2014

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# Patterns and performance benefits of sustainability practices: a cross-country comparison

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**Abstract**

This paper aims to explore the relationship between sustainability practices and organizational performance. In particular, this paper draws upon institutional theory whit the aim to enhance the understanding of sustainability-related phenomena, mainly from the perspective which has not yet been widely investigated in prior empirical studies.

Therefore, the paper addresses the research question whether sustainability practices as conceptualized within the framework of exploitation and exploration notions are characterized by organization's country of origin.

The target respondents of a large scale web-based survey were manufacturing and service industries distributed across five countries: Germany, Poland, Serbia, Slovenia and Spain. Multiple regression with categorical predictors (dummy variables) was utilized to examine country effects on each of the performance measures.

The outcome of the regression analysis provides some evidence indicating that organizations based in different countries hold substantially different perspectives:

(1) Regarding the patterns and correlations among organizational performance dimensions;

(2) Regarding the achieved levels of organizational performance as a consequence of deploying sustainability practices.

In general, results suggest that organizations in different countries show many more differences in relation to the sustainability practices and organizational performance compared to the organizations within the same country. With this respect results suggest that institutional mechanisms might be a plausible explanation for differences in the deployment of sustainability practices and the effects of sustainability practices on the organizational performance.

The paper contributes to the literature by providing a more clarity and better understanding of how organizations may effectively pursue sustainability practices to gain performance benefits.

**Key words:** sustainability, sustainability practices, organizational performance, country effect

## 1.    Introduction

In recent years, the concept of sustainable development has been increasingly addressed by the business sector (Hahn and Scheermesser, 2006; Lozano, 2012). In the current business environment, more and more organizations see the need to look beyond the traditional concerns of running a business for immediate profit and to begin to deal with factors in the greater world that impinge on their medium to long-term success (Fairfield et al., 2011). It is now commonplace that without corporate support, society will never achieve sustainable development, as corporations represent the productive resources of the economy (Bansal, 2002). In the current highly competitive context, the question arises whether engaging in sustainability can bring an advantage to the organization. In response to this question, Azapagic (2003) elaborates that for many industry leaders and corporations, corporate sustainability has become an invaluable tool for exploring ways to reduce costs, manage risks, create new products, and drive fundamental internal changes in culture and structure.

Drawing on management literature on exploitation and exploration (March, 1991; Zhang et al., 2012), and prior studies (e.g. Maletič et al., 2014; Amini and Bienstock, 2014) that have developed theoretical frameworks to address the multidimensionality of corporate sustainability practices, this study distinguishes two different kinds of corporate sustainability practices with different objectives: sustainability exploitation (SEI) and sustainability exploration (SER). While sustainability exploitation is characterized by practices aimed at making an organization more efficient through incremental improvements in processes and outputs (e.g. improvements in eco-efficiency, improvements in stakeholder responsiveness), sustainability exploration is concerned with challenging existing sustainability solutions with innovative concepts and developing capabilities and competencies for sustainability-related innovation (Maletič et al., 2014).

This research investigates the patterns of SEI and SER practices across countries as well as the effects of these practices on organizational performance. Based on the institutional view (Matten and Moon, 2008), organizations facing similar institutional factors should have similar implementation pattern of SEI and SER. Further, it could also be proposed that exploration practices might differ across countries to a greater extent than exploitation practices. For example, some countries might have similar approaches in terms of formal, mandatory and codified rules or laws, while they can have substantially different approaches regarding voluntary sustainability initiatives, as well as having different attitudes or approaches towards the incentives and opportunities that are motivated by the perceived expectations of different stakeholders (Matten and Moon, 2008).

This study contributes to the corporate sustainability literature in several ways. First, this study explores the link between sustainability practices and organizational performance measures and provides empirical verification of two different sets of sustainability practices: SEI and SER. Second, the study tests the proposed model using large-scale cross-sectional data. And lastly, it investigates the patterns of sustainability practices across and within countries.

