GOVERNANCE CHOICE FOR STRATEGIC CORPORATE SOCIAL RESPONSIBILITY:

EVIDENCE FROM CENTRAL AMERICA

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Governance Choice for Strategic Corporate Social Responsibility: Evidence from Central America

Abstract

The decision to internalize corporate social responsibility (CSR) activities, to buy (outsource) them in the form of corporate philanthropy, or to collaborate with other organizations is of great significance to the ability of the firm to reap benefits from such activity. Using insights provided by organizational economics and the resource-based view of the firm, this paper describes how CSR centrality affects governance choice. This framework is tested using data collected from Central America. The findings suggest that the higher the centrality of CSR activities to the firms’ mission, the more likely that the firms will engage in CSR internally. The paper discusses directions for future research and concludes with the managerial implications of this research.

Key words: corporate social responsibility, internalization, outsourcing, collaboration
Governance Choice for Strategic Corporate Social Responsibility: Evidence from Central America

Managers face a varied and increasing demand for corporate social responsibility (CSR) from stakeholders (McWilliams and Siegel, 2001). This demand has been marked by numerous claims linking corporate social responsibility to firm financial performance, particularly in professional publications (Kanter, 1999), in the media, and by emerging international CSR organizations – such as the United Nations Global Compact. The motivation is laudable: if a positive CSR – financial performance relationship can be demonstrated, then firms will be motivated to increase spending on CSR activities. However, academic research to date has been inconclusive, finding positive, negative and curvilinear relationships between CSR and financial performance (McWilliam and Siegel, 2001; Margolis and Walsh, 2001; Orlitzky, 2003).

Nonetheless, as business firms perceive growing CSR pressure and CSR reputation risk (Roberts and Dowling, 2002), commitment to CSR initiatives and spending have increased dramatically (SCH, 2003). As a result, despite the lack of conclusive evidence demonstrating that CSR is a competitive issue, we find a concomitant demand for the strategic management of CSR activities and assets (Porter and Kramer, 2002).

How, then, ought firms to respond to the demand for CSR management initiatives? The obvious and immediate answer that comes to mind is: “the same way firms manage other activities.” Taking this quite general and straightforward normative statement on firm decision-making as our starting point, we now must evaluate whether this simple formula is adequate in the case of CSR. For in developing a theory of strategic CSR decision-making, we face an additional difficulty not confronted when dealing with the firm’s market strategies. Corporate social responsibility has been defined as “actions that appear to further some social good, beyond
the interests of the firm and that which is required by law” (McWilliams & Siegel, 2001: 117). In effect, strategic decision-making in the CSR context requires fulfilling a non-market requirement generally excluded from strategic management theory. At the same time, we would argue that this requirement, however, must not preclude the incorporation of CSR into the mainstream of strategic management and the theory of the firm. In other words, our goal is to develop a theory of CSR decision-making that does not contravene the basic tenets of the classical theory of the firm.

Perhaps an analogy from another field, rather far from management can help to point out the importance of what is at stake. Pascal (1950), the French philosopher and mathematician, taught that a faith that contradicts reason cannot be believed. In his analysis of faith, Pascal understood quite clearly that no system of belief would survive for long if it went against the most fundamental principle of human thought – namely, reason. In the same way, no theory of CSR decision-making will endure if it contradicts the most fundamental principle of the business firm – the creation of wealth – however beneficial the results of CSR for certain stakeholder groups. We cannot forget that the firm, as a legal entity, owes it current form and function to its socially-agreed role as a producer of wealth (Sundaram and Inkpen, 2004). Should we decide to change this role, we would need to reconstitute the firm, instituting new forms of governance, in effect creating a new kind of organization.

Those who defend “the objective function of the firm” have argued that CSR must not be antithetical to profit (Jensen; 2001; Sundaram and Inkpen, 2004), and that stakeholder theory (Freeman, 1984) and CSR simply replace the fiduciary obligation of firms to investors with the laudable desire to do good without specifying how such actions actually contribute more to society or improve firm performance. We understand their concerns; moreover, we believe that the challenge raised by stakeholder management and CSR is an opportunity to enrich the field of
strategic management. To do so, however, requires putting CSR to the tests set out by the classical theory of the firm. It is a test of CSR’s economic efficiency and coherence with firm market strategies. It is the same test that nearly 60 years ago Simon (1945, 45-47) called for when he asked that administrative theory demonstrate itself to be consistent with economic theory. A theory of CSR strategic decision-making ought to set out the extent to which CSR decisions are similar to or different from other firm decisions. To the extent that CSR decision-making is different, it would be necessary as well to explain how such differences may aid or harm the meeting of firm economic objectives.

