turnover that may overcome any indirect increase of business turnover due to the health and safety performance actions.

The results of this study are partly in line with previous research that has identified positive relationships between sustainability management practices and SME performance although the exact items measuring sustainability practices vary from one study to another (e.g. *Jayeola, 2015; Ong et al., 2014; Stewart and Gapp, 2012*).

Our findings reveal more positive effects of certain practices on turnover whereas the corresponding aspects of performance were found to be negative or non-significant. We believe that this result is due to the fact that practices in many

instances lead to more positive impacts than their realizations through their performance. Specifically, economic performance is reflected through business growth and turnover, which is directly connected to capital cost, operating cost and cash flow. Companies intending to enhance economic performance will identify most appropriate enablers that will first affect their practices, subsequently to sustainable performances and in the end, their economic performance. If there is no economic benefit to amending sustainability practices, companies will not undertake such a venture. Therefore, practices are expected to always be very positively connected with economic performance. On the other hand, each practice is likely to produce a positive impact on the corresponding sustainable performance but it may not associate positively to others. However, the relationship between sustainable performance and economic performance will depend exclusively on the experience and perceptions of the interviewees from the organizations. Therefore, if it is found that specific sustainable performance does not contribute to economic performance but corresponding practices do, we can interpret that the company did achieve the desired objective but still there is potential for further improvement.

The reduced association (positive or negative) of economic performance with the sustainability practices and performance of the SMEs found in the current study, are in line with the inconclusive and contradictory results of the previous limited literature investigating this association (e.g. *King and Lenox, 2001; Waddock and Groves, 1997; Wanger et al., 2001*). It should be noted, however, that our findings contradict previous research that argues in favor of the positive association of sustainability (environmental) performance with economic performance (*Yang et al., 2011*). *Yang et al. (2011)* also report a negative association between the environmental practices and financial performance of companies; the study however was not restricted, as was ours, to SMEs.

SME business growth was associated with a reduced number of practices and even fewer performance indicators. Specifically, the analysis conducted on the results of all fitted models verified that CRM practices, lean practices, and health and safety practices are positive predictors of SME business growth. Here, as is the case with the turnover model, the corresponding performances are shown to be less important factors for the business growth of SMEs.

Finally, results showed that French SMEs substantially differ from the British and Indian SMEs, with respect to their economic growth (We cannot confidently

verify this difference for turnover since the significance is on the borderline of selection, with zero value being close to the 95% upper credible limit). This result might be an indication of reduced results and performance of the adopted sustainability practices by the French SMEs, compared to the British and Indian SMEs, at least for the selected sample of our analysis.

These findings can provide fruitful insights to SME owners/managers trying to identify and control critical sustainability aspects of business practice for their bottom line performance. However, the study has limitations which highlight areas for further research. Firstly, the sample size and generated dataset is relatively small; replicating the methodological approach to larger samples (and perhaps from other countries' business sectors) may provide additional insights and reinforce the results of our assessment. Secondly, our proposed proxies of SMEs sustainability practices and performance can be refined and/or extended to include additional or more rigorous scales, measures and key performance indicators (*Chae, 2009*). Moreover, qualitative data derived from multiple in-depth case studies with selected SME owners/managers could provide support to the study's findings and allow a more detailed investigation of interrelations between sustainability practices found to contribute to business growth and economic performance. A focus on particular industries and sectors is explicitly encouraged as it may allow specific features of sustainability performance growth to be identified in greater detail with regards to how they affect SMEs economic output and growth. Lastly, ethnographic inquiry and action research via observation of a SME may allow researchers to gain experiential insights into sustainability implementation-management, and examine the deeper relationships and implications of the suggested impact of sustainability aspects on SME economic performance.

## 6 Conclusions

In conclusion, the major contribution of this paper lies in the implementation and comparison of different modeling strategies concerning the distributional specification of the dependent variable, as well as the careful implementation of covariate selection, especially in datasets that include a large number of predictors. It is one of the very few methodological approaches that facilitates a better

understanding and identification of key sustainability performance measures with direct influence to business growth.

