

Middlesex University Research Repository

An open access repository of

Middlesex University research

<http://eprints.mdx.ac.uk>

Croucher, Richard, Rizov, Marian and Goolaup, Ram (2014) The antecedents of direct management communication to employees in Mauritius. *The International Journal of Human Resource Management*, 25 (17). pp. 2420-2437. ISSN 0958-5192

Final accepted version (with author's formatting)

This version is available at: <http://eprints.mdx.ac.uk/13848/>

Copyright:

Middlesex University Research Repository makes the University's research available electronically.

Copyright and moral rights to this work are retained by the author and/or other copyright owners unless otherwise stated. The work is supplied on the understanding that any use for commercial gain is strictly forbidden. A copy may be downloaded for personal, non-commercial, research or study without prior permission and without charge.

Works, including theses and research projects, may not be reproduced in any format or medium, or extensive quotations taken from them, or their content changed in any way, without first obtaining permission in writing from the copyright holder(s). They may not be sold or exploited commercially in any format or medium without the prior written permission of the copyright holder(s).

Full bibliographic details must be given when referring to, or quoting from full items including the author's name, the title of the work, publication details where relevant (place, publisher, date), pagination, and for theses or dissertations the awarding institution, the degree type awarded, and the date of the award.

If you believe that any material held in the repository infringes copyright law, please contact the Repository Team at Middlesex University via the following email address:

eprints@mdx.ac.uk

The item will be removed from the repository while any claim is being investigated.

See also repository copyright: re-use policy: <http://eprints.mdx.ac.uk/policies.html#copy>

The antecedents of direct management communication to employees in Mauritius

Richard Croucher^a, Marian Rizov^a and Ram Goolaup^b

^a Business School, Middlesex University, London, UK;

^b Department of Management, University of Mauritius, Reduit, Mauritius

Abstract

We measure whether, in a developing country, existence of a ‘hard’ strategic HR strategy (SHRM) developed at high organizational levels or one designed to enhance employee knowledge inputs and thereby promote employer-employee interdependence (EEIN) is a stronger antecedent of direct communication to employees. We use data from a comprehensive survey of HR practices in Mauritius, one of Africa’s most open and successful economies. We find that both SHRM and EEIN are antecedents, but that the latter is stronger in public organizations and in smaller and older companies. We conclude that EEIN is a significant analytic category for explaining management practices especially in an historic sense in this and possibly other developing country contexts.

Keywords: communications; employees; employer–employee interdependence; strategic HRM; Mauritius

Introduction

We investigate the antecedents of direct management communication to employees in Mauritius, asking: ‘what is the absolute and relative importance of a ‘hard’ HR strategy and high levels of employer-employee interdependence (EEIN) as antecedents of direct management communication to employees?’ Our analysis elaborates the EEIN concept and

shows its practical application, throwing theoretical light on its relevance and potentially assisting managers' understandings of the mechanisms in operation in certain types of local companies. Well-developed direct management communications to employees are significant as they are associated with comparatively strong organizational performance and are therefore relevant to the wider subject of national economic development.

We address two principal weaknesses in the literature. First, management practices in African contexts remain only poorly understood from both empirical and theoretical standpoints (Kamoche et al., 2004). Whilst theoretical discussions of employment issues have been based on broad generalisation seeking to characterise systems, this has not been founded on extensive empirical foundations (Wood and Frynas, 2006). Moreover, many researchers have operated strictly within an 'HRM' paradigm, limiting themselves to seeking signs of what is essentially a foreign construct (see for example Ramgatty-Wong, 2004). The approach has some salience but is also insufficient in African contexts (Wood and Frynas, 2006). Although indigenous management traditions have been identified as relevant, these have only been documented in limited contexts such as SMEs (Jackson, 2004; 2008). We therefore propose a complementary approach.

'Direct management communication to employees' designates management information-giving to employees, unmediated through employee representatives. We focus here on the briefing of non-managerial employees on the strategic issues of business strategy, financial performance and work organization. Direct management communication to employees has long been seen as a vital element in employee involvement and in turn commitment, i.e. 'more active employee participation in [organizational] affairs' (Caldwell, 1993: 136). Its purpose is 'to increase the level of employee commitment to an organization' (Guest et al., 1993: 192). It has recently been highlighted as a key factor in effective performance management, an important element in HRM in world-leading companies (Biron

et al., 2011). Communication on company strategy and financial performance is one of seven dimensions of High Involvement Management that Pfeffer (1998) identified as bringing significant economic returns to enterprises.

Our points of departure are that a ‘hard’ form of HR strategy may be associated with well-developed communications practices, and that high levels of ‘employer-employee interdependence’ (Whitley, 1999) may also be significant in driving communications. We justify and explain these starting points below.

The Mauritian context

Mauritius cannot be called a ‘typical’ African country, and indeed the great diversity of the continent’s countries and their labour markets has caused experts to caution against making such claims in any national context except at very high levels of generality (Brewster and Wood, 2007: 8-9). Mauritius is *sui generis*, notably because it has an economically powerful indigenous industrial élite (claiming to be the original Mauritians) which invests locally, encouraged by a ready supply of cheap, compliant and relatively skilled labour. This French-speaking minority has been encouraged to continue doing so through an alliance with the political élite. The alliance has successfully contained racial tensions between the majority Hindus, the descendants of bonded labourers brought to Mauritius in the Nineteenth Century to replace the freed slaves of African descent and the latter’s relatively under-privileged descendants (Sandbrook et al., 2007; Madhoo and Nath, 2013). A moderate union movement involved in tripartite mechanisms, committed to national development and organized on a largely enterprise basis represents a further reason for the Franco-Mauritians’ continued commitment (Sandbrook et al., 2007; Fashoyin, 2010).

Political power is wielded by the Hindu majority. Since independence, successive essentially social-democratic governments have diversified the economy away from its previous dependence on sugar, presiding over the development of light manufacturing, textiles, tourism and finance (Van Demorteele and Bird, 2010). Partly as a result, there is also a good level of FDI in this small open economy. Its drive to encourage FDI has been symbolized by the designation of the entire island as an Export Processing Zone (EPZ) since 1971. There are strong democratic institutions and no powerful military élite (Chutel, 2012). Levels of corruption are low and foreigners may control 100% of a company in most industries. In 2011 the Heritage Foundation's 'Economic Freedom' ranking for the country was 8th in the world, two places above the USA.