Accordingly, we have chosen to consider corporate experience in undertaking CSR activity and contribute to advance our understanding of CSR in a way that is consistent with current thinking in organizational economics (Coase, 1937), including work both within agency theory (Jensen & Meckling, 1976) and transaction-cost economics (Williamson, 1975; 1985; 1991), as well as the resourced-based view of the firm (Barney, 1986; Peteraf, 1993). This approach is consistent with recent research in which market, governance and resource-based analyses are treated as complementary (Hoopes, Madsen, & Walker, 2003).

Specifically, in this paper we consider one of the principal issues in the theory of the firm: the make or buy decision. Our objective is to provide a conceptual framework of the firm’s decision to undertake CSR activities internally, to collaborate, or to outsource them to other organizations to see whether this is consistent with firm economic objectives. We then test this theory using evidence collected from firms in Central America.

Our decision to look at the make or buy decision in building a theory of the firm that incorporates CSR decision-making is based on the central role the question has taken on in contemporary theory of the firm (Coase, 1937; Williamson, 1975). The raison d’etre of the firm is predicated on answering this very question: why firms instead of markets? Once again, the
economic theory of the firm provides a straightforward answer consistent with the objective function of the firm: efficiency. Firms are more efficient than markets in organizing some economic activities. Individual firms, as independent economic actors must also decide which activities it does more efficiently (i.e., more profitably) and incorporate those and only those within the firm and leave the rest to markets. In principle, a firm will either “buy” CSR via outsourcing through the funding of non-governmental and other not-for-profit organizations, “make” CSR internally through the development of in-house projects, or collaborate with other organizations in the development of CSR projects. The objective of management is to determine which kind of response is most likely to benefit the firm in two ways – satisfy the firm’s return on investment and satisfy stakeholder demands. To the extent that these two objectives conflict, firms will be unable to meet its fundamental obligations.

The rest of the paper is structured as follows. In the first section, we describe the possible forms of institutional governance for carrying out corporate social responsibility. Using the concept of centrality, we then build a conceptual framework to explain the conditions under which each kind of CSR governance is most appropriate. Using data collected from a survey in Central America, we test the theoretical propositions. Finally, we develop some of the implications for management and research.

Toward a Conceptual Framework of the CSR Make-Buy-or-Collaborate Decision

A Comparison of CSR Governance

Although there are a variety of forms of institutional governance for CSR activities, three patterns occur repeatedly: firms tend to outsource CSR through corporate philanthropy, internalize it through direct projects, or use some collaborative form. In order to compare the
advantages and disadvantages of each form of governance, we will distinguish them along four
dimensions of governance: autonomous adaptation, cooperative adaptation, incentive intensity,
and administrative control (Williamson, 1991). Autonomous adaptation deals with the capacity
of the parties to a transaction to individually make changes to unforeseen contingencies or
disturbances. Cooperative adaptation refers to the capacity of the parties to respond to
disturbances in a coordinated way, either through bargaining or administrative fiat. Incentive
intensity deals with the extent to which economic incentives vary according to performance.
Finally, administrative control refers to the firm’s systems to monitor and either reward or
penalize behavior that supports its objectives. Let us compare each of the three kinds of CSR
governance in terms of these distinguishing attributes.

Philanthropy or charitable contribution consists of donations of money or goods to non-
profit organizations that undertake charitable, social, educational, community, or scientific work.
In the case of philanthropy, the participation of the donor in the development of CSR activity is
minimal. It involves a high capacity for autonomous adaptation to unforeseen contingencies
because administrative decisions are left to the recipient of the donation. On the other hand,
cooperative adaptation is low. If the donor disagrees with the response of the recipient to
unanticipated contingencies, the donor’s only recourse is to withhold future funding from the
recipient. Incentive intensity is high given the ability of the donor to condition future donations
on the recipient’s performance and the competition among potential recipients for such
donations. But administrative controls over the recipient’s managers are minimal because of the
donor’s inability to monitor and either reward or punish the recipient’s managers.