Various distributions have been utilized for the most accurate modeling of SME economic performance in relation to sustainability practices and performance. These results have also been compared with those obtained by applying transformations on the dependent variable and investigating how the various transformations affect variable importance. The results indicated that only specific practices and performances focused on environmental, social and operational sustainability seem to benefit an SME's economic performance.

Overall, a few important differences between the various approaches were observed, especially for the covariates on the borderline of selection. However, these differences are not sufficient to suggest that any method performs significantly better than the others. A major finding is that the degree of skewness of the dependent variable should be taken into consideration for choosing the link distribution of the regression modeling.

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**TABLES**

**Table 1:** Descriptive statistics of the data

| | Mean | Std. Deviation | Minimum | Maximum |
|---|---|---|---|---|
| ECON_PE_1 | 3.80 | 2.589 | 1 | 10 |
| ECON_PE_2 | 2.69 | 1.436 | 1 | 7 |
| OPER_PR_1 | 2.62 | 1.150 | 1 | 5 |
| OPER_PR_2 | 2.22 | 1.114 | 1 | 5 |
| OPER_PR_3 | 2.89 | 0.974 | 1 | 5 |
| OPER_PR_4 | 2.42 | 1.435 | 1 | 5 |
| ENV_PR_1 | 2.45 | 0.838 | 1 | 5 |
| ENV_PR_2 | 2.30 | 1.183 | 1 | 5 |
| ENV_PR_3 | 2.83 | 1.052 | 1 | 5 |
| SOC_Pr_1 | 2.30 | 1.225 | 1 | 4 |
| SOC_Pr_2 | 2.42 | 1.211 | 1 | 5 |
| OPER_PE_1 | 3.76 | 1.619 | 1 | 7 |
| OPER_PE_2 | 3.11 | 1.177 | 1 | 5 |
| OPER_PE_3 | 2.86 | 1.227 | 0 | 6 |
| OPER_PE_4 | 2.82 | 1.412 | 1 | 5 |
| OPER_PE_5 | 3.18 | 1.030 | 1 | 5 |
| OPER_PE_6 | 3.17 | 1.271 | 1 | 5 |
| OPER_PE_7 | 2.94 | 0.934 | 1 | 5 |
| OPER_PE_8 | 2.27 | 1.226 | 1 | 5 |
| ENV_PE_1 | 2.99 | 1.259 | 1 | 5 |
| ENV_PE_2 | 2.56 | 1.280 | 1 | 5 |
| ENV_PE_3 | 2.87 | 1.008 | 1 | 5 |
| SOC_PE_1 | 2.24 | 1.214 | 1 | 5 |
| SOC_PE_2 | 2.90 | 1.061 | 1 | 5 |

**Table 2:** Goodness-of-fit statistics for the candidate models (response variable: turnover)

| **Model** | **Turnover** |
|---|---|
| | Mean deviance ($\overline{D}$) |
| **Normal** | 484.3 |
| **Log-transformed** | -11.05 |
| **Square-root transformed** | 158.6 |
| **Poisson** | 462.1 |
| **NB** | 464.3 |

**Table 3:** Posterior inclusion probabilities for the candidate models γ~Bernoulli(0.5) (response: turnover) (inclusion probabilities with value above 0.5 in bold)