These features, atypical of most African countries, constitute important context for our study but they are also related to the island's significance as a research site. Despite its manifest specificities, Mauritius has been seen as offering lessons to other African countries (Sandbrook et al, 2007; Darga, 2011). It is widely canvassed as an African success story, a unique example on that continent of successful development essentially through its human resources, without any element of natural resource endowments (Lange, 2003; Sandbrook, 2005; Lincoln, 2006; Sandbrook et al., 2007; Darga, 2011). Unusually for Africa, ethnic tensions have been contained (Madhoo and Nath, 2013). Its human resource practices are therefore of special interest. Its government is active in the key African regional organizations and Mauritian companies are expanding their operations into East Africa and beyond, diffusing their practices beyond the island's confines (Van Demorteele and Bird, 2010). Hence, Mauritius' significance lies mainly in the influence of its management practices.

The country shares certain limited systemic features, notably in the labour area, with some other African countries. First, as in most national cases, its legal framework is based on

those adopted from the previous colonial powers although the Mauritian legal framework rests on a unique combination of the French and English systems. Like Ghana, Nigeria, Kenya and Zambia it also has a specific labour code recognizing certain limited employee and union rights (Horwitz, 2007). Second, a similar commitment to a weak form of tripartism, providing some support for trade unions' institutional position, is also evident in some other African countries such as Kenya (Fashoyin, 2007). Unions in the Mauritian case are however small, fragmented and enterprise-based (Ramguttty-Wong, 2004).

Overall, Mauritius may therefore be characterized as a developing economy in which labour management strategy is of particular importance and managements' freedom to exercise strategic choice is only minimally constrained by trade unionism.

Theoretical framework and hypotheses

Strategic HRM (SHRM) has been theorized in different ways. We stress that in referring to SHRM hereafter in this paper we refer to the 'Michigan' model. This influential model epitomizes 'hard' or 'calculative' approaches. On the one hand, this has common features with Taylorism in that its four key systems (selection; performance criteria; appraisal; rewards and development) feature in both approaches. On the other, it also emphasizes the importance of HRM departments making strong inputs to organizational strategy. In this version, SHRM relies primarily on strategically-tailored reward systems and forms of appraisal where inputs are made primarily by managers to direct employees towards company goals (Fombrun et al., 1984). The risk of strategy developing at the top of organizational hierarchies but remaining weakly communicated to employees below that level is *a priori* evident. Communication may theoretically be in some sense inadequate either in terms of the range of information presented or in terms of the layers of employees that it is aimed at.

Employees lower down organizational hierarchies and notably manual workers are typically less well-communicated with on strategy than professional, technical and administrative workers (Croucher et al., 2006).

A second, 'soft' or 'collaborative' form of SHRM aims at strategically-anchored employee involvement, viewing employees as participants in a project based on commitment and partnership (Beer et.al., 1984). In this model, since employee commitment is essential irrespective of company strategy, regular communication of strategic, financial and organizational information to employees is considered important.

However, managements are likely to take elements from different HRM models to create varied sets of what are 'hybrid' practices from a theoretical viewpoint (Goodall and Warner, 1998). Institutional and/or cultural pressures from unions and workforces can lead to hybridisation of 'hard' and 'soft' HRM. In practice, managers practising 'hard' SHRM may adopt the communications practices of 'soft' SHRM whilst choosing not to use other high-involvement practices encouraged by the 'soft' approach (Brookes et al., 2011). Thus, 'hard' SHRM may in practice be an antecedent of strong downward communications because managements might find that higher levels of communication may improve effectiveness.

It has been found in a European context that SHRM is in fact closely associated with strong employee communications although as we have outlined it is not an invariable consequence of it (Croucher et al., 2006). Management may seek to increase employee 'buy-in' to company strategies developed at a high level through strong downward communication. Where employees are considered to add high levels of value to products and services, managements are likely to see a need to communicate beyond a 'need to know' basis (Mayo, 2001). Moreover, in the European context, institutional pressures have also been shown to lead to high levels of direct management communication to employees. Thus, for example, European systems of employee representation exercise a 'pull' influence on this

type of communication that appears to derive not only from the direct influence of representation but also from the relatively sceptical attitudes of represented workforces (Croucher et al., 2006). Mauritius has systems of employee representation that are buttressed by tripartism at the national level and may also exercise a similar influence. Our first hypothesis is therefore:

H1: Strategic HRM is associated with relatively strong direct management communication to employees.

How far HRM in any form and however broadly conceived exists in Africa has been widely debated (Harvey, 2002; Kamoche et al., 2004; McCourt and Ramguttty-Wong, 2003; Ramguttty-Wong, 2009). As we suggested above, company HRM practices may in fact be less theoretically planned and more pragmatically reactive than often assumed (Goodall and Warner, 1998). Moreover, while cultural impediments to adopting HRM in African contexts are widely recognized (Jackson et al., 2008), the power of institutions including unions to impact SHRM's introduction has also been demonstrated (Brookes et al., 2011). HRM certainly exists in some companies operating in Mauritius, as elsewhere on the continent (Kamoche et al., 2004). Yet it is equally certainly not the sole labour management paradigm and alternative local practices remain common (Ramguttty-Wong, 2009). Evidence on the precise nature of these practices is sparse. It has been argued on the basis of a small sample of senior managers that local managers strongly emphasise the need to communicate with employees (Boojihawon and Hanuman-Oogarah, 2010). These researchers simultaneously point to a lack of 'strategic orientation' by the same managers. Their findings raise the possibility that communication is part of a wider local approach not conceptualized by them.

We therefore test whether another concept based on enhancing employees' capacities to contribute their knowledge to organizations is also useful. We examine whether 'organizational learning', a key driver of strategy in numerous organisations internationally

has significant analytic purchase (Bell et al., 2004). ‘Organizational learning’ strategies may resonate locally because the widespread assumption is that Mauritius’ sole source of competitive advantage is its human resources and employee involvement is high on managers’ agendas as part of their perceived participation in a national development project (Darga, 2011). We suggest that this is likely to raise levels of employer-employee interdependence (EEIN).

Jackson et al. (2008), drawing on Ayithey’s (2006) seminal work on the continued importance of indigenous African institutions, argue that local cultures and forms of management are of primary significance on the continent. Encouraging EEIN is to some extent an alternative to SHRM as a strategic orientation because it implicitly rejects relating to employees in ways similar to the more instrumental forms of SHRM that emphasise employee monitoring and link that to payment on the basis of individual performance (Gooderham et al., 1999). An EEIN-enhancing strategy is consistent with Jackson et al.’s (2008) argument that emphasizes the communitarian aspects of African society and their wider effects in workplaces.

An ‘organizational learning’ strategy is likely to reflect and to buttress EEIN (Whitley, 1999). Whitley uses the concept extensively but has not explicitly defined it. Its content is nevertheless implied in his exposition. He refers to a high propensity to train employees, high levels of mutual trust and long-term views of the employment relationship on both sides leading to a willingness to invest in each other. We elaborate his implied definition.

