

OUTSOURCING STRATEGY AND ORGANIZATIONAL PERFORMANCE: EMPIRICAL EVIDENCE FROM NIGERIA MANUFACTURING SECTOR

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Abstract

Globalization of practices driven by accelerated competition among manufacturing and service delivery organizations has pushed firms to create value for money through efficient use of limited resources. Outsourcing is one of the management tools that are gaining currency among managers in addressing the new dynamic business order. This study examined the axiomatic relationship between outsourcing strategy and organizational performance in Nigeria manufacturing sector. The study adopted a stratified sampling technique to arrive at 120 sample elements for the study. Some of the top and middle level managers of Cadbury Nigeria Plc and Nestle Foods Plc were interviewed to further elicit information on the key variables. Copies of the questionnaire were administered and the data obtained were analyzed using Regression analysis. The questionnaire for this study was subjected to test- re-test reliability assessment. Opinions and observations of experts and professionals were incorporated into scale questions in order to ensure the content validity. The findings reveal that firms that outsource experience reduce average cost, increased sales turnover and profitability, enhance expertise, improve service quality, reduce staff strength, streamline the production process, reduced administrative burden and save time for core activities. It was recommended that companies that outsource should continue to monitor the contractor's activities in order to ensure compliance with best practices. Workers should be made to embrace the strategy before implementation so as to alley the fear of loss of Jobs.

Key Words: Outsourcing strategy, organizational performance and core competence

Introduction and statement of research problem

Outsourcing is the process of replacement of in-house provided activities by subcontracting it out to external agents. Consequently, the management and development of innovations in outsourced activities become the responsibility of an agent external to the firm.

Outsourcing avails organizations the opportunity to concentrate her core competencies on definable preeminence business area and provide a unique value for customers (Behara, Gundersen, & Capozzoli, 1995). The goals of outsourcing are strategic: improved efficiencies, lower costs, improved flexibility, higher quality, and a greater ability to achieve a competitive advantage.

The ultimate strategic goal is to develop core competencies that will strengthen barriers of entry for new firms to survive. By focusing on core competencies and utilizing qualified vendors to provide process that are not one of the organization's core competencies, such that the organization's risk can be minimized and shared with its suppliers.

Core competencies are the collective institutional learning capabilities of the company that allow it to supply products and services that uniquely add absolute preeminence in those competencies (Hilmer & Quinn, 1994). "Core competencies are the innovative combinations of knowledge, special skills, proprietary technologies, information, and unique operating methods that provide the product or the service that the customer value and want to buy" (Greaver, 1999)

When outsourcing decisions are made on the basis of an in-depth understanding of the organization's core competencies, and are intended to build or enhance the organization's competitive advantages, outsourcing becomes strategic (Bettis, Bradley, & Hamel, 1992).

Firms' decision on outsourcing is usually analysed as a "make or buy" dilemma. On one hand, market imperfections, such as measurement problems, difficulties to control the collaboration between the customers and the provider, reduction in control over how certain services are delivered and increased complexity in arms-length contracts may in turn raise the company's liability exposure. The "make" option is favoured, in the case of services that hinder the comparability of output and prices and reduces market transparency. Further, asymmetric information generates adverse selection and moral hazard problems, emphasizing the role played by reputation (De Bandt, 1996). On the other hand, there are other arguments that favour the "buy" option. Among them are cost cut, increased capacity, improve quality, increase profitability and productivity, improve financial performance, lower innovation costs, risks, and improved organizational competitiveness, are very commonly considered as the main reasons to justify outsourcing strategies. All of these inconclusive arguments necessitate the need for this study.

Literature review

Dwindling resources and market competitiveness have forced organizations to scrutinize their methods of producing goods and services and make changes in their processes in order to maximize economic returns. To be able to survive and be profitable in current globalization era, organizations have pursued continuous improvement, leaned up production, reengineered business processes, and integrated supply chains (Brannemo, 2006). Over the past decades there is a growing realization of the important contribution of sourcing strategy on organizational performance (Cousins et al., 2006).

