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Abstract

Corporate sustainability challenges organisations with tensions between complex economic, environmental, and social issues. We draw on concepts in the innovation literature—namely exploration and exploitation—to examine corporate sustainability practices as well as the ensuing tensions between efficiency and innovativeness in achieving organisational performance. In particular, this paper draws upon institutional theory to enhance the understanding of sustainability-related phenomena, mainly from a perspective that has not yet been widely investigated in prior empirical studies. Therefore, the paper addresses the research question of whether sustainability exploitation and sustainability exploration practices are characterized by an organisation's country of origin. The target respondents of a large-scale web-based survey were manufacturing and service industry targets 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 that organisations based in different countries may have substantially different perspectives regarding the achieved levels of organisational performance as a consequence of deploying sustainability practices. In general, the results suggest that organisations in different countries show more differences in relation to sustainability practices and organisational performance compared to organisations within the same country. The findings of this paper contribute to the research on corporate sustainability by differentiating two aspects of corporate sustainability practices, namely exploitation and exploration, and by suggesting that institutional mechanisms may be a plausible explanation for differences in the deployment of sustainability practices and the effects of sustainability practices on organisational performance. Therefore, the paper contributes to the literature by providing more clarity and better understanding of how organisations may pursue sustainability practices to gain performance benefits.

Key words: sustainability, sustainability practices, organisational performance, country effect

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1.   Introduction

The concept of sustainable development has been increasingly addressed by the business sector (Hahn and Scheermesser, 2006; Lozano, 2012). In the current business environment, an increasing number of organisations see the need to look beyond the traditional concerns of running a business for immediate profit and to begin to address factors in the greater world that impinge on their medium- to long-term success (Fairfield et al., 2011). Without corporate support, society will never achieve sustainable development because corporations represent the productive resources of the economy (Bansal, 2002). In the current highly competitive context, the question arises of whether engaging in sustainability can bring an advantage to the organisation. 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. In this sense, Delai and Takahashi (2013) point out that sustainable development actions and initiatives have become vital for any organisation. A sustainable organisation is one that contributes to sustainable development by delivering economic, social, and environmental benefits—the so-called triple bottom line (Hart and Milstein, 2003).

Although over the decade an immense effort has been expended on defining (e.g., Lozano, 2008), theorizing (e.g., Lozano et al., 2015) and measuring corporate sustainability (e.g., Searcy, 2011), these topics are still debated in the literature (Montiel and Delgado-Ceballos, 2014). Accordingly, there are many ways of capturing and measuring corporate sustainability practices. Drawing upon 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 types 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 organisation more efficient through incremental improvements in processes and outputs (e.g., improvements in eco-efficiency and 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).

There are several indicators for the growing adoption of sustainability issues throughout the corporate sector (Hahn and Scheermesser, 2006). Furthermore, it appears that sustainability issues are being more and more institutionalized (Bansal, 2002; Campbell, 2007). It can also be argued that organisations attain effectiveness by fitting the characteristics of the organisation to contingencies that reflect the situation of the organisation (Donaldson, 2001). Given the above-mentioned complexities, this study investigates the patterns of SEI and SER practices across countries and the effects of these practices on organisational performance. Based on the institutional view (Matten and Moon, 2008), organisations facing similar institutional factors should have similar implementation patterns of SEI and SER.

Further, it can be proposed that exploration practices may differ across countries to a greater extent than exploitation practices. For example, some countries may have similar approaches in terms of formal, mandatory and codified rules or laws, and they can have substantially different approaches regarding voluntary sustainability initiatives, as well as 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, the study explores the link between sustainability practices and organisational performance measures and provides empirical verification of two sets of sustainability practices: SEI and SER. It is one of the first empirical work that links the exploration and exploitation concepts to sustainability practices. Thus, it contributes to the body of corporate sustainability literature and provides a new framework for future research. An improved understanding of the link between sustainability practices and organisational performance does not just contribute to a debate about the link between an organisation and society (e.g., primary and secondary stakeholders) but also enables management to realise the 'triple win' potentials that are the basis of any type of sustainability management of profit-oriented organisations in a market system (Schaltegger and Wagner, 2006). Second, the study tests the proposed model using large-scale cross-sectional data. The findings provide useful and relevant insights into the degree and nature of the country of origin effect of SER and SEI practices on organisational performance. Finally, the paper investigates the patterns of sustainability practices across and within countries.

2. Framing literature

2.1. Theoretical background of the link between sustainability and performance

The growing body of research on corporate sustainability has increased our understanding of how organisations can integrate sustainability challenges into their strategy (Moore and Manring, 2009), and whether and under which conditions doing so may pay off financially (Siegel, 2009; Salzmann et al., 2005). Moreover, business leaders have begun to perceive corporate sustainability as an opportunity rather than a necessity, which ultimately redefines the way that businesses interpret and create value (Ludema et al., 2012). Researchers note that business leaders are shifting their perspective on corporate sustainability from seeing it as an obligation to seeing it as an opportunity. The business approach to sustainability has moved from pollution control to eco-efficiency and socio-efficiency (Young and Tilley, 2006). In this context, many organisations have strived to align economic performance with environmental and social performance. This development has been driven and encouraged by higher expectations and requirements from various stakeholders concerning the level of transparency and credibility of corporate behaviour towards affected stakeholders (Hahn, 2015). As highlighted by Marcus and Fremeth (2009), businesses will not introduce sustainability practices because of a normative obligation but rather because these efforts are in line with their interest to satisfy key stakeholders and achieving success in various competitive fields (e.g., economic performance).