## 2. Methods

### 2.1. Sample and data collection

This research adopts a questionnaire survey as a primary source of data collection method. The questionnaire with the cover letter indicating the purpose and significance of the study was emailed to target respondents. To ensure a reasonable response rate, the survey was sent in two waves. Managers were chosen because they were considered to be familiar with the implementation of sustainability practices and performance indicators. The questionnaire was responded by organizations that are located in Germany, Poland, Serbia, Slovenia and Spain, in portion of 8.1%, 23.1%, 8.1%, 47.0% and 13.8%, respectively. The profile of the organizations and respondents is provided in Table I.

Table I. Profile of the respondents in our sample

| Sample distribution | | Percentage |
| --- | --- | --- |
| Respondent profile | Middle management | 34.7 |
| | Frontline management | 23.7 |
| | Top management | 17.1 |
| | Data not available | 24.5 |
| Organization profile (employees) | 0–5 | 4.5 |
| | 5–50 | 18.1 |
| | 50–250 | 27.5 |
| | 250–500 | 8.9 |
| | over 500 | 25.9 |
| | Data not available | 8.9 |
| | Total | 100 (N = 247) |

### 2.2. Analysis methods

Content, convergent, and discriminant validity was used to validate measurement models (Hair et al., 2010). The content validity of was established from the existing literature as well as by examining the measurement items by several researchers and experts. In order to assess convergent and discriminant validity, a combined exploratory–confirmatory approach was applied. First, data were subject to exploratory factor analysis. Then confirmatory factor analysis (CFA) was applied, with the aid of the AMOS software. Regression analysis (Field, 2005) was used in order to analyse the performance implications of sustainability practices, to explore the performance outcomes based on different contexts, and to examine the country of origin effects.

## 2.3.  Measures

*Sustainability exploration and sustainability exploitation*. This study adopts the conceptualization of the study constructs proposed by Maletič et al. (2014) and operationalization of the variables utilized in prior studies (Maletič et al., 2014c). The scales for measuring sustainability exploitation and sustainability exploration were developed from the existing literature and discussions with several experts.

We carried out an exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to simultaneously validate the measures of sustainability exploration and sustainability exploitation. In order to confirm the latent factor structure for measured variables, an exploratory factor analysis (EFA) was first performed. The items that loaded significantly on their respective theoretical constructs were remained in the measurement model. Therefore, the results of the exploratory analysis in conjunction with a theoretical framework are taken into account in the subsequent CFA. The results of the CFA are summarized in Table II. Fit indices for SER second-order model are satisfactory ($\chi 2/df < 2$, NFI > 0.90, and CFI > 0.95). All measurement variables are statistically significantly related to constructs ($p < 0.05$) while the standardised loadings range from 0.69 to 0.88. From Figure II, it can be seen GFI (0.989), AGFI (0.963) are well above 0.9, RMSEA (0.036) is below 0.05 and thus indicative of a very good model-data fit for SEI as well. Furthermore, the standardised coefficients for the three sub-constructs are 0.91 for SOEI, 0.92 for RSI, and 0.73 for PMEI, and are all statistically significant; therefore, the higher-order construct (SEI) can be considered.

The results revealed that sustainability exploration construct consists of two sub-constructs termed 'Sustainable product and process development' (SPPD) and 'Sustainability-oriented learning' (SOL). Regarding the sustainability exploitation construct, the best overall fit of the model corresponds to the following sub-constructs: Stakeholder orientation for exploitation (SOEI), Stakeholder responsiveness and integration (RSI), and Process management for exploitation (PMEI). A part of the results of the validation process are summarized in Table II.

