GOVERNANCE CHOICE IN GLOBAL SOURCING OF SERVICES: THE IMPACT ON SERVICE QUALITY AND COST SAVING PERFORMANCE

STEFANO ELIA,[1,2]* FEDERICO CANIATO,[1] DAVIDE LUZZINI,[1] and LUCIA PISCITELLO[1]

[1]*Department of Management, Economics, and Industrial Engineering, Politecnico di Milano, Milan, Italy*

[2]*Henley Business School, University of Reading, Reading, U.K.*

This article deals with the performance implications of the governance mode (captive offshoring versus outsourcing) selected when companies offshore service activities, which is still quite controversial in the literature. After accounting for endogeneity issues, we investigate the relationship between governance and performances (both in terms of cost saving and service quality) on a sample of 132 initiatives from the 2009 Offshoring Research Network survey. Our results show that the alignment of the governance choice with an extended transaction cost economics approach leads to better performances. However, the impact of a possible misalignment: (1) is asymmetric, as only the failure to undertake a captive mode negatively affects performance; and (2) negatively affects service quality more than cost saving.

INTRODUCTION

Offshoring has been conceptualized as sourcing of activities outside a firm's home country for purposes of serving home country or global operational requirements (Massini, Perm-Ajchariyawong, and Lewin, 2010). However, while historically the term offshoring has referred implicitly to activities pertaining to manufacturing, the more recent wave of offshoring concerns administrative and technical services. Namely, offshoring of business services has increased enormously in the last decade (e.g., Doh, 2005; Kotabe, Mol, and Murray, 2009; Lewin and Volberda, 2011). The term has also been applied to several control situations, ranging from international sourcing and purchasing (Kotabe, 1990) external to the firm's boundaries (so-called offshore outsourcing), to the operation of wholly owned subsidiaries, i.e., offshore activities located within the firm's boundaries, so-called captive offshoring (Mudambi and Venzin, 2010). Indeed, the decision to outsource or vertically integrate a value chain activity is one of the most challenging choices that managers have to face (Leiblein, Reuer, and Dalsace, 2002).

According to transaction cost economics (TCE) and extended transaction cost models, firms choose the appropriate governance form for each specific activity by comparing costs of integrating an operation within the firm and costs of using an external party (Brouthers, 2002). However, it remains unclear whether and how these boundary decisions affect firm performance. The literature has already highlighted that firms are able to self-select their form of governance based on their own performance maximizing analyses, and that leads to the complication that the observed performance is conditional upon unobserved factors that influence the governance choice (e.g., Shaver, 1998, 2013; Brouthers, 2013).

Keywords: global sourcing of services; governance mode; governance misalignment; service quality; cost saving

*Correspondence to: Stefano Elia, DIG-Politecnico di Milano, Piazza Leonardo da Vinci, 32-20133 Milan, Italy. E-mail: stefano.elia@polimi.it

Thus, the relationship between the firm's governance choice and its relevant performance could be investigated only once allowing for endogeneity through appropriate econometric techniques (see Martin, 2013, for a recent exhaustive survey). In other words, governance should not have a direct/absolute effect on performance; rather, it is the alignment between a governance arrangement and the transaction's attributes that influences performance (Leiblein *et al*., 2002).

Most of the traditional literature on offshoring has emphasized its cost saving motivations, but recent discussions have highlighted more articulated motivations driving firms' offshoring decisions, including foreign market access strategies (Kotabe, 1992; Kotabe and Murray, 2004; Kotabe *et al*., 2009) as well as access to human resources and talent, knowledge, and new technologies (Kedia and Lahiri, 2007; Lewin, Massini, and Peeters, 2009a; Lewin *et al*., 2009b) and the related service quality improvement. Thus, when investigating service offshoring performance, research should consider a multifaceted construct possibly taking into account both traditional cost-related aspects as well as quality-related issues. Most studies investigate the effects of offshoring in terms of cost performance (e.g., Bhalla, Sodhi, and Son, 2008), while other performance dimensions remain rather neglected. In particular, especially in the context of value adding and knowledge-intensive service offshoring, great concern has arisen about the consequences of managers decisions on the quality of offshored services (Couto *et al*., 2006).

Therefore, in this article we investigate: (1) the impact of governance choice, and governance misalignment in particular, upon different measures of performances, i.e., cost savings and service quality; and (2) whether the impact of misalignment in the governance choice is symmetric, i.e., whether adopting a captive model instead of outsourcing, or vice versa, i.e., relying upon outsourcing instead of captive offshoring, equally hurt performance. Indeed, 'theoretically there is no reason to expect that the magnitude or even direction of any asymmetry would be the same for various dependent variables' (Martin, 2013: 35).

We develop our empirical analysis in the context of offshoring of administrative and technical services. Namely, we rely on comprehensive data from the Offshoring Research Network (ORN) survey, and our sample consists of 132 initiatives collected in 2009.

According to both international business (IB) and strategic management literature (e.g., Shaver, 1998), we adopted a Heckman-based approach and found that a misalignment in the governance choice negatively impacts performance. However, governance misalignment has an asymmetric impact, as it hurts performance only when the company adopts less hierarchy than expected, and the negative impact is especially on the service quality dimension of performance.

Our findings contribute to the growing stream of literature on the actual costs of a strategic offshoring decision and its impact upon performance (Larsen, Manning, and Pedersen, 2013), as well as to the make or buy literature (Kotabe,1990, 1992; Mol and Kotabe, 2011). We also contribute to the IB literature on the relationship between entry mode choice and performance along the lines recently suggested by Brouthers (2013) and Martin (2013). Additionally, we focus on performance at the offshored activity level, instead of considering the whole firm's performance (see also Castañer *et al*., forthcoming).

The article is organized as follows: the next section illustrates the conceptual background underlying our research questions about the relationship between governance mode, governance misalignment, and the different measures of performance. The methodology section describes the sample, the operationalization of variables, and the econometric models employed in our empirical analysis. Results are illustrated in the next section, while the discussion and conclusions are provided in the final section.

CONCEPTUAL FRAMEWORK AND RESEARCH QUESTIONS

Traditional literature on governance choices, mainly relying upon TCE (e.g., Masten, 1993), has shown that the governance mode, i.e., the degree of ownership of the relevant activity/function, should not directly compromise performance once endogeneity is taken into account (Shaver, 1998; Leiblein *et al*., 2002). In fact, both vertical integration and outsourcing may involve great risks as well as potential benefits, and managers should consider that not all targets can be achieved with a specific governance mode (Hutzschenreuter, Lewin, and Dresel, 2011).