| Covariate | Normal | Log-transformed | Square-root transformed | Poisson | NB |
|---|---|---|---|---|---|
| OPER_PR_1 | 0.3279 | **0.6293** | 0.421 | 0.3702 | 0.3959 |
| OPER_PR_2 | 0.4452 | 0.3715 | 0.41 | 0.3398 | 0.3344 |
| OPER_PR_3 | **0.7595** | **0.6332** | **0.7112** | **0.8188** | **0.8214** |
| OPER_PR_4 | 0.3606 | 0.4168 | 0.4091 | 0.3413 | 0.3759 |
| ENV_PR_1 | 0.2557 | 0.2877 | 0.2746 | 0.2551 | 0.2691 |
| ENV_PR_2 | 0.3774 | 0.3181 | 0.3603 | 0.3803 | 0.3664 |
| ENV_PR_3 | 0.4099 | 0.3899 | 0.3942 | 0.385 | 0.4164 |
| SOC_PR_1 | 0.3118 | 0.2732 | 0.2851 | 0.2839 | 0.3093 |
| SOC_PR_2 | **0.9823** | **0.9881** | **0.9906** | **0.9901** | **0.9938** |
| OPER_PE_1 | **0.809** | **0.7369** | **0.7816** | **0.8261** | **0.7682** |
| OPER_PE_2 | 0.3307 | 0.2915 | 0.3135 | 0.3102 | 0.3582 |
| OPER_PE_3 | 0.3784 | 0.312 | 0.3557 | 0.3527 | 0.3485 |
| OPER_PE_4 | 0.4677 | 0.329 | 0.4036 | 0.3913 | 0.4118 |
| OPER_PE_5 | 0.4588 | **0.5322** | 0.4932 | 0.3933 | 0.3822 |
| OPER_PE_6 | 0.3584 | 0.4957 | 0.4211 | 0.4986 | 0.4762 |
| OPER_PE_7 | 0.3504 | 0.3026 | 0.3314 | 0.3133 | 0.3222 |
| OPER_PE_8 | 0.3782 | 0.3817 | 0.3941 | 0.3834 | 0.4028 |
| ENV_PE_1 | 0.4453 | 0.471 | 0.4849 | 0.4056 | 0.4224 |
| ENV_PE_2 | **0.6489** | **0.5217** | **0.6223** | **0.6289** | **0.6086** |
| ENV_PE_3 | 0.375 | 0.3351 | 0.3657 | 0.354 | 0.3409 |
| SOC_PE_1 | 0.3423 | 0.2841 | 0.3123 | 0.3038 | 0.3131 |
| SOC_PE_2 | **0.6453** | **0.8181** | **0.7435** | **0.8545** | **0.8193** |
| FRANCE | 0.4868 | **0.8996** | **0.7154** | **0.5875** | **0.5715** |
| INDIA | 0.299 | 0.2488 | 0.2714 | 0.3251 | 0.3077 |

**Table 4:** Goodness-of-fit statistics for the candidate models (response variable: Business growth)

| Model | Business growth |
|---|---|
| | Mean deviance ($\bar{D}$) |
| **Normal** | 362.4 |
| **Log-transformed** | -146.7 |
| **Square-root transformed** | 79.15 |
| **Poisson** | 387.6 |
| **NB** | 390.4 |

**Table 5:** Posterior inclusion probabilities for the candidate models γ~Bernoulli(0.5) (response: business growth) (inclusion probabilities with value above 0.5 in bold)