Table II. Goodness of test results for measurement models

| Second-order model | No. of items | $\chi^2$ | df | $\chi^2/df$ | p | GFI | AGFI | RMSEA |
|---|---|---|---|---|---|---|---|---|
| SER | 8 | 29.342 | 19 | 1.544 | 0.061 | 0.969 | 0.942 | 0.048 |
| SEI | 6 | 7.841 | 6 | 1.307 | 0.250 | 0.989 | 0.963 | 0.036 |
| Recommended values (Hair et al., 2010) | | | | $\leq 2$ | $\geq.05$ | $\geq0.9$ | $\geq0.9$ | $\leq.05$ |

*Organizational performance measures*. This study has used existing scales from the previous empirical studies (Maletič et al., 2014b; Maletič et al., 2014c). Since organizational performance is recognized as a multi-dimensional concept (Chenhall and Langfield-Smith,

2007; Kaplan and Norton, 1996), this study considers a more balanced approach of measuring organizational performance in a way that includes both financial and non-financial performance measures. Study variables with their corresponding values of Cronbach's alpha are shown in Table III.

Table III. Organizational performance measures

| Construct | No. of items | Cronbach's Alpha |
|---|---|---|
| Financial and market performance | 4 | 0.865 |
| Quality performance | 4 | 0.845 |
| Innovation performance | 3 | 0.841 |
| Environmental performance | 4 | 0.798 |
| Social performance | 3 | 0.819 |

The resulting four-item scale financial and market performance captures the extent to which organizations achieve business success. A four-item scale measures quality performance and captures the extent to which organizations have improved quality of their products and services during the last 3 years and meet customer satisfaction. A three-item scale measures innovation performance in terms of product and process innovation. A four-item scale measures environmental performance and captures the extent to which organizations achieve efficiency of material and energy consumption. Finally, a three-item scale measures social performance from the employee perspective (satisfaction, motivation and turnover ratio).

An exploratory analysis of the scales was used to check for any possible cross loading problems of the measurement items. According to the results of the factor analysis, all factor-loading estimates exceeded 0.50 (ranged from 0.658 to 0.866).

## 3. Analysis and Results

### 3.1. Regression analysis

First, mean scores were calculated from the scale's items to generate the composite scores for the organizational performance, which will be used in the regression analysis. Table IV summarises the regression results for the effects of sustainability practices on the organisational performance.

Table IV. Results of regression analysis: SER, SEI, and organisational performance

| Dependent: organisational performance | |
|---|---|
| | Model |
| SER | 0.331** |
| SEI | 0.246** |
| $R^2$ | 0.283 |

| | |
|---|---|
| Adjusted R² | 0.277 |
| F | 43.455 |
| P-value of overall model | 0.000 |

*P < 0.05, **P < 0.01

The result of the regression model shows that both sustainability orientations have a significant relationship with organizational performance ($\beta = 0.331$, $p < 0.01$; $\beta = 0.246$, $p < 0.01$ respectively).

### 3.2. Regression analysis with interactions

Multiple regression with categorical predictors (dummy variables which take the value of 0 and 1) (Field, 2005) was utilized in order to examine country effects on each of the performance measures. When dummy coding is used in the regression analysis, the overall results indicate whether there is a relationship between the dummy variables and the dependent variables. The Slovenian subset was chosen as a baseline (i.e. a group against which all other groups are compared). Five countries are included in the research, so there are four dummy variables included in the multiple regression analysis. For example, the dummy variable 'Germany' actually means Slovenia vs. Germany.

In the following, a regression analysis with interaction effects is presented (Table V). The underlying assumption is that sustainability practices have different effects on financial and market performance regarding different groups (i.e. countries). It is important to note that the interaction terms (Model 1) are identical to the SER if dummy variables are 1; otherwise, the values are zero. Results are consistent with the interpretation that organisations within the Polish data subset gain superior financial and market benefits from sustainability practices compared to the Slovenian data subset ($\beta = 0.168$, $p < 0.05$ and $\beta = 0.175$, $p < 0.01$, respectively). In contrast, organisations within the Serbian data subset achieve significantly lower benefits from sustainability practices compared to organisations within the Slovenian data subset ($\beta = -0.141$, $p < 0.05$ and $\beta = 0.131$, $p < 0.05$, respectively). Furthermore, the results indicate that interaction effects between sustainability practices and Germany as well as between sustainability practices and Spain are not significantly different from the Slovenian data subset.