However, extended transaction cost models claim that, at the transaction and at the activity level, it is not governance mode *per se* that should impact per-

formance, but governance fit or alignment with the prediction (Leiblein *et al*., 2002). In particular, performance effects should be observed only when the mode was chosen appropriately on the basis of the exchange attributes of the potential transaction, i.e., the characteristics of the actors involved, the context, and the content of the activity/transaction itself. Along this reasoning, some studies have shown that the appropriate governance mode choice enhances technological performance (Leiblein *et al*., 2002) and satisfaction (Brouthers, Brouthers, and Werner, 2003), increases unit sales, and reduces time-to-market (Castañer *et al*., forthcoming).

As far as firms' decisions to offshore production and/or service activities, they can embark on offshoring either internally by setting up their own centers or subsidiaries (Bunyaratavej, Hahn, and Doh, 2007) in foreign countries while maintaining full ownership and control (*captive offshoring*) or externally by handing over business functions to independent foreign providers (*offshore outsourcing*) (Kedia and Mukherjee, 2009; Hahn and Bunyaratavej, 2010).

The choice of the offshoring governance has been related to location-specific factors influencing the offshoring location as well as to motivations and expected performance (Bunyaratavej, Hahn, and Doh, 2008; Graf and Mudambi, 2005; Hätönen, 2009; Jensen and Pedersen, 2011; Roza, Van den Bosch, and Volberda, 2011). Although labor cost is probably the most important determinant, as offshoring is usually motivated by the possibility of benefitting from lower wage standards of foreign countries (Stringfellow, Teagarden, and Nie, 2008), human and technological resources have also been shown to heavily motivate offshoring location choice. In particular, the literature has emphasized the role of the abundance and quality of human capital (Doh, 2005), the access to talents (Couto *et al*., 2006; Lewin *et al*., 2009a), the presence of service providers (Bunyaratavej *et al*., 2008), the quality of infrastructures (Abramovsky and Griffith, 2006), the access to local markets (Corbett, 2004; Kedia and Mukherjee, 2009; Jensen, 2009; Roza *et al*., 2011), the co-location with existing manufacturing plants (Lewin *et al*., 2009b; Temouri, Driffield, and Higón, 2010), or government and regulation incentives (Hätönen, 2009).

According to TCE,[1] market modes (i.e., the offshore outsourcing model) involve two or more firms and, therefore, management and control of activities require coordination and consensus among partner organizations. Instead, hierarchical modes are managed and controlled by a single entity, which eliminates the need to gain cooperation and consensus from another firm (Brouthers and Brouthers, 2003). Hence, offshoring firms need to choose the appropriate governance mode that is contingent with firms' resources, transaction characteristics, and local context (Murray, Kotabe, and Wildt, 1995; Leiblein *et al*., 2002; Hätönen and Eriksson, 2009; Contractor *et al*., 2010; Mudambi and Venzin, 2010; Brouthers, 2013; Castañer *et al*., forthcoming). Namely, transaction costs and institutional and cultural factors as well as local context variables seem to influence entry/governance choice and its relationship with performance. In fact, firms whose entry mode is aligned with the recommendation of the extended TCE model have been shown to perform better than firms whose entry modes are not aligned. Hence, a misalignment with the predicted entry mode does inevitably hurt performance (Brouthers *et al*., 2003).

Firms may choose the wrong governance model (Masten 1993; Sampson, 2004), while projects organized as predicted by theory normally realize better performance relative to projects that are not (Mayer and Nickerson, 2005). However, a misalignment does not necessarily have a symmetric (negative) impact upon performances (Leiblein *et al*., 2002) and the study of the 'what if' analysis has stimulated a lively debate. Along this line, and following Martin (2013: 34), we investigate whether 'substantive asymmetries in the costs of (wrongly) choosing one mode of entry versus the other' do emerge. Accordingly, our first research question is the following:

> *Research Question 1 (RQ1): Does governance misalignment have a symmetric impact (failure to undertake captive versus failure to undertake outsourcing) on the performance of the offshored activity?*

The effect of governance misalignment might also differ depending on the performance dimension considered. On the one hand, the literature shows contradicting evidence regarding performance

[1] It is worth observing that offshoring can be only partially explained by a single theory of the firm like TCE (Vivek, Richey, and Dalela, 2009), as benefits stemming from offshoring go well beyond cost reduction. Indeed, other studies suggest that the resource-based view (RBV) integrate TCE by considering the positive effects that a firm can obtain by appropriating critical resources abroad through a captive form of offshoring (Jahns, Hartmann, and Bals, 2006; Tate *et al*., 2009; Roza *et al*., 2011).

associated with offshoring projects, as much variability is observed, often preventing the expected outcomes. On the other hand, some studies show that the ramifications of outsourcing go well beyond immediate cost reduction (Ellram, Tate, and Billington, 2008; Mudambi and Venzin, 2010). Farrell (2005) mainly stresses the economic benefits for companies offshoring to low cost destinations, but also notes that cost savings are only the beginning. In fact, the impact of offshoring has been investigated in terms of job impact in developed countries (Amiti and Wei, 2009; Farrell, 2005; Farrell, Laboissiere, and Rosenfeld, 2006), firm financial performance (Kotabe and Murray, 2004), and the dynamics of the offshoring process (Lewin and Peeters, 2006; Maskell *et al*., 2007). Scholars also considered different measures of the success of offshoring projects, including the organization's satisfaction with the results, the computed cost/benefit ratio (Wang, 2002), the psychological belief of fulfilled obligations (Koh, Ang, and Straub, 2004), and the strategic fit view (Lee, Miranda, and Kim, 2004). Several studies have measured success as the satisfaction of outcomes and the degree of fulfillment of expectations (Wüllenweber *et al*., 2008). Additionally, despite lower (labor) costs, several companies have experienced mixed results from outsourcing their service activities, often due to customers' complaints about the quality of service (Ren and Zhou, 2008). Companies should keep in mind the threat of hidden costs, one of which is certainly service-quality cost. As a matter of fact, the 2011 IDG Enterprise Outsourcing and Service Providers survey (IDG, 2011) lists poor service quality as outsourcing's biggest risk.

Therefore, we focus on both cost saving objectives and service quality enhancement, and we refer to the relevant achieved performances. Specifically, our second research question is the following:

> *Research Question 2 (RQ2): Does governance misalignment equally impact different measures of performance (i.e., cost saving and service quality achieved) of the offshored activity?*

EMPIRICAL ANALYSIS

The sample

To answer our research questions, we rely on the 2009 edition of the Offshoring Research Network survey (ORN, 2009; see also Lewin, Perm-Ajchariyawong, and Russell, 2011), which provides data about technical and administrative functions offshored by companies. ORN is an international research project, initiated in 2004 by the Center for International Business Education and Research (CIBER), Fuqua School of Business, Duke University, aimed at investigating the phenomenon of offshoring of technical and administrative services (http://www.fuqua.duke.edu/offshoring/). The project is carried out by a network of academic partners from Australia, Belgium, Denmark, France, Germany, Italy, the Netherlands, Spain, the United Kingdom, and the U.S. All partners contribute to data gathering in their home countries, administering a common online questionnaire and, thus, contributing to the development of a common database. The questionnaire investigates goals, risks, location drivers, governance model, and performance of offshored functions. The unit of analysis is the single function offshored by the firm; therefore, respondents could provide separate information on multiple functions, which are recorded as separate answers. The overall database of the 2009 edition of the ORN survey contains information on 866 offshored functions. However, data on the governance mode is available only for a subset of 158 observations. A further reduction in the number of available observations is due to missing values in the variables that are relevant for our purposes. The finale sample size amounts to 132 observations.

