Do Organization Choices Matter?

Assessing the Importance of Governance Through Performance Comparisons.

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-Abstract-

What we want to stress in this paper is that, based on a transaction cost economics framework, it is possible to go a step further in empirical tests of the theory, not only by trying (1) to explain contractual choices that are observed (what is generally done in previous works) but also, and above all, by attempting (2) to connect observed “misalignment” with the theory’s predictions with observed performances. We urge for such new kind of tests.

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0. Introduction

Coase's paper (Coase, 1937), that points out the need to incorporate transaction costs in the analysis of contractual decisions, has long been viewed as giving tautological propositions concerning the driving forces behind what should explain the choice of a particular contractual arrangement (Coase, 1988; Masten, Meehan and Snyder, 1991). Great improvements came from the analysis of Williamson at the beginning of the 1970’s identifying characteristics of the transactions (namely frequency, asset specificity and uncertainty) as positively influencing transaction costs (Williamson, 1985, 2002). As noted by Williamson, “contractual variety is the source of numerous puzzles with which the study of the economic institutions of capitalism is appropriately concerned. Transaction cost economics maintains that such variety is mainly explained by underlying differences in the attributes of transactions” (Williamson, 1985: 68).

Such a way to proceed by identifying transaction cost sources permitted to develop empirical testing. Nevertheless, it is at the cost of several implicit assumptions that render empirical results fragile. Indeed, one may challenge the implicit assumptions that are needed to use such methodology to really put to the test the transaction cost economic framework. Furthermore, such inference lets tests open to alternative interpretations.

What we want to stress in this paper is that, based on a transaction cost economics framework, it is possible to go a step further in empirical tests of the theory, not only by trying (1) to explain contractual choices that are observed (what is generally done in previous works) but also, and above all, by attempting (2) to connect observed “misalignment” with the theory’s predictions with observed performances. We urge for such new kind of tests.

In a first part of the paper we come back on improvements concerning empirical tests of TCE, stressing the importance of the identification of transaction costs’ sources. Furthermore, we insist on implicit assumptions and hypotheses needed for such tests to be realized and that led to many critics against transaction cost economics empirical studies. We insist on the fact that empirical test interpretation is very dependent of the selection process that is supposed to be at stake and that empirical tests concerning make or buy issues are not conclusive without making hypotheses (not tested) concerning the sources of transaction costs inside the firm (Part I). In a second part of the paper, we present how it is possible to assess performances and contractual misalignment. We show how such tests may overcome critics that have been made to transaction cost economics and we come back on few papers that have already tried to operate this innovation (Part II.).
1. The Determinants of Organizational Choices

1.1. The Sources of Transaction Costs

Following Coase (1937) and retaining the assumptions of bounded rationality and opportunism, great improvements came from the analysis of Williamson at the beginning of the 1970’s by identifying characteristics of the transactions (namely frequency\(^1\), asset specificity\(^2\) and uncertainty) as positively influencing transaction costs (Williamson, 1985, 2002)\(^3\).

Following this analysis, the choice of one particular governance structure to monitor a transaction can be represented as follows (Masten, 1982; Masten, Meehan and Snyder, 1991, for a more developed formalized presentation of this trade-off):

\[
G^* = \begin{cases} 
G_1 & \iff CG_1 > CG_2 \\
G_2 & \iff CG_1 \leq CG_2 
\end{cases}
\]

(1)

With \(G^*\) being the chosen governance; \(G_1\) and \(G_2\) are the two alternative governance choices; \(CG_1\) and \(CG_2\) are the values of the transaction with governances \(G_1\) and \(G_2\) respectively, taking into account the cost of shifting from one governance to another – i.e. the remediability of the former governance structure. \(Z\) is a vector of exogenous variables affecting the value of the transaction. Following transaction cost economics, such vector is constituted of relevant characteristics of the transaction – namely frequency, asset specificity and uncertainty – explaining transaction cost levels under alternative contractual choices. \(e_2\) and \(e_1\) are error terms that may reflect either variables omitted by the investigator or errors or misperceptions on the part of decision-makers about the true values of \(CG_1\) and \(CG_2\).