Table V. Interaction effects of sustainability practices and country of origin on financial and market performance

| | Dependent: Financial and market performance | |
|---|---|---|
| | **Model 1** | **Model 2** |
| SER | 0.255** | |
| SEI | | 0.278** |
| SER × Germany | 0.080 | |
| SER × Poland | 0.168* | |

| | | |
|---|---|---|
| SER × Serbia | -0.141* | |
| SER × Spain | -0.011 | |
| SEI × Germany | | 0.050 |
| SEI × Poland | | 0.175** |
| SEI × Serbia | | -0.131* |
| SEI × Spain | | -0.031 |
| $R^2$ | 0.133 | 0.144 |
| Adjusted $R^2$ | 0.112 | 0.124 |
| F | 6.543 | 7.177 |
| P-value of overall model | 0.000 | 0.000 |

*$P < 0.05$, **$P < 0.01$

Table VI. Summary of the main finding regarding the country effect

| Regression model |
|---|
| Financial and market performance = $\beta_0 + \beta_{1*}SER + \beta_{2*}SER \times Poland - \beta_{3*}SER \times Serbia$ |
| Financial and market performance = $\beta_0 + \beta_{1*}SEI + \beta_{2*}SEI \times Poland - \beta_{3*}SEI \times Serbia$ |
| Quality performance = $\beta_0 + \beta_{1*}SER + \beta_{2*}SER \times Germany$ |
| Quality performance = $\beta_0 + \beta_{1*}SEI + \beta_{2*}SEI \times Germany$ |
| Environmental performance = $\beta_0 + \beta_{1*}SER + \beta_{2*}SER \times Spain$ |
| Environmental performance = $\beta_0 + \beta_{1*}SEI - \beta_{2*}SEI \times Germany$ |
| Social performance = $\beta_0 + \beta_{1*}SEI - \beta_{2*}SEI \times Germany$ |

The findings presented in Table VI consist of nine regression equations with statistically significant slopes and intercepts. The regression models provide some empirical evidence regarding the justification of institutional perspective. For instance, the effects of sustainability practices on the financial and market performance increase if the country changes from Slovenia to Poland and decrease if country changes from Slovenia to Serbia.

Furthermore, Germany appears to be dominant in accounting for the country effect on the quality performance. However, the interaction term of Germany and SEI is negatively related to the environmental and social performance. This suggests that environmental and social performance decrease if country changes from Slovenia to Germany. In contrast, environmental performance increases if country changes from Slovenia to Spain. Additionally, findings indicate that Germany and Spain show higher levels of SEI deployment compared to the level of SER deployment.

### 3.3. *One-way ANOVA*

One-way ANOVA was utilised to analyse the country effects. The purpose of using one-way ANOVA analysis is to verify if there are significant differences of SEI and SER

implementation across countries. Table VII present important descriptive statistics for the ANOVA with respect to the SER practices. From the descriptive statistics presented, there appears to be some differences in the mean of SER practices between the five levels or groups (countries). From the data, one could assume that country of origin affects organizations engagement in SER practices. However, to determine if this relationship is significant, examination of the ANOVA results needs to be applied.

Table VII. Descriptive statistics for SER across countries

| Country | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | |
| --- | --- | --- | --- | --- | --- | --- |
| | | | | | Lower Bound | Upper Bound |
| Slovenia | 116 | 3.8337 | 0.77286 | 0.07176 | 3.6916 | 3.9758 |
| Spain | 34 | 3.0735 | 0.88401 | 0.15161 | 2.7651 | 3.3820 |
| Serbia | 20 | 3.4750 | 1.16010 | 0.25941 | 2.9321 | 4.0179 |
| Poland | 57 | 3.8099 | 0.77501 | 0.10265 | 3.6043 | 4.0156 |
| Germany | 20 | 3.3167 | 1.09344 | 0.24450 | 2.8049 | 3.8284 |
| Total | 247 | 3.6527 | 0.89239 | 0.05678 | 3.5408 | 3.7645 |