Outsourcing is a management strategy by which an organization delegates major, non-core functions to specialized and efficient service providers. According to Corbett (1999) outsourcing is nothing less than the wholistic restructuring of corporations around core competencies and outside relationships.

Yankelovich (2003) indicated that two-third of companies world-wide outsource at least one business process to an external third party. This practice appears to be most common in the U.S., Canada, and Australia, where 72 percent of outsourcing is being sought. Javaligi (1998) noted that successful implementation of an outsourcing strategy has been credited with helping to cut cost increase capacity, improve capacity and improve quality.

Kotabe (1998) argued that there could be negative long-term consequences of outsourcing resulting from a company's dependence on independent suppliers. Such reliance on outsourcing may make it inherently difficult for the company to sustain its long-term competitive advantage without engaging in the developmental activities of the constantly evolving design and engineering technologies. This view point was corroborated by Corley (2000) when he examined the outcomes of technology-sourcing partnerships from the sourcing firms' point of view and found out that, equity-based alliances were more effective than contract-based outsourcing.

Steensma, Kevin and Corley (2000) suggest that the outcomes from technology partnerships for sourcing firms depend on the interaction between technology attributes and the interdependence between source and sourcing firms.

Klaas et al (2001), suggest that the influence of organizational characteristics is highly contingent, suggesting that organizational characteristics have different effects on various types of outsourcing activities outsourced. As such, it appears that many factors such as pay level, promotional opportunities and demand uncertainty should be considered when deciding to outsource functions or activities.

Kotabe (1998) identifies three types of performance measures as necessary components in any outsourcing performance measurement system: strategic measures; financial measures; and quality measures. Malhorta (1997) used additional dimensions of market performance such as costs savings, cycle time, customer satisfaction, and productivity to measure the effectiveness of outsourcing strategy.

Foster (1999) argue from a different perspective, obstacles such as poor choices of sourcing partners, inadequate planning and training/skills needed to manage outsourcing activities and poor organizational communication have also been identified as key determinant of the success of outsourcing projects .

Lau and Hurley (1997) examined the relationship between outsourcing and profitability margin and they found that Chrysler's profit margin is four times as high as that of GM due to effective outsourcing strategy. Frayer, Scannell, and Thomas (2000) suggest that companies are

increasingly viewing outsourcing strategies as a means of reducing costs, increasing quality, and enhancing a firm's overall competitive position.

According to Ellram et al. (2007), outsourcing has implications for day-to-day management and performance, as well as strategic implications. Therefore, companies must outsource intelligently.

Outsourcing decisions may affect company's cost structures, long-term competitive situation and can also alter the nature of risks that the company must manage (Brannemo, 2006). Hence, it is crucial for management to understand and have a clear conceptual framework of their outsourcing decision. Furthermore, it will also important that company must know the benefits and risks of outsourcing. The increasing use of outsourcing arrangements, as well as the unfamiliar complexity associated with it especially in developing countries suggests the need to probe further about how to effectively utilize this strategy.

Research hypotheses

The primary intent of the study is to examine the conjectural statement that outsourcing strategy as an independent variable has an influence on performance variables depicted by sales turnover, profitability and customer satisfaction.

Specifically the hypotheses are:

H₀: Outsourcing Strategy has no significant effect on sales turnover.

H₀: Outsourcing Strategy has no significant influence on profitability.

H₀: Outsourcing Strategy has no significant effect on Customer Satisfaction.

Operationalization and measurement of variables

- a. **Outsourcing Strategy:** this was measured by the extent of the production activities that were subcontracted to other firms in the same industry group.
- b. **Customer Satisfaction:** this was measured in terms of the number of complaints/and its customer repurchase patronage.
- c. **Performance:** sales growth gotten from the records of the organization and profitability index were used to measure performance.
- d. **Core Competence:** this was operationalized as the quality of organization's human and material resources devoted to the portion of her production process that is retained in-house and is considered very critical to her performance.