Relating transaction’s characteristics to transaction costs\(^4\) gave rise to many propositions concerning the make or buy decision that led to numerous empirical tests. For the vast majority of them, they did not refute propositions of this theoretical framework (for a survey see Joskow, 1988; Shelanski and Klein, 1995; Crocker and Masten, 1996; Joskow 2004). To a lesser extend, transaction cost economics also succeeds in explaining contractual choices (Masten and Saussier, 2002). By collecting data concerning transactions’ characteristics and governance choices, one may try to see whether the governance choices that are observed are the same as those predicted by the theory. The theory is then viewed as a

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1. Frequency has ambiguous effects on contractual choices (Crocker and Masten, 1996). On the one hand a high frequency may support the setup costs of specialized governance. But on the other hand, it has better reputation effect properties that limit the interest of such a specialized governance structure (Williamson, 1999: 312).

2. Asset specificity refers to the degree to which a durable asset can be redeployed to alternative uses or to alternative users without sacrifice of productive value. The literature on transaction cost economics identified at least six forms of asset specificity – e.g. six reasons for which durable assets may not be redeployable without great costs. The non-redeployable character of investments can be due to their localization (site specificity), their physical characteristics (physical specificity), the size of the market (dedicated assets), specialized knowledge necessary for the transaction (human specificity), their identification to a brand-name (brand-name specificity), or the synchronization needed (temporal specificity). See Joskow (2004) for a more extensive presentation of each kind of asset specificity.

3. The identification of the transaction and its attributes as the main determinants of transaction costs was not initially so clearly affirmed in 1975: “The costs of writing and executing complex contracts vary with the characteristics of human decision makers who are involved with the transaction on the one hand, and the objective properties of the market on the other” (Williamson, 1975: 14)

4. As we will discuss further, this relation between transaction costs and characteristics of the transaction is more an assumption than a proposition in the transaction cost framework (i.e. it is rarely tested).
normative and a positive tool. It allows to predict what is observed when it is efficient. It also permits to tell what should be observed when it is inefficient. The way to refute it is to find a case where what is observed is efficient and does not fit the theory’s predictions.

Several limits of such tests should nevertheless be stressed. First, such a way to proceed is correct. It leads to reduced-form analysis. Nevertheless, as noted by Masten, “whether a theory of governance choice is a good predictor of actual behavior reveals little about the cost of failing to choose the correct organizational arrangement” and may be a poor guide to whether a particular theory offers sound prescriptions for business decisions” (Masten. 1993: 119). Such tests are not conclusive concerning the link between observed organizational choices and performances because they are conditioned to one assumption and one hypothesis (rarely tested), concerning the selection process at stake in the economy and the differential effects of transaction’s characteristics on transaction costs inside and outside the firm.

1.2. What Selection Process?

To apply the methodology developed by the transaction cost theory, it is necessary to assume that market forces are strong enough to sort efficiently organizational choices so that exchange relationships observed in practice can be explained in terms of transaction cost economizing. The traditional empirical literature takes as given an economizing framework, assuming that we can draw inference about efficient organizational choices from what we actually observe (see Masten (1993) for a discussion on this issue). This is naturally a strong assumption, that may be challenged and that seems more or less plausible depending on which data in which sector are collected.

First, at the individual level, despite the hypothesized benefits of alignment, not all firms select aligned governance. Empirical evidence suggests that individuals do not always make rational decisions under uncertainty. Individuals frequently employ heuristics to deal with uncertainty and these heuristics often lead to biases in decision making. Furthermore, managers may be overconfident in their ability to manage activities via contract and fail to fully consider the need for more formal governance or for integration (See Zollo (2003) on this issue). Finally, bounded rationality may also preclude complete assessment of contractual hazards and, consequently, aligned governance selection.

Second, at the market level, depending of the studied sectors of activity, competition level may be more or less important leading to several levels of selection process.

These arguments, that firms may make mistakes in their organizational choices and may not be sanctioned by the market, suggest a non-equilibrium state where more realistically, at a point in time, we observe, in each industry, firms (or managers) that are well-informed, mis-informed and uninformed. The problem is then that classical tests of the “make or buy” decision based on Probit/Logit models do not permit to contribute to our knowledge of the importance of governance choices (Masten, 1993; Joskow, 2004). Without entering in technical details, a Probit model gives coefficients of the form \((\beta - \alpha) / \sigma\), where \(\sigma^2\) is the variance of \((e_1 - e_2)\). Predictions are based on the sign of \((\beta - \alpha)\). So, the less precise are manager’s perceptions, the smaller will be the estimated effect of a given characteristic of

\[5\] Furthermore, the fact we observe changes in organizational changes that are connected with propositions of theory reveals little about the implications of organizational choices for firm performance. In fact the opposite is closer to the truth because as noted by Masten (2002), a large variety of organizational choices suggests that little variations in the underlying environment influencing firm performances are sufficient to tip the net benefit calculation from one arrangement to another. It would suggest also that remediability costs are relatively low.
the studied transaction. The more inaccurate the selection process, the less important organizational choices will appear in empirical tests.