The ANOVA analysis of SEI implementation across the five countries has an F value of 6.689 and a p-value of 0.000. However, Levene's test of homogeneity of variances was significant ($p < 0.05$), indicating that the equal variance assumption has been violated. In the case in which the assumption of homogeneity of variance is questionable, using adjusted F statistic is suggested. Two such types of adjustments are provided by the Welch statistic and the Brown-Forsythe statistic (Field, 2005). As such, using the Welch statistic, we find that $F(4, 60.843) = 6.028$, $p < 0.001$. We can interpret Welch's Robust ANOVA as indicating a significant mean difference among the countries in terms of sustainability exploration. The above results show that for SER implementation, organisations within the same country demonstrated significant similarity. In this regard, strong country effect is shown through ANOVA analysis.

Moreover, we use the Games-Howell post hoc test as being appropriate when the equal variances assumption has been violated. The Games-Howell post hoc testing reveals a significant difference between the Slovenian group and the Spanish group, as well as a significant difference between the Spanish and Polish group. The results, therefore, indicate that organisations within Slovenian and Polish subsets achieve significantly higher values of SER practices compared to the organisations within the Spanish subset.

In the following, descriptive statistics for SEI are presented (Table VIII). According to the results, only one mean value (Serbia) differs to a greater extent from the other values. Thus, there is no strong assumption that mean values of SEI differ across countries.

Table VIII. Descriptive statistics for SEI across countries

| Country | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| Slovenia | 116 | 3.9187 | 0.62370 | 0.05791 | 3.8040 | 4.0334 |
| Spain | 34 | 3.7157 | 0.69210 | 0.11869 | 3.4742 | 3.9572 |
| Serbia | 20 | 3.5583 | 1.10193 | 0.24640 | 3.0426 | 4.0741 |
| Poland | 57 | 3.9181 | 0.63396 | 0.08397 | 3.7499 | 4.0863 |
| Germany | 20 | 3.9000 | 0.63614 | 0.14225 | 3.6023 | 4.1977 |
| Total | 247 | 3.8599 | 0.68953 | 0.04387 | 3.7735 | 3.9463 |

ANOVA test results do not show a significant difference among the countries in terms of sustainability exploitation (ANOVA statistic F(1.676), $p > 0.05$; Welch statistics $F(4, 61.939) = 1.039$, $p > 0.05$).

### *Difference of means (t-test)*

To further investigate the effect of each country, the implementation of SER and SEI was compared within each country. T-tests were used here to examine whether there is significant difference of SER and SEI implementation within each country. The results are presented in Table IX.

Table IX. Difference between SER and SEI within countries

| | | SER-SEI | | |
|---|---|---|---|---|
| Country | N | Mean | Std. Error | t |
| Slovenia | 116 | -0.08499 | 0.04993 | -1.702 |
| Spain | 34 | -0.64216 | 0.10297 | -6.236** |
| Serbia | 20 | -0.08333 | 0.14932 | -0.558 |
| Poland | 57 | -0.10819 | 0.08746 | -1.237 |
| Germany | 20 | -0.58333 | 0.17791 | -3.279** |

*P < 0.05, **P < 0.01

The results in Table IX show that within particular countries, there are differences in deployment of SER and SEI. Two countries show significant differences of SER and SEI deployment. In Spain and Germany, more exploitative practices are implemented than explorative sustainability practices while within other countries there is no significant difference between SER and SEI. These results could to some extent support the institutional argument, which suggests that there is a significant difference between sustainability exploitation (SEI) and sustainability exploration (SER) as a function of country of origin.