Population of the study, sample size

The purpose of this study is to examine the effects of outsourcing strategy on organizational performance using data from manufacturing firms in Nigeria. A survey research design was used. The justification for the use of survey research for this study according to Asika (2004) is that convenience with which the survey can be conducted and inferences for larger population can be made from the result. The target population for this study consisted of all beverage manufacturing firms in Nigeria. Two leading firms in the beverage manufacturing industry were used as survey for the study. The choice of these two large firms in the industry was borne out of the fact that they are the leading adopters of prospectors strategy in the industry. The staff strength of the firms (Cadbury Nigeria Plc., and Nestle Food Plc.) are 937 and 1464 respectively.

A five likert scale was used to seek information from top, middle and lower level managers of the firms on the wide range of key measurement variables of the study.

Out of the total staff strength of 2401, stratified sampling techniques was used to administer 120 questionnaires on top, middle and lower level managers of the organizations. Some other lower members of the marketing and production departments were equally interviewed in order to further elicit information about the feelings of the customers in terms of customer desires and satisfactions. Out of 120 questionnaires distributed, only 93 were dully filled and returned.

In the words of Asika (2004) a sample is a subset of a universe or a part of a study population that is systematically selected to represent the population. The decision to use stratified sampling technique to pick the respondents is based on the fact that the decision to outsource often times is taken by the top management. Middle and lower level managers were included because they have direct contact with the production floor men and customers who are the final end of the production and distribution channel. More so, this technique of sample selection is particularly necessary when one want to apply research finding directly to a population (Mook, 1983).

Model specification

Perf. = f(OUTS.)

.....(i)

Where:

Perf = performance

OUTS. = outsourcing

Performance = sales turnover, profitability and customer satisfaction

Outsourcing = the quantum of production activities subcontracted out to other firms in the group industry. Explicitly, it's the fraction of the total cost of a project handled by a large firm that is paid to other firms for service rendered.

Outsourcing = f(% of project cost paid to other firms)(ii)

Data analysis and results

Regression analysis techniques were used for data analysis. Regression analysis was used to determine the degree of influence in the dependent variables (sales turnover, profitability and customer satisfaction) which can be associated with changes in the value of independent or predictor variable holding on other variables constant. To further examine the trend of the relationship among these variables of the study, (SPSS) Statistical Package for Social Scientist was equally used to analyze the data.

A mean index of performance variable was adopted to summarize the data. This is shown in table 1 below.

Table 1: Mean index of corporate performance.

Descriptive Statistics

Performance indicators	N	Minimum	Maximum	Mean	Std. Deviation
Sales turnover	93	1	5	4.09	1.129
Profitability	93	1	5	4.26	.966
Customer Satisfaction	93	1	5	4.16	.947
Valid N (listwise)	93				

Regression Analysis for Research Hypothesis 1

H₀: Outsourcing has no significant effect on sales turnover.

Table 2.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.850 ^a	.722	.719	.599

a. Predictors: (Constant), Outsourcing strategy

Table 3.

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	84.669	1	84.669	236.034	.000 ^a
Residual	32.643	91	.359		
Total	117.312	92			

a. Predictors: (Constant), Outsourcing strategy

b. Dependent Variable: Sales turnover

Table 2 shows a coefficient r of 0.850 (85%) which indicate that there exist a linear direct relationship between outsourcing and sales turnover. A coefficient of determination r² of 0.722(72.2%) reveals that outsourcing accounts for 72.2% of the organizations' sales turnover and Table 3 also shows that the analysis of variance for linear regression data produced F-ratio 236.034 which is significant at 0.05.

Regression Analysis for Research Hypothesis 2

H₀: Outsourcing Strategy has no influence profitability.

Table 4.
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.764 ^a	.584	.579	.627

a. Predictors: (Constant), Outsourcing strategy

Table 5.
ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	50.070	1	50.070	127.500	.000 ^a
Residual	35.736	91	.393		
Total	85.806	92			

a. Predictors: (Constant), Outsourcing strategy

b. Dependent Variable: Profitability

Table 4 shows that outsourcing yields a coefficient of linear regression r^2 of 0.584 accounting for 58.4% of the variance in adoption of outsourcing by the manufacturing firms in Nigeria. Table 5 shows an F-ratio of 127.5 which is also significant at 0.05.

Regression Analysis for Research Hypothesis 3

H₀: Outsourcing Strategy has no significant effect on Customer Satisfaction.