Table 1 illustrates the distribution of observations (for our final sample versus the total ORN sample) across company functions, home countries, and host countries, respectively. It can be observed that the company functions that are more frequently involved in an offshoring project are call centers and customer contacts (12.88% of our final sample and 13.10% of the total ORN sample, respectively), information technology (22.73% versus 18.81%), knowledge services (14.39% versus 11.67%), software (16.67% versus 11.93%), and finance, accounting, and others (15.15% versus 13.23%). Regarding the home countries, the majority of firms are headquartered in the United States (mainly due to the genesis of the ORN project), accounting for 68.18 percent of our final sample and 63.4 percent of the total ORN sample. Conversely, offshoring destinations are mostly emerging countries, especially India, which accounts for 51.52 percent of the final sample and for 47.31 percent of the total ORN sample. We performed chi-square tests (reported at the bottom of each section of Table 1) to investigate whether our final sample is representative with respect to the total ORN sample when considering the company functions, the home

Table 1. Distribution of the offshoring projects in the sample and in the population, by company functions, home country, and host country

Function	Final sample		ORN sample	
	Freq.	%	Freq.	%
Call center and customer contact	17	12.88	101	13.10
Design	2	1.52	24	3.11
Engineering services	8	6.06	61	7.91
Human resources	5	3.79	50	6.49
Information technology	30	22.73	145	18.81
Knowledge services	19	14.39	90	11.67
Legal services	3	2.27	15	1.95
Marketing and sales	3	2.27	31	4.02
Procurement	1	0.76	36	4.67
Research and development	2	1.52	24	3.11
Software	22	16.67	92	11.93
Finance, accounting, and others	20	15.15	102	13.23
Total	*132*	*100.00*	*771*	*86.77*
Chi-square test: 14.39; p-value: 0.21				
Home countries				
Europe 27	33	25	213	27.45
United States	90	68.18	492	63.4
Other advanced (Canada, Australia, Japan)	5	3.79	35	4.51
Emerging	4	3.03	36	4.64
Total	*132*	*100.00*	*776*	*100*
Chi-square test: 1.65; p-value: 0.65				
Host countries				
Europe 27	24	18.18	62	15.86
United States	3	2.27	15	3.84
Other advanced (Canada, Australia, Japan)	3	2.27	9	2.3
India	68	51.52	185	47.31
China	11	8.33	33	8.44
Other emerging	23	17.42	87	22.25
Total	*132*	*100.00*	*391*	*100*
Chi-square 3.17; p-value: 0.67				

country, and the host countries.[2] The tests do not reject the null hypothesis that our final sample is representative for the total ORN sample.

Methodology: models and variables

Previous research suggests that firms select the offshoring governance mode based on their expectation of future performance, which leads to a self-selection bias where the observed level of performance is conditional upon unobserved factors that influence firms' governance choices. Furthermore, an endogeneity problem may arise when using the governance mode as the explicative variable of firm performance, given that the former is also affected by the expected level of the latter (Shaver, 1998; Brouthers, 2002; Leiblein *et al*., 2002; Hamilton and Nickerson, 2003). It is now well accepted that statistical analyses that do not take into account self-selection process can suffer from biased estimations resulting from underlying omitted and unobserved factors affecting both strategy choice and performance (Hamilton and Nickerson, 2003). As a consequence, following Shaver (1998) and Leiblein *et al*. (2002), we adopted a two-stage approach *à la* Heckman (1979) to control for the potential endogeneity problem arising from the self-selection bias.

In the first stage, we estimate a probit model in which the *governance mode* (outsourcing versus captive) is the dependent variable, and it is regressed against a set of variables proxying the enhanced TCE model. The first stage allows us to compute the *inverse Mills ratio* λ (as in Leiblein *et al*., 2002), to be used as a control variable in the second stage, thus providing consistent and unbiased coefficients (Greene, 1997). The first stage is also employed to estimate the *misalignment* between the governance mode predicted by the model and the one actually adopted by each firm in our sample.

In the second stage, we estimate the performance equation, i.e., an ordered probit model with two offshoring performance measures as dependent variables and several independent variables, including the *governance mode*, the *inverse Mills ratio*, and the governance misalignment. In the following sections, we will present the models and the variables employed in the two stages.

First stage: selection equation

Dependent variable

In the first stage, we investigate the determinants of the choice between captive and outsourcing. Accordingly, the dependent variable is *Outsourcing*, which takes value of '1' in the case of outsourcing (i.e., third-party service provider at the offshore location) and '0' in the case of captive offshoring (i.e., fully owned subsidiary). The variable is obtained from the following question in the ORN (2009) survey: 'What is the service delivery model currently used for this offshoring implementation?' In our sample, 87

[2] Due to missing data, the number of observations for the total ORN sample amount to 771, 776, and 391 when considering company functions, home countries, and host countries, respectively.

offshoring initiatives (accounting for 65.91% of total observations) have been performed through an outsourcing model, while the remaining 45 initiatives (34.09%) rely on a captive governance mode.

Explanatory variables

Concerning the independent variables, we adopt an enhanced TCE approach and rely on both Brouthers (2002, 2013) and Jensen and Pedersen (2011). Thus, we consider variables related to transaction costs, cultural and institutional contexts, and other location attributes of the offshore destination. In regard to the first, the search for, the negotiation with, and the monitoring of a partner give birth to transaction costs, which may affect the governance mode. Specifically, higher transaction costs increase the probability of opting for a hierarchical governance mode that allows to internalize them. Following Brouthers (2002) and Mudambi and Tallman (2010), we employed the two following variables:

1. *Task complexity* refers to the deal-specific dimension of transaction costs, which is related to the complexity of the offshoring initiative. Specifically, *Task complexity* comes from the ORN survey and it scores on a Likert scale, from 1 (very low) to 5 (very high), the level of administration complexity of the offshoring initiative.
2. *High value assets* accounts for the asset-specific dimension of transaction costs, since the offshoring of high value functions typically incurs higher transaction costs than low value functions due to higher knowledge leakages and misappropriation risks. We classified the type of function included in each offshoring project into low (call center and customer contact), medium (finance/accounting, IT infrastructure, marketing and sales, software development, human resources, analytical/knowledge services, supply chain, and facilities), and high value-added activities (product design, research and development, engineering services) (Youngdahl, Ramaswamy, and Dash, 2010). Thus, the variable *High value asset* is a dummy equal to '1' if the offshored function belongs to the high value group and '0' otherwise.