EEIN always exists to some extent and can be located somewhere along a continuum. At its lowest point a minimal degree of interdependence is structured into the employment relationship since both parties are at least to some extent dependent on each other to deliver. At higher levels, EEIN is manifested through high levels of employee commitment. It

reflects and influences how far employers and employees are willing to invest in each other (for example through training in employers' case and knowledge transfer in that of employees). EEIN is directly linked to an 'organizational learning' strategy because it centres on employee contributions to organisational capacities (Whitley, 1999). In Whitley's framework, principally concerned with national systems, its origins are traced to external national conditions such as training systems and levels of collective bargaining. Yet it may also be actively fostered by management strategies at firm level. At high levels, as Whitley argues, it allows managers to delegate control over the productive process, by a policy akin to that of 'responsible autonomy' which has long been recognised as a significant labour management option (Trist and Bamforth, 1951) and which we note reduces the need for costly monitoring systems. EEIN is likely to be associated with attempts to develop high trust relations and to maximize employee voice, shown to assist in retaining staff in developed country contexts (Croucher et al., 2011). A knowledge-sharing strategy may be fostered by high-trust relations, which tend to reduce employees' propensity to hoard knowledge as a source of perceived individual advantage within organizations (Wang et al., 2012).

Through building EEIN, management can differentiate their company from competitors in the labour market in order to attract and retain appropriate employees. This is widely regarded as essential in Mauritius since high levels of employee turnover are a considerable problem for managements (Goolaup and Ramasawmy, 2011). They may therefore attempt to develop a 'partial gift exchange relationship' with employees whereby training, rewards for knowledge-sharing and other forms of recognition are traded for enhanced engagement and, by extension, commitment (Akerlof, 1982). 'Partial gift exchanges' may occur because the employer offers conditions perceived by employees to be relatively good in relation to employers regarded as realistic comparators (Akerlof, 1982). In

return, employers receive additional discretionary inputs from employees, establishing a virtuous cycle. Establishing this cycle is likely to be more effective where it is made explicit to employees through strong communications (Akerlof, 1982). Hence our second hypothesis:

H2: High levels of employer-employee interdependence are associated with relatively strong communications practices.

Finally, we test for whether foreign-owned companies have stronger communications practices than their local counterparts. **The adoption of intensive employee communications practices by MNC subsidiaries is likely to be affected by the host country's institutional environment, in this case a 'constant' variable (Kostova and Roth, 2002). Developed-country MNCs perceive many national legal environments in the developing world to be inadequate and therefore seek to compensate for them (Brockman et al., 2013) by addressing relations within the MNC itself (Kostova and Roth, 2002), in this case by intensifying internal communications practices. This may lead to involvement of intermediate institutions such as trade unions in Mauritius, which often open access to political contacts in the island's government (McCourt and Ramguttty-Wong, 2003). MNCs based in the developing world appear on the other hand to show a preference for relatively informal, interpersonally-based communications practices (Su et al, 2008). One would therefore expect developed-country MNCs to institute more intensive and formal communications with employees. Moreover, strong communications are among those relatively uncontentious practices that foreign-owned companies can easily transfer to subsidiaries (Sayim, 2011) in an attempt to mitigate 'the liability of foreignness' (Zaheer, 1995). Conversely, their adoption in local organisations may be hampered by the strong internal hierarchies which Wood and Frynas (2006) suggest are typical of African companies. These hierarchies may serve to weaken communications if information sharing is seen potentially to dilute the authority and control of those at the top.**

Therefore they may not be adopted where local managers maintain hierarchical views in foreign-owned companies. We therefore propose:

H3: Foreign-owned companies will have stronger communication to employees than locally-owned companies.

Methodology

Data

Our data are derived from the 2011 Mauritius HR survey, specially designed to cover a wide range of HR policies and practices at organizational level. The respondents are the highest-ranking corporate officers in charge of HRM. The questionnaire was developed using an iterative process between the researchers, experts in HRM at the University of Mauritius and their extensive network of HR professionals comprising some sixty managers.

The survey instrument consisted of 57 questions - many with multiple options - ranging across the full range of HR practices and including detailed information on the company (the main headings are: HRM activity in the organization; staffing practices; employee development; compensation and benefits; employee relations and communication; knowledge transfer; organizational details). The survey was administered by post in November 2011. 350 organizations in both the public and private sectors were surveyed, using a sampling frame derived from a Human Resources Development Commission (HRDC) data base of companies employing more than ten people and specifically designed by the HRDC to be representative of employment by industry.

The particular difficulties of conducting survey research in the local context have been stressed (Ramguttay-Wong, 2004: p.55). 120 organizations provided usable questionnaires, giving a response rate of 34%. The survey instrument's complexity, the

number of respondent organizations and response rate compare favourably with other Mauritian HR surveys although theoretically, the larger number of questions might have led to a lower response rate (Rea and Parker, 2005). The number of questions asked is considerably larger than in previous surveys; for example, 66 public and private organizations answered sixteen questions including multiple options in Ramguttty-Wong and Gokhool (2000); 46 private companies answered an unspecified number of questions in Ramguttty-Wong (2004).

Public ownership is spread across all major industries and accounts for approximately one-third of employment. In our sample there are 48 such organizations and publicly-owned bodies are therefore marginally over-represented within it. The median number of employees in respondent companies is 200; the smallest employs 12 and the largest has 12,000 employees. The sample's industry composition is as follows: services 50%; transport, communications and utilities 23%; manufacturing 16%; construction 7%; agriculture 4%. The sample is broadly reflective of the island's industrial structure, but manufacturing and agriculture are slightly under-represented when measured against official figures of employment in different industries (Mauritius Central Statistics Office, 2011).

The team of researchers directly involved in the survey cleaned the data. Data were then input to an SPSS data entry file set up by the authors in conjunction with an external company. The data were entered by one person employed by that company and checked separately by another experienced colleague. Spot checks on the data entry were carried out by the three researchers involved in conducting the survey.

Variables

The dependent variable - direct communication (DCOM) and the main explanatory variables - employer-employee interdependence (EEIN) and SHRM - are all ordinal categorical scales. We apply Mokken's nonparametric scaling model (Mokken and Lewis, 1982) to compute our synthetic indices as in Gooderham et al. (1999) and Croucher et al. (2006). The unweighted sum of item scores forming each scale must be monotonously related to the latent true scores, as demonstrated by Sjitsma et al. (1990). The primary scaling criterion is Loevinger's H-coefficient of homogeneity. A set of items constitutes a scale if the aggregate has an H-value exceeding 0.30; values above 0.50 indicate strong scales. The internal consistency of the scales is verified by Cronbach's Alpha which increases in line with the intercorrelations between scale items. Because intercorrelations among test items are maximized when all items measure the same construct, Cronbach's Alpha is taken as indirectly indicating the degree to which a set of items measures a single unidimensional latent construct. Alpha values above 0.70 indicate a strongly defined construct.