CSR activities can go beyond philanthropy to the actual development and management of
specific projects. Direct projects internalize CSR, as they require corporate involvement that may
include participation in the planning, execution, and evaluation of social projects, either alone or
in collaboration with other organizations. Internal projects are developed within the hierarchical structure of the firm and are thus subject to all of the advantages and disadvantages of hierarchies (Williamson, 1991). Cooperative adaptation within the firm is high because the recipient is a unit within the firm that submits to the same authority structure. However, autonomous adaptation is low. Incentive intensity is weak given the fact that employees responsible for CSR activity usually receive a fixed salary and the success or failure of a CSR project does not directly affect their economic incentives. Low incentive intensity is compensated with high administrative control as internal firm systems provide for surveillance. These systems also reward or punish employees in terms of their potential for career advancement.

There are a number of hybrid forms of corporate social responsibility involving collaborations or alliances between the firm and other institutions (Mullen, 1997). Such collaboration may go beyond the mere contribution of financial resources to the actual design and even joint management of the projects in question. For example, Benetton frequently works with international humanitarian associations to collect used clothing at its stores, which is then distributed by the partner to the needy in the Third World.

Collaborative forms of CSR governance are characterized by intermediate levels of the four governance attributes. Incentive intensity is greater for a hybrid structure than for a direct project, but weaker than in the case of philanthropic contributions given the fact that the alliance between the two organizations requires them to work out disagreements, rather than simply switch CSR partners. As a result of the bilateral dependence that is created between the two organizations, adaptation can neither be entirely autonomous nor based on administrative fiat. However, cooperative adaptation in the form of bargaining is possible. Administrative controls exist, but are effective only through negotiation between the two organizations.
In summary, CSR activities can be carried out as corporate philanthropy through third parties (NGO’s, etc.), internally as social projects of the firm, or through hybrid forms of collaboration and alliances. Each form displays different strengths and weaknesses with respect to its capacity for autonomous adaptation, cooperative adaptation, incentive intensity, and administrative control.

Make, buy, or collaborate?

The extent to which CSR will be used to pursue strategic opportunities is a basic decision made by management. Where strategic concerns are weak, CSR activity may be a reflection of pressures to imitate other companies as a way to achieve legitimacy (Hoffman, 1999; Rivera and de Leon 2004; Rivera, 2004; King and Lenox, 2000). If the firm gives corporate social responsibility a strategic role, then the centrality of CSR to the firm’s business mission appears to be a key variable in understanding when the firm internalizes or outsources CSR. Centrality refers to the closeness of fit between the firm’s CSR activity and its mission and objectives (Burke and Logsdon, 1996). Centrality is high when the firm’s CSR activity is closely related to the firm’s core business activity. Conversely, centrality is low when CSR is unrelated to the core business.

Centrality is relevant to the internalization decision for two reasons. First, centrality has a significant relationship to the agency problem (Jensen and Meckling, 1976). To the extent that CSR activities are closely related to the firm’s mission and objectives, the principal-agent problem is attenuated because the firm has a greater capacity to monitor social activities related to its core competencies. Where centrality is low, agency costs increase, thus making the option of buying CSR through charitable contributions to an external organization more efficient. Second, the concept of centrality relates CSR activity to firm resources and core competences.
Core competences integrate firm-specific assets or resources that allow it to engage in distinct activities that are related to its fundamental business (Teece, Pisano, & Shuen, 1997). A CSR activity is highly central when it is based on core competences of the firm. For CSR activities that display high levels of centrality, the firm already possesses the competences needed to undertake that activity. For those CSR activities marked by low levels of centrality, firm competences do not match the competences needed to undertake the activity. The firm may either acquire needed resources through collaboration with a non-governmental organization that does possess them or outsource the activity entirely through philanthropic donations (Barney, 1999).

For example, J.P. Morgan has developed a core competence in the structuring and financing of commercial projects, which it often extends to social projects. It thus takes few new resources to engage in the same activities as a form of social action. This would not be the case of Levi Strauss when it contributes money for AIDS research. Neither of these activities is central to the mission, objectives, and core competences of Levi’s. In this case, the principal-agent problem can be quite severe due to the condition of information asymmetry—one of the parties (the recipient) has more knowledge regarding the social problem than does the other (the donor)—thus making monitoring impossible.