Without controlling the selection process at stake in studied transaction and collecting data on performances, empirical researchers are not able to assess how much organization choices matter for performance.

This problem may be overcome, as pointed out by Masten (1993) by (1) defeating the selection process or (2) controlling for it. To defeat the selection process, one may examine situations in which the selection process has been defeated by the interference of some external authorities, such as a regulator (See Crocker and Masten (1988) for an example). The idea is then to compare situations in which the external constraint is bidding and forces the adoption of inferior governance arrangements with the situation it is not (See Crocker and Masten, (1988)). To control for the selection process permits to assess the importance of governance under more general circumstances but at the cost of more detailed data concerning observed costs or performance of alternative governance choices. We will focus on this second strategy in the second part of the paper.

1.3. What transaction costs inside the firms?

If the importance of organizational choices for performance cannot be assessed by classical empirical tests of TCT, it should also be noted that such tests are not conclusive concerning a hypothetical link between transaction’s characteristics and transaction costs levels.

Identification of the sources of transaction costs on the market leads to another underlying hypothesis that helps for empirical tests to be developed that is that "substantially the same factors that are ultimately responsible for market failures also explain failures of internal organization" (Williamson, 1973: 316; Williamson, 1996).

This hypothesis led empirical researchers to focus on a limited set of transaction’s characteristics, with the idea that (1) characteristics that are at the source of transaction costs on the market are the same concerning transaction costs inside the firm and (2) that such characteristics impact transaction costs in the same direction inside the firm and outside the firm.

The upshot is that the majority of empirical tests of transaction cost theory, specifically concerning the “make or buy” decision are based on reduced-form analysis and do not permit to give evidence on these assumptions. As noted by Masten, “such tests do not permit identification of structural relations that underlies those hypotheses. The hypothesis that asset specificity favors integration, for example, is based on propositions (i) that investments in relationship-specific assets increase the scope for opportunism and (ii) that internal organization attenuates opportunism relative to market exchange [...]. A finding that asset specificity increased the likelihood of integration could result even if asset specificity had no effect on the hazards of market exchange [...] if for some reason, investment in relationship-specific assets reduced internal organization costs” (Masten, 1995: 60).

This drawback is a real problem as results of empirical tests are open to alternative interpretation. The majority of econometrical tests of the “make or buy” decision might corroborate the transaction cost view of the firm as well as the resource based view of the firm, focusing on the properties of the hierarchy that, through the formation of routines, may enhance efficiency compared to the market. And this is especially true as soon as you consider activities that are specific to the firm. Therefore, activities that need human specific investments are supposed to be internalized due to the enhanced governance efficiency when

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6 i.e. no zero in \( \alpha \) and \( \beta \) vectors.
specific asset are needed, especially because firms have advantages and more capabilities than the market to develop these specific human assets. In other words, transaction costs inside the firm are not increasing with human asset specificity, but decreasing with it if we consider the resource-based view of the firm. More formally, it means that asset specificity, and more particularly human asset specificity should lead to more integration (if \( G_I \) is the choice to integrate) because \( \beta - \alpha < 0 \), with \( \beta < 0 \) and \( \alpha > 0 \) instead of the TCT’s view leading to the same result with \( \beta > 0 \) and \( \alpha > 0 \). It is quiet embarrassing as empirical research, and more especially econometric works concerning the “make or buy” issue, should be shaped in order to help us to determine probable explanations for the existence and boundaries of the firms and to help us to choose between alternative theories of the firm.