According to our earlier arguments, we expect a negative correlation between our dependent variable, i.e., *Outsourcing*, and the two variables accounting for transaction costs, i.e., *Task complexity* and *High value assets*.

Concerning the cultural and institutional context, we considered:

1. the cultural distance between the home and the host country, proxied by the variable *Cultural distance*, which relies on Hofstede's (1980) cultural dimensions. For each offshored function, we considered the cultural values for both the home and the host countries, and we computed the combined Euclidean distance proposed by Morosini, Shane, and Singh (1998). High cultural distance may trigger a misunderstanding of social norms and values between the acquiring and target firms, leading to increased operational and managerial difficulties. The misunderstanding associated with cultural distance may increase uncertainty by reducing the probability of succeeding in the deal, thus pushing firms to implement a risk reduction strategy and adopt a lower control in their governance mode (Brouthers, 2002). Therefore, we expect a positive effect of cultural distance on the outsourcing governance mode.
2. *Institutional infrastructures*, obtained through a factor analysis performed to account for the institutional context and for other location variables described later. The items employed in the factor analysis come from the World Competitiveness Yearbook (WCY) and the Worldwide Governance Indicators (WGI) (see Table 2 for further details). The specific items reflecting the institutional context refer to distribution infrastructure, maintenance and development of distribution infrastructure, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption. The Cronbach's alpha, which amounts to 0.951, confirms the reliability of this construct. Whenever political and market institutions are weak, investing companies perceive higher uncertainties and risks due to legal restrictions, political instability, widespread corruption, and weak law enforcement. In this case, firms prefer to adopt a softer governance mode in order to limit their exposure and to be able to quickly disinvest. Furthermore, foreign companies tend to seek for legitimacy by relying on a local partner, who is more used to operating in such unstable political and market environments. As a consequence, we expect that the higher the

Table 2. Exploratory factor analysis on location variables (principal components with varimax rotation)

First-order construct	Items	Sources	Description	Scale	Loading	Alpha
Institutional infrastructures	Distribution infrastructures	WCY	The extent to which the distribution infrastructures of goods and services is efficient	0/10	0.838	**0.951**
	Maintenance and development of distribution infrastructures	WCY	The extent to which maintenance and development of infrastructure of goods and services are adequately planned and financed	0/10	0.757	
	Political stability and absence of violence	WGI	Perception of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically–motivated violence and terrorism	–2.5/2.5	0.791	
	Government effectiveness	WGI	Perception of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies	–2.5/2.5	0.772	
	Regulatory quality	WGI	Perception of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development	–2.5/2.5	0.789	
	Rule of law	WGI	Perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence	–2.5/2.5	0.770	
	Control of corruption	WGI	Perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as 'capture' of the state by elites and private interests	–2.5/2.5	0.756	
Market potential	Gross domestic product	WCY	Gross domestic product	US$ billions	0.985	**0.796**
	Gross fixed capital formation	WCY	Gross fixed capital formation	US$ billions	0.967	
	Direct investment flows inward	WCY	Flows of inward direct investments	US$ billions	0.873	
	Government consumption expenditures	WCY	Government consumption expenditure	US$ billions	0.972	
	Household consumption expenditures	WCY	Household consumption expenditures	US$ billions	0.972	
Low cost labor	Remuneration call center agent	WCY	Gross annual income including supplements such as bonuses—call center agents	US$	0.840	**0.812**
	Remuneration manufacturing worker	WCY	Total hourly compensation for manufacturing workers (wages + supplementary benefits)	US$	0.893	
	Remuneration department head	WCY	Gross annual income including supplements such as bonuses—department head	US$	0.796	
	Remuneration personal assistant	WCY	Gross annual income including supplements such as bonuses—personal assistant	US$	0.856	
Skilled labor	Information technology skills	WCY	The extent to which the country can rely on information technology skills	0/10	0.799	**0.923**
	Qualified engineers	WCY	The extent to which qualified engineers are available in labor market	0/10	0.912	
	Skilled labor	WCY	The extent to which skilled labor is readily available in labor market	0/10	0.914	

The factor analysis has been performed on those countries for which all items were available, i.e., 47. The items have been included in the factor analysis as the average value of the period 1998–2011. Higher values reflect better outcomes for all items. WCY stands for *World Competitiveness Yearbook*, published by the International Institute for Management Development (IMD, 2011) of Lausanne, while WGI stands for *Worldwide Governance Indicators*, published by The World Bank (The World Bank, 2011).

quality of political and market infrastructure, the lower the probability of adopting an outsourcing governance mode.

3. Concerning the location attributes of the offshore destination, we considered the three following variables (details are provided in Table 2):
   - *Market potential*. This has been proxied by a factor obtained from several items, namely gross domestic product, gross fixed capital formation, direct investment flows inward, government consumption expenditure, and household consumption expenditure. The items come from the WCY database. The Cronbach's alpha is 0.796, showing the reliability of the construct. Firms investing in high growth markets are likely to prefer a wholly owned governance mode in order to better exploit scale economies and establish long-term market relationships (Agarwal and Ramaswami, 1992; Brouthers, 2002). Conversely, firms opt for lower intensity governance modes in low potential markets in order to: (1) improve the returns on investments by minimizing resource commitment (if returns are low); (2) reduce the impact on the competitors, thus avoiding a further reduction of prices; and (3) minimize market exit costs if firms decide to withdraw their investments when sales do not grow (Brouthers, 2002).
   - *Low cost labor*. The cost of labor is a factor comprised of the following items stemming from the WCY database: remuneration in services professions (call center agent, compensation levels of manufacturing worker, department head) and remuneration of personal assistant. The construct obtained from these data is reliable, with the Cronbach's alpha equal to 0.812 (see Table 2). Additionally, it is worth noting that in order to obtain higher scores for countries with lower labor costs, the measure has been used with a negative sign in the analysis.
   - *Skilled labor*. The items employed in the factor analysis to build the variable *Skilled labor* are obtained from the WCY database and refer to information technology skills, qualified engineers, and skilled labor. Also, in this case, the Cronbach's alpha (equal to 0.923) confirms the reliability of the construct.