| Covariate | Normal | Log-transformed | Square-root transformed | Poisson | NB |
|---|---|---|---|---|---|
| OPER_PR_1 | **0.8244** | **0.9476** | **0.9196** | **0.6402** | **0.6138** |
| OPER_PR_2 | **0.5082** | 0.488 | **0.5087** | 0.473 | 0.4812 |
| OPER_PR_3 | 0.359 | 0.2942 | 0.3175 | 0.4423 | 0.45 |
| OPER_PR_4 | **0.5581** | 0.4608 | **0.5023** | **0.5125** | **0.504** |
| ENV_PR_1 | **0.529** | 0.455 | **0.5002** | 0.4873 | 0.4794 |
| ENV_PR_2 | 0.4291 | 0.3407 | 0.3762 | 0.446 | 0.4413 |
| ENV_PR_3 | 0.4006 | 0.3391 | 0.3769 | 0.4226 | 0.4299 |
| SOC_PR_1 | 0.4481 | 0.364 | 0.4123 | 0.4677 | 0.4693 |
| SOC_PR_2 | **0.6037** | **0.503** | **0.5168** | **0.5579** | **0.5684** |
| OPER_PE_1 | **0.5142** | 0.4531 | 0.4884 | 0.4942 | **0.5187** |
| OPER_PE_2 | 0.4945 | 0.4182 | 0.4517 | 0.497 | 0.484 |
| OPER_PE_3 | 0.408 | 0.3354 | 0.3532 | 0.436 | 0.4341 |
| OPER_PE_4 | 0.4088 | 0.3326 | 0.3756 | 0.4362 | 0.4367 |
| OPER_PE_5 | 0.4659 | 0.3945 | 0.4344 | 0.4493 | 0.4412 |
| OPER_PE_6 | 0.4043 | 0.3569 | 0.3744 | 0.4415 | 0.4387 |
| OPER_PE_7 | 0.3884 | 0.3156 | 0.3452 | 0.4542 | 0.4607 |
| OPER_PE_8 | 0.4428 | 0.4662 | 0.4862 | 0.4338 | 0.4669 |
| ENV_PE_1 | 0.443 | 0.3395 | 0.3826 | 0.4498 | 0.4488 |
| ENV_PE_2 | 0.4092 | 0.3274 | 0.3672 | 0.4266 | 0.4359 |
| ENV_PE_3 | **0.5822** | **0.6443** | **0.6142** | 0.4845 | 0.4769 |
| SOC_PE_1 | 0.4 | 0.3436 | 0.3707 | 0.4276 | 0.4165 |
| SOC_PE_2 | 0.3791 | 0.328 | 0.344 | 0.4455 | 0.4385 |
| FRANCE | **0.7741** | **0.9636** | **0.9251** | **0.6636** | **0.6419** |
| INDIA | 0.4268 | 0.3524 | 0.375 | 0.4454 | 0.456 |

**Table 6:** Posterior median parameter estimates for the candidate models along with the corresponding 95% credible intervals γ~Bernoulli(0.5) (response: turnover)

| **Covariate** | **Normal** | **Log-transformed** | **Square-root transformed** | **Poisson** | **NB** |
|---|---|---|---|---|---|
| OPER_PR_1 | | 0.04 (0.00,0.082) | | | |
| OPER_PR_2 | | | | | |
| OPER_PR_3 | 0.743 (0.252,1.239) | 0.082 (0.018,0.149) | 0.211 (0.087,0.337) | 0.277 (0.118,0.43) | 0.274 (0.117,0.429) |
| OPER_PR_4 | | | | | |
| ENV_PR_1 | | | | | |
| ENV_PR_2 | | | | | |
| ENV_PR_3 | | | | | |
| SOC_PR_1 | | | | | |
| SOC_PR_2 | 1.399 (1.01,1.787) | 0.155 (0.097,0.211) | 0.33 (0.216,0.443) | 0.343 (0.211,0.478) | 0.345 (0.212,0.481) |
| OPER_PE_1 | 0.315 (0.098,0.543) | 0.028 (0.00,0.058) | 0.087 (0.028,0.144) | 0.098 (0.027,0.169) | 0.097 (0.024,0.172) |
| OPER_PE_2 | | | | | |
| OPER_PE_3 | | | | | |
| OPER_PE_4 | | | | | |
| OPER_PE_5 | | 0.043 (-0.014,0.102) | | | |
| OPER_PE_6 | | | | | |
| OPER_PE_7 | | | | | |
| OPER_PE_8 | | | | | |
| ENV_PE_1 | | | | | |
| ENV_PE_2 | -0.349 (-0.714,0.001) | -0.027 (-0.073,0.018) | -0.084 (-0.174,0.006) | -0.106 (-0.201,-0.009) | -0.103 (-0.203,-0.004) |
| ENV_PE_3 | | | | | |
| SOC_PE_1 | | | | | |
| SOC_PE_2 | -0.457 (-0.913,0.00) | -0.072 (-0.128,-0.014) | -0.111 (-0.226,0.08) | -0.182 (-0.324,-0.041) | -0.181 (-0.325,-0.037) |
| FRANCE | | -0.167 (-0.269,-0.066) | -0.21 (-0.41,-0.01) | -0.181 (-0.405,0.044) | -0.184 (-0.412,0.04) |
| INDIA | | | | | |