To conclude, the ‘traditional’ empirical approach in TCE consists in evaluating the probability that contracting will be chosen over alternative governance form and then investigating whether the evidence is consistent with transaction cost predictions regarding, for instance, the benefits of long term contracting in the presence of relationship-specific investments (Masten and Saussier, 2002). Therefore, the usual econometric tests of the TCE propositions are indirect. They show that contractual choices correspond to what the theory advocates and then infer from this result that these choices are efficient, that is to say that transaction costs are minimized. But they rarely demonstrate this conclusion, that is to say they rarely investigate “how much we lose by going from the best to the next best [contractual arrangement]” (Joskow 1991: 81-82). As mentioned by Williamson (1985: 22), “empirical research on transaction cost matters never attempts to measure costs directly. Instead, the question is whether organizational relations (contracting practices; governance structures) line up with the attributes of transactions as predicted by transaction cost reasoning or not”. What may explain why the misalignment hypothesis and its consequences on governance efficiency developed by Williamson has not been tested so much is the difficulty of constructing tests that are very demanding regarding data requirement. Indeed, many empirical constraints must be respected to elaborate valid tests of this proposition.

Nevertheless, several empirical studies already exist, using various methodologies in order to control for the drawbacks we mentioned, and assessing the importance of organizational choices with respect to firm performances through the lens of transaction cost economics. We review the methodologies used in those papers and their main results in the second part of the paper.

2. The “second generation” empirical research

As noted in the first part of the paper, the ‘empirical success story’ of TCE lies on cross-sectional studies which show that firms choose the contractual arrangements of their transactions according to transaction cost principles. In other words, these empirical researches investigate the degree to which organizational forms and contractual design are aligned to transaction features and indirectly the degree to which they minimize transaction costs. The results of these studies show strong support for TCE predictions as regard organizational and contractual choices (see Shelanski and Klein (1995) and Boerner and Macher (2003) for a review of this literature).

However, there is less evidence on the performance implications of TCE. There are indeed much fewer empirical studies that directly investigate whether adherence to transaction cost principles is associated with enhanced performance (Leiblein, 2003).

In the late 1970’s, the empirical works by Armour and Teece (1978), Steer and Cable (1978) and Teece (1981) have started to overcome this limit by exploring the performance implications of intra-organizational choices. These studies have indeed tested whether
diversified firms that select M-form organization enjoy higher profitability than firms that choose other forms of internal organization.

Yet, as regard the performance impact of alternative governance structure choices, e.g. the choice of market versus hierarchies, or the choice of long-term contracting versus arm’s length arrangements, it is only recently that new types of tests have been developed to move beyond the TCE conventional empirical research, that is to say beyond the analysis of the determinants of organizational choices. Indeed, these empirical works do not only test the TCE hypothesis according to which firms’ organizational choices depend on the features of their transactional environment, what we call the “first order hypothesis” of TCE, they also investigate whether deviation from TCE principles leads to poorer performance, what we call the “misalignment hypothesis”.

2.1. Problems and methodologies

In order to go a step further toward tests that would help us to assess the importance of organizational choices, it would be useful to connect organizational choices and performances directly instead of using reduced-form analysis.

Let us represent a binary organizational strategy set \((G_1, G_2)\) like in our equation (1) corresponding to the “make or buy” issue and the corresponding performance outcome \((\pi_1, \pi_2)\). The crucial questions we have to answer are: (i) what level of performance would have been reached had the alternative strategy been chosen? And (ii) what is the effect of the organizational choice regarding values of exogenous variables (namely the characteristics of the transactions). These effects are the organizational effects we are interested in.

Let suppose we observe \((G_1, \pi_1)\) and \((G_2, \pi_2)\). We would like to estimate what their performance \(\pi_i\) might have been if another strategy \(G_i\) had been chosen, and what is the impact of a set of exogenous variables \(Z\).

Therefore, one wants to estimate the following equations:

\[
\begin{align*}
\pi_1 &= \alpha Z + e_{1i} \\
\pi_2 &= \beta Z + e_{2i}
\end{align*}
\]

Equations 2 and 3 may be estimated by ordinary least squares, using the sub-samples of firms choosing \(G_1\) and \(G_2\) only to the extent that all exogenous relevant variables are well known by the econometrician and that the set of internally (externally) sourced observations is a random sample of all observations.