Control variables

Finally, we also included some control variables that can help explain the choice of the governance mode. A first control variable is *Company size*, which is measured as the logarithm of the total employees of the offshoring firm. Larger firms can rely on wider amounts of financial resources to undertake a captive offshoring, but at the same time they might be willing to undertake an outsourcing strategy in order to avoid the duplication of resources and the increase of managerial complexity. Furthermore, large companies can rely on higher bargaining power when dealing with third parties. Hence, the effect of size on our dependent variable is not predictable *a priori*.

We also control for the industry of the offshoring company, which might affect the governance mode. Given the high heterogeneity of the sectors in our sample, we grouped the industries according to their technological and knowledge intensities. Specifically, we built the dummy *High-tech industry*, equal to '1' if the company belongs to the 'high-technology manufacturing industries' or the 'knowledge-intensive high-technology services' according to the 2007 Eurostat-OECD classification (OECD, 2007), and '0' otherwise.

Given the high number of offshoring initiatives from the United States, we also introduce the variable *Home country USA*, a dummy equal to '1' if the home country is the United States, and '0' otherwise. Finally, we also control for the temporal dimension by introducing a dummy that accounts for the age of the offshoring company with respect to the year of the survey, i.e., 2009. The variable *Age* is the difference between the year 2009 and the year in which offshoring occurred.

Thus, the equation we employed in the first stage, which has been estimated through a robust probit model, is the following:

$$\begin{aligned} Outsourcing_i = {} & \beta_0 + \beta_1\, Task\ complexity_i \\ & + \beta_2\, High\ value\ assets_i \\ & + \beta_3\, Cultural\ distance_i \\ & + \beta_4\, Institutional\ infrastructures_i \\ & + \beta_5\, Market\ potential_i \\ & + \beta_6\, Low\ cost\ labor_i \\ & + \beta_7\, Skilled\ labor_i \\ & + \beta_8\, Controls_i + \varepsilon_i \end{aligned} \quad (1)$$

where i is the offshoring project and ε_i is the error term.

Table 3 provides the correlation matrix and the descriptive statistics of the dependent and explanatory variables employed in Equation 1. Given that the correlation matrix displays some high values, we computed the variance inflation factors (VIF) to check for potential multicollinearity problems. The highest value is for *Skilled labor* and amounts to 2.37, while the average is equal to 1.63, well below the threshold value of 10.00 (O'Brien, 2007).

Second stage: outcome equation

Dependent variables

To account for the performance of the offshoring project, we employed two dependent variables. The first one is *Service quality*, which comes from the ORN database and scores the answer to the question 'What is the level of service quality achieved compared to level expected?' on a Likert scale from 1 (far below expectations) to 5 (far above expectations).

The second performance measure is *Cost saving*, which originates from the ORN item accounting for the percentage of savings achieved in last 12 months compared to last year. We rescaled this measure from 1 to 4, where 1 corresponds to the lowest quartile and 4 to the highest quartile, in order to be able to compare it with the other dependent variables and to apply the same methodology.

Misalignment

In accordance with our conceptual framework, the main independent variable is the governance misalignment. Following Leiblein *et al*. (2002), we first calculated the predicted governance misalignment from the first-stage probit regression as a continuous variable (which ranges from 0 to 1), equal to Φ in the case of captive and to $1 - \Phi$ in the case of outsourcing, where Φ is the standard normal cumulative distribution function defined as follows:

$$\text{Prob}\left(Y_i = 1\right) = \Phi\left(\beta' X_i\right)$$

We then adopted a dichotomous measure, similar to Brouthers (2002), where misalignment is identified when the value of the continuous variable defined above is greater than 0.5. Specifically, in order to study the asymmetry of the governance misalignment, we created two dummy variables: *Failure to undertake outsourcing*, equal to '1' when the

Table 3. Correlation matrix and descriptive statistics of dependent and independent variables employed in the first stage (Model 1)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1) Outsourcing	1.000											
2) Task complexity	–0.356	1.000										
3) High value assets	0.005	0.205	1.000									
4) Cultural distance	–0.016	–0.028	–0.164	1.000								
5) Institutional infrastructures	–0.222	0.041	0.204	–0.277	1.000							
6) Market potential	–0.149	0.153	–0.025	–0.251	0.224	1.000						
7) Low cost labor	–0.027	0.039	–0.185	0.592	–0.337	–0.145	1.000					
8) Skilled labor	0.154	0.122	–0.178	0.257	–0.594	–0.309	0.485	1.000				
9) Company size	0.123	0.229	–0.025	0.201	–0.237	–0.089	0.226	0.383	1.000			
10) High–tech industry	–0.183	0.242	0.183	0.019	–0.019	–0.033	0.055	0.085	–0.189	1.000		
11) Home country USA	–0.114	0.136	–0.123	0.413	–0.189	–0.182	0.162	0.321	0.338	–0.043	1.000	
12) Age	0.113	–0.032	0.235	–0.437	0.296	–0.009	–0.383	–0.145	–0.025	–0.093	–0.177	1.000
Observations (No.)	132	132	132	132	132	132	132	132	132	132	132	132
Mean	0.659	3.545	0.091	52.836	–0.077	0.260	0.705	1.049	8.938	0.189	0.682	4.985
Std. dev.	0.476	0.832	0.289	25.645	0.972	0.996	0.608	1.357	2.435	0.393	0.468	4.298
Min	0.000	2.000	0.000	0.000	–1.220	–0.623	–1.267	–2.259	0.000	0.000	0.000	0.000
Max	1.000	5.000	1.000	92.682	2.814	5.797	1.533	2.117	12.612	1.000	1.000	18.000

predicted mode was outsourcing and the actual one captive (i.e., $\Phi > 0.5$), and '0' otherwise; *Failure to undertake captive*, equal to '1' when the predicted mode was captive and the actual one outsourcing (i.e., $1\text{-}\Phi > 0.5$).

Explanatory variables

In the second stage, we employed most of the variables used in the first stage. Namely, following Brouthers (2002), we removed the transaction cost variables that affect the choice of the governance mode (i.e., *Task complexity* and *High value assets*), while keeping all the other explanatory variables, i.e., the institutional and cultural context, as well as the other location-specific and control variables.

Concerning the impact of *Cultural distance* on performance, the evidence from the literature is contradictory (Tihanyi, Griffith, and Russell, 2005). On the one hand, cultural distance leads to differences in managerial cognition, intraorganizational conflicts and post-acquisition integration problems, which result in higher difficulties in achieving economies of scale and scope and increased training, monitoring, and control costs (Egelhoff, 1982; Schneider and DeMeyer, 1991; Luo and Peng, 1999; Buckley and Ghauri, 2002). On the other hand, cultural distance may enhance performance because it allows acquiring new complementary assets, such as R&D resources, which give birth to new competitive advantages and creativity benefits by combining the acquired assets with those owned by the parent company (Birkinshaw, 1997; Morosini *et al*., 1998; Håkanson and Nobel, 2001). As a consequence, the effect of cultural distance on offshoring performance, both in terms of service quality and cost saving, is not predictable *a priori*.