While many previous empirical studies concluded that there is a positive relationship between corporate sustainability performance and economic performance (e.g., Orlitzky et al., 2003), there have also been several studies resulting in negative relationships (e.g., Wagner et al., 2002). One plausible explanation for these contradictory results is due to inconsistencies or vagueness in the conceptualization and operationalization of the constructs aimed at capturing sustainability and economic performance (van Beurden and Gössling, 2008). Accordingly, many authors (e.g., Callan and Thomas, 2009) have stressed the importance of more research concerning the relationship between sustainability performance and economic performance.

Prior research has both theoretically (e.g., Endrikat et al., 2014; Lu et al., 2014) and empirically (e.g., Wagner, 2010) attempted to establish a relationship between corporate sustainability performance and economic performance. Moreover, Chang and Kuo (2008) found that a positive reciprocal causality may exist between sustainability and profitability. Proponents of a positive relationship between corporate sustainability performance and economic performance often derive their arguments from stakeholder theory. For instance, drawing upon instrumental stakeholder theory, one can argue that if an organisation successfully manages its relationships with stakeholders, it can also improve its economic performance over time (Donaldson and Preston, 1995; Freeman, 1984).

Moreover, several prior studies have noted that research into corporate sustainability is often biased in that economic outcomes prevail over environmental and social outcomes and impacts (e.g., Hahn and Figge, 2011; Gao and Bansal, 2013). Relatively few studies have investigated the relationship between sustainability practices and overall organisational performance. Therefore, studies incorporating several aspects or dimensions of organisational performance to examine the implications of corporate sustainability are rare.

Furthermore, the management literature (e.g., Jansen et al., 2006) uses the exploration/exploitation approach to analyse and model the relationship between innovation practices and organisational performance. The concepts of exploration and exploitation have been applied to a variety of phenomena in recent years and it seems that these concepts can contribute to the understanding of the link between corporate sustainability and both financial and non-financial performance outcomes (Maletič et al., 2014; Hahn et al., 2015). The intuitive appeal of this underlying idea has yet to be empirically tested. Accordingly, recent studies (Maletič et al., 2015) have empirically demonstrated that sustainability practices can be conceptualized within the framework of exploration and exploitation, and suggest that both types of sustainability practices positively affect economic performance.

2.2. *Institutional theory perspective*

Over the past decade, management research has increasingly paid attention to the manner in which an organisation's activities are influenced and shaped by its environment (Matten and Moon, 2008; Zhang et al., 2012; Fifka and Pobizhan, 2014). Institutional theory argues that institutions are legitimised patterns of social behaviour that stabilise over time, reducing uncertainty and providing replicability of social forms (e.g., March and Olsen, 1989; DiMaggio and Powell, 1983). When searching for mechanisms of why organisations 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 (e.g., by self-regulatory and voluntary sustainability initiatives). Mimetic processes refer to behaviour that is characterised by "copying" best management practices (e.g., relying upon best practice in the field of sustainability). Normative pressures are related to the educational and professional factors that directly and indirectly influence organisational isomorphism (e.g., inclusion of corporate social responsibility (CSR) and corporate sustainability (CS) in the curriculum). Organisations follow these rules of appropriateness to gain legitimacy for their actions (e.g., Matten and Moon, 2008). This process, "by which a given set of units and a pattern of activities come to be normatively and cognitively held in place, and practically taken for granted as lawful" is called institutionalisation (Meyer et al., 1994, p. 10). However, a major criticism of isomorphic practice is the lack of evidence supporting whether this standardisation results from institutional processes or is derived from competitive advantage (Greenwood et al., 2008; Bondy, 2009).

As noted by Harzing and Sorge (2003), regionally or nationally distinct societies have characteristics and specific elements, as well as unique cultural characteristics and economic and industrial structures. Therefore, the organisational practices of organisations that originate from different countries or regions may diverge (Harzing and Sorge, 2003). In the face of such divergent rules and institutional environments, organisations must shape and adopt their activities relative to these circumstances (Matten and Moon, 2008). Consequently, this divergence may be considered as one of the distinct elements identified within different social systems (Jennings and Zandbergen, 1995).

Although the literature has yet to agree on a standard definition by which corporate sustainability can be understood, there is a consensus that different sustainability-related concepts and definitions are similar in meaning. In this regard, the recent literature has devoted immense effort to framing the corporate sustainability notion (e.g., Lozano, 2008, 2012; Amini and Bienstock, 2014). However, amongst the body of literature on corporate sustainability, very little uses institutional theory to broaden our understanding regarding this matter. As argued by Bondy (2009), institutional theory is an extremely useful lens for investigating CSR because it is viewed in its business context. The literature utilizing institutional theory to investigate sustainability-related phenomena is sparse and covers a range of different topics. Some examples of this range include conceptual pieces illustrating whether an institution of CSR exists and the key isomorphic practices (Bondy, 2009), whether CSR is implicit or explicit within the national culture (Matten and Moon, 2008), how CSR is becoming institutionalized (Campbell, 2007), how institutional pressures at the community level shape corporate social action (Marquis et al., 2007), how corporate communications shape institutional perspectives (Schultz and Wehmeier, 2010), and how different institutional settings can generate industry-level inertia and as change related to sustainability (Stål, 2015).

3.   Research framework and methodology

3.1. Research instrument

We developed our questionnaire by building on the previous theoretical basis to ensure content validity. Content validity was qualitatively evaluated in the early stage of the development process by examining the measurement items proposed by several independent expert reviewers (researchers) in the fields of quality management, operations management and statistics. Additionally, to ensure that each construct was consistent with regard to its conceptualisation, the items for all scales were evaluated by practitioners in the form of a pretest study. The purpose was to ensure that the statements were understood without ambiguity. As such, experts were asked to provide feedback on the length of the questionnaire, clarity, ease of understanding and interpretation of the questions/statements. We used a structured questionnaire with 5-point Likert scales to capture the sustainability practices and organisational performance dimensions. We acknowledge that such a study could be based on more objective sustainability practices and triple bottom line (TBL) performance measures and preferably not on the interviewees' perceptions of changes in performance outcomes because all perceptual measurements are prone to bias (Zobel, 2014; Nawrocka and Parker, 2009). However, the use of perceptual measures is deemed appropriate and acceptable, and these measures are used in most sustainability studies (e.g., Castka and Prajogo, 2013).

3.2. Measures

Sustainability exploration and sustainability exploitation. This study adopts the conceptualisation of the study constructs proposed by Maletič et al. (2014) and operationalization of the variables utilised in prior studies (Maletič et al., 2015). One key starting point in the debate on sustainability management is the inclusion of stakeholders and the integration of their respective demands (Seuring and Gold, 2013), which are considered by some researchers to be crucial to driving sustainability performance (e.g., Asif et al.; 2013; Searcy, 2011). From the perspective of sustainability exploitation practices, organisations must achieve on-going incremental improvements (Stone, 2006) to effectively address the reductions in materials, water and energy use and the improvements in productivity. Accordingly, one of the key premises of sustainability exploitation practices is to improve sustainability performance (Wagner, 2010) and to concurrently increase competitiveness (Schaltegger and Wagner, 2006).

Stemming from previous studies on exploration and exploitation (e.g., Zhang et al., 2012) as well as on sustainability-related innovation (e.g., Klewitz and Hansen, 2013; Wagner, 2008), sustainability exploration practices reflect process innovation (e.g., end-of-pipe technological solutions), product innovation (e.g., improvements or entirely new products or services) and sustainability-oriented learning (e.g., development of capabilities and competence for sustainability-related innovation). The corresponding items for measuring sustainability exploration and sustainability exploitation practices are presented in Appendix A.

Organisational performance measures. This study used existing scales from previous empirical studies (Maletič et al., 2014b; Maletič et al., 2015). Because organisational 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 organisational performance in a way that includes both financial and non-financial performance measures. The corresponding items for measuring organisational performance are presented in Appendix B.

3.3. Sample and data collection

This research adopts a questionnaire survey as its primary data collection method. A questionnaire with a 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 received response rates from organisations located in Germany, Poland, Serbia, Slovenia and Spain of 14.7 %, 21.4 %, 7.5 %, 43.6 % and 12.8 %, respectively. In total, 266 usable questionnaires were returned yielding an 11 % response rate. The profile of the organisations and respondents is provided in Table 1. The rationale for the selection of the countries was based on the sampling strategy of obtaining a good spread of countries by geographic, economic, political and social criteria. In this regard, it is essential to recognize that within Europe, there are some national differences in the approaches that business takes towards sustainability issues due to the institutional arrangements and characteristics of national business systems (Matten and Moon, 2008). However, it should be noted that the sample distribution of the present study may be limited in terms of population homogeneity. Moreover, one should outline the difficulties regarding controlling for possible extraneous variation within international surveys.

Table 1. Profile of the respondents in our sample

Sample distribution		Fraction of responses (in %)
Respondent profile	Middle management	36.7
	Frontline management	22.7
	Top management	17.0
	Data not available	23.5
Organisation profile (employees)	0–5	5.3
	5–50	27.1
	50–250	26.7
	250–500	8.6
	over 500	24.1
	Data not available	8.3
	Total	100 % (N = 266)

3.4. Analysis methods

Content, convergent, and discriminant validity were used to validate measurement models (Hair et al., 2010). Content validity was established based on the literature as well as by examining the measurement items of several researchers and experts.

Convergent validity is defined as the extent to which measurement items converge into a theoretical construct (Hair, et al. 2010) and relate to the degree to which multiple methods of measuring a latent variable provide the same results (O'Leary-Kelly and Vokurka, 1998). One of the most commonly used methods for assessing convergent validity is factor analysis. Therefore, to extract the latent factors of sustainability practices and organisational performance indicators, exploratory factor analysis (EFA) was applied using the principal component factor extraction method and the Orthogonal Varimax rotation method. Many researchers rely on 'rules of thumb' to determine the minimum sample size required. For example, one rule states that there must be a subject-to-variables ratio (N/p ratio) of at least 5 to 1 (Bryant and Yarnold, 2000). The EFA was based on 8.9 cases per variable for a sustainability practices data subset and 10.9 for an organisational performance data subset, which is deemed acceptable.

Confirmatory factor analysis (CFA) was also applied to refine the resulting scales in EFA and to provide evidence for the construct validity of the sustainability practices dimensions. In particular, CFA was utilised by using AMOS software. A measurement model is constructed for assessing the contribution of each indicator variable and for measuring the adequacy of the measurement model. Assuming that the observed measures are multivariate normally distributed, the overall statistical acceptability of any confirmatory factor analysis (CFA) model can be tested using the χ^2 statistic (O'Leary-Kelly and Vokurka, 1998). A non-significant χ^2 ($p > 0.05$) is considered to be a good fit. However, there is a limitation to the chi-square test. The $\chi2$ is highly sensitive to sample size, especially if the observations are greater than 200. An alternate evaluation of the χ^2 statistics is to examine the ratio of χ^2 to the degrees of freedom (df) for the model. Most current research suggest the use of χ^2/df ratios less than 2 as an indication of good fit. A goodness of fit index (GFI) and adjusted goodness of fit index (AGFI) score in the range of 0.8 to 0.9 is considered as representing a reasonable fit, and a score of 0.9 or higher is considered as evidence of good fit. A root mean square error of approximation (RMSEA) value of less than 0.05 indicates a good fit, a value as high as 0.08 represents reasonable errors of approximation in the population (Hair et al., 2010; Segars and Grover, 1993). Apart from above mentioned goodness of fit (GOF) measures, normed fit index (NFI) and comparative fit index (CFI) are also used in this study to assess the overall model fit. The value of these indices range from 0 to 1 and value above 0.9 indicates good fit (Hair et al., 2010). If the fit indices are not satisfactory, the modification indices are checked for any error term correlation.

Discriminant validity is the degree to which measures of different latent variables are unique (O'Leary-Kelly and Vokurka, 1998). To examine discriminant validity, the chi-square difference between two models is calculated, and the unconstrained model and the constrained models are compared (Bagozzi and Phillips, 1982). In the unconstrained model, the covariance between two particular constructs was freely correlated. However, the covariance of two certain construct was fixed to 1.0 in the constrained model. Two constructs are claimed as having good discriminant validity if the χ^2 difference between the two models is significant.

The reliability of each construct (SER and SEI) was also examined by computing its composite reliability. The construct reliability is tested using a composite reliability measure assessing the extent to which items in the construct measure the latent concept. A commonly acceptable value for composite reliability is 0.7 or more, although values below 0.7 have been considered acceptable (Hair et al., 2010).

Regression analysis (Field, 2005) was used to analyse the performance implications of sustainability practices, explore the performance outcomes based on different contexts, and examine the country of origin effects. Therefore, in a regression analysis, we seek to predict an outcome variable from a single or multiple predictor variables by fitting a linear equation to observed data. The overall fit of the model can be assessed by R^2 and F statistics (Field, 2005). The term 'R-squared' refers to the fraction of variance explained by a model, while 'F statistics' refers to the overall significance of the regression model. Moreover, the contribution of the individual variable is assessed by the Beta value, which indicates the strength of the relationship between the independent and dependent variables. The regression equation can be expressed as: Predicted variable (dependent variable) = intercept + slope * independent variable.

4. Analysis and Results

4.1. Scale validity and reliability

We carried out an exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to simultaneously validate the measures of sustainability exploration and sustainability exploitation. To confirm the latent factor structure for measured variables, an exploratory factor analysis (EFA) was performed. The items that loaded significantly on their respective theoretical constructs 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 2. Fit indices for the SER second-order model are satisfactory (χ^2/df < 2, NFI > 0.90, and CFI > 0.95). All measurement variables are statistically significantly related to constructs ($p < 0.05$), and the standardised loadings range from 0.69 to 0.88. The results revealed that the sustainability exploration construct consists of two sub-constructs termed: 'Sustainable product and process development' (SPPD) and 'Sustainability-oriented learning' (SOL). From Table 2, it can be observed that GFI (0.989) and AGFI (0.963) are well above 0.9 and that RMSEA (0.036) is below 0.05, indicating a very good model-data fit for SEI. Furthermore, the standardised coefficients for the three sub-constructs are 0.91 for 'Stakeholder orientation for exploitation' (SOEI), 0.92 for 'Stakeholder responsiveness and integration' (RSI), and 0.73 for 'Process management for exploitation' (PMEI), and are all statistically significant. Therefore, the higher-order construct (SEI) can be considered. Some of the results of the validation process are summarized in Table 2.

Table 2. Goodness of test results for measurement models

Second-order model	No. of items	χ^2	df	χ^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)				≤2	≥.05	≥0.9	≥0.9	≤.05

The results of composite reliability indicate acceptable reliability values for SER sub-dimensions, ranging from 0.87 to 0.89. According to the results, the composite reliability estimate for SEI ranges from 0.59 (stakeholder responsiveness and integration) to 0.75 (process management for exploitation), indicating acceptable reliability values apart from latent variable stakeholder responsiveness and integration. Despite the low composite reliability value for this variable, its inclusion did not result in a good overall model fit and was therefore retained in the model. The loadings of the items on the first-order factors (which are all significant at the 0.01 significant level) and the loadings of the first-order factors on the two second-order factors (which are all significant at the 0.01 significant level) also support acceptable reliability values.

To assess discriminant validity in CFA, a pair-wise comparison between all the sub-constructs was utilized. For the 5 sub-constructs of the model, 10 pairs were compared. A series of chi-square difference tests were subsequently conducted. The results indicate that all χ^2 difference tests were significant at the p value of either 5 % or 10 %. The chi-square value for the unconstrained measurement model was significantly lower than any constrained models with the possible pair of constructs. In sum, the findings revealed acceptable discriminant validity for all sub-constructs.

Table 3 summarizes the internal consistency reliability using a Cronbach's alpha coefficient for the organisational performance sub-dimensions.

Table 3. Organisational 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 of financial and market performance captures the extent to which organisations achieve business success. A four-item scale measures quality performance and captures the extent to which organisations have improved the quality of their products and services during the last 3 years and achieved 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 organisations 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 (and ranged from 0.658 to 0.866).

4.2. *Statistics for organisational performance measures*

Descriptive statistics were analysed before undertaking further analysis. Table 4 presents mean values and standard deviations for organisational performance dimensions with respect to the particular data subset (i.e., country). According to the results, the mean values for financial and market performance range from 2.63 to 3.59. We applied ANOVA to examine whether the differences were statistically significant. The ANOVA test results show a significant difference among the countries in terms of financial and market performance (ANOVA statistic $F(4.138)$, $p < 0.01$; Welch statistics $F(4, 69.625) = 4.703$, $p < 0.01$). Further, a significant difference among the countries was observed regarding environmental performance (ANOVA statistic $F(4.183)$, $p < 0.05$; Welch statistics $F(4, 65.963) = 3.673$, $p < 0.05$). Moreover, the Games-Howell post hoc testing revealed a significant difference within the financial and market performance between the Polish and Serbian subsets and between the Serbian and German subsets. Further, significant difference was observed within the environmental performance dimension, namely between Slovenian and German data subsets and between the Spanish and German data subsets. Regarding other performance dimensions, no significant differences were found between data subsets (i.e., countries).

Table 4. Mean values, standard deviations, and sample sizes for organisational performance dimensions

Performance	Slovenia	Spain	Serbia	Poland	Germany
Financial and market performance	3.21 (.91)	3.06 (.90)	2.63 (.78)	3.59 (.93)	3.36 (1.00)
	N = 112	N = 27	N = 19	N = 44	N = 35
Quality performance	3.81 (.68)	3.83 (.65)	3.72 (1.21)	3.95 (.89)	4.14 (.91)
	N = 113	N = 29	N = 19	N = 46	N = 36
Innovation performance	3.48 (.96)	3.39 (.89)	3.12 (1.28)	3.44 (.82)	3.44 (1.16)
	N = 112	N = 29	N = 19	N = 43	N = 33
Environmental performance	3.54 (.82)	3.74 (.87)	3.42 (1.14)	3.44 (1.03)	2.86 (1.00)
	N = 113	N = 29	N = 19	N = 45	N = 32
Social	3.4 (.86)	3.38 (.77)	2.98 (1.05)	3.46 (.96)	3.33 (1.27)

| performance | N = 111 | N = 28 | N = 19 | N = 46 | N = 36 |

Another interesting point is related to quality performance. Looking at overall descriptive statistics results, we can see that the highest mean values correspond to quality performance compared to other performance dimensions.

To empirically assess whether there are significant differences between means of organisational performance dimensions, we performed several paired-sample t-tests. The results show that there are significant differences between the mean values of financial and market performance and quality performance for the Slovenian, Spanish, Serbian and German data subsets ($t = 7.894$, $p < 0.01$, $t = 3.679$, $p < 0.01$, $t = 4.471$, $p < 0.01$, $t = 3.733$, $p < 0.01$, respectively).

Furthermore, the results indicate that there are significant differences between quality performance and social performance within all subsets: Slovenian, Spanish, Serbian, Polish and German subset ($t = 5.478$, $p < 0.01$, $t = 2.218$, $p < 0.05$, $t = 3.055$, $p < 0.01$, $t = 3.254$, $p < 0.01$, $t = 3.894$, $p < 0.01$, respectively).

Regarding the comparison between quality performance and innovation performance, the results reveal significant difference within the Slovenian, Spanish, Polish and German subsets ($t = 4.178$, $p < 0.01$, $t = 2.530$, $p < 0.05$, $t = 4.023$, $p < 0.01$, $t = 3.423$, $p < 0.05$, respectively).

With respect to the comparison between mean values of quality performance and environmental performance, the results provide empirical evidence for significant difference within the Slovenian, Polish and German data subsets ($t = 3.418$, $p < 0.01$, $t = 3.126$, $p < 0.01$, $t = 6.059$, $p < 0.01$, respectively).

4.2. Regression analysis

First, mean scores were calculated from the scale's items to generate the composite scores for organisational performance, which was used in the regression analysis. Table 5 summarises the regression results for the effects of sustainability practices on organisational performance.

Table 5. Results of regression analysis: SER, SEI, and organisational performance

Dependent: organisational performance	
	Model
SER	0.395**
SEI	0.170*
R^2	0.281
Adjusted R^2	0.275
F	47.568
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 organisational performance ($\beta = 0.395$, $p < 0.01$; $\beta = 0.170$, $p <$

0.05, respectively). The beta scores show that the SER is considered as the strongest and most significant contributor to the proportion of variance in the dependent variable (i.e., organisational performance). As can be seen from the results, the model shows an adjusted R^2 of 0.275 with an F value of 47.568 ($p = 0.000$).

4.3. *Regression analysis with interactions*

Multiple regressions with categorical predictors (dummy variables that take the value of 0 and 1) (Field, 2005) was utilized 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. Subsequently, we multiply the dummy variables and the SER/SEI variables to make new variables called interaction terms.

A regression analysis with interaction effects is presented (Table 6) below. The underlying assumption is that sustainability practices exert different effects on financial and market performance for 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. The 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 ($\beta = 0.150$, $p < 0.05$ and $\beta = 0.155$, $p < 0.05$, respectively). In contrast, organisations within the Serbian data subset achieve significantly lower benefits from sustainability practices compared to organisations within the Slovenian data subset ($\beta = -0.142$, $p < 0.05$ and $\beta = -0.134$, $p < 0.05$, respectively). Furthermore, the results indicate that interaction effects between sustainability practices and Germany and between sustainability practices and Spain are not significantly different from the Slovenian data subset.

Table 6. Interaction effects of sustainability practices and country of origin on financial and market performance

	Dependent: Financial and market performance	
	Model 1	**Model 2**
SER	0.256**	
SEI		0.256**
SER × Germany	0.099	
SER × Poland	0.150*	
SER × Serbia	−0.142*	
SER × Spain	0.005	
SEI × Germany		0.074
SEI × Poland		0.155*

SEI × Serbia		−0.134*
SEI × Spain		−0.329
R^2	0.128	0.127
Adjusted R^2	0.109	0.108
F	6.802	6.727
P-value of overall model	0.000	0.000

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

It appears that the explanatory power of the regression models presented in Table 6 is rather low. Approximately 11 % of the variance in financial and market performance is explained by independent variables. Nevertheless, the overall models are significant (F(6.802), $p = 0.000$; F(6.727), $p = 0.000$, respectively). One interpretation would be that other factors not specified in the model exist that explain what contributes to the financial and market performance.

To further examine the relation of sustainability practices to organisational performance we ran several models using interaction terms as independent variables. Therefore, the findings presented in Table 7 consist of seven regression equations with statistically significant slopes and intercepts. All final regression models were significant, with R^2 ranging from 0.12 to 0.45 ($p = 0.000$). A power analysis shows that the sample size in each regression model meets or exceeds the sample size requirement for a power level of 0.8. In addition, the analysis did not reveal any problems with the assumptions of regression analysis (e.g. multicollinearity − all variance inflation factors (VIFs) ranged from 1 to 3, which is well below the rule-of-thumb cut-off of 10).

Table 7. Summary of main finding regarding the country effects

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

Note: $\beta_0 =$ intercept; $\beta_1 - \beta_3 =$ slope

The regression models (Table 7) provide some empirical evidence regarding the justification of institutional perspective. For instance, the effects of sustainability practices on financial and market performance increase if the country changes from Slovenia to Poland and decrease if the country changes from Slovenia to Serbia.

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

4.4.   One-way ANOVA

A one-way ANOVA was used to analyse the country effects. One-way ANOVA analysis was used to verify if there are significant differences of SEI and SER implementation across countries. Table 8 presents important descriptive statistics related to SER practices deployment. From the descriptive statistics presented, there appear 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 organisations' engagement in SER practices. However, to determine if this relationship is significant, the ANOVA results must be applied.

Table 8. Descriptive statistics for SER across countries

Country	N	M	SD	SE	95 % Confidence Interval for Mean	
					Lower Bound	Upper Bound
Slovenia	116	3.889	0.760	0.071	3.750	4.029
Spain	34	3.132	0.854	0.147	2.834	3.430
Serbia	20	3.569	1.095	0.245	3.057	4.081
Poland	57	3.820	0.754	0.100	3.620	4.020
Germany	39	3.359	0.994	0.159	3.037	3.681
Total	266	3.676	0.876	0.054	3.570	3.782

Note: N = sample size; M = mean; SD = Standard Deviation; SE = Standard Error of the Mean

The ANOVA analysis of SER implementation across the five countries has an F-value of 7.383 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 was violated. In the case in which the assumption of homogeneity of variance is questionable, using an 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 obtained the following values: $F(4, 75.609) = 6.912$, $p < 0.000$. 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 when the equal variances assumption has been violated (Field, 2005). Games-Howell post hoc testing reveals a significant difference between the Slovenian and Spanish groups and a significant difference between the Spanish and Polish groups. The results therefore indicate that the organisations within Slovenian and Polish subsets achieve significantly higher values of SER practices compared to the organisations within the Spanish subset.

Descriptive statistics for SEI are presented below (Table 9). 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 9. Descriptive statistics for SEI across countries

Country	N	M	SD	SE	95 % Confidence Interval for Mean	
					Lower Bound	Upper Bound
Slovenia	116	3.919	0.624	0.058	3.804	4.033
Spain	34	3.716	0.692	0.119	3.474	3.957
Serbia	20	3.558	1.102	0.246	3.043	4.074
Poland	57	3.918	0.634	0.084	3.750	4.086
Germany	39	3.727	0.690	0.110	3.503	3.950
Total	266	3.837	0.695	0.043	3.754	3.921

Note: N = sample size; M = mean; SD = Standard Deviation; SE = Standard Error of the Mean

ANOVA test results do not show a significant difference among the countries in terms of sustainability exploitation (ANOVA statistic $F(1.933)$, $p > 0.05$; Welch statistics $F(4, 75.490)$ = 1.448, $p > 0.05$).

4.5. *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 to examine whether there is a significant difference of SER and SEI implementation within each country. The results are presented in Table 10.

Table 10. Difference between SER and SEI within countries

	SER-SEI			
Country	N	M	SE	*t*
Slovenia	116	−0.029	0.049	−0.601
Spain	34	−0.583	0.093	−6.269**
Serbia	20	0.010	0.134	0.078
Poland	57	−0.098	0.081	−1.203

Germany	39	−0.368	0.119	−3.079**

Note: N = sample size; M = mean; SD = Standard Deviation; SE = Standard Error of the Mean; t = Student's t variable; **$P < 0.01$

Table 10 shows 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, whereas within other countries, there is no significant difference between SER and SEI. These results can 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.

5.   Discussion and conclusions

An important stream of research (e.g., Wagner, 2010) investigates the economic benefits of socially and environmentally responsible behaviour. In this regard, our study underscores previous assertions that organisations can benefit from pursuing sustainability by providing empirical evidence that sustainability practices (in terms of exploration and exploitation) positively influence organisational performance. In addition to confirming earlier research on the business case for corporate sustainability (e.g., Salzmann et al., 2005), our research appears to extend what previous researchers have done by bringing together disparate theoretical streams and disconnected empirical studies related to corporate sustainability and exploitation and exploration paradigms. The notion that organisations are constrained to a specific sustainability exploitation or sustainability exploration paradigm that may hinder the pursuit of short-term goals and constrain the trajectories that organisations can pursue for more innovative and long-term solutions leads to the debate on trade-offs in corporate sustainability (Hahn et al., 2010). As suggested by Hahn et al. (2010), temporal trade-offs can address conflicts between long-term and short-term orientation in corporate sustainability-related strategies.

Despite the recent expansion of the sustainability literature, the application of institutional theory to understanding 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 organisations to behave in socially responsible ways.

The question arises whether sustainability practices as conceptualised in this study are characterised by organisation's country of origin. In particular, this study examines whether there are differences in the SER and SEI deployment across selected countries and analyses the effects of these sustainability practices on organisational performance. Our results suggest that organisations based in different countries hold substantially different perspectives on: 1) achieved levels of organisational performance dimensions; 2) deployment of sustainability exploration practices, and 3) country effects on organisational performance. The ANOVA analysis and the post hoc tests show country of origin effects when organisations implement sustainability practices. Organisations in different countries show more differences in SER

deployment than in SEI deployment. It appears that the vast majority of organisations strive to gain competitive advantage by successfully addressing stakeholder expectations (as reflected through SEI). As argued by Asif et al. (2013), a key challenge of corporate sustainability integration is addressing the diverse needs of 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. The findings also, to some extent, reflect a shift of emphasis from a compliance-based to a market- and competition-based focus on managing sustainability issues. Moreover, our findings in regression models are consistent with instrumental stakeholder theory, which states that if an organisation manages its stakeholder relationships effectively, it can benefit financially (Donaldson and Preston, 1995).

Furthermore, regression analysis shows that there is evidence to support the existence of implementation differences between SER and SEI based on organisational performance and country of origin effects. In this regard, the 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 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). These elements are supported by Bansal and Roth (2000), who suggest that organisations, regardless of their countries of origin, can reach the same final state of ecological responsiveness from differing contextual and motivational conditions and take distinct paths to reach that same outcome. As such, our findings suggest that when organisations implement sustainability practices, they consider institutional environments, among others. The findings somewhat support both institutional legitimacy and customisation concern.

Further, a more comprehensive picture is needed to better understand the unlikelihood of a universally valid definition of sustainability-related practices and to illustrate how the institutional environment shapes and influences sustainability-related business practices (Matten and Moon, 2008; Campbell, 2007; Schultz and Wehmeier, 2010). According to Doh and Guay (2006), organisations 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 policy of the particular country or region. In this regard, Matten and Moon (2008) argue 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.

5.1. *Theoretical contributions and managerial implications*

There are many fundamental aspects of corporate sustainability that still merit closer investigation by corporate sustainability researchers. For instance, the aforementioned difficulties in defining the concept of corporate sustainability and the multidisciplinary nature

of sustainability leads to variations among authors in their preferred conceptualisations of sustainability constructs or sub-constructs. Clearly, there is a wide range of approaches to measuring corporate sustainability or at least some elements of corporate sustainability. Some difficulties in theoretical foundation and construct development in the field of corporate sustainability are expected, particularly due to the problem of defining the concept of corporate sustainability (Van Marrewijk, 2003). In this regard, the present study contributes to the literature on corporate sustainability by empirically testing for and discriminating between the exploration and exploitation concepts. The study provides a foundation for further research on developing a measurement scale of sustainability practices. The conceptual distinction between exploration and exploitation has been used, explicitly or implicitly, in a wide range of management research areas (e.g., Jansen et al., 2009). However, although there is a strong theoretical and empirical underpinning concerning the exploitation and exploration conceptualisation and operationalisation in the above-mentioned literature, there is no existing research that provides a measurement instrument to operationalise the two distinction aspects of sustainability practices. Further, whereas studies on corporate sustainability tend to focus on illustrating how sustainability performance affects economic performance (e.g., Wagner, 2010), this study contributes by investigating the sustainability practices that influence overall organisational performance.

Regarding cross-national differences, our study contributes to the literature by showing that there is evidence to support the existence of implementation differences between the SER and SEI based on country of origin. Institutional mechanisms play certain roles in SER or SEI implementation. Accordingly, the findings of the current study show that when organisations implement corporate sustainability practices, they consider institutional legitimacy. However, rather than explaining how an institutional mechanism may influence the customisation of corporate sustainability practices, we explore the role of country of origin on the relationship between sustainability practices and organisational performance dimensions. It is argued that most prior research on corporate sustainability has focused on the consequences of corporate sustainability engagement on economic performance (e.g., Wagner, 2010), with little attention paid to comparative issues. Although comparative studies of corporate sustainability are relatively rare, there exist a few empirical studies that show cross-national differences. Taken together, these studies suggest that legal and institutional factors might influence the way organisations approach corporate sustainability challenges (Williams and Aguilera, 2008).

Additionally, our results have significant managerial implications. A conclusion drawn from contingency and institutional views and aims to bring more clarity into the context of the dependency of sustainability practices is that organisations may develop different approaches to managing interactions between corporate sustainability and organisational performance. Despite the increasing popularity of sustainability practices, practitioners still experience mixed results. By distinguishing two different fundamental orientations of sustainability practice (sustainability exploitation and sustainability exploration), this study provides guidance for practitioners to customise sustainability practices under different institutional settings. Taking into account the fact that sustainability practices may be shaped by the dominant intuitions of the 'business system' within which organisations operate, managers

should carefully and continuously evaluate the need to change and adapt to their business circumstances. For instance, organisations may consider stakeholder-driven forms of corporate governance as a mechanism of achieving superior results. It appears that to the extent that institutions empower stakeholders, organisations may face greater relational pressures to adopt corporate sustainability practices to legitimate their activity.