Nevertheless, it is usual to suppose the existence of unobservable variables which affect performance outcome and which are correlated with the organizational choice as well. It is also natural to believe that a firm that chooses organizational choice \(G_2\) may differ from a randomly selected firm in the population of firms. As explained by Hamilton and Nickerson (2003), the estimation approach depends on whether such unobservable variables exist and whether organizational choices are endogenous or not. If all variables that affect both performance and organizational choices are not known or organizational choices are not exogenous, then, using OLS procedure when estimating equations (2) and (3) could lead to a potential endogeneity problem. This obliges the researcher to use methods to control for such endogeneity. Such procedure permits to account for the characteristics of the transaction on performance (on the market or in the firm) while simultaneously correcting for the sample bias in the estimates.

\[ E(\pi_2 | G_2, X) = E(X\beta + e_{2i} | G_2) = X\beta + E(e_{2i} | G_2) \]. If \( \text{cov} (G_i, e_{2i}) \neq 0 \), as would be the case if there were unobserved factors that affect both the choice of strategy and performance, then \( E(e_{2i} | G_2) \neq 0 \).
The interesting thing is that there already exist (few) empirical studies using performance measures and different methodologies to try to assess the importance of governance choices. These “second generation” empirical works provide different methodologies to test the misalignment hypothesis. Indeed, if the first stage of these studies always consists in finding out the sources of contracting difficulties and then analysing their impact on organizational choices (recognizing therefore the endogenous nature of organizational choices), there are various ways to test the misalignment hypothesis in the second stage. We have been able to distinguish in the existing literature two main methodologies that allow to assess the performance impact of misalignment.

2.1.1. The Heckman Method

The more rigorous way to assess the importance of governance choices for performance is to control for selection bias and endogeneity of organizational choices using econometric tools at hands for this.

The Heckman Method is particularly interesting to succeed in this. Without entering into technical details (see Hamilton and Nickerson (2003) for this), in a first step the researcher is performing a “classical” TCT regression concerning the organizational choices (Probit/Logit regression). In a second step, using results from the first step through the estimates of the Mills ratio, the researcher estimates equations (2) and (3) corrected from the selection and endogeneity biases. It can be done by estimating (2’) and (3’) using inverse Mills ratios ($\phi$):

\[ \pi_{1i} = \alpha Z_i - \sigma_1 \phi + \epsilon_{1i} \quad (2') \]
\[ \pi_{2i} = \beta Z_i + \sigma_2 \phi + \epsilon_{2i} \quad (3'). \]

Several studies have used this method (Masten, Meehan and Snyder, 1991; Leiblein, Reuer and Dalsace, 2002; Mayer and Nickerson, 2002; Sampson, 2004). Nevertheless, the more important issue in the estimation concerns identification. Correcting for selection bias and endogeneity of organizational choices suggests that the researcher has one or more instrumental variables that affect strategic choices but do not directly impact performance. Unfortunately, it is difficult to find instrumental variables that affect strategy choice but not performance.

2.1.2. Construction of a misalignment variable

The second methodology we could identify is characterized by the construction of a variable measuring the misalignment (Silverman and Nickerson, 1997; Mayer, 2000; Bigelow, 2003; Yvrande-Billon, 2003; Nickerson and Silverman, 2004). This variable is elaborated by reestimating the selection model developed in the first stage and calculating the absolute value of the residual for each observation. The misalignment variable is therefore defined as follows:

\[ MISALIGN = |G^{observed} - G^{predicted}|, \]

where $G$ stands for Governance Structure.

If the organizational choices analyzed are discrete, e.g. subcontracting versus in-house making, then $G^{observed}$ takes the value 0 or 1 and $G^{predicted}$ refers to the probability of choosing one of these two modes of organization according to TCE principles, and can therefore range

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8 If not, the inverse Mills ratio terms used in the second step of the Heckman method are non linear functions of $Z_i$ so that parameters $\sigma_{u1}$ and $\sigma_{u2}$ measuring selection effects for each organizational choice are only identified by the normality functional form assumption. This often leads to very unstable and unreliable estimates of the parameters (Hamilton and Nickerson, 2003).
between 0 and 1. Thus the lower the value of $MISALIGN$, the more aligned the studied transactions and the higher the value of $MISALIGN$, the more misaligned the studied transactions. If the analysis deals with continuous choices, e.g. the length of contracts, the reasoning is the same except that $G_{\text{observed}}$ can take more than two values.

The final step then consists in estimating the following equation:

$$\pi = \beta_{MISALIGN} + \eta_x + \epsilon$$  \hspace{1cm} (4),

where $X_i$ is a vector of exogenous variables affecting performance.

2.2. What measures of performance?

The diversity of the applied research projects dealing with the performance impact of misalignment and the resulting development in the TCE empirical literature also come from the multiplicity of the performance measures that are chosen. From the basic hypothesis that links transactional misalignment to performance, it is possible to derive more precise propositions by choosing a particular performance indicator.