Regarding the institutional environment, it is well known that efficient institutions reduce transaction and enforcement costs, thereby facilitating business implementation and enhancing economic performance. Therefore, the variable *Institutional infrastructures* is expected to have a positive impact on our measures of offshoring performance.

Concerning other location-specific factors, previous evidence shows a positive correlation between market growth and service quality (e.g., Astrid, 2007), as companies are likely to increase quality investments to capture the additional demand. However, as these investments require new expenditures, we expect *Market potential* to be positively correlated with service quality and negatively correlated with cost saving.

We expect an opposite relationship for the variable *Low cost labor*. On the one hand, the availability of low labor cost is expected to have a positive effect on the cost saving dimension of offshoring performance. On the other hand, service quality might be hampered by the use of low cost resources, such as labor. Hence, a negative relationship between low labor costs and service quality may be expected.

Finally, as recent offshoring initiatives are also frequently implemented as a strategy for tapping into sources of new knowledge abroad (such as skilled labor, which has a potential for contributing to the international competitiveness of the firm – see also Roy, Sharma, and Bhushan, 2004, we expect a positive correlation between *Skilled labor* and service quality. The effect on cost saving is less clearcut. Indeed, while skilled labor is associated with higher wages and cost of labor, it is also associated with higher productivity, with a positive effect on cost reduction.

As far as control variables, we used those already employed in the first stage, i.e., *Company size, High-tech industry*, *Home country USA*, and *Age*. Additionally, we also introduced *Outsourcing*, in order to estimate the effect of governance mode on performance. However, as noted earlier, firms tend to self-select by choosing the governance mode that allows them to maximize their performance. This means that the observed performance is likely to depend upon unobserved variables affecting the governance choice. As a consequence, we employed an adjustment term, i.e., the *Mills ratio* λ, to correct this bias, to avoid spurious correlation between the governance mode and performance. The introduction of this correction term in the second stage provides consistent and unbiased estimates (Greene, 1997; Shaver, 1998; Leiblein *et al*., 2002).

The outcome equation, which has been estimated through a robust ordered probit model, given the scalar nature of the dependent variables, is as follows:

$$\begin{aligned} &\textit{Offshoring performance}_i \\ &\quad = \beta_0 + \beta_1\ \textit{Failure to undertake outsourcing}_i \\ &\qquad + \beta_2\ \textit{Failure to undertake captive}_i \\ &\qquad + \beta_3\ \textit{Cultural distance}_i \\ &\qquad + \beta_4\ \textit{Institutional infrastructures}_i \\ &\qquad + \beta_5\ \textit{Market potential}_i + \beta_6\ \textit{Low cost labor}_i \\ &\qquad + \beta_7\ \textit{Skilled labor}_i + \beta_8\ \textit{Controls}_i \\ &\qquad + \beta_9\ \textit{Governance mode}_i \\ &\qquad + \beta_{10}\ \textit{Inverse Mills ratio}_i + \varepsilon_i \end{aligned} \tag{2}$$

where the *Offshoring performance* is either *Service quality* or *Cost saving*.

Descriptive statistics of variables included in Model 2 are provided in Tables 4 and 5. In fact, due to missing values in the dependent variables, the second-stage analysis has been performed on 121 observations for *Service quality* and on 74 observations for *Cost saving*. Given the presence of some high correlations, we computed the VIF again to check for potential multicollinearity problems. The highest value is 2.46 (for both cultural distance and resource availability), and the average value is 1.83, well below the threshold of 10.00.

RESULTS

Results of the first-stage analysis, i.e., Equation 1, are reported in Table 6. Specifically, econometric estimates confirm that the selection of the governance mode, i.e., the choice between captive offshoring (0) and outsourcing (1), is dependent upon transaction-, location-, and company-specific factors. Indeed, *Task complexity* shows the expected negative sign ($p < 0.001$), while *Skilled labor* and *Company size* display positive and slightly significant coefficients ($p < 0.1$), showing that outsourcing is preferred as a strategy to source human resources and that large companies are more likely to adopt an outsourcing governance mode than small enterprises. We also find that firms from the United States are more likely to adopt a captive governance mode. As previously described, this step is functional to the evaluation of the governance misalignment and to the investigation of our research questions in the subsequent stage.

Table 7 presents the results of the second-stage analysis, i.e., the outcome model derived from Equation 2. Namely, the first two columns report the results without and with the Mills ratio, respectively, when using *Service quality* as the dependent variable; the last two columns report the same estimations for *Cost saving* as the dependent variable. It can be noticed that when we do not control for self-selection (first and third columns), the variable *Outsourcing* is highly significant ($p < 0.001$ for *Service quality*, and $p < 0.05$ for *Cost saving*). But, after introducing the correction for self-selection (second and fourth columns), the *Mills ratio* gains significance instead of the variable *Outsourcing*, revealing that there is a selection bias and that the two-stage Heckman model is appropriate for this analysis. Therefore, we will consider only the second and fourth columns for the discussion of our results.

Specifically, columns 2 and 4 show that *Failure to undertake captive* has a negative and significant impact on our performance measures (at $p < 0.01$ and $p < 0.10$ for *Service quality* and *Cost saving*, respectively), while *Failure to undertake outsourcing* does not show an impact significantly different from zero. Additionally, the effect on *Service quality* is much more significant ($p < 0.01$) than the effect on *Cost saving* ($p < 0.10$), revealing an asymmetric behavior of the governance misalignment on performance. The asymmetric effect is confirmed also when computing the marginal effects. Indeed, the marginal effect of *Failure to undertake captive* is negative and significant for the fourth ($dy/dx = -0.063$ and $p < 0.10$) and fifth ($dy/dx = -0.362$ and $p < 0.001$) grade of *Service quality*. Conversely, the marginal effect of *Failure to undertake captive* is negative but not significant for the highest grade, while it is negative and slightly significant only for the third grade ($dy/dx = -0.311$ and $p < 0.10$) of *Cost saving*, revealing a much weaker effect.[3]

Concerning our control variables, *Cultural distance* shows a positive and significant coefficient both on *Service quality* ($p < 0.01$) and *Cost saving* ($p < 0.10$), supporting the complementarity effects of cultural differences, which give birth to new competitive advantages and creativity benefits (Shane, Venkataramans and MacMillan, 1995; Birkinshaw, 1997; Morosini *et al*., 1998; Håkanson and Nobel, 2001). Conversely, *Institutional infrastructures* displays a negative and significant effect on both the dependent variables ($p < 0.10$ and $p < 0.01$), unlike the expectation and the common finding in the literature. A possible explanation can be found in the composition of our sample, where host countries are mainly emerging economies—such as India and China—showing rather weak political infrastructures. Nevertheless, they offer the possibility of accessing large amounts of low cost resources, including skilled human capital, with a strong positive effect on cost saving and a weaker effect on service quality. The variable *Low cost labor* has a negative and significant effect on *Service quality* ($p < 0.01$), confirming our expectation that service quality might be hampered by the use of low cost resources. Conversely, *Market potential* shows a

[3] For the sake of space, we do not report the tables with the marginal effects. However, they are available upon request.