Philanthropy tends to occur in areas of social concern that are less closely related to the core business mission of the firm. As observed in the case of Levi’s, neither AIDS research nor classical music are central to their missions. These activities are characterized by information asymmetry given the fact that the donor organizations are not experts in AIDS research or classical music. Each faces a problem of monitoring the recipient of funds because of the lack of adequate administrative control. Consequently, these firms become involved in unrelated CSR activities through philanthropy. From the perspective of the donor, information asymmetry is
reduced for social issues unrelated to the mission of the firm by outsourcing social action to external recipients (non-governmental organizations) that do have the necessary competence and face greater incentive intensity through competition for limited corporate funds.

CSR activities in areas closely related to the core business of the firm are usually internalized because of the greater competence of the firm and thus the greater ability to monitor recipients through its administrative control system. For example, Benetton is involved in a number of publicity campaigns that feature social problems. Its “Enemies” campaign featured a clothing catalogue of Jewish and Palestinian citizens of Israel with statements by both about their daily life together. The catalogue sensitively portrayed the humanity of both sides of the conflict. The persons featured in the catalogue were not models, but regular people, all wearing Benetton clothing. In this case, the nature of the social campaign melded seamlessly into Benetton’s competence in marketing. In this case, the firm may evaluate the effectiveness of internal social investments, thus reducing the principal-agent problem.

**Proposition 1: The higher the centrality of CSR activities to a firm’s mission, the more likely that the firm will engage in CSR internally.**

Until now, we have been dealing with the conditions that foster two polar forms of CSR activity: philanthropy (outsourcing) or internal projects. As previously mentioned, there are also important hybrid forms, including strategic alliances and other forms of collaboration. Collaborations allow the firm to participate in social projects outside its core business mission. The firm contributes its resources, such as managerial capacity or the structuring of financial transactions, together with other organizations that have greater expertise with a given social problem.

Collaborations allow the firm to leverage its resources to address social problems outside the realm of its core business mission. Obviously, these projects are less central to the firm’s
mission than in the cases of internal social projects, but at the same time are related to the firm’s mission because of the particular resources that the firm invests. As a result of the contribution of these resources and competences, the condition of information asymmetry is attenuated without being eliminated entirely. In addition, the hybrid form displays a superior capacity for cooperative adaptation than does outsourcing, while preserving some capacity for autonomous adaptation not available to internal governance. Thus, we argue that hybrid forms most likely occur when the firm develops projects characterized by intermediate levels of centrality.

Proposition 2: At moderate levels of centrality, collaborative forms of CSR activity are more likely to occur than either internal projects or external contributions.

Methods

A survey instrument was developed to measure centrality, the different options for governance, as well as a number of control variables. The face validity of the instrument was determined by a detailed examination of the instrument by 10 academics and business people in Mexico and Spain who reviewed the instrument for items that may have been unclear. The survey was then distributed to members of two continuing education seminars conducted by one of the authors through the Instituto Centroamericano de Administración de Empresas (INCAE), the leading business school in the region and one of the leading business schools in Latin America. 118 responses were gathered, but only 60 (51%) were usable. Many of the respondents were from countries outside the region of interest. Some responses came from executives of not-for-profit organizations. Although they have a social orientation, these respondent firms do not face the strategic choice that is the focus of this study. The convenience sample represented by this data is justified given the extremely difficult nature of gathering survey data in Central America (Rivera, 2002). Mail and telephone surveys are out of the question in the region.
The average number of employees in the firms represented in the sample was 590. Of the final sample, 14 firms were from Costa Rica, 7 from Panama, 7 from Nicaragua, 15 from Guatemala, 12 from El Salvador, and 5 from Honduras. They represented a variety of different industries including food products, cement and construction, banking and financial services, communications, and paint manufacturing.

Centrality was determined by asking the extent to which developing community projects, protecting the environment, and helping solve social problems were important to the firm’s business mission. The centrality construct ($\alpha=0.79$) demonstrated satisfactory levels of reliability (Nunnally and Bernstein, 1994). With respect to CSR governance choice, we asked respondents to indicate the extent to which they agreed with statements that their CSR projects were organized internally, that their firms participated in partnerships with NGOs, and that their firms made charitable contributions. Firms were classified as being predominantly focused on internal projects, collaborative projects, and external or philanthropic projects using cluster analysis.