However, a major difficulty arises at that stage, which lays in the choice of a relevant and homogenous unit of analysis. Indeed, while the transaction is generally the unit of analysis of misalignment, performance should not be analyzed at the firm level without many precautions.

- Costs/benefits analyses

In accordance with the original proposition by Williamson (1985), which refers to performance in the sense of profit, that is revenues minus production and transaction costs (Riordan and Williamson, 1985), several empirical works tend to assess the impact of misalignment on performance measured by accounting-based measures of profitability: firm’s net profits (Yvrande-Billon, 2003), profit margin (Mayer, 2000; Mayer and Nickerson, 2002; Nickerson and Silverman, 2004) or return on sales (Nickerson and Silverman 2004).

Similarly, Masten, Meehan and Snyder (1991) evaluate the governance costs of alternative structures, namely firm and market, under different transactional environments - i.e. for various levels of asset specificity- in order to investigate whether misalignment increases management costs.

At last, beside the analyses of profits and costs, some studies focus on the benefits impact of alignment. Thus, Sampson (2003) investigates whether misaligned governance choices limit innovative benefits measured via citation-weighted firm patents. Leiblein, Reuer and Dalsace (2002) examine the effects of transactional misalignment on firms’ technological performance.

- Survival

Considering that firms’ survival rate depends on their profitability, (and therefore on their organizational choices), some authors have deduced from the basic proposition that misalignment might also have a positive impact on firms’ mortality. Thus, the hypothesis tested by Silverman et al. (1997) as well as by Bigelow (2003) is that firms that fail to properly align their transactions will suffer higher failure rates than their properly aligned competitors. In these articles, performance is therefore measured by survival, the driving principle being that weak-form efficiency selection mechanisms operate so that inefficient organizations exit the market (Anderson, 1988).

- Quality

A third category of empirical researches deal with qualitative performance, investigating whether the quality of goods or services varies with the degree of alignment of
the governance structure monitoring their procurement. Thus, Poppo and Zenger (1999) examine the relationship between transactional misalignment and customer satisfaction⁹, whereas Ménard and Saussier (2002) estimate the incidence of alternative governance choices on the quality of the service delivered.

2.3. Propositions and results

2.3.1. The basic performance proposition

The most general proposition as regard the performance implications of transactional misalignment can be summarized as: the more misaligned an organizational or contractual choice, the poorer the performance. Generally speaking, all the reviewed articles provide results that are consistent with this prediction since they indicate that misalignment between firms’ governance decisions and the degree of contractual hazards deteriorates performance, measured either in terms of cost/benefits, survival rate or quality.

Thus, for instance, Mayer (2000), in his analysis of 192 information technology contracts, shows that contracting with independent workers leads to lower profitability than using employees when projects involve contracting difficulties due to expropriation risks, measurement costs or interdependence. On the contrary, projects that are not subject to such contractual hazards are more profitable when they are realized by independent contractors instead of employees. The results of his econometric study therefore indicate that transactional alignment enhances performance, measured in terms of profit margin.

Nickerson, Silverman and Freeman (1997) find the same correlation between misalignment and survival rate in their analysis of the determinants of motor carriers’ mortality in the newly deregulated environment of the U.S. trucking industry. They show that the link between a firm’s reliance on debt and its ownership of specialized assets - i.e. the alignment of its debt-to-equity, (Williamson, 1988) plays a significant role in the firm survival¹⁰.

Similarly, Bigelow (2002) concludes that the rate of failure of U.S. automobile manufacturers between 1916 and 1934 was positively impacted by the degree of misalignment of their organizational practices regarding the procurement of core automobile components.

At last, the empirical studies dealing with qualitative performance also show strong support to TCE propositions. Indeed, Ménard and Saussier (2002) find that the French municipalities that choose to organize their water supply system according to the amount of specific investments required (i.e. following a TCE logic), enjoy a better quality of water than those that do not conform to the theory’s predictions (i.e. choose a misaligned governance structure for the provision of water).

2.3.2. The dynamic propositions

Assuming that economic agents search for efficiency and tend to find an equilibrium, one can derive from the general performance hypothesis that misaligned firms, if they are not

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⁹ To build their indicator of customer satisfaction, they use a Likkert scale survey data from customers, i.e. managers in their analysis.