The dependent variable, DCOM, is constructed as in Croucher et al. (2006) as a composite index capturing employer communication to employees, that is, whether organizations brief clerical and manual employees on issues of business strategy, financial performance and work organization. Each of the six questions is coded as a binary variable (yes = 1; no = 0). We extend the index by adding responses to three further questions indicating employees' direct communication to employers such as through regular workforce meetings, team briefings and electronic communication. Each of the three additional questions is also coded as a binary variable (yes = 1; no = 0). In this way a ten-point scale is created, with higher scores reflecting briefing of both clerical and manual employees on all three issues and the existence of employee-employer communication; zero indicates no briefing of either category on any of the issues and no formal communication in any form.

The reliability of our DCOM index as measured by Cronbach's Alpha is satisfactory (0.69) while Loevinger's H-coefficient is acceptable at 0.51.

The explanatory variables of main interest are employer-employee interdependence (EEIN) and strategic human resource management (SHRM) in companies. Both are composite indexes. EEIN poses construct and measurement issues because it is a relationship and no widely-accepted ways of measuring it exist. Our scale consists of responses to three sets of questions designed to discern ways in which employee knowledge contributions are enhanced through company practices since these help create conditions for establishing a credible implicit gift exchange relationship and for promoting mutual dependence. The first set of two questions contains information on the training of employees. (Internally training more than 50 percent of employees = 1 and 0 otherwise; and/or externally training more than 50 percent of employees = 1 and 0 otherwise.) Training is clearly an investment in employees, designed to enhance their contributions to the organization. While the neo-classical model of training, within which employers will only pay for firm-specific training (Becker, 1993) has been questioned, the general tendency for employers to favour this type of training remains clear. Training may therefore increase employees' willingness to invest in their current organization rather than in others.

The second set of four questions reflects how extensively employee contributions in the form of knowledge transfers are rewarded. We refer to this as our 'KT' measure. (Employees are rewarded for transferring knowledge inside the organisation by personal acknowledgement = 1 and 0 otherwise; employees are offered professional development opportunities = 1 and 0 otherwise; employees are awarded pay increments = 1 and 0 otherwise; employees are promoted = 1 and 0 otherwise.) Thus we use a set of indicators that measure both 'social' (acknowledgement) and 'market' (pay and promotion) mechanisms for

promoting social capital since these have been shown to be more effective in doing so than alternative, essentially hierarchical mechanisms (Gooderham et al., 2011).

The third set contains a single question providing information on employer-employee relationships based on the nature of appraisal contributions. (In appraisal input is made by the subject's subordinates = 1 and 0 otherwise.) The indicator is chosen because in this non-'Michigan' form, appraisal demonstrates managers' relative trust in subordinates (Waldman and Bowen, 1998: p.127). Eliciting subordinates' responses in appraisal shows that the system designers view these inputs as important. To an even greater extent than the KT measure (because it explicitly evokes specific subjective information), the practice is therefore likely to heighten employee identification with the organization. The sum of the responses to the above seven questions is used to form an index that ranges from 0 (low degree of employee-employer interdependence) to 7 (high degree). The reliability of the index as measured by Cronbach's Alpha is high (0.76) and Loevinger's H-coefficient is 0.63.

Our SHRM measure consists of responses to seven questions from the survey designed to assess how 'strategic' the role of the HRM department is. The questions are: Does the head of the personnel/HRM department have a place on the main Board of Directors or the equivalent? (Yes = 1; no = 0.) At what stage is the person responsible for personnel/HRM involved in the development of business strategy? (A four-point scale: consultation from the outset = 3; not consulted at all = 0.) Who has primary responsibility for major policy decisions on the following issues: pay and benefits, recruitment and selection, training and development, industrial relations, workforce expansion/reduction? (A four-point scale: line management = 0, line management in consultation with HRM = 1, HRM in consultation with line management = 2, HRM department = 3.) The sum of the responses to the seven questions is used to form an index ranging from 0 (low degree of strategic HRM/no

HRM department) to 19 (high degree of strategic HRM). The reliability of the index as measured by Cronbach's Alpha is quite high (0.83) and Loevinger's H-coefficient is 0.68.

Further, following the conceptual frameworks of Croucher et al. (2006) and Rizov and Croucher (2009), we control in our regression analysis for company and industry characteristics that may affect direct communication: company size (SIZE), company age (AGE) and a set of dummy variables controlling for type of industry – manufacturing (MANU) and other (e.g., utilities and extraction) industries (OTHR) with services as the reference category. SIZE is a dichotomous variable with 1 indicating companies larger than the median number of company employees and 0 otherwise. AGE is a dichotomous variable with 1 indicating companies older than the median company age and 0 otherwise. Given the relatively small size of our sample we prefer discrete (categorical) measures of size and age which help us better deal with outliers and utilise some observations where information on size and age is reported only 'qualitatively' or approximately. In the regression analysis that follows, to verify the validity of our results, we also experimented with direct measures for size (number of employees) and age (number of years) and the results are quite similar to those reported though based on a smaller number of observations. These alternative results can be obtained on request.

Finally, in extended specifications we introduce the impact of company ownership on direct communication. We distinguish between ownership in two dimensions, foreign (FOWN) vs. domestic and private (POWN) vs. public companies. Both variables are dichotomous, with 1 indicating foreign (private) ownership and 0 otherwise.

- Table 1 here -

Summary statistics and short definitions of all regression variables are reported in Table 1. Details on the construction and test statistics for the DCOM, EEIN and SHRM

scales are available on request. The correlation matrix for selected regression variables is presented in the Appendix, Table A1. The low correlations between regression variables indicate no substantial collinearity and endogeneity problems.

Estimation and findings

We estimate the relationship between direct communication and the explanatory variables both by Ordinary Least Squares (OLS) and Ordered Logit (OL) models. Because the dependent variable is categorical and ordered in nature, it is in principle appropriate to use the OL estimator. However, given that the categorization of the dependent variable, DCOM is quite fine and it appears to exhibit normal distribution, OLS can also be used. The results from the two methods are very similar and we report and discuss the OLS results which are more straightforward to interpret. The OL results are available from the authors on request.

- Table 2 here -

First, we estimate the full sample and report the results in Table 2. To test for possible endogeneity of the explanatory variables we expand the specification stepwise as in Croucher et al. (2006) and Rizov and Croucher (2009). This approach demonstrates no endogeneity problems as the coefficients in all specifications remain stable.