Construct validity was evaluated by examining the convergent and discriminant validity of the measures. Convergent validity was assessed looking at the pairwise correlations between the items for each construct. All are significant at the $p < 0.01$ level, except one which was significant at the $p < 0.05$ level. Therefore, there is evidence of convergent validity for the different measures.

Discriminant validity was evaluated by performing a factor analysis on the items included in the survey. The items related to centrality and governance choice each loaded on a different factor, indicating that they did discriminate between the variables.

The hypotheses were tested using both discriminant analysis and probit analysis. As suggested by previous studies of determinants of CSR (Henriques and Sadorsky, 1996; King and Lenox, 2000; Christmann and Taylor, 2001; Rivera, 2004), in the probit analysis, we included
firm size, local or foreign ownership, market participation, and internationalization as control variables. Firm size was measured by the number of employees in the firm. Foreign ownership was determined by asking whether majority ownership was in local or foreign hands. Market participation was determined by asking the percent participation of the firm in its most important market. Finally, internationalization was discovered by asking the percentage of sales in foreign markets.

Results

In order to test the hypotheses, the first task was to classify the firms according to their tendency to undertake CSR internally, collaboratively, or externally through donations to non-profit organizations. We performed a hierarchical clustering procedure, known as the average linkage within groups approach (Hair, Anderson, Tatham, and Black, 1992). We had initially used the single linkage procedure, but the cases were placed in a long snakelike chain, which made no theoretical sense. Thus, we turned to the average linkage procedure. Clusters were developed based on the responses to three items regarding the extent to which CSR programs are developed independently by the firm, through projects developed in collaboration with other organizations, or externally through philanthropic donations to other organizations. These three items were Likert-type scales. The clustering procedure was carried out by specifying that no more than three clusters should be allowed. As Table 1 displays, the cluster procedure formed by three different groups, each with a different emphasis on internalization, collaboration, and external contribution.

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Insert Table 1 about here

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In order to initially test the hypotheses, we conducted a discriminant analysis using the groups identified in the first step as the dependent variable. Discriminant analysis assumes that the covariance matrices are homogeneous (Klecka, 1980). Box's M test evaluates the assumption of homogeneity of covariance matrices. This test is also very sensitive to meeting the assumption of multivariate normality. The test is not significant so we conclude the groups do not differ in their covariance matrices.

Centrality was the independent variable. Table 2 indicates that centrality does significantly discriminate among the different CSR governance forms. Internal projects show the highest levels of centrality. In addition, the level of centrality is highest for the case of internal projects, intermediate for the collaborative case, and lowest for the external contributions case. Tukey’s HSD results confirm that both internal projects and collaborative projects reflect higher levels of centrality than do external contributions.

A probit model was also used to model the CSR strategy adopted by firms (1= Internal; 0=External CSR: here the external category involves both collaboration and 'pure' external approach). The probit model allowed us to include control variables. Due to missing values for some of the control variables, the sample size was reduced from 60 for the discriminant analysis to 32 for the probit analysis. The results of the probit analysis are shown in table 3.
The probit model correctly classifies 91.8% of CSR choices. The Chi-square likelihood test statistic indicates that the overall model is significant at p<0.01 (99.9 probability). The probit model findings indicate that centrality is positively and significantly associated with internal CSR. These results provide support for Hypothesis 1 that the higher the centrality of CSR activities to a firm’s mission, the more likely that the firm will engage in CSR internally. Additionally, the coefficient on the firm's proportion of international business suggest that the lower the percentage of international business in a firm, the more likely is to engage in internal CSR. Firm size, nationality, and market share were not related to the internalization decision.

Discussion and Conclusion

The results indicate that the variable of centrality plays an important role in discriminating among firms that tend to engage in corporate social responsibility internally, collaboratively, and externally. Both the probit analysis and discriminant analysis show that the modes of CSR governance occur in the order as predicted by the theory presented in this paper.

In this paper, we outline a theory of the internalization and outsourcing of CSR activity. The theory provides managers with guidelines for determining whether CSR activities should be outsourced, conducted in-house, or managed through some collaborative form. Evidence from Central America indicates that firms can be distinguished by the CSR governance forms they choose. It also indicates that these governance forms are associated with different levels of centrality. These results imply that there may occur possible mismatches between a specific project and the CSR governance form chosen. By identifying a variable relevant to this decision, this paper provides management with the means to reduce the possibility of such mismatches. These findings should thus reduce the costs associated with CSR projects and increase their
benefits so that other firms may be motivated to give CSR their proper role in their own strategic planning.

In addition to these practical management concerns, the paper suggests several important issues regarding the theory of the firm as well as avenues for further research. As we argued in our introduction, the debate over CSR within strategic management has taken two diametrically opposed routes. On the one hand, supporters of CSR have argued that the classical economic theory misconstrues the objective of the firm by too narrowly defining what firms actually do (Freeman and McVea, 2001); on the other hand, supporters of shareholder value argue that maximizing profit is the only coherent approach to evaluate what firms do and that, hence, it ought to be the only objective of the firm. In this paper, we examine the extent to which these two approaches can be reconciled by exploring one of the basic questions of the theory of the firm and putting CSR to the test in a way that is consistent with organizational economics and the resourced-based view of the firm.

Our finding, that centrality does in fact affect CSR decision-making, suggests that CSR is compatible with the classical theory of the firm. We are aware that the study has important limitations and that these finding are just a first step. Our sample is small and restricted to a specific geographic area that is customarily not available for study, limiting the kinds of comparisons that can be made. Clearly, these findings are suggestive, not conclusive. Nevertheless, it might be argued that finding a relationship between centrality and internalization in Central America, an area not known for sophisticated CSR management, despite the difficulties in conducting research and, hence, problems of generalizability, is especially exciting for scholars interested in studying the extent to which CSR can be integrated into firm strategic management globally.
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<table>
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<th>Item</th>
<th>Clusters</th>
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<th>Sig.</th>
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<tr>
<td></td>
<td>External Contribution</td>
<td>Collaboration</td>
<td>Internal Project</td>
</tr>
<tr>
<td>Programs are carried out independently</td>
<td>1.00</td>
<td>1.67</td>
<td>4.53</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>55.76</td>
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<td>Programs are carried out in collaboration with other organizations</td>
<td>1.00</td>
<td>4.08</td>
<td>2.88</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>5.46</td>
</tr>
<tr>
<td>Programs are carried out through donations to other organizations</td>
<td>4.67</td>
<td>2.58</td>
<td>1.88</td>
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<td></td>
<td></td>
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<td>5.64</td>
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Table 2
Discriminant analysis of CSR governance by Central American firms using centrality as the independent variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>External Contribution</th>
<th>Collaboration</th>
<th>Internal Project</th>
<th>F</th>
<th>Prob.</th>
<th>Tukey’s HSD Results$^1$</th>
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</thead>
<tbody>
<tr>
<td>Centrality</td>
<td>-2.06</td>
<td>-0.33</td>
<td>0.29</td>
<td>8.52</td>
<td>0.00</td>
<td>Collaboration&gt;External</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Internal&gt;External</td>
</tr>
</tbody>
</table>

Box’s $M = 13.76$ (p=0.12)

$^1$Collaboration>External means that the mean of the variable for the collaboration group was significantly greater than the mean of the same variable for the external contributions group.
Table 3
Probit Analysis

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Standard Error</th>
<th>Wald Chi-Square</th>
<th>Prob.</th>
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<td>0.0005</td>
<td>1.40</td>
<td>0.24</td>
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<tr>
<td>Nationality of ownership</td>
<td>0.26</td>
<td>0.75</td>
<td>0.12</td>
<td>0.73</td>
</tr>
<tr>
<td>Market share</td>
<td>-0.01</td>
<td>0.02</td>
<td>0.71</td>
<td>0.40</td>
</tr>
<tr>
<td>Internationalization</td>
<td>-0.04</td>
<td>0.01</td>
<td>5.98</td>
<td>0.01</td>
</tr>
<tr>
<td>Centrality</td>
<td>1.06</td>
<td>0.39</td>
<td>7.49</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Percent concordant: 91.8%
Chi-square likelihood ratio = 19.81 (p<0.001).