Table 6.
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.725 ^a	.525	.520	.656

a. Predictors: (Constant), Outsourcing strategy

Table 7.
ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	43.362	1	43.362	100.612	.000 ^a
Residual	39.219	91	.431		
Total	82.581	92			

a. Predictors: (Constant), Outsourcing strategy

b. Dependent Variable: Customer Satisfaction

Table 6 indicates that 0.525 (52.5%) of the customers are accounted for by the adoption of outsourcing by the firms. At F- ratio of 100.612 in table 7, this reveals that there is a significant relationship between outsourcing and customer satisfaction which is significant at 0.05.

Discussion of findings

The discussion of findings is based on major issues raised in the hypotheses of the study. All findings were held at a significant level $p < 0.05$

Hypothesis one

The result presented shows that the implementation of outsourcing strategy by the organizations has significantly and positively influenced sales turnover and consequently organizational performances. The research has shown that outsourcing as a strategy adopted by these

organizations has resulted in production cost reduction, competitive selling price and ultimately increased sales turnover. This findings further support resource-based thinking which stipulate that firms-specific resource endowments are determinants of competitive leverage (Rumelt, 1984; Wernerfelt, 1984).

Sales turn over and corporate/technology reputation is affected by stakeholder integration and capability development.

Hypothesis two

The result of the test analysis on this hypothesis shows that outsourcing strategy has significant influence on organizational profitability because production process, constant innovation and concentration on core competence are the activities in which the organizations make use of in order to increase their output and perform better competitively.

Capability development and corporate/technology reputation was linked with the concept of competence trust (Berger, 1993). This was fully supported by the data analysed.

The above findings also aligns with the work of (Jones, 1995; Jones and Wicks, 1999) which postulates that competitive advantage accrue to firm that contract with their stakeholders on the basis of mutual trust and cooperation.

Hypothesis three

This hypothesis states that outsourcing strategy has no significant effect on customer satisfaction.

After testing the null hypothesis, it was discovered that outsourcing strategy has a positive and significant effects customer satisfaction resulting to high organizational performance.

Organizations that integrate the voice of the environment into their decision-making structure tend to accumulate short run economic gains. This result yields further support for instrumental stakeholder theory. Corporate and technology reputation represent an assessment of a firms relative standing by its relevant stakeholders.

Conclusion

Outsourcing strategy is at the center of the process of organizational changes and business structure. In this respect, these processes may be preceded by radical changes which lay the ground work for process re-engineering. The trend towards virtual corporations based on the relationship of co-operation among several firms starts with the identification and exploitation of the concept of core competences, in such a way that new advantages are obtained from specialization and that the customer receives added value superior to the levels previously offered. The contemporary relationship of firms to their business surroundings are conditioned by the changes in technology and the economic environment. Firms face these alterations to their surroundings by making qualitative change in the way that they perform their activities and structure their organization.

Outsourcing has a series of advantages and disadvantages which can be divided for analytical purposes into strategic and operational nature. The main strategic advantages are the creation of competitive advantages, the reduction of risks, an improved long-term cost structure and an increase in organizational sale turnover and profitability. From a strategic standpoint, outsourcing allows the firm to concentrate its efforts on consolidating and expanding its core competences. On the other hand, among the operational advantages, we find an increase in efficiency as a result of activities being carried out by specialized firms and reductions in permanent staff, which then become variable costs related to the level of activity. As for the disadvantages of a strategic nature, the most important are the loss of control of activity done through outsourcing, the transfer of sensitive information, the possibility of exorbitant price increase by the suppliers at a future date, along with fluctuations in quality. The operational problems we have observed are difficulties related to the making of the contract arising from the effects on human resources.

With respect to problems of an internal nature, it is certain that firms have turned to outsourcing as a short-term solution to avoiding the rigidities caused by labor laws. These firms may limit themselves by viewing outsourcing merely as a simple way of freeing themselves of permanent staff. From this perspective, outsourcing could represent a phenomenon of opportunity, while labor legislation is being in accordance with the needs of firms for more flexible organizations and more professional and motivated workers.

In conclusion, outsourcing facilitates the transition to the new flexible organizational models leