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**Empirical insights on the nature of synergies among HRM policies : an analysis of an ethics-oriented HRM system**

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(Article begins on next page)

# **Empirical insights on synergies among HRM policies - An analysis of an ethics-oriented HRM system**

## **Abstract**

In the last years, several HRM scholars have theoretically support the idea that the policies bundled in an HRM system present synergistic effects. Surprisingly, empirical studies about those synergistic effects are scarce, and their results unstable. As a result, some critical voices in the HR field are questioning the idea of synergies among HR policies, and calling for more research which does not take them for granted. Addressing this gap, this study tests the existence and nature of synergies in HRM systems targeted at improving the employees' perception of benevolent and principled ethical climates. Results from a probabilistic sample of 6,000 employees from 6 European countries highlight that synergies occur both for benevolent and principled ethical climates, even if the specific components of the HRM system presenting synergistic effects are different in the two cases. Implications of the findings for HRM practice are presented and discussed.

**Key Words:** Human Resource Management Systems, Synergy, Ethics, AMO Model

## **Introduction**

HRM studies are increasingly focusing their attention on the effects that bundles of policies have on targeted outcomes (Kepes and Delery, 2008; Jackson et al., 2014). HRM theory argues that integrated, aligned and consistent HRM policies generate positive synergistic effects on targeted outcomes. Thus, HRM systems, i.e. “the pattern of planned human resource activities to enable an organization to achieve its goal” (Wright and McMahan, 1992: 298), exert an impact on targeted outcomes that goes beyond the sum of their individual policies (Jiang et al., 2012). This theoretical framework endorses an ‘optimistic’ view of synergies, according to which positive complementarities are intrinsic to a bundle of HRM policies, and their multiplicative effects can be developed through appropriate investments (Jiang et al., 2012). Empirically, evidence of synergies between HRM policies is however sparse and heterogeneous. The most common operationalization of synergies is the additive approach, which either sums or averages the values of practices used in the HRM system (Jiang et al., 2012, p. 81). This operationalization is “built on a specific and rather conservative form of synergy, that assumes little substantive interaction” (Chadwick, 2010, p. 88). Those studies going beyond additive approach for measuring the existence of synergies among HRM policies have provided different, and sometimes contradictory, results. Some have found significant multiplicative effects (e.g. Subramony, 2009; Bello-Pintado, 2015; Combs et al., 2006; Way, 2002), while others did not (e.g. Godard, 2004; Gerhart, 2007).

Reviewing these partial and contradictory results, influential commentaries have argued that evidence of synergistic effects is “overstated” (Chadwick, 2010; p. 89) and have developed a more critical and contingent perspective on their existence (e.g. Wall and Wood, 2005; Gerhart, 2012). More generally, testing the existence and evaluating the nature of synergies between HRM policies represent today a major call in HRM empirical research (e.g., Boxall, 2013; Posthuma et al., 2013).

Our study responds to this call by testing the existence of synergistic effects between the policy domains of HRM systems targeted at the development of organizational ethics. These targeted HRM systems are designed to increase employees’ perception of benevolent and principled ethical climates in the organization. Those HRM systems, which are more and more diffused for

reducing the diffusion of opportunistic behaviours and personal misconduct with the organization (SHRM, 2013), are typically based on AMO frameworks (i.e. combining policies oriented at increasing employees' ethical Abilities, Opportunities and Motivations, Jiang et al., 2012). In the paper, which is based on a probabilistic sample of 6,000 employees from six European countries, we compare an *independent effects* model, according to which the AMO policy domains of the HRM system under study exert an additive effect on outcomes, with a *synergistic effects* model, according to which these policies have interactive effects. We compare the explicative power of the two models through a comparison of fit, variable significance, and magnitudes of their effects on performance.

Our findings support the existence of synergies among AMO policy domains, even if the characteristics of the synergistic effects on the employee perception of benevolent ethical climate are different from the characteristics of the synergistic effects on the employee perception of principled ethical climate. Accordingly, we deliver specific recommendations for practice.

### **Synergies among HR practices: theory, empirical evidence, and knowledge gap(s)**

Recent HRM research has shifted the focus of empirical analysis from single HRM policies and practices to HRM systems, intended as intentionally designed bundles of *connected* policies that follow a systematic order and pursue a shared goal (Jackson et al., 2014). In particular, an HRM system is composed of a set of HRM policies, i.e. "the firm or business unit's stated intention about the kinds of HRM programs, processes, and techniques that should be carried out in the organizations" (Wright and Boswell, 2002, p. 263). Each policy includes specific HRM practices which represent the actual programs implemented (Arthur and Boyles, 2007). Different studies suggest that all HRM systems are characterized by the same policy domains, or 'components' (Lepak et al., 2006; Subramony, 2009). According to the AMO theory (Appelbaum et al., 2000), the policy domains relate to the: (i) *Ability* to perform as expected and achieve specific organizational goals, which includes policies such as recruiting, selection, and training; (ii) *Motivation* to perform

as expected, through such policies as performance management, compensation, incentive and rewards; (iii) *Opportunity* to engage in specific behavior, through such policies as job design, industrial relation and workforce involvement.

According with this view of HRM systems, recent HRM research has assumed that AMO systems are characterized by synergistic effects (e.g. Bello-Pintado, 2015). This assumption is embedded in the differentiation proposed by Delery (1998) between additive effects, which happens when AMO policy domains have independent and non-overlapping effects on the outcome (i.e.,  $2 + 2 = 4$ ); and synergistic effects, which can be substitutive - when one AMO policy domain is replaceable with another policy domain, and therefore the effect of one policy domain can be substitute by the effects of the other policy domain (i.e.,  $2 + 2 = 3$ ) - or positive - when the presence of one AMO policy domain makes stronger the effects of the other policy domains on the outcomes (i.e.,  $2 + 2 = 5$ ). On that, Jiang et al. (2012: 78, brackets added) propositioned that “within an HR system, the three HR policy domains of ability, motivation, and opportunities have synergistic (positive) effects”. The authors derived this proposition from organizational psychology studies, according to which employees provide higher efforts when they have ability, motivation *and* opportunity to do so. Put differently, the lack in one property affects the individual’s effort regardless of how high the other two might be (Gerhart, 2007). This evidence has been imported in the literature of strategic HRM in terms of internal fit, i.e. AMO policy domains manifest synergistic effects because “the impact of one domain on employee performance is dependent on the presence and effectiveness of other policy domains in place” (Jiang et al., 2012: 78).

Empirically, few studies has actually tested whether the HRM policies included in the same HRM system present independent or synergistic effects, so that the empirical test of the theories about synergies is today considered a key development for HRM research (e.g., Boxall, 2013; Posthuma et al., 2013). In particular, available empirical evidence presents unstable results. On the one hand, some studies have supported the pro-synergies arguments, leading mainstream research to the belief that AMO policy domains universally present synergistic (and positive) effects, which

contextual contingencies might augment or mitigate (e.g., Combs et al., 2006). For instance, Bello-Pintado (2015) evidenced the existence of positive synergistic effects between motivation-enhancing and opportunity-enhancing and ability-enhancing policy domains.

On the other hand, literature provides HRM researchers with studies which do not empirically support the pro-synergies arguments. Cappelli and Neumark (2001), in this regard, argued:

“implementing practice A in conjunction with practice B is better than introducing practice A in isolation...but this does not necessarily mean that the joint implementation of the bundle of work practices A and B is beneficial on the net” (p. 759-760). Empirically, Macky and Boxall (2007) found that interactions among HRM components were not always significant and positive, due to the moderating role played by organizational and environmental contingencies. Therefore, relevant ambiguities remain open; on them, for example, Gerhart argued: “the literature uses the term High-Performance-Work-Practices (HPWP) system widely, but often seems unaware or uninterested in what system actually implies and rarely is any relevant evidence reported to evaluate whether a system of HPWP is necessary and/or useful” (2012: 158). As a result, concerns that the existence and importance of synergies might be “overstated” (Chadwick, 2010: 89) and overgeneralized are now emerging in the field, and several calls for more research on that are available in extant literature (e.g. Boxall, 2013; Posthuma et al., 2013).

### **HRM systems targeting organizational ethics: components, empirical evidence and knowledge gap(s)**

Perceptions of ethical climates affect employees’ understanding of what is the correct behaviour in the organisation and how ethical situations should be handled (Victor and Cullen, 1998). An organizational ethical climate is perceived benevolent when employees believe that their behaviour should be guided by an interest in the well-being of others in their social community. An organizational ethical climate is instead perceived principled when employees believe that their behaviour should be guided by the rules and norms of conduct established within their organization.

Both benevolent and principled organizational climates instil less individualistic concerns in employees, who are likely to increase behaviours that meet organizational and societal expectations (Barnett and Schubert, 2002), commitment (Cullen et al., 2003), job satisfaction (Shin, 2012), organizational deviance (Hsieh and Wang, 2016) and psychological well-being (Mulki et al., 2008).

Drawing upon this, organisations are increasingly paying attention to developing HRM systems targeted at increasing the perception of both benevolent and perceived ethical climates (e.g. Manroop et al., 2014). The structure of these systems is analogous to any other AMO system (e.g., Chang et al., 2013). Specifically, in the case of the HRM system strategically targeted at the establishment of specific ethical climates, the ethical ability-enhancing policy domain, which includes as selection, recruitment and training practices, seeks to develop higher ethical sensitivity in employees; develop greater capacity to make independent decisions in ethically ambiguous situations; provide relevant competencies to understand and follow organizational ethical rules and standards. The ethical motivation-enhancing policy domain seeks to promote employees' willingness to engage in ethical behaviours and to avoid unethical ones, by means of sanctions, punishment, variable pay or awards. The ethical opportunity-enhancing policy domain provides employees with the technical and organizational possibility to engage with explicit mechanisms to identify unethical behaviour, such as supporting whistle-blowing; or contribute to organizational ethical programmes, such as volunteer programmes or calls for ideas.

Previous research already focused on the effects of these policy domains on employees' perceptions of ethical climates (e.g., Parboteeah et al., 2010; Guerci et al., 2015), but empirical evidence about the interactions among those policy domains is not available. Therefore, following those calls for more research about HRM synergies, in this paper we ask: do AMO policy domains in HRM systems aimed at developing employees' perception of benevolent and principled ethical climates present synergistic or independent effects? In the following section we develop our hypotheses on the issue under study.

## **Synergies in HRM systems targeting organizational ethics – Hypotheses Development**

Synergies among AMO policy domains are generally expected when their targets, i.e. individuals, groups or organizations, must have ability, motivation *and* the opportunity to perform superior outcomes (Lepak et al., 2006; Jiang et al., 2012; Bello-Pintado, 2015). HRM policies are then effective only when they activate all three conditions. Since ineffective AMO policy domains become a constraint for the whole system, the latter is designed in ways that each component creates the condition for the others to improve and affect the expected outcome. Previous research reports that this is often the case with volitional behaviours, which take place only when the individual perceives to have motivation, ability and opportunity (Gerhart, 2007) – and, thus, when s/he perceives that HRM policies contribute to activate all three conditions. Following which, each AMO policy domain is “dependent on the presence and effectiveness of other policy domains in place” (Jiang et al., 2012: 78), but also increases the chance that other policy domains would benefit from its presence and effectiveness. This is likely to be the case for AMO systems targeting at perceived ethical climates. Employees’ perception of principled and benevolent ethical climates emerges when they perceive ability, motivation *and* opportunity to act ethically (Forte, 2004; Kish-Gephart et al., 2010; Martin and Cullen, 2006). Henceforth, the need to foster interactions between ability, motivation and opportunity at the individual level might shape the interactions between policies at the HRM level. Following which, it can be expected that the impact of one AMO policy domain depends on the presence and effectiveness of the two others – i.e. the policy domain interacts through positive synergies. To empirically test the above presented arguments, we propose the following hypotheses:

**Hypothesis 1:** The synergistic model of interaction among AMO policy domains (i.e. ethical ability-enhancing, ethical motivation-enhancing and the ethical opportunity-enhancing policy domains) better explains employees’ perception of benevolent ethical climate than the model of independent effects.



**Hypothesis 2:** The synergistic model of interaction among AMO policy domains (i.e. ethical ability-enhancing, ethical motivation-enhancing and the ethical opportunity-enhancing policy domains) better explains employees' perception of principled ethical climate than the model of independent effects.

## **Research Methodology**

### *Sampling and Procedure*

The study is based on a dataset of 6,000 employees in six different EU countries: Italy, Germany, Poland, UK, Spain and France. To allow generalization of results, we built a probabilistic sample based upon gender, age, area and industrial sector. Sampling was supported by a global company which, in all six countries, provided workforce solutions, such as training and development, employer and employee matching, outplacement services, HRM consulting, and payroll outsourcing. In each country, the company delivered a questionnaire until it reached a probabilistic sample of 1,000 observations.

During the administration of the online questionnaire, we followed Podsakoff et al.'s (2003) procedural remedies to limit problems of common method variance (CMV). The cover web page clearly stated the purposes of the study, without making any reference to the model employed and the constructs populating it; we protected respondents' anonymity; and developed a procedure (described later) to avoid item ambiguity. Following Brislin's back-translation procedures (1990), the questionnaire was translated from its original English version into Italian, German, Polish, Spanish and French. Prior to administering the full survey, we ran a pilot test of 20 employees which indicated that respondents had no problems in understanding the questions. The survey items were then back-translated into English by a professional translator, while three English-speaking experts checked the back-translation's correspondence to the original.

### *Measures*

The dependent variables related to benevolent and principled ethical climates. They were assessed using the ethical climate scale (Victor and Cullen, 1988). Following past research practices (e.g., Elci and Alpkın, 2009), employees were asked to rate the organizational ethical climate as they perceived it in their workplace on a six point Likert-type scale where 1 stood for “Strongly Disagree” and 6 for “Strongly Agree”. Examples of items are: “What is best for everyone in the company is a major consideration here” (for a benevolent ethical climate) and “It is very important to follow the company’s rules and procedures” (for a principled ethical climate). Cronbach’s alpha coefficients were equal to 0.79 for a benevolent ethical climate, and 0.80 for a principled ethical climate.

The independent variables related to the AMO policy domains. We could not find any specific measure in past research, so we generated an ad-hoc measure following a two-step process. First, we reviewed the literature to identify the relevant HRM practices embedded in AMO systems targeted at perceived ethical climate (e.g., Caldwell et al., 2011; Weaver and Trevino, 2001; Winstanley and Woodall, 2006). Second, we created six steering committees (one for each country covered by the research) including five HRM professionals operating in the country, in order to jointly assess the completeness and relevance of the practices identified and the clarity of the items proposed for the survey. As a result, it was agreed to exclude practices that were considered out of scope and/or not applicable to specific organizations or to specific employees.

Following this, we submitted the questionnaire to employees, who were asked to rate the extent to which their companies implemented a particular set of HRM practices on a five point Likert-type scale. Example items are: “presence of ethical leadership programs” (for ability-enhancing practice, which included 7 items), “promoting awards for good citizenship” (for motivation-enhancing practice, which included 4 items) and “encouraging the reporting of unethical behavior” (for opportunity-enhancing practice, which included 7 items). The distinction between ethical ability-, motivation-, and opportunity-enhancing policy domains was hidden to respondents.

Cronbach's alpha coefficients were equal to 0.92 for ethical ability-enhancing policy domain, 0.93 for ethical motivation-enhancing HRM policy domain, and 0.91 for ethical opportunity-enhancing HRM policy domain. For an overview of the used scale see Guerci and colleagues (2015).

### *Common Method Variance*

Self-report surveys might generate concerns about CMV, despite the aforementioned procedural remedies. We thus implemented two recommended tests to assess its presence.

First, we implemented the Harmann's single factor test, which represents an exploratory factor analysis that reveals CMV when one factor explains the majority of (or all) the variance in the variables. Test results are consistent with the hypothesis that strong CMV effects are absent in the study.

Second, we implemented the Marker-Variable Technique. The method is based on the inclusion of a variable (i.e. marker variable) that is theoretically unrelated to at least one of other variables in the study. The technique thus assesses CMV based on the correlation between these theoretical uncorrelated variables. High degrees of correlations indicate strong CMV problems. In our questionnaire, we identified the item "Trust in European Institutions" as a marker variable, which theoretically did not have relationships with the other variables. We calculated the correlation matrix between all the variables analyzed and, following the procedure proposed by Malhotra and colleagues (2006) and Podsakoff and colleagues (2003), as a proxy for CMV, we selected three different values of  $r_M$ , namely the smallest value of  $r_M = 0.10$ , the second smallest value of  $r_M = 0.12$ , and the average value of  $r_M = 0.17$  (the maximum correlation was 0.28). We also computed the CMV-adjusted correlations between the variables under investigation,  $r_A$ , by partialling out the three above presented values of  $r_M$  from the uncorrected correlations  $r_U$ .

In particular, with a sample size of  $n$ ,  $r_A$  and its t-statistic can be calculated as follows:

$$r_A = \frac{r_U - r_M}{1 - r_M},$$

$$t_{\alpha/2, n-3} = \frac{r_A}{\sqrt{(1 - r_A^2)/(n - 3)}}$$

Using the above equations, investigators can examine the impact of CMV on the magnitude and significance of the correlations. In all three cases (smallest, second smallest, and average value), the adjusted correlations were significant, so that CMV did not significantly affect the results of the survey.

### *Data Analysis*

We chose a Partial Least Squares (PLS) structural equation model to analyze the research model and study the relationships between different variables and the weight that each plays on the others (see Esposito Vinzi et al., 2010 for an extensive review of this approach).

We adopted PLS for two reasons. First, PLS does not require assumptions about multivariate normality (Fornell and Bookstein, 1982). We tested whether the indicators included in the model present normal distributions, analyzing the shapes of all distributions and assessing symmetry and kurtosis indicators through Kolmogorov-Smirnov and Shapiro-Wilk tests. The results led us to refuse the hypothesis of normal distribution, and confirmed the appropriateness of using PLS. Second, all the variables under study had multiple indicators and, since the primary aim of PLS – as opposed to more traditional co-variance structural equation modeling - is to maximize the variance explained in latent and endogenous variables, we valued the fact that PLS weights indicator loadings on construct in the context of the theoretical model rather than in isolation (Hulland, 1999).

## **Findings**

### *Comparative Approach*

Our study thus tested whether the three AMO policy domains have synergistic or independent effects. We tested these two alternatives empirically by separating the effects on a benevolent organizational ethical climate and on a principled organizational ethical climate.

For each outcome, we compared the explanatory power of the independent effects model (i.e. without interactions among ethical ability-, motivation-, and opportunity-enhancing policy domains) and the synergistic one. We followed Chadwick's (2010) guidelines to compare the models, using additive indexes for the former and multiplicative indexes for the latter. In PLS, this meant testing independent effects by considering ethical ability-, motivation-, and opportunity-enhancing policy domains as three separate variables, each causally connected with the outcomes (perception of benevolent and principled ethical climates); and testing the synergistic model by including also moderation effects in the model (i.e. each policy domain moderates the relationship between the other policy domains and the outcome). As a result, we had two models for a benevolent ethical climate (one without, and the other with, moderations among AMO policy domains) and two models for a principled ethical climate.

We then compared alternative models by confronting the adjusted R-squares; the change in R-squares can be explored to determine whether the impact of a particular latent variable is significant. Specifically, the effect size  $f^2$  (Chin, 2010) is calculated as:

$$f^2 = \frac{R_{included}^2 - R_{excluded}^2}{1 - R_{included}^2}$$

where  $R_{included}^2$  and  $R_{excluded}^2$  are the R-squares provided on the dependent latent variable respectively when the moderations were used or omitted in the structural equation. Following Cohen's (1988) operational definitions for multiple regression, we viewed  $f^2$  of 0.02, 0.15 and 0.35 as a gauge of whether the moderations included had respectively small, medium, or large effects at the structural level. In the following two sections, we present our findings for each of the two types of organizational ethical climate considered.

### *Internal Consistency and Validity*

We analyzed two different models including benevolent and principled ethical climates as dependent variables; we thus present the analyses for each measurement model separately.

For both models, we tested the internal consistency of the measurement scales through Cronbach's alpha, obtained as an average of the correlations between every proxy variable pair (Cronbach, 1951). Because Cronbach's alpha tends to provide a severe underestimation of the internal consistency reliability of latent variables in PLS path models, it is appropriate to apply also a different measure: the composite reliability  $\rho_c$  (Henseler et al., 2009). This measure takes into account that indicators have different loadings, and can be interpreted in the same way as Cronbach's alpha: a value below 0.6 indicates a lack of reliability. In addition we further explored the validity of the used measures performing an exploratory factor analysis, which confirmed the results emerging from Cronbach's alpha analysis.

Establishing convergent and discriminant validity in PLS requires an appropriate AVE (Average Variance Extracted) analysis. The values of AVE indices, which are used to measure the percentage of variance explained by each factor and which are applied within each latent construct, must be greater than 0.5 to confirm convergent validity and the goodness of the model (Henseler et al., 2009). For discriminant validity, the square root of the AVE and the correlations are compared.

Tables 1 and 2 include means, standard deviations, alpha,  $\rho_c$ , AVE, and correlations between the latent variables of the two models.

--- INSERT TABLE 1 AND TABLE 2 ABOUT HERE ---

On examining the values of alpha and  $\rho_c$  we conclude that for both models all the measures have a good internal consistency. All AVE indices are at least over 0.5, thus confirming convergent validity and the goodness of the two models (Henseler et al., 2009). Finally, discriminant validity is

satisfied, given that the square root of AVE of each construct is larger than the correlation of the specific construct with any of the other constructs in the models.

### *Comparison of Synergistic Models on Benevolent Ethical Climates*

We first focused on our Hypothesis 1, comparing the independent and synergistic models on employees' perceptions of benevolent ethical climate.

First, we tested whether AMO policy domains affect a benevolent ethical climate through independent effects (i.e. independent model). The structural model has three direct effects between each independent variable and the dependent variable, and no moderation effect. As confirmed by previous literature (e.g. Guerci et al., 2015), the path between ethical motivation-enhancing policy domains and a benevolent ethical climate proved to be non-significant: indeed, the  $t$ -statistic was very low (0.04,  $t = 1.27$ ). We reran the model without the ethical motivation-enhancing policy domain for re-estimation of its parameters. Evaluation of the path coefficients obtained, with their significance, as well as the  $R^2$ , allows us to confirm or reject the hypothesis. The relationships between ethical ability-enhancing policy domain and benevolent ethical climate (0.23,  $t = 8.73$ ) and between ethical opportunity-enhancing policy domain and benevolent ethical climate (0.22,  $t = 8.08$ ) are both significant. A benevolent ethical climate is thus explained by a positive link with ability-enhancing policy domain and opportunity-enhancing policy domain, with  $R^2$  equal to 0.17. Amato et al. (2004) and Tenenhaus et al. (2005) proposed an index of overall goodness-of-fit (GoF) which takes into account both the measurement and structural models. In this case, the Goodness of Fit (GoF) of the proposed model is equal to 0.32. According to Wetzels et al.'s guidelines (2009), this GoF value is good for medium-size effects ( $GoF_{small} = 0.1$ ;  $GoF_{medium} = 0.25$ ;  $GoF_{large} = 0.36$ ). The previous  $R^2$  and the GoF values are acceptable.

Second, we tested whether ethical ability-enhancing, opportunity-enhancing and motivation-enhancing policy domains exert synergistic effects on benevolent ethical climate (i.e. synergistic model). Differently from the earlier test, we also analyzed the moderation operated by ability-

enhancing policy domain, opportunity-enhancing HRM policy domain and motivation-enhancing policy domain on the direct effects. The path of the interaction between ability-enhancing policy domain and opportunity-enhancing policy domain is not significant ( $0.01, t = 0.24$ ), then we reran the model without considering this moderation. In the final model path coefficients showed that the relationships between ability-enhancing policy domain and a benevolent ethical climate ( $0.25, t = 8.95$ ) and between opportunity-enhancing HRM policy domain and a benevolent ethical climate ( $0.25, t = 8.04$ ) are still significant. The moderation effect between ability-enhancing policy domain and motivation-enhancing policy domain is significant ( $0.12, t = 4.31$ ) as the moderation effect between opportunity-enhancing policy domain and motivation-enhancing policy domain ( $0.19, t = 6.77$ ). The  $R^2$  was equal to 0.25 and the GoF to 0.33; both values are acceptable.

Finally, we compared the two models according to variable significance, magnitudes of effects on performance, and comparison of fit ( $R^2 = 0.17$  and GoF = 0.32 for the independent effects model;  $R^2 = 0.25$  and GoF = 0.33 for the synergistic effects model). The model with synergistic effects included moderation effects (ability- and motivation-enhancing policy domains, and opportunity- and motivation-enhancing policy domains) that proved to be significant and of non-marginal magnitude. The comparison of fit was performed by comparing the  $R^2$  through the effect size  $f^2$ , which resulted equal to 0.10 (i.e. small effects).

In terms of hypothesis testing, our result clearly show that the independent model of interaction among AMO policy domains does not better explains employees' perception of benevolent ethical climate than the synergistic model. However, our Hypothesis 1 is only partially supported, because even if the synergistic model performs better than the independent model in terms of explanatory power, it shows that not all the AMO policy domains have synergistic effects, being not significant the path of the interaction between ability-enhancing policy domain and opportunity-enhancing policy domain.

#### *Comparison of Synergistic Models on Principled Ethical Climates*



We focused on Hypothesis 2 replicating the approach for principled ethical climate.

First, we tested the independent model. Again the path between motivation-enhancing policy domain and the principled ethical climate was not significant ( $-0.04$ ;  $t = 1.26$ ). We reran the model without motivation-enhancing policy domain for re-estimation of its parameters. The relationships between ability-enhancing policy domain and a principled ethical climate ( $0.20$ ,  $t = 7.20$ ) and between opportunity-enhancing policy domain and a principled ethical climate ( $0.17$ ,  $t = 6.05$ ) were both significant.  $R^2$  was equal to  $0.11$  and GoF to  $0.26$ , both acceptable.

Second, we tested whether ability-enhancing, opportunity-enhancing and motivation-enhancing policy domains affect a principled ethical climate through synergistic effects. Differently from the earlier test, we also analyzed the moderation operated by ability-enhancing policy domain, opportunity-enhancing policy domain and motivation-enhancing policy domain on the direct effects. The path coefficients show that the interactions between ability-enhancing policy domain and opportunity-enhancing policy domain, as well as between ability-enhancing policy domain and motivation-enhancing policy domain are not significant (respectively  $0.08$ ,  $t = 2.13$  and  $0.08$ ,  $t = 1.87$ ).

We reran the model without considering these moderations; in the final model the relationships between ability-enhancing policy domain and a principled ethical climate ( $0.20$ ,  $t = 8.44$ ) and between opportunity-enhancing policy domain and a principled ethical climate ( $0.25$ ,  $t = 9.08$ ) were still both significant; the moderation effect between motivation-enhancing policy domain and opportunity-enhancing policy domain was also significant ( $0.23$ ,  $t = 17.19$ ).  $R^2$  was equal to  $0.16$  and GoF equal to  $0.29$ , both acceptable.

Also for the principled ethical climate, the model with moderation effects performs better ( $R^2 = 0.11$  and  $\text{GoF} = 0.26$  vs  $R^2 = 0.16$  and  $\text{GoF} = 0.29$ ). In order to evaluate whether the difference was significant, we explored the change in  $R^2$ . The effect size  $f^2$  was equal to  $0.06$  (i.e. small effects).

We thus can conclude that, even for this second outcome, our result clearly show that the independent model of interaction among AMO policy domains does not better explains employees' perception of principled ethical climate than the synergistic model. At the same time, our Hypothesis 2 is only partially supported, because even if the synergistic model performs better than the independent model in terms of explanatory power, it shows that not all the AMO policy domains have synergistic effects, being not significant both the path of the interaction between ability-enhancing policy domain and opportunity-enhancing policy domain, and the path of the interaction between ability-enhancing policy domain and motivation-enhancing policy domain.

## **Discussion**

Previous research provides unstable evidence about the existence of synergistic effects among the components of HRM systems (e.g. Chadwick, 2010). Following several calls in recent HRM literature (e.g. Boxall, 2013; Posthuma et al., 2013), our study sought to test whether the AMO components of HRM systems targeting organizational ethics present independent or synergistic effects on two key outcomes, i.e. the employee perception of benevolent and principled ethical climates.

Our study provides robust and large scale evidence of synergistic effects among the AMO policy domains in HRM systems targeting organizational ethics. Specifically, three (out of six) interactions have proven significant in terms of fit and magnitude of effects for benevolent and principled ethical climates. Earlier synergistic claims (e.g. Jiang et al., 2012), thus, can be transferred only partially to the so-far unexplored outcome of ethical climates.

We found evidence that some multiplicative effects among AMO policy domains exist. Earlier theory argued that AMO are 'intrinsically' interdependent policy domains because each domain provides a set of "resources" that the organizational actor needs to achieve its purposes. For instance, Jiang et al. (2012) argued that AMO policy domains exert synergistic effects on employees' performance because the employee needs ability, motivation and opportunities to

perform their tasks. These components are interconnected at the actors' level as employees' perception of increased (or reduced) ability, for instance, impacts their perceived motivation and opportunity. Subsequent research extended these premises at the organizational level, arguing that the organization also needs ability-enhancing, motivation-enhancing *and* opportunity-enhancing practices to be all in place (e.g., Subramony, 2009). This argument implies that AMO components should be bundled together (Lepak et al., 2006) and: "instead of simply increasing the number of HRM practices - that is, making HRM systems more comprehensive - firms could derive positive returns by enhancing synergy among these practices" (Subramony, 2009; p. 759). This implication is valid also for HRM systems targeted at ethical climates, i.e. the organization can generate superior outcomes by improving the synergies of AMO policy domains.

However, our findings do not support the notion that all AMO policy domains are directly relevant to the outcome, as well as interconnected with each other. More specifically, our findings suggest that (i) while the ability and opportunity policy domains have direct effects on both ethical climates, the motivation policy domain acts as "booster" of such effects; and (ii) there are *selective interactions* among AMO policy domains, which vary in relation to the considered outcome – i.e. the motivation policy domain interacts with the ability and opportunity policy domains for benevolent ethical climate, while only with the opportunity policy domain for principled ethical climate. These results highlight how firms cannot expect positive returns by enhancing *all* synergies, as some policy domains produce independent effects on a given outcome. Firms, therefore, need to select investments in specific synergies according to the desired outcome; in this perspective, our findings provide two specific contributions.

First, we found that the motivation-enhancing policy domain is not directly associated with benevolent or with principled ethical climates. This is consistent with earlier research arguing that policies increasing individuals' motivation might generate ethical climates of egoism, rather than principles or benevolence (Guerci et al., 2015). This might suggest that investments in the motivation policy domain are altogether irrelevant. However, a look at the synergies shows that this

policy domain could generate important synergies with the ability and/or opportunity policy domains. Hence, the motivation policy domain gives an important contribution to the targeted outcome – which would remain hidden if synergies are not taken into consideration.

Second, we observe that the synergies are different according to the targeted outcome. To explain these results, we follow the lead of Jiang et al. (2012), who looked at the organizational dynamics that generate the targeted outcomes. In our case, previous research argues that the development of benevolent ethical climate, for instance, is generated by stimuli for employees to (i) reduce their competitive and possibly egoistic instincts, and thus not put individual motivations above others', but also to (ii) go beyond formal and strict role requirements if the behaviors meet organizational and societal expectations (Victor and Cullen, 1998). This literature suggests that individuals face ambiguity regarding the abilities with which benevolence can be enacted, and the opportunities in which it is regarded as appropriate by the organization. Hence, individuals with more motivation are more likely to pursue knowledge on the relevant abilities and opportunities for benevolent behaviors. Moving at system level as suggested by Jiang et al. (2012), then, it can then be expected that the motivation-enhancing policy domain boosts the positive effects of ability- and opportunity-enhancing policy domains. By comparison, previous research on principled ethical climates argued that it requires employees to follow organizational rules, i.e. to know what the rules are (ability) and understand the specific cases in which they must be enacted (opportunity) (Victor and Cullen, 1998). Employees face little ambiguity about *what* principled behaviors should be. It is indeed the task of the organization to properly communicate the rules and principles that should regulate employees' behavior. When such rules and principles of conduct are properly communicated by the organization, thus, employees do not have to be specifically motivated to acquire this knowledge. Hence, as we found, the motivation policy domain does not affect the effectiveness of the ability policy domain. On the other hand, employees face ambiguity regarding *when* and *where* principled-oriented behaviors should be enacted, and therefore it can be expected that employees with motivation are more willing to pursue this knowledge, and thus enact principled behaviors more

appropriately. Hence, as we found, the motivation policy domain positively interacts with the opportunity policy domain.

### **Implications for practice**

These results have specific implications for HRM practice. First, our data show that, both in the case of benevolent and in the case of principle ethical climates, the ethical motivation-enhancing policy domain does not exert any direct effect on the outcomes, but positively interacts with other policy domains. That result constitutes a data-driven recommendation regarding a possible prioritization of the HRM-related investment in those organizations interested in developing, via HRM, benevolent and principled ethical climates. Indeed, those organizations should give priority to investments on the ethical ability-enhancing and on the ethical opportunity enhancing policy domains, given their direct association with ethical climates. However, as noted, investments in the motivation-enhancing policy domain remain relevant as it boosts synergistic effects with the other domains on the targeted outcomes. Second, HR practitioners are recommended to conceive and manage their policies for organizational ethics *as a system*. That presents both challenges and opportunities. Specifically, previous contributions (e.g. Chadwick, 2012) have shown that HRM systems characterized by synergistic effects might be more risky, but at the same time more effective. Indeed, HRM systems with synergies can result in performance levels higher than HRM systems based on independent effects (i.e.  $2 + 2 = 5$ ), but at the same time synergistic HRM systems are vulnerable to dis-synergies, i.e. could result in “deadly combinations” (Huselid et al., 1997) in which HRM practice interactions reduce rather than enhance the target performance (i.e.  $2 + 2 = 3$ ). Therefore, HR practitioners should work on the organizational context (and in particular, on organizational structure and culture, Chadwick, 2010, p. 95) to ensure that the different actors and/or organizational units designing and managing the AMO policy domains work in a coordinated way. The formal and informal coordination mechanisms, indeed, constitute the conditions for a systemic design and management of the single AMO policy domains, and could

therefore “prevent” the emergence of dis-synergies due to inconsistent practices. Finally, evidence on the selective interactions among policy domains emphasizes the need for HR practitioners to orient their coordination efforts according to the targeted outcome. More specifically, those actors and/or organizational units working on the motivation-enhancing policy domain should work in strong coordination with those actors and/or organizational units working on both the ability- and opportunity-enhancing policy domains when the targeted outcome is benevolent ethical climate; diversely, when the targeted outcome is principled ethical climate, the coordination effort should be oriented towards those actors and/or organizational units working on the motivation-enhancing policy domain and “only” those actors and/or organizational units working on the opportunity-enhancing policy domain.

## **Conclusions**

Our study contributes to the current debate in HRM research regarding the nature and extent of synergies among AMO policies. The existence of synergies is often assumed in theory, but is tested in practice rarely and in few domains. We thus addressed the unexplored domain of HRM systems targeted at organizational ethics, and evidenced the existence of interactive effects among some (not all) of the AMO policies. Based on these results, we invite researchers on ethics-oriented HRM systems to measure and detail the synergies between these policies, as they have large implications on the outcomes. Future research is needed on the mediators of the linkage between the AMO policy domains considered and ethical outcomes, the purpose being to extend knowledge about the interactions among those policy domains. An advancement appears particularly important: adopting mixed methods which incorporate a qualitative approach that, on the specific topic of HRM system synergies, has proved useful in unravelling *how* synergies take actually place (e.g. Monks et al., 2013; Samnani and Singh, 2013). Furthermore, in order to extend the available knowledge to multiple kinds of strategically targeted HRM systems, future research might focus on a diverse

range of HRM systems, considering targeted and proximal outcomes as the dependent variable, in order to understand if some HRM systems are more likely to develop internal synergies than others.

We recognize that the method employed in this study has limitations. Following the debate on the reliability of single-raters in the HRM literature, future research might involve multiple respondents – being careful to avoid distortions when integrating the perspectives of different organizational actors, such as line/top managers and/or HR managers. We argue that this approach might improve understanding of the role played by several organizational actors in fostering or inhibiting potential synergies among AMO policy domains. Likewise, the questionnaire used in this study measured how frequently specific HRM ethical practices are implemented, without focusing, for example, on their coverage or level of sophistication. Future research might instead test the quality of their implementation by using different measurements, e.g. the coverage, intensity or sophistication of HRM practices, or inadequate implementation. Again, focusing on those elements might help in developing a more sophisticated view on the conditions under which synergies occur and impact on targeted outcomes, and on how to pursue those synergies.

## References

- Amato, S., Esposito Vinz, V., and Tenenhaus, M. (2004). 'A global goodness-of-fit index for PLS structural equation modeling'. Paper presented to PLS Club, HEC School of Management, France.
- Appelbaum, E., Bailey, T., Berg, P., and Kalleberg, A. (2000). *Manufacturing advantage: why high-performance work systems pay off*. Ithaca. New York: Cornell University Press.
- Arthur, J., and Boyles, T. (2007). 'Validating the human resource system structure: A levels-based strategic HR approach'. *Human Resource Management Review*, 17: 1, 77–92.
- Barnett, T., and Schubert, E. (2002). 'Perception of the Ethical Work Climate and Covenantal Relationships'. *Journal of Business Ethics*, 36: 3, 279-290.
- Bello-Pintado, A. (2015). 'Bundles of HRM practices and performance: empirical evidence from a Latin American context'. *Human Resource Management Journal*, 25: 3, 311-330.
- Boxall, P. (2013). 'Building highly-performing work systems – Analysing HR systems and their contributions to performance'. In J. Paauw, D.E. Guest, & Wright P. (eds), *HRM and performance*. Chichester, West Sussex: Wiley.
- Brislin, R. W. (1990). Applied cross-cultural psychology: An introduction. In R W Brislin (eds.), *Applied crosscultural psychology*, Newbury Park, CA: Sage.
- Caldwell, C., Linh, P.T., and Tuan, A. (2011). 'Strategic Human Resource Management as Ethical Stewardship'. *Journal of Business Ethics*, 98: 1, 171-182.
- Chadwick, C. (2010). 'Theoretic insights on the nature of performance synergies in human resource system: Toward greater precision'. *Human Resource Management Review*, 20: 2, 85-101.
- Chang, S., Gong, Y., Way, S.A., and Jia, L. (2013). 'Flexibility-oriented HRM systems, absorptive capacity, and market responsiveness and firm innovativeness'. *Journal of Management*, 39: 7, 1924-1951.
- Chin, W.W. (2010). 'How to Write Up and Report PLS Analyses', in V. Esposito Vinzi, W.W. Chin, J. Henseler, and H. Wang (Eds), *Handbook of Partial Least Squares. Concepts, Methods and Applications*, New York: Springer Handbooks of Computational Statistics.



- Cohen, J. (ed). (1988). *Statistical power analysis for the behavioral sciences*, Hillside, New York: L. Erlbaum Associates.
- Combs, J., Liu, Y., Hall, A., and Ketchen, D. (2006). 'How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance'. *Personnel Psychology*, 59: 3, 501–528.
- Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16: 3, 297-334.
- Cullen, J.B., Parboteeah, K.P., and Victor, B. (2003). 'The effect of ethical climates on organizational commitment: a two-analysis'. *Journal of Business Ethics*, 46: 2, 127-41.
- Delery, J. E. (1998). Issues of fit in strategic human resource management: Implications for research. *Human Resource Management Review*, 8, 289–310.
- Elci, M., and Alpkın, L. (2009). 'The Impact of Perceived Organizational Ethical Climate on Work Satisfaction'. *Journal of Business Ethics*, 84: 3, 297-311.
- Esposito Vinzi, V., Chin, W.W., Henseler, J., and Wang, H. (eds). (2010). *Handbook of Partial Least Squares. Concepts, Methods and Applications*, New York: Springer Handbooks of Computational Statistics.
- Fornell, C., and Bookstein, F.L. (1982). 'Two structural equation models: LISREL and PLS applied to consumer exit-voice theory'. *Journal of Marketing Research*, 19, 440-452.
- Forte, A. (2004). 'Business ethics: A study of the moral reasoning of selected business managers and the influence of organizational ethical climate'. *Journal of Business Ethics*, 51: 2, 167-173.
- Gerhart, B. (2007). 'Horizontal and vertical fit in human resource systems'. In C. Ostroff & T. Judge (Eds.), *Perspectives on Organizational Fit* Mahwah, NJ: L. Erlbaum, 317-348.
- Gerhart, B. (2012). 'Construct validity, causality, and policy recommendations: The case of high performance work practices systems'. *Human Resource Management Review*, 22: 2, 167-170.
- Godard, J. (2004). 'A critical assessment of the high-performance paradigm'. *British Journal of Industrial Relations*, 42, 349–378.

- Guerci, M., Radaelli, G., Siletti, E, Cirella, S., and Rami (AB), Shani. (2015). ‘The Impact of Human Resource Management Practices and Corporate Sustainability on Organizational Ethical Climates: An Employee Perspective’. *Journal of Business Ethics*, 126: 2, 325-342.
- Henseler, J., Ringle, C.M., and Sinkovics, R.R. (2009). ‘The use of partial least squares path modeling in international marketing’, in R.R. Sinkovics, and P.N. Ghauri (ed.) *New Challenges to International Marketing (Advances in International Marketing, Volume 20, p. 277 – 319)*, Emerald Group Publishing Limited.
- Hsieh, H., and Wang, Y. (2016, in press). ‘Linking perceived ethical climate to organizational deviance: The cognitive, affective, and attitudinal mechanisms’. *Journal of Business Research*, in press.
- Hulland, J. 1999. ‘Use of partial least squares (PLS) in strategic management research: A review of four recent studies’. *Strategic Management Journal*, 20: 2, 195–204.
- Huselid, M. A., Becker, B. E., Pickus, P. S., and Spratt, M. F. (1997). HR as a source of shareholder value: Research and recommendations. *Human Resources Management Journal*, 31, 1–6.
- Jackson, S.E., Schuler, R.S., and Jiang, K. (2014). ‘An aspirational framework for strategic human resource management’. *The Academy of Management Annals*, 8: 1, 1-56.
- Jiang, K., Lepak, D.P., Han, K., Hong, Y., Kim, A., and Winkler, A.L. (2012). ‘Clarifying the construct of the human resource management system: Relating human resource management to employee performance’. *Human Resource Management Review*, 22: 2, 73-85.
- Kepes, S., and Delery, J. (2008). ‘HRM systems and the problem of internal fit’. In P. Boxall, J. Purcell, and P. Wright. (eds), *The Oxford Handbook of Human Resource Management*, Oxford University Press.
- Kish-Gephart, J.J., Harrison, D.A., and Treviño, L.K. (2010). ‘Bad apples, bad cases, and bad barrels: meta-analytic evidence about sources of unethical decisions at work’. *Journal of Applied Psychology*, 95: 1, 1-31.

- Lepak, D.P., Liao, H., Chung, Y., and Harden, E.E. (2006). 'A conceptual review of human resource management systems in strategic human resource management research'. *Research in Personnel and Human Resources Management*, 25: 1, 217-271.
- Macky, K., and Boxall, P. (2007). 'The relationship among "high performance work practices" and employee attitudes: an investigation of additive and interaction effects'. *International Journal of Human Resource Management*, 18: 4, 537-567.
- Malhotra, N.K., Kim, S.S., and Patil, A. (2006). 'Common Method Variance in IS Research: A Comparison of Alternative Approaches and a Reanalysis of Past Research'. *Management Science*, 52: 12, 1865-1883.
- Manroop, L., Singh, P., and Ezzedeen, S. (2014). 'Human Resource Systems And Ethical Climates: A Resource-Based Perspective'. *Human Resource Management*, 53: 5, 795-816.
- Martin, K.D., and Cullen, J.B. (2006). 'Continuities and Extensions of Ethical Climate Theory: A Meta-Analytic Review'. *Journal of Business Ethics*, 69: 2, 175-194.
- Monks, K., Kelly, G., Conway, E., Flood, P., Truss, K., and Hannon, E. (2013). 'Understanding how HR systems work: the role of HR philosophy and HR processes'. *Human Resource Management Journal*, 23: 4, 379-395.
- Mulki, J., Jaramillo, J., and Locander, W. (2008). 'Effect of ethical climate on turnover intention: Linking attitudinal-and stress theory'. *Journal of Business Ethics*, 78: 4, 559-574.
- Parboteeah, K.P., Lin, Y.T., Chen, I.H., Lee, A.Y.P., and Chung, A. (2010). 'Establishing Organizational Ethical Climates: How Do Managerial Practices Work?'. *Journal of Business Ethic*, 97: 4, 599-611.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., and Podsakoff, N.P. (2003). 'Common method biases in behavioral research: a critical review of the literature and recommended remedies'. *Journal of Applied Psychology*, 88: 5, 879-903.

- Posthuma, R.A., Campion, M.C., Masimova, M., and Campion, M.A. (2013). 'A High Performance Work System taxonomy: integrating the literature and directing future research'. *Journal of Management*, 39: 5, 1184-1220.
- Samnani, A.K., and Singh, P. (2013). 'Exploring the Fit Perspective: An Ethnographic Approach'. *Human Resource Management*, 52: 1, 123–144.
- Shin, Y. (2012). 'CEO Ethical Leadership, Ethical Climate, Climate Strength, and Collective Organizational Citizenship Behavior'. *Journal of Business Ethics*, 108: 3, 299-312.
- SHRM - Society for Human Resource Management (2013). Shaping an ethical workplace culture.
- Subramony, M. (2009). 'A meta-analytic investigation of the relationship among HRM bundles and firm performance'. *Human Resource Management*, 48: 5, 745-768.
- Tenenhaus, M., Esposito Vinzi, V., Chatelin, Y.M., and Lauro, C. (2005). 'PLS Path Modeling'. *Computational Statistics and Data Analysis*, 48: 1, 159-205.
- Victor, B., and Cullen, J.B. (1988). 'The organizational bases of ethical work climates'. *Administrative Science Quarterly*, 33: 1, 101-125.
- Wall, T.D., and Wood, S. J. (2005). 'The romance of human resource management and business performance, and the case for big science'. *Human Relations*, 58, 429–462.
- Way, S. A. (2002). 'High performance work systems and intermediate indicators of firm performance within the US small business sector'. *Journal of Management*, 28, 765–785.
- Weaver, G.R., and Trevino, L.K. (2001). 'The role of human resources in ethics/compliance management: a fairness perspective'. *Human Resource Management Review*, 11: 1, 113-134.
- Wetzels, M., Odekerken-Schröder, G., and Van Oppen, C. (2009). 'Using Pls Path Modeling for assessing hierarchical construct models: guidelines and empirical illustration'. *Mis Quarterly*, 33: 1, 177-195.
- Winstanley, D., and Woodall, J. (2006). 'The ethical dimension of human resource management'. *Human Resource Management Journal*, 10: 2, 5-20.

Wright, P.M., and Boswell, W.R. (2002). 'Desegregating HRM: A review and synthesis of micro and macro human resource management research'. *Journal of Management*, 28: 3, 247-276.

Wright, P.M., and McMahan, G.C. (1992). 'Theoretical perspectives for strategic human resource management'. *Journal of Management*, 18: 2, 295-320.

|     |             | Ability | Motivation | Opportunity | Benevolence |
|-----|-------------|---------|------------|-------------|-------------|
| (1) | Ability     | 1       |            |             |             |
|     | Motivation  | 0.75    | 1          |             |             |
|     | Opportunity | 0.74    | 0.80       | 1           |             |
|     | Benevolence | 0.39    | 0.35       | 0.38        | 1           |
|     |             | Ability | Motivation | Opportunity | Principle   |
| (2) | Ability     | 1       |            |             |             |
|     | Motivation  | 0.75    | 1          |             |             |
|     | Opportunity | 0.74    | 0.80       | 1           |             |
|     | Principle   | 0.32    | 0.27       | 0.31        | 1           |

Table 1: Correlations for model (1) with a benevolent ethical climate as the dependent variable and model, and (2) with a principled ethical climate as the dependent variable.

|     |             | AVE  | Composite Reliability | Cronbach's Alpha |
|-----|-------------|------|-----------------------|------------------|
| (1) | Ability     | 0.60 | 0.93                  | 0.92             |
|     | Opportunity | 0.56 | 0.93                  | 0.91             |
|     | Motivation  | 0.64 | 0.94                  | 0.93             |
|     | Benevolence | 0.82 | 0.90                  | 0.79             |
| (2) | Ability     | 0.60 | 0.93                  | 0.92             |
|     | Opportunity | 0.56 | 0.93                  | 0.91             |
|     | Motivation  | 0.64 | 0.94                  | 0.93             |
|     | Principle   | 0.62 | 0.86                  | 0.80             |

Table 2: Cronbach's alpha, composite reliability, and AVE, for model (1) with a benevolent ethical climate as the dependent variable and model, and (2) with a principled ethical climate as the dependent variable.