We start with a base specification where the explanatory variables are the main company characteristics, SIZE and AGE and the industry controls, MANU and OTHR and report the results in column (1). These control variables do not appear to significantly explain direct communication. In a second extended specification reported in column (2) we add the variables of main interest, EEIN and SHRM. The coefficients of the two variables are positive and highly statistically significant (at 1 and 5 percent respectively) while the coefficients of the control variables from the base specification remain stable. Besides the

estimated coefficient and standard error we also present the elasticity for each variable at the top of each cell. Comparing the elasticities associated with EEIN and SHRM, it is evident that SHRM is the more important determinant of direct communication, however, the Wald test for significance of the coefficient difference is satisfied only at the 10 percent level. Thus, H1 is upheld since SHRM is shown to be significantly associated with direct communication and, as we argue below, SHRM is likely to cause it rather than vice versa. However, H2 is also upheld. As a robustness check, we introduce each element of the EEIN scale separately and find that their coefficients are statistically significant both individually and jointly.

Next, we introduce the controls for foreign and private ownership (column 3). The coefficients of both FOWN and POWN are not statistically significant while the coefficients of all variables from previous specifications remain stable. Therefore we reject H3 as foreign-owned companies do not seem to communicate more than local companies although we note the influence of SHRM on their communications.

- Table 3 here -

Given the importance of ownership as an organizational characteristic we further analyze the relationship between direct communication and all explanatory variables in sub-samples by ownership type and report our results in Table 3. Given the relatively small sub-sample sizes the results need to be interpreted with caution and should be seen primarily as further verification of the results from the full sample. In columns (1) and (2) we compare public vs. private ownership. The main finding is that in public organizations the single most important factor positively affecting direct communication is EEIN with the coefficient significant at the 1 percent level. In private companies EEIN is again positive and significant but so, too, is the SHRM coefficient which has a statistically larger positive elasticity. In columns (3) and (4) the results from the domestic vs. foreign ownership sub-samples are

reported. In the domestic sub-sample statistically significant relationships are apparent between direct communication and both EEIN and SHRM as the SHRM elasticity appears larger but the Wald test of coefficient difference is not satisfied. In the foreign sub-sample, only SHRM is statistically significant (at the 5 percent level) but the SHRM elasticity is relatively small.

- table 4 here -

In Table 4 we report further results from estimating subsamples by company size (columns 1 and 2) and age (columns 3 and 4). We find that in smaller and older companies (columns 1 and 4), EEIN plays a more important role than SHRM. In larger and younger companies (columns 2 and 3) SHRM has more importance relative to EEIN. These findings are consistent with our theoretical framework and discussion of the different driving forces behind SHRM and EEIN respectively in terms of their origins and history.

Discussion and conclusion

Our main contribution has been to show that in the developing country context of Mauritius EEIN is at least as important an antecedent of direct communication to employees as SHRM, and has distinct explanatory power. It proved more effective than SHRM in explaining high levels of direct communication in public organizations and in smaller and older companies.

In public organizations, our results are consistent with the picture drawn by McCourt and Ramguttty-Wong (2003) and indicate that in this respect at least little has changed over the intervening decade. The downward communication of political imperatives, high levels of procedural formality (not to say bureaucracy) and dense unionisation all appear to continue to militate in this direction. In smaller companies, however, a different set of mechanisms seems likely to be at work since internal social relations are

likely to be very different not least because political considerations are likely to be absent. While little research has been carried out in these firms, it seems likely that strong communications derive from the dense internal social ties—and we would add high levels of EEIN--noted in many small enterprises internationally (Cetinel et al., 2009). Thus, it appears that high levels of direct communication occur in quite different parts of the Mauritian economy and that quite different social relations may be subsumed under the EEIN umbrella. Just as with SHRM, EEIN is a phenomenon that may be relevant in quite different organisational environments.

Nevertheless, our results for SHRM are also positive and significant. This suggests that EEIN–driven direct communication to employees is principally an historic phenomenon. SHRM may be gaining a foothold locally and be further advanced in the future by demonstration effects enhanced by the modernity and scale of the companies where it is practiced.

Our findings in relation to company ownership show that the EEIN phenomenon is associated with strong communication to employees in both foreign-owned and domestic companies, but more weakly in the former than the latter. In this case, as in that of SHRM, we also view it as probable that EEIN is the main driver of communication. EEIN may be more marked in domestic companies simply because EEIN has essentially local (and, given our age of enterprise finding, historic) origins; these may also be apparent through the influence of local managers in foreign-owned companies but diluted in those environments by international policies and practices. Our result is in line with recent findings that MNC subsidiaries may only adopt formally practices in ceremonial ways (Collings et al., 2011) and arguments that the transfer of practices in MNCs is a complex, negotiated process (Fenton O’Creevy et al., 2011; Gooderham et al., 2011). It is also consistent with other researchers’

findings that the strength of transfer between MNC subsidiary practices and domestic companies may be limited in developing country contexts (Demirbag et al., 2012).

The direction of causation is always an issue when analyzing associations. Even though our data are limited to a cross section our results from stepwise expansion of the estimation specifications and testing for the impact of individual EEIN index components lead us to believe that the direction of causality is from SHRM and EEIN to DCOM. Furthermore, theoretically it appears more plausible to envisage the causal relationship as flowing from SHRM and EEIN towards direct communication than the reverse. In the former case communication should, according to many HRM theorists, flow from the development of strategy. In the latter case, as Whitley (1999) explains, EEIN stimulates communication and involvement. Nevertheless some reverse effect, albeit a small one, may also exist since the communication of strategy might encourage training, knowledge transfer and appraisal contribution.

As we suggested above, underlying our results may be an historic commitment on local management's part to attempt to develop the workplace as a collective enterprise or Weberian *Gemeinschaft*. Our suggestion is buttressed by evidence of the espoused commitment of local managers to developing enterprises as part of a national development project (Ramguttty-Wong and Gokhool, 2000). It is also consistent with the argument that African communitarian values are influential on HRM practices at workplace level (Jackson et al., 2008). Theorists from the cross-cultural management tradition have argued that it is precisely this that separates those managers' influenced by Anglo-Saxon style individualistic assumptions from African employees' more collectivist understandings (Jackson et al., 2008). These African traditions are also consistent with recent evaluations of attitudes in the other main national component on the island: the Indian majority. Indian management styles have

been characterized as embracing a holistic and inclusive view of employees as vital contributors to enterprise success (Capelli et al., 2010).

International business experts and policy makers may find it of interest that foreign companies with strategic approaches to HRM do not lead the way in management communication to employees. **Indeed, their employee communications practices are not in fact more developed than those of domestically-owned companies.** In this respect, FDI has not led to positive spill-over effects to local Mauritian companies as posited as a possible benefit of FDI by experts (Gooderham and Nordhaug, 2003). In our context at least, native traditions remain important and in fact are associated both with communications practices advocated by influential HRM theorists and indeed with enterprise success.

Our theoretical contribution is to have shown that EEIN rather than just SHRM is a significant antecedent of an important management practice. Where managements continue to foster mutual dependence between workers and management, they seek to solidify employee commitment by the complementary practice of direct communication to workers. Since it has been widely asserted that HRM in any form is not practiced in many companies operating in African contexts, this is a step forward.

Ayittey (2004) has argued for the importance of indigenous African institutions, identifying a number of social institutions on which 'development' policy might be based. In effect, this is an argument for states building on historic social institutions to achieve development. Similar historic social institutions, notably the local co-operative institutions known as *Baitka* have also been identified as important in Mauritian society and their significance in developmental terms asserted (Chutel, 2012). Thus, in both Mauritian and wider African contexts, extra-workplace institutions may exert an influence on management practices within workplaces. This conjecture also requires further empirical investigation.

References

- Akerlof, G. (1982), 'Labor contracts as partial gift exchange', *Quarterly Journal of Economics*, 97 (4), 543-69.
- Almond, P. (2011), 'The sub-national embeddedness of International HRM', *Human Relations*, 64 (4), 531-552.
- Ayittey, G.B.N. (2004), *Africa Unchained: The Blueprint for Africa's Future*, London: Palgrave MacMillan.
- Ayittey, G.B.N. (2006), *Indigenous African Institutions* (2nd edition), Ardsley, New York: Transnational Publishers.
- Becker, G.S. (1993), *Human Capital* (3rd edition), Chicago: Chicago University Press.
- Beer, M., Spector, B., Lawrence, P.R., Mills, D.Q. and Watson, R.E. (1984) *Managing Human Assets* (1984). New York: Free Press.
- Bell, M., Martin, G. and Clarke, T. (2004), 'Engaging in the future of e-learning: a scenarios-based approach', *Education and Training*, 46 (6/7), 296-307.
- Biron, M., Farndale, E., Paauwe, J. (2011), 'Performance management effectiveness: Lessons from world-leading firms', *International Journal of Human Resource Management*, 22(6), 1294-1311.
- Björkman, J. (2003), 'The diffusion of Western-style human resource management practices among Chinese firms: the role of Western MNCs', *Asia-Pacific Business Review*, 9 (2), 143-60.
- Boojihawon, D. and Hanuman-Oogarah, V. (2010), 'Do African managers think differently about strategy?', *Conference paper: Conference on Leadership and management Studies in Sub-Saharan Africa. University of Cape Town, 22-4 November 2010.*

- Brewster, C., Wood, G., (2007) 'Introduction: comprehending industrial relations in Africa', in *Industrial Relations in Africa*, eds. G. Wood and C. Brewster, Basingstoke: Palgrave Macmillan, pp. 1-14.
- Brockman, P., Rui, O.M., Zou, H. (2013), 'Institutions and the performance of politically connected M&As', *Journal of International Business Studies*, 44, 833-852.
- Brookes, M., Croucher, R., Fenton O'Creevy, M., and Gooderham, P. (2011), 'Measuring competing explanations of human resource management practices through the Cranet survey: Cultural versus institutional explanations', *Human Resource Management Review*, 21 (1), 68-79.
- Caldwell, R. (1993), 'Is Anyone Listening? Communicating Change to Employees', *Journal of Strategic Change*, 2, 83-7.
- Capelli, P., Singh, J., Useem, M., Singh, H. (2010), *The India Way: How India's top business leaders are revolutionizing management*, Cambridge, MA: Harvard Business Press.
- Cetinel, F., Yolal, M., Emeksiz, M. (2009), 'HRM in small and medium-sized hotels in Turkey', *Hospitality and Tourism* 8 (1): 46-63.
- Chutel, E. (2012), 'A political elite's perception of successful development', Unpublished MA dissertation, Middlesex University.
- Collings, D. and Dick, P. (2011), 'The relationship between ceremonial adoption of popular management practices and the motivation for adoption and diffusion in an American MNC', *International Journal of Human Resource Management*, 22(18), 3849-3866.
- Croucher, R., Gooderham, P., and Parry, E. (2006), 'The influences on direct communication in British and Danish firms: Country, strategic HRM or unionization?', *European Journal of Industrial Relations*, 12(3), 267-286.

- Croucher, R., Wood, G., Brewster, C., Brookes, M. (2011), 'Employee turnover, HRM and institutional contexts', *Economic and Industrial Democracy*, November. Published on-line. DOI 0143831X11424768.
- Darga, A. (2011), 'The Mauritius success story: why is this island nation an African political and economic success?' in *Advocates for Change. How to overcome Africa's challenge*, ed. Mbeki, M., Johannesburg: Picador Africa, pp. 169-186.
- Demirbag, M., Collings, D., Mellahi, K., Tatoglu, E., and Hughes, M. (2012), 'The extent of divergence in human resource management practices of MNE subsidiaries and domestic firms: Evidence from an emerging country', *International Journal of Human Resource Management*, forthcoming.
- Fashoyin, T. (2007), 'Industrial relations and the social partners in Kenya', in *Industrial Relations in Africa*, eds. G. Wood and C. Brewster, Basingstoke: Palgrave Macmillan, pp. 39-52.
- Fashoyin, T. (2010), 'Tripartite institutions, collective bargaining and employment relations in the Mauritius labour market', Working Paper 18. *Geneva, International Labour Office*.
- Fenton-O'Creevy, M., Gooderham, P.N., Cerdin, J-L and Rønning, R. (2011), 'Bridging roles, social skill and embedded knowing in multinational organizations', in *Politics and Power in the Multinational Corporation*, eds. M. Geppert and C. Dörrenbächer, Cambridge: Cambridge University Press, pp. 101-136.
- Fombrun, C.J., Tichy, M., Devanna, M.A. (1984), *Strategic Human Resource Management*, New York: Wiley.

- Goodall, K. and Warner, M. (1998), 'Human resource management dilemmas in China: the case of foreign-invested enterprises in Shanghai', *Asia-Pacific Business Review*, 4 (4), 1-21.
- Gooderham, P.N., Minbaeva, D.B., and Pedersen, T. (2011), 'Governance mechanisms for the promotion of social capital for knowledge transfer in Multinational corporations', *Journal of Management Studies*, 48(1), 123-50.
- Gooderham, P.N., Nordhaug, O. and Ringdal, K. (1999), 'Institutional and Rational Determinants of Organizational Practices: Human Resource Management in European Firms', *Administrative Science Quarterly*, 44, 507–31.
- Gooderham, P.N. and Nordhaug, O. (2003), *International Management. Cross-Boundary Challenges*, Oxford: Blackwell Publishing.
- Goolaup, R. and Ramasawmy, D. (2011), 'The extent and limits of a developmental state's impact on HRD practices: Evidence from Mauritius', Paper Delivered to the 110th Annual Conference of the Academy of HRD (Asia Chapter), Kuala Lumpur, Malaysia, December 3-6.
- Guest, D., Peccei, R. and Thomas, A. (1993), 'The impact of employee involvement on organizational commitment and "Them and Us" attitudes', *Industrial Relations Journal*, 24(3), 191–200.
- Harvey, M. (2002), 'Human Resource Management in Africa: Alice's adventures in Wonderland', *International Journal of Human Resource Management*, 13 (7), 1119-45.
- Horwitz, F. (2007), 'Cross-continental trends and issues in employment relations in Africa', in Wood, G., Brewster, C. (eds.) *Industrial Relations in Africa*, Basingstoke: Palgrave Macmillan: 219-234.

- Jackson, T., (2004), *Management and Change in Africa: a Cross-Cultural Approach*, London: Routledge.
- Jackson, T., Yavuz, S. and Amaeshi, K. (2008), 'Untangling African indigenous management: Multiple influences on the success of SMEs in Kenya', *Journal of World Business*, 43 (4), 400-416.
- Kamoche, K., Debrah, Y., Horwitz, F., Muuka, G.N. (eds.) (2004), *Managing Human Resources in Africa*, London: Routledge.
- Kessler, I., Undy, R. and Heron, P. (2004), 'Employee Perspectives of Information and Consultation. Findings from a Cross-national Survey', *International Journal of Human Resource Management*, 15(3), 512–532.
- Kostova, T., Roth, K. (2002) 'Adoption of an Organisational practice by subsidiaries of Multi-National Corporations: institutional and relational effects.' *Academy of Management Journal*, 45(1), 215-233.
- Lange, M. (2003), 'Structural holes and structural synergies: a comparative-historical analysis of state-society relations in colonial Sierra Leone and Mauritius', *International Journal of Comparative Sociology*, 44, 372-407.
- Lincoln, D. (2006), 'Beyond the plantation: Mauritius in the global division of labor', *Journal of Modern African Studies*, 44(1), 59-78.
- Lozeau, D., Langley, A. and Denis, J.L. (2002), 'The corruption of managerial techniques by organizations', *Human Relations*, 55, 537-564.
- Madhoo, Y.N. and Nath, S. (2013), *Ethnic diversity, development and social policy in small states*. Geneva: United Nations Research Institute for Social Development Research Paper 2013-2.

- Marsden, D. (1999), *A Theory of Employment Systems*, Oxford: Oxford University Press.
- Mauritius Central Statics Office (2011), *Digest of Labour Statistics*, MCSO: Port Louis.
- Mayo, A.J. (2001), *The Human Value of the Enterprise: Valuing people as assets—monitoring, measuring and managing*. London: Nicholas Brealey.
- McCourt, W., Ramguttty-Wong, A. (2003), ‘Limits to strategic HRM: the case of the Mauritius civil service’, *International Journal of Human Resource Management*, 18(4), 600-618.
- Mokken, R. and C. Lewis (1982), ‘A nonparametric approach to the analysis of dichotomous item responses’, *Applied Psychological Measurement*, 6, 417-430.
- Peccei, R., Bewley, H., Gospel, H. and Willman, P. (2005), ‘Is it good to talk? Information disclosure and Organizational Performance in the UK’, *British Journal of Industrial Relations*, 43 (1), 11-39.
- Pfeffer, J. (1998), *The Human Equation: Building Profits by Putting People First*, Boston, MA: Harvard Business School Press.
- Ramguttty-Wong, A. (2004), ‘HRM in Mauritius’, in *Managing Human Resources in Africa*, eds. Kamoche, K., Debrah, Y., Horwitz, F., Muuka, G.N., London: Routledge, 53-68.
- Ramguttty-Wong, A. (2009), ‘Industrial relations and globalisation: Managers’ views towards unions in Mauritius’, [bai-conference.org/BAI 2009/Papers/02101627.pdf](http://bai-conference.org/BAI%202009/Papers/02101627.pdf)
- Ramguttty-Wong, A. and Gokhool, D. (2000), ‘Coping with change and globalization. A study of managerial perceptions in Mauritius’, *Delhi Business Review*, 1(1), no pagination.
- Rea, L.M. and Parker, R.A. (2005), *Designing and conducting survey research: A comprehensive guide*, San Francisco: Jossey-Bass.

- Rizov, M. and R. Croucher, 2009, 'Human resource management and performance in European firms', *Cambridge Journal of Economics*, 33(2), 253-272.
- Sandbrook, R. (2005), 'Origins of the social democratic state: Interrogating Mauritius', *Canadian Journal of African Studies*, 39(3), 549-581.
- Sandbrook, R., Edelman, M., Heller, P., Teichman, J. (2007), 'Mauritius: evolution of a classic social democracy', in *Social Democracy in the Global Periphery. Origins, Challenges, Prospects*, eds. R. Sandbrook, Edelman, M., Heller, P. and Teichman, J., Cambridge: Cambridge University Press, 123-146.
- Sayim, K.Z., (2011), 'Policy transfer from more advanced to less advanced institutional environments: Labor market orientations of US MNEs in Turkey', *Human Relations*, 64 (4), 573-597.
- Sjitsma, K., P. Debets, and I. Molenaar (1990), 'Mokken scale analysis for polytomous items: Theory, a computer program and an empirical application', *Quality and Quantity*, 24, 173-88.
- Su, C., Yang, Z., Zhuang, G., Zhou, N., Dou, W. (2009), 'Interpersonal influence as an alternative channel communication behaviour in emerging markets: the case of China'. *Journal of International Business Studies*, 40, 668-689.
- Trist, E.L., K.W. Bamforth (1951), 'Some social and psychological consequences of the longwall method of coal-getting: An examination of the psychological situation and defences of a work group in relation to the social structure and technological content of the work system', *Human Relations*, 4(1), 3-38.
- Van Demorteele, M., Bird, K. (2010), 'Progress in economic conditions in Mauritius: Success against the odds', London: Overseas Development Institute.

- Waldman, D.A., and Bowen, D.E. (1998), 'The acceptability of 360 degree appraisals: A customer-supplier relationship perspective', *Human Resource Management*, 37(2), 117-129.
- Wang, H.K., Tsang, J.F. and Yen, Y.F. (2012), 'Examining the mechanisms linking guanxi, norms and knowledge-sharing: The mediating role of trust in Taiwan's high-tech firms', *International Journal of Human Resource Management*, 10.1080/09585192.2011.654234.
- Whitley, R. (1999), *Divergent Capitalisms. The Social Structuring and Change of Business System*, Oxford: Oxford University Press.
- Wood, G. and Frynas, J.G. (2006), 'The institutional basis of economic failure: Anatomy of the segmented business system', *Socio-Economic Review*, 4 (2), 239-277.
- Zaheer, S. (1995), 'Overcoming the liability of foreignness', *Academy of Management Journal*, 36, 341-363.

Table 1. Summary statistics

<i>Variable code</i>	<i>Definition</i>	<i>Mean (s.d.)</i>
DCOM	Direct communications in the firm indicator ranging between 0 and 9	5.308 (2.045)
SIZE	Firm size measured as a dichotomous variable with 1 denoting firms above the median size and 0 otherwise	0.567 (0.498)
AGE	Firm age measured as a dichotomous variable with 1 denoting firms above the median age and 0 otherwise	0.683 (0.467)
MANU	Dichotomous variable with 1 denoting firms in the manufacturing sector	0.158 (0.366)
OTHR	Dichotomous variable with 1 denoting firms in the construction, agriculture and mixed industries	0.333 (0.473)
EEIN	Employer-employee interrelationship indicator ranging between 0 and 7	2.625 (2.009)
SHRM	Strategic HRM practices indicator ranging between 0 and 19	9.583 (5.149)
FOWN	Dichotomous variable with 1 denoting firms under foreign ownership and 0 – domestic ownership	0.267 (0.444)
POWN	Dichotomous variable with 1 denoting firms under private ownership and 0 – public ownership	0.600 (0.492)

Note: Number of observation in the total estimated sample is 120.

Table 2. Full sample: Factors affecting direct communication

<i>Variables</i>	<i>Models</i>		
	(1)	(2)	(3)
SIZE	-0.032 -0.300 (0.400)	-0.030 -0.278 (0.388)	-0.029 -0.275 (0.392)
AGE	-0.050 -0.392 (0.426)	-0.034 -0.266 (0.426)	-0.035 -0.276 (0.437)
MANU	-0.004 -0.135 (0.544)	-0.006 -0.219 (0.512)	-0.006 -0.219 (0.520)
OTHR	-0.003 -0.043 (0.421)	-0.007 -0.120 (0.404)	-0.007 -0.110 (0.413)
EEIN	-	+0.161 +0.325 *** (0.093)	+0.161 +0.325 *** (0.102)
SHRM	-	+0.232 +0.083 ** (0.033)	+0.231 +0.082 ** (0.033)
FOWN	-	-	+0.002 +0.041 (0.438)
POWN	-	-	-0.004 -0.040 (0.395)
No of Obs.	120	120	120
Adj. R ²	0.019	0.150	0.151

Note: For each regression variable reported are first, the elasticity, then the estimated coefficient and the standard error (in parentheses). Level of significance of estimated coefficients is indicated as follows: 1 percent ***, 5 percent **, 10 percent *.

Table 3. Ownership sub-samples: Factors affecting direct communication

<i>Variables</i>	<i>Models</i>			
	<i>Public/Private</i>		<i>Domestic/Foreign</i>	
	(1)	(2)	(3)	(4)
SIZE	-0.045 -0.402 (0.564)	-0.019 -0.183 (0.553)	-0.042 -0.376 (0.469)	-0.006 -0.064 (0.677)
AGE	+0.072 +0.459 (0.748)	-0.053 -0.473 (0.548)	+0.013 +0.099 (0.534)	-0.078 -0.651 (0.766)
MANU	-0.037 -1.499 (0.981)	+0.001 +0.043 (0.666)	-0.009 -0.377 (0.668)	+0.000 +0.001 (0.821)
OTHR	-0.042 -0.682 (0.620)	+0.006 +0.095 (0.556)	-0.027 -0.364 (0.461)	+0.024 +0.725 (0.879)
EEIN	+0.199 +0.563 *** (0.196)	+0.174 +0.300 ** (0.122)	+0.210 +0.484 *** (0.121)	+0.014 +0.022 (0.165)
SHRM	-0.030 -0.010 (0.051)	+0.331 +0.123 *** (0.044)	+0.283 +0.098 ** (0.040)	+0.088 +0.033 ** (0.017)
No of Obs.	48	72	88	32
Adj. R ²	0.205	0.181	0.228	0.075

Note: For each regression variable reported are first, the elasticity, then the estimated coefficient and the standard error (in parentheses). Level of significance of estimated coefficients is indicated as follows: 1 percent ***, 5 percent **, 10 percent *.

Table 4. Size and age sub-samples: Factors affecting direct communication

<i>Variables</i>	<i>Models</i>			
	<i>Small/Large</i>		<i>New/Old</i>	
	(1)	(2)	(3)	(4)
SIZE	-	-	-0.059 -0.971 (0.629)	+0.009 +0.068 (0.489)
AGE	-0.057 -0.594 (0.616)	+0.015 +0.098 (0.637)	-	-
MANU	-0.002 -0.074 (0.822)	-0.013 -0.384 (0.685)	+0.028 +1.201 (0.869)	-0.026 -0.797 (0.630)
OTHR	-0.008 -0.150 (0.627)	-0.009 -0.140 (0.545)	+0.025 +0.485 (0.687)	-0.020 -0.299 (0.496)
EEIN	+0.141 +0.271 * (0.139)	+0.167 +0.353 *** (0.132)	+0.151 +0.246 * (0.127)	+0.159 +0.367 *** (0.129)
SHRM	+0.153 +0.064 (0.046)	+0.327 +0.103 ** (0.049)	+0.336 +0.154 *** (0.048)	+0.146 +0.046 (0.044)
No of Obs.	52	68	38	82
Adj. R ²	0.155	0.162	0.348	0.122

Note: For each regression variable reported are first, the elasticity, then the estimated coefficient and the standard error (in parentheses). Level of significance of estimated coefficients is indicated as follows: 1 percent ***, 5 percent **, 10 percent *.

Appendix

Table A1. Correlation matrix

	DCOM	SIZE	AGE	MANU	OTHR	EEIN	SHRM	FOWN	POWN
DCOM	1.000								
SIZE	-0.041 (0.656)	1.000							
AGE	-0.099 (0.281)	0.308 (0.060)	1.000						
MANU	0.002 (0.986)	0.057 (0.538)	0.050 (0.588)	1.000					
OTHR	-0.098 (0.285)	0.048 (0.606)	0.063 (0.492)	-0.307 (0.070)	1.000				
EEIN	0.315 (0.051)	-0.080 (0.386)	-0.243 (0.070)	0.093 (0.314)	-0.141 (0.123)	1.000			
SHRM	0.162 (0.105)	0.314 (0.020)	0.318 (0.060)	0.053 (0.565)	-0.136 (0.140)	-0.115 (0.111)	1.000		
FOWN	0.121 (0.186)	-0.043 (0.640)	0.005 (0.953)	0.151 (0.100)	-0.187 (0.140)	0.320 (0.091)	0.042 (0.651)	1.000	
POWN	0.099 (0.284)	-0.028 (0.766)	-0.190 (0.137)	0.075 (0.418)	0.036 (0.695)	0.340 (0.061)	0.063 (0.494)	0.185 (0.143)	1.000

Note: Correlation (pair-wise) coefficients and significance levels (p -values) in parentheses are reported.