¹⁰ But the results of their regressions are inconclusive as regard the effect of misalignment of the employment relation (measured as the difference between the proportion of a motor carrier’s total miles effectively driven by company drivers and the proportion predicted by the selection model) on survival rate.
selected out, might undergo some adaptive re-alignment to restore efficiency. Because misalignment affects organizations’ performance, it is supposed to have a significant impact on their likelihood of undertaking change. As put by Nickerson and Silverman (2003: 8), “the performance penalties associated with misalignment ill trigger efforts by inappropriately aligned organizations to reduce their degree of misalignment”. That is why, misalignment is assumed to increase the probability of governance change and adaptation.

More accurately, transaction cost economics suggests that a situation of misalignment between a governance structure and the characteristics of its transactions provides incentives either to shift to another mode of organization or to modify the features of the transactions. Overall, one can therefore distinguish three kinds of hypotheses that refer to the adaptationist view of TCE.

The first one, already evoked in sections 2.2 and 2.3.1., links misalignment with firms mortality, which is the most radical type of change. The underlying argument of this proposition is that misaligned firms that are unable to implement changes are likely to disappear because they will suffer unsustainable performance in comparison with the results of their properly aligned competitors. It is the proposition successfully tested by Nickerson et al. (1997), Bigelow (2002) and by Nickerson and Silverman (2004).11

The second type of dynamic proposition introduces a relationship between transactional misalignment and structural changes. Misalignment is supposed to be a key determinant of firms’ decisions to change their organizational mode. This assumption is based on the idea that, in a competitive environment, decision-makers are pushed to minimize their transaction costs by finding a mode of governance adapted to the characteristics of transactions at stake. The TCE principles explaining managers’ initial organizational choices obviously also explain managers’ decisions to operate changes in the forms of governance. Nickerson and Silverman (2004) test this proposition in their analysis of the newly deregulated U.S. trucking industry. Not only do they study the performance consequences of inappropriate governance, but they also assess the dynamic impact of misalignment on firm’s decisions to change their organizational mode. Taking advantage of a natural experiment -the unexpected deregulation of the industry in 1980-, the authors have been able to assess the rate and amount of organizational adjustments that carriers have made to mitigate the misalignment induced by such an exogenous shock. Their results indicate that carriers that select a misaligned governance structure for their drivers employment relations, on the one hand, suffer lower operating profit and return on assets than their efficiently aligned rivals, and on the other hand, tend to reduce their degree of driver misalignment over time, i.e. to adapt the organization of their labor-market transactions so as to realign it and enhance their performance. Furthermore, Nickerson and Silverman (2004) also show that the rate and amount of organizational change are constrained by some organizational features such as the size of the firm, the degree of specificity of the firm’s assets, the date of entry on the market or the level of competition faced by the firm.

At last, the third type of dynamic hypothesis suggests that misaligned firms might tend to transform the features of the assets involved in the transactions they monitor, especially when exogenous constraints prevent them from modifying their governance structure. A vast majority of empirical works in TCE have ignored this possibility to focus on organizational changes. Yet, this second adaptative strategy is one of the two strategies envisaged by the theory to mitigate misalignment. According to the basic selection models in TCE, the amount of relationship-specific investments, like the mode of governance, is indeed an endogenous variable (Williamson, 1983; Riordan and Williamson, 1985; Lyons, 1995). It can therefore be

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11 But to a certain extend only since the test of this proposition is neither there primary objective, nor their main contribution.
used by firms to modify their level of misalignment. So far, to our knowledge, this proposition has never been tested econometrically. The only article developing this hypothesis (Yvrande-Billon and Ménard, 2003) has just provided empirical evidences indicating that, with an organizational structure imposed on partners and prohibiting adjustments in the mode of governance, the decision variable is likely to become the specificity of assets. In their analysis of the reform of the British rail industry, they have shown that the market-type structure imposed on the rail actors by policy makers does not fit with the high level of specificity of the transaction they have to organize and that this situation of presumed misalignment results in adjustments in the characteristics of rail assets, more accurately in the standardization of the rolling stock.

2.3.3. The ‘differentiation’ hypothesis

Some articles have gone even further in the tests of the misalignment hypothesis by analyzing the performance implications not only of the magnitude of the mismatch but also of its nature. The idea developed is that all types of organizational errors (e.g. insourcing instead of outsourcing or outsourcing instead of insourcing) have a negative impact on performance but some might be more damageable, i.e. more costly, than others.