### 4.    Discussion and conclusions

An important stream of studies (e.g. Wagner, 2010) investigates the economic benefits of socially and environmentally responsible behavior. In this regard, our study underscores previous assertions that organizations can benefit from pursuing sustainability by providing empirical evidence that sustainability practices (in terms of exploration and exploitation) positively influence the organizational performance.

Despite the recent expansion of sustainability literature, the application of institutional theory to understand sustainability-related phenomena has not yet been widely investigated. As noted by Campbell (2007), most of the literature on corporate social responsibility does not explore whether institutional conditions affect the tendency for organizations to behave in socially responsible ways.

The question arises whether sustainability practices as conceptualized in this study are characterized by organization's country of origin. In particular, the study examines the effects of country of origin on the relationship between sustainability practices and organizational performance. Our study findings suggest that organizations based in different countries hold substantially different perspectives on: 1) achieved levels of organizational performance dimensions; 2) deployment of sustainability exploration practices; 4) country effects on the organizational performance. The ANOVA analysis and the post hoc tests show institutional effects when organizations implement sustainability practices. Organizations in different countries show much more differences in SER deployment than SEI deployment. It appears that the vast majority of the organizations strive to gain competitive advantage by successfully addressing the stakeholder expectations (as reflected through SEI). As argued by Asif et al. (2013), a key challenge of corporate sustainability integration is to address the diverse needs of different stakeholders. Regarding the country of origin effect, Matten and Moon (2008) suggest that European countries predominantly demonstrate elements of implicit activities that normally consist of values, norms, and rules that result in (mandatory and customary) requirements for corporations to address stakeholder issues and that define proper obligations of corporate actors in collective rather than individual terms.

Furthermore, regression analysis shows that there is certain evidence to support that there are implementation differences between SER and SEI based on organizational performance and country of origin effects. In this regard, results reveal some differences in the achieved levels of performance measures across countries. One possible explanation is perhaps that businesses can compete (and can compete effectively) in quite different ways (Zadek et al., 2003). For instance, some organisations invest in environmentally-friendly technology, raise productivity by improving their employees' work-life balance, and lower long-term supply costs by building long-term relationships with quality suppliers (Zadek et al., 2003). When trying to discuss the mechanisms why organizations behave in a similar way, one should consider institutional perspective, namely three aspects (DiMaggio and Powell, 1983; Matten and Moon, 2008): coercive isomorphism, mimetic processes and normative pressures. Coercive isomorphism consists of externally codified rules, norms, or laws that assign legitimacy to new management practices. Mimetic processes refer to behaviour which is characterized by "copying" best management practices. Normative pressures are related to the

educational and professional factors that directly and indirectly influence the organizational isomorphism.

Further, a more comprehensive picture is needed to better understand the unlikeliness of a universally valid definition of sustainability-related practices and to illustrate how the institutional environment shape and influence sustainability-related business practices (Matten and Moon, 2008; Campbell, 2007; Schultz and Wehmeier, 2010). According to the Doh and Guay (2006), organizations and their strategies are substantially influenced by the broader institutional settings in which they operate, and shaped by the institutional legacies that reflect the culture, history, and polity of the particular country or region. In this regard, Matten and Moon (2008) argued that the organisation is both embedded in its historically grown national institutional framework and its respective national business system, as well as in its organisational field.

Nevertheless, these results should be interpreted with caution, keeping in mind some main limitations of the research. First, the analysis was based on different research settings as indicated by different sample sizes and by the diversity of organisations covered by samples. In addition, several relevant control variables could be included to control for possible alternative explanations.

## References

Amini, M., Bienstock, C.C., 2014, Corporate sustainability: an integrative definition and framework to evaluate corporate practice and guide academic research. J. Clean. Prod. 76, 12-19.

Asif, M., Searcy, C., Zutshi, A., Fisscher, O.A.M., 2013. An integrated management systems approach to corporate social responsibility. J. Clean. Prod. 56, 7-17.

Azapagic, A., 2003. Systems approach to corporate sustainability. A general management framework. Process. Saf. Environ. Protec. 81(5), 303-316.