Table 4. Correlation matrix and descriptive statistics of dependent and independent variables employed in the second stage (Model 2—service quality as dependent variable)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1) Service quality	1.000												
2) Failure to undertake outsourcing	0.115	1.000											
3) Failure to undertake captive	–0.134	–0.100	1.000										
4) Cultural distance	0.134	0.145	0.010	1.000									
5) Institutional infrastructures	–0.012	–0.012	0.007	–0.395	1.000								
6) Market potential	0.050	0.002	0.215	–0.281	0.258	1.000							
7) Low cost labor	–0.025	0.107	–0.074	0.611	–0.440	–0.158	1.000						
8) Skilled labor	–0.079	0.122	–0.061	0.322	–0.656	–0.281	0.512	1.000					
9) Company size	–0.024	0.074	0.116	0.234	–0.271	–0.043	0.261	0.365	1.000				
10) High-tech industry	0.264	0.035	0.150	0.023	–0.014	0.003	0.029	0.034	–0.234	1.000			
11) Home country USA	0.111	0.032	0.104	0.463	–0.260	–0.166	0.190	0.323	0.309	0.006	1.000		
12) Age	–0.140	–0.094	–0.163	–0.435	0.346	–0.002	–0.401	–0.163	–0.015	–0.146	–0.151	1.000	
13) Outsourcing	–0.370	–0.535	0.187	–0.008	–0.305	–0.148	–0.038	0.162	0.137	–0.208	–0.123	0.080	1.000
Observations	121	121	121	121	121	121	121	121	121	121	121	121	121
Mean	3.504	0.124	0.066	51.598	–0.092	0.263	0.680	1.043	8.912	0.165	0.694	5.017	0.669
Std. dev.	0.754	0.331	0.250	25.375	0.927	1.020	0.618	1.364	2.418	0.373	0.463	4.342	0.472
Min	2.000	0.000	0.000	0.000	–1.220	–0.623	–1.267	–2.259	0.000	0.000	0.000	0.000	0.000
Max	5.000	1.000	1.000	92.682	2.814	5.797	1.533	2.117	12.612	1.000	1.000	18.000	1.000

Table 5. Correlation matrix and descriptive statistics of dependent and independent variables employed in the second stage (Model 2—cost saving as dependent variable)

	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	11)	12)	13)
1) Cost saving	1.000												
2) Failure to undertake outsourcing	0.252	1.000											
3) Failure to undertake captive	–0.283	–0.153	1.000										
4) Cultural distance	0.046	0.068	–0.084	1.000									
5) Institutional infrastructures	–0.192	0.138	0.057	–0.129	1.000								
6) Market potential	–0.188	0.048	0.276	–0.359	0.253	1.000							
7) Low cost labor	0.154	0.041	–0.206	0.224	–0.287	–0.149	1.000						
8) Skilled labor	0.220	0.068	–0.110	0.103	–0.634	–0.255	0.369	1.000					
9) Company size	0.040	0.064	0.136	0.169	–0.231	–0.056	0.174	0.325	1.000				
10) High-tech industry	–0.016	–0.007	0.094	–0.142	0.080	0.020	–0.121	–0.030	–0.296	1.000			
11) Home country USA	–0.171	–0.009	0.148	0.380	–0.241	–0.293	–0.038	0.242	0.281	0.077	1.000		
12) Age	–0.025	–0.013	–0.177	0.072	0.272	–0.058	–0.052	0.072	0.190	–0.089	0.227	1.000	
13) Outsourcing	–0.238	–0.564	0.272	0.159	–0.330	–0.064	–0.022	0.157	0.174	–0.243	–0.005	–0.101	1.000
Observations	74	74	74	74	74	74	74	74	74	74	74	74	74
Mean	2.081	0.162	0.108	57.377	–0.211	0.246	0.808	1.166	8.889	0.257	0.676	4.014	0.622
Std. dev.	1.030	0.371	0.313	20.196	0.882	1.065	0.510	1.373	2.776	0.440	0.471	3.246	0.488
Min	1.000	0.000	0.000	0.000	–1.220	–0.623	–1.267	–2.259	0.000	0.000	0.000	0.000	0.000
Max	4.000	1.000	1.000	92.682	2.814	5.797	1.533	2.117	12.543	1.000	1.000	15.000	1.000

Table 6. First-stage: governance mode selection (Equation 1)

Explicative variables	Coefficients
Transaction costs variables	
Task complexity	–0.679***
	(–3.63)
High value assets	0.663
	(1.10)
Cultural and institutional context	
Cultural distance	0.006
	(0.87)
Institutional infrastructures	–0.235
	(–1.30)
Location attributes	
Market potential	–0.042
	(–0.26)
Low cost labor	–0.421
	(–1.42)
Skilled labor	0.235§
	(1.72)
Controls	
Company size	0.097§
	(1.72)
High-tech industry	–0.448
	(–1.24)
Home country USA	–0.671*
	(–2.05)
Offshoring age	0.042
	(1.10)
Constant	2.038*
	(2.51)
No. of observations	132
Chi-square	34.842
P-value	0.000
Pseudo R-square	0.233

§$p < 0.10$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$; z-statistics in parentheses.

negative and significant effect upon *Cost saving* ($p < 0.05$), confirming our expectation that countries with expanding markets require considerable investments to capture the additional demand by reducing the possibility to pursue a cost saving goal. Finally, results show that large firms seem to perform better than small firms in terms of *Service quality* and that U.S. firms seem to perform worse than firms from other countries in terms of *Cost saving*, as the coefficient of *Company size* is positive and significant in the second column ($p < 0.05$) and the coefficient of the *Home country USA* is negative and significant in the fourth column ($p < 0.01$).

CONCLUSIONS

This study investigates the antecedents of performance, in terms of both cost saving and service quality, achieved by a company offshoring business services. In particular, we have focused on the impact of the governance mode on performance, an issue that is quite controversial in the literature. Although there is a general consensus on its relevance (Brouthers, 2002), there is also a concern that governance mode is generally selected according to performance expectations and, therefore, performance depends upon unobserved factors that influence governance choice (e.g., Shaver, 1998; Brouthers, 2013). For this reason, according to Leiblein *et al*. (2002), we have adopted a two-stage approach *à la* Heckman (1979) to account for the endogeneity of the governance choice. Hence, we focused our analysis not on the governance mode *per se* (i.e., captive versus outsourcing), but rather on the alignment (or misalignment) of the chosen governance mode with the one recommended by the extended TCE theory.