5.2. *Limitations and future research*

As with all empirical studies, we cannot close our remarks without some caveats. First, as with any study of disclosures, there is a potential risk of biased results due to subjective interpretations. These potential drawbacks were considered during both the research instrument development phase as well as during the data collection phase. However, we acknowledge that regardless of our efforts, it may not be possible to mitigate the problem. It should be noted that the assessment of corporate sustainability is a complex task. The measurement scales used in this study may not capture all of the aspects of sustainability activities in which organisations can engage.

Second, we acknowledge that there are possible sources of bias concerning the sample distribution. The survey population is crucial because it determines the set of entities from which the sample can be drawn and affects both the internal and external validity of the study results (Harzing et al., 2013). Future studies could increase the generalisability of the results by taking caution in controlling for possible extraneous variation. One can mitigate this risk by using a stratified random sample by, for example, ensuring the relative and homogenous representation of respondents across different research settings.

Third, because the explanatory power of the model (i.e., investigating the effects on financial and market performance) is relatively low, it is possible that other variables influence the relationship further. We therefore suggest that future research include more control variables to further test the complex relationship.

Fourth, we recognize that further research is needed to investigate the aspects of corporate sustainability to determine at what level it is institutionalized and why differences occur in deploying sustainability exploitation and sustainability exploration practices. Investigating these questions would help to further characterize the implementation of corporate sustainability and determine why its variants exist, and help reinforce the meanings of SEI and SER practices. Therefore, it would be valuable to investigate whether isomorphic form of sustainability practices (SER and SEI) resulted from coercive societal pressures, mimetic processes or normative pressures. It could be suggested that from the emphasis placed on understanding current practice, following the key activities of competitors, and utilizing activities that already have legitimacy within the dominant institution, that mimetic and coercive isomorphism (DiMaggio and Powell, 1983; Matten and Moon, 2008) could be the strongest mechanisms, resulting in an isomorphic form of corporate sustainability practice.

Fifth, one cannot neglect the fact that all findings regarding the relationship between sustainability practices and organisational performance assume a linear relationship. Future studies should investigate whether the explanatory power of the model can be increased when a curvilinear (i.e., quadratic) regression is considered. For instance, future studies should

investigate whether the inverted U-shaped relationship between SER, SEI, and economic performance can be utilised instead of a complete linear relationship.

Finally, the antecedents to implementing sustainability practices should be investigated to help understand why organisations adopt a particular orientation of corporate sustainability practices (SER and SEI). For example, institutional theory could be considered as a theoretical underpinning to explain why organisations implement a particular orientation of sustainability practice.

Appendix A. Measurement items – sustainability exploration and sustainability exploitation practices

Sustainability exploration practices
SPPD1: The organisation makes improvements to radically reduce environmental impacts of products and services' life-cycles
SPPD2: We regularly make adjustments to existing products and services to reduce negative environmental and social impact
SPPD3: The organisation undertakes regularly business process reengineering with a focus on green perspectives
SPPD4: We acquire innovative environmental-friendly technologies and processes
SOL1: The organisation continuously strengthens employees' knowledge and skills to improve efficiency of current sustainability practices
SOL2: The organisation is characterised by a learning culture stimulating innovation for sustainability
SOL3: The organisation upgrades employees' current knowledge and skills based on examples of best practices in corporate social responsibility
SOL4: We search for external sources (e.g. partners, customers, research institutions) of knowledge in our search for innovative ideas related to sustainability

Sustainability exploitation practices
SOEI1: We always respond to existing stakeholder issues in a regular/systematic way
SOEI2: The organisation constantly evaluates its external environment to uncover issues of importance to key stakeholders (customers, suppliers, local communities)
RSI1: The business processes are flexible allowing us to achieve high levels of responsiveness towards key stakeholder needs and demands

RSI2: The organisation involves key market stakeholders (customers, suppliers) early in the product/service design and development stage

PMEI1: We make use of appropriate tools and techniques to reduce the variability of key processes

PMEI2: We have established key performance indicators (KPIs) to determine if the organisation is meeting sustainability goals

Appendix B. Measurement items - organisational performance practices

Financial and market performance

PERF1: Return on investment (ROI) has increased above industry average during the last 3 years

PERF2: Sales growth has increased above industry average during the last 3 years

PERF3: Profit growth rate has increased above industry average during the last 3 years

PERF4: Market share has increased during the last 3 years

Quality performance

PERF5: The quality of our products and services has been improved during the last 3 years

PERF6: Customer satisfaction has increased during the last 3 years

PERF7: Customer complaints has decreased during the last 3 years

PERF8: The cost of poor quality has decreased during the last 3 years

Innovation performance

PERF9: The organisation has introduced more innovative products and services than our main competitors during the last 3 years

PERF10: The number of innovations that provide the organisation with a sustainable competitive advantage has increased during the last 3 years

PERF11: The speed of adoption of new technology is faster than at our main competitors

Environmental performance

PERF12: The efficiency of the consumption of raw materials has improved during the last 3 years

PERF13: The resource consumption (thermal energy, electricity, water) has decreased (e.g. per unit of income, per unit of production, …) during the last 3 years

PERF14: The percentage of recycled materials has increased during the last 3 years

PERF15: The waste ratio (e.g. kg per unit of product, kg per employee per year) has decreased during the last 3 years

Social performance

PERF16: The turnover ratio has decreased during the last 3 years

PERF17: The employees' satisfaction has increased during the last 3 years

PERF 18: The employees' motivation has increased during the last 3 years

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