Bansal, P., 2002. The corporate challenges of sustainable development. Acad. Manag. Exec. 16(2), 122–131.

Campbell, J.L., 2007. Why Would Corporations Behave In Socially Responsible Ways? An Institutional Theory of Corporate Social Responsibility. Acad. Manag. Rev. 32(3), 946–967.

Chenhall, R.H., Langfield-Smith, K., 2007. Multiple Perspectives of Performance Measures. Eur. Manag. J. 25(4), 266–282.

DiMaggio, P.J., Powell, W.W., 1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. Am. Sociol. Rev. 48, 147–160.

Doh, J.P., Guay, T.R., 2006. Corporate Social Responsibility, Public Policy, and NGO Activism in Europe and the United States: An Institutional-Stakeholder Perspective. J. Manag. Stud. 43(1), 47-73.

Fairfield, K.D., Harmon, J., Behson, S.J., 2011. Influences on the organizational implementation of sustainability: an integrative model. Organ. Manag. J. 8, 4–20.

Field, A., 2005. Discovering Statistics Using SPSS (Introducing Statistical Methods series), Second Edition, Sage Publications Ltd, London.

Hahn, T., Scheermesser, M., 2006. Approaches to Corporate Sustainability among German Companies. Corp. Soc. Responsib. Environ. Manag. 13, 150–165.

Hair, J.F.Jr., Black, W.C., Babin, B.J., Anderson, R.E., 2010. Multivariate Data Analysis, 7th ed. Pearson Prentice Hall, London.

Kaplan, R.S., Norton, D.P., 1996. The Balanced Scorecard: Translating Strategy into Action. Harvard Business School, Boston.

Lozano, R., 2012. Towards better embedding sustainability into companies' systems: an analysis of voluntary corporate initiatives. J. Clean. Prod. 25, 14-26.

Maletič, M., Maletič, D., Dahlgaard, J.J., Dahlgaard-Park, S.M., Gomišček, B., 2014. Sustainability exploration and sustainability exploitation: From a literature review towards a conceptual framework. J. Clean. Prod. 79, 15 September, 182-194.

Maletič, M., Maletič, D., Dahlgaard, J.J., Dahlgaard-Park, S.M., Gomišček, B., 2014b. The Relationship between Sustainability–Oriented Innovation Practices and Organizational Performance: Empirical Evidence from Slovenian Organizations. Organ. 47(1), 3-13.

Maletič, M., Maletič, D., Dahlgaard, J.J., Dahlgaard-Park, S.M., Gomišček, B., 2014c. Do corporate sustainability practices enhance financial and market performance? The mediating role of innovation performance. In, Dahlgaard, J.J., Dahlgaard-Park, S.M (Eds.), Proceedings of 17th QMOD conference on Quality and Service Sciences ICQSS 2014, September 3-5, Prague.

March, J.G., 1991. Exploration and exploitation in organizational learning. Organ. Sci. 2(1), 71–87.

Matten, D., Moon, J., 2008. 'Implicit' and 'Explicit' CSR: A Conceptual Framework for a Comparative Understanding of Corporate Social Responsibility. Acad. Manag. Rev. 33(2), 404–424.

Schultz, F., Wehmeier, S., 2010. Institutionalization of corporate social responsibility within corporate communications: Combining institutional, sensemaking and communication perspectives. Corp. Commun. Int. J. 15(1), 9-2.

Wagner, M., 2010. The role of corporate sustainability performance for economic performance: A firm-level analysis of moderation effects. Ecol. Econ. 69, 1553–1560.

Zadek, S., Sabapathy, J., Dossing, H., Swift, T., 2003. Responsible competitiveness. Corporate Responsibility Clusters in Action, AccountAbility/The Copenhagen Center, London.

Zhang, D, Linderman, K., Schroeder, R.G., 2012. The moderating role of contextual factors on quality management practices. J. Oper. Manag. 30(1–2), 12–23.