**Table 7:** Posterior median parameter estimates for the candidate models along with the corresponding 95% credible intervals $\gamma$~Bernoulli(0.5) (response: business growth)

| **Covariate** | **Normal** | **Log-transformed** | **Square-root transformed** | **Poisson** | **NB** |
|---|---|---|---|---|---|
| OPER_PR_1 | 0.3 (0.104,0.499) | 0.041 (0.019,0.063) | 0.112 (0.053,0.171) | 0.118 (0.014,0.223) | 0.108 (0.005,0.218) |
| OPER_PR_2 | -0.156 (-0.348,0.03) | | -0.048 (-0.106,0.008) | | |
| OPER_PR_3 | | | | | |
| OPER_PR_4 | 0.148 (-0.053,0.35) | | 0.047 (-0.013,0.107) | 0.085 (-0.011,0.182) | 0.071 (-0.03,0.172) |
| ENV_PR_1 | 0.139 (-0.209,0.487) | | 0.033 (-0.075,0.14) | | |
| ENV_PR_2 | | | | | |
| ENV_PR_3 | | | | | |
| SOC_PR_1 | | | | | |
| SOC_PR_2 | 0.237 (-0.048,0.523) | 0.039 (0.012,0.067) | 0.07 (-0.016,0.158) | 0.136 (0.005,0.262) | 0.125 (-0.007,0.253) |
| OPER_PE_1 | 0.105 (-0.036,0.245) | | | | 0.057 (-0.025,0.139) |
| OPER_PE_2 | | | | | |
| OPER_PE_3 | | | | | |
| OPER_PE_4 | | | | | |
| OPER_PE_5 | | | | | |
| OPER_PE_6 | | | | | |
| OPER_PE_7 | | | | | |
| OPER_PE_8 | | | | | |
| ENV_PE_1 | | | | | |
| ENV_PE_2 | | | | | |
| ENV_PE_3 | 0.181 (-0.096,0.457) | 0.047 (0.017,0.076) | 0.084 (0.006,0.161) | | |
| SOC_PE_1 | | | | | |
| SOC_PE_2 | | | | | |
| FRANCE | -0.982 (-1.563,-0.401) | -0.129 (-0.188,-0.069) | -0.344 (-0.521,-0.168) | -0.271 (-0.551,0.00) | -0.301 (-0.584,-0.26) |
| INDIA | | | | | |

**APPENDIX**

| Practices | Performances |
|---|---|
| **Operational:**<br>**1.** Customer relationship management (CRM) practices (OPR_PR_1),<br>**2.** Supplier relationship management (SRM) practices (OPR_PR_2),<br>**3.** Standardised business process (OPR_PR_3),<br>**4.** Lean practices (OPR_PR_4). | **Operational:**<br>**1.** Long term relationship with customers (OPR_PER_1),<br>**2.** CRM effectiveness (OPR_PER_2),<br>**3.** Demand uncertainties (OPR_PER_3),<br>**4.** Long term relationship with supplier (OPR_PER_4),<br>**5.** SRM effectiveness (OPR_PER_5),<br>**6.** Supply uncertainty (OPR_PER_6),<br>**7.** Business process effectiveness (OPR_PER_7),<br>**8.** Lean effectiveness (OPR_PER_8). |
| **Environmental:**<br>**1.** Adopting standardised environmental system (ENV_PR_1),<br>**2.** Waste management practices (ENV_PR_2),<br>**3.** Energy consumption and emission control (ENV_PR_3). | **Environmental:**<br>**1.** Effectiveness of environmental system (ENV_PER_1),<br>**2.** Waste reduction (ENV_PER_2),<br>**3.** Reduction energy consumption and emissions (ENV_PER_3). |
| **Social:**<br>**1.** Corporate social responsibility (CSR) practices (SOC_PR_1),<br>**2.** Health and safety practices (SOC_PR_2). | **Social:**<br>**1.** CSR performance (SOC_PER_1),<br>**2.** Health and safety performance (SOC_PER_2). |

**Table A1.** Analytical description of the 22 observed items from the SMEs' questionnaire (Response: Turnover (ECO_PER_1) & Business growth (ECO_PER_2).