Thus, Sampson (2004), in her study of R&D alliances in the telecommunication industry, differentiates the performance effect of choosing an equity joint venture rather a pooling contract and the consequence of making the reverse mistake. Her results indicate that innovative performance (i.e. collaborative benefits) is affected most by selection of governance that imposes excessive bureaucracy (misalignment of the first type) rather than governance that allows excessive opportunism hazards (misalignment of the second type).

Similarly, Mayer and Nickerson (2002) provide results that indicate an asymmetry in the penalty for misalignment. However, their study of the contractual practices of a large information technology (IT) company reveals that subcontracting an IT project when TCE principles advocate integration leads to even lower profitability than insourcing this transaction while outsourcing is predicted. These results are coherent with those found by Masten and al. (1991) in their study of the organizational costs in shipbuilding, which suggest that internal production of items that are actually bought on the market would increase total costs by 11%, while market procurement of components that are produced internally would increase the costs by 24%.

On the other hand, Leiblein, Reuer and Dalsace (2002) and Yvrande-Billon (2003) find that “excessive governance”, i.e. the choice of excessive safeguards, has no significant effect on performance. Leiblein et al. (2002) indeed show that integrated circuit manufacturers that buy semi-conductor devices while having good theoretical reasons to integrate suffer poor technological performance whereas the fact to “make” while having good reasons to “buy” has no significant impact on firms’ technological results.

The same kind of conclusion is developed by Poppo and Zenger (1999). Studying the governance of 9 information services at 152 companies, resulting in a sample 1 368 observations, they found that the coefficient of the Heckman term was significant for the performance model for outsourced exchanges but not for the model of internal exchanges, meaning that information services that were internalized would do worse if they were forced to be externalized, but not the reverse.

Similarly, Yvrande-Billon (2003), in her analysis of the new British railways structure, finds that “too short” contracts in comparison with theoretical predictions translate into decrements in financial performance whereas “too long” contracts have not significant incidence on firms’ profits.
All these results reveal the importance of distinguishing between different types of organizational mistakes or contractual errors.

3. Conclusions

The empirical researches we have reviewed in this article allow to assess the importance of governance on performance without inference and therefore to attenuate a severe shortcoming of the conventional TCE literature.

They also permit to disentangle alternative views of the firm. Considering the work of Masten, Meehan and Snyder (1991) compare to the one of Poppo and Zenger (1999) it should be noted that the use of such methodology is justified (at least for Poppo-Zenger (1999)) by the will to put in competition the RBV and the TCT’s views of the firm. Such tests are more conclusive than previous ones on this question. For example, Masten, Meehan and Snyder (1991) found that “workers with more specific skills are less costly to manage” (Masten, Meehan and Snyder, 1991: 18). Furthermore, they conclude that “the correlation between human capital specificity and the likelihood of integration is a consequence of a decrease in internal organization costs rather than the increase in the costs of market exchange” (Masten, Meehan and Snyder, 1991: 19). Such results might highlight the gains of organization over markets when human asset specificity is involved in transaction and give weight to the RBV view of the firm, even if the sample used for the study is quite small. On the reverse, Poppo and Zenger (1999) found that, contrary to the RBV hypothesis, managers do not become more satisfied with performance as internal activities become more firm-specific (Poppo and Zenger, 1999: 867). Furthermore, firm asset specificity has a strong negative effect on market performance and no clear effect on firm performance. Therefore TCT’s view is corroborated as their empirical test clearly shows that asset specificity triggers governance choices because hierarchies more effectively cope with asset specificity than market. They explain such deceived result (to their own view) by the fact that the underlying technological change is rapid (Poppo and Zenger, 1999: 872). Routines, language and embedded forms of knowledge are thus rigid mechanisms that hamper performance.

Finally, the results of what we have called the “second generation” empirical researches in TCE suggest that more refined hypotheses might be introduced in future empirical works, first in order to take into account the type of misalignment in addition to its size, and second, in order to predict the dynamic consequences of misalignment. This implies that further developments are urgently required on the theoretical side to go beyond the basic misalignment hypothesis and to lay foundations for a more complete theory of organizational choices.

12 Such a result concerning the way performance are affected in connection with characteristics of the transactions are possible only to the extend that the researcher make the hypothesis that such characteristics influence the choice of governance structures and also performances. That is not the case of all studies (See for example Leiblein et al. (2002)).
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5. References