From a theoretical perspective, this study sheds further light on the performance side of offshoring (Kotabe and Omura, 1989; Doh, 2005; Kedia and Mukherjee, 2009; Roza *et al*., 2011). Specifically, we focus not only on cost saving, the most investigated outcome, but also on service quality, which has increasingly become a crucial issue for the companies' strategic evaluations of outsourcing and offshoring (e.g., Couto *et al*., 2006). Our results support the idea that different factors and characteristics at different levels (country, company, and activity offshored) affect offshoring performance, with different impacts on cost saving and service quality. Additionally, we distinguished between two types of misalignment, i.e., the failure to outsource and the failure to insource, thus exploring if there is an asymmetry in the impact of misalignment on performance (RQ1), as suggested by Martin (2013). We also investigated whether such misalignment impacts equally on cost saving and service quality (RQ2). We deem our approach to be quite comprehensive and innovative and, therefore, we believe it provides an interesting contribution to research.

The failure to undertake a captive governance mode negatively affects offshoring performance. However, the failure to undertake an outsourcing governance mode does not significantly compromise offshoring performance. Therefore, the governance misalignment has an asymmetric impact on

Table 7. Second stage: outcome models (Equation 2)

	Service quality		Cost saving	
	Without Mills ratio	With Mills ratio	Without Mills ratio	With Mills ratio
Failure to undertake outsourcing	–0.578§	0.139	0.171	0.837
	(–1.67)	(0.25)	(0.46)	(1.55)
Failure to undertake captive	–0.942*	–1.470**	–0.444	–0.802§
	(–2.31)	(–2.87)	(–1.16)	(–1.71)
Cultural distance	0.013*	0.018**	0.010	0.013§
	(2.00)	(3.11)	(1.25)	(1.70)
Institutional infrastructures	–0.294	–0.364§	–0.503**	–0.633**
	(–1.42)	(–1.73)	(–2.79)	(–3.24)
Market potential	0.081	0.002	–0.307§	–0.369*
	(0.86)	(0.02)	(–1.71)	(–2.12)
Low cost labor	–0.606*	–0.864**	–0.095	–0.299
	(–2.29)	(–3.17)	(–0.37)	(–1.14)
Skilled labor	–0.105	–0.021	0.106	0.170
	(–0.79)	(–0.14)	(0.81)	(1.27)
Company size	0.075	0.100*	0.020	0.043
	(1.53)	(2.14)	(0.27)	(0.55)
High-tech industry	0.813**	0.468	0.031	–0.205
	(2.65)	(1.15)	(0.09)	(–0.57)
Home country USA	–0.138	–0.446	–1.135*	–1.439**
	(–0.50)	(–1.57)	(–2.52)	(–3.17)
Age	–0.023	0.001	0.027	0.054
	(–0.67)	(0.03)	(0.44)	(0.89)
Outsourcing	–1.211***	–0.445	–0.982*	–0.333
	(–4.27)	(–0.89)	(–2.23)	(–0.65)
Mills ratio		1.291§		1.016§
		(1.92)		(1.82)
cut1				
constant	–2.089**	–0.551	–0.793	0.517
	(–3.04)	(–0.62)	(–0.85)	(0.39)
cut2				
constant	–0.020	1.514§	–0.057	1.273
	(–0.03)	(1.80)	(–0.07)	(0.99)
cut3				
constant	1.415**	3.018***	1.202	2.540§
	(2.78)	(3.51)	(1.36)	(1.91)
No. of observations	121	121	74	74
Chi-square	49.591	68.114	49.499	47.155
P-value	0.000	0.000	0.000	0.000
Pseudo R-square	0.149	0.168	0.141	0.152

§$p < 0.10$, *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$; z-statistics in parentheses.

performance, thus providing an answer to RQ1. When firms outsource complex tasks that should be retained under the firm's control, this might prevent the attainment of desired results. Suppliers, especially when they are not from the firm's home country, are not as responsive as internal business units. They are likely delivering similar services to many customers and might fail to show the proper commitment to a specific firm. As a consequence, problems with buyer-supplier coordination and error management can counterbalance the advantages deriving from the supplier's economies of scale. Instead, when the firm establishes a fully owned subsidiary abroad, this is not too harmful, even if the extended TCE would recommend outsourcing the task. After several decades of experience with

outsourcing and, more recently, with global sourcing, firms seem capable of autonomously exploiting the advantages of specific locations.

Having said that, our results show that governance misalignment does not equally impact different measures of performance of the offshored task; thus, also answering RQ2. *Service quality* is more heavily affected than *Cost saving*. Once again, a globalized business environment is likely to offer several potential service providers, ensuring low costs of tasks. However, the higher the task complexity, the higher the chance that external providers are no more able to cope with such complexity and neglect service quality. For this reason, outsourcing more complex tasks (that would require a captive governance mode) might seriously affect service quality. Cost saving is less of an issue: the outsourcing of more complex tasks would certainly introduce greater coordination costs with the supplier, but would also allow exploitation of the supplier's larger scale. Hence, the overall impact on the task cost might still be negative, yet not highly significant.

In addition to the aforementioned implications for research, we believe this study also has relevant managerial implications. Results clearly warn against governance mode misalignment: choosing to outsource what should be kept under the firm's direct control is risky. In particular, managers should carefully evaluate outsourcing of complex tasks, as they might negatively affect service quality and, although to a lower extent, cost saving.

Also, results on cultural and institutional factors provide useful insights for managers, suggesting which country-related elements can strengthen or hamper each of the two offshoring performance dimensions. Therefore, managers looking for service quality should not be afraid of cultural distance, rather of low cost labor. Those who instead are looking for cost saving should avoid countries with high market potential.

Finally, we are aware that this study has some limitations, which open up opportunities for further investigations and future research. In particular, the size of our sample does not allow us to account for differences in offshoring performance depending on the specific type of the service offshored, while characteristics of the function performed are likely to be relevant in determining the most suitable location (Doh, Bunyaratavej, and Hahn, 2009). Moreover, it might be worth extending the analysis to include other theories explaining the governance mode besides the TCE, such as the resource-based view and the behavioral theory, and to allow for the dynamics of the offshoring processes. In fact, among the aspects to be considered in order to understand both the selection of the governance mode and the performance results, the firm's past experience within a specific location and/or with a specific form of governance is likely to play a role. Offshoring performance is certainly not only the result of wise choices, but is also a derivative of managerial experience within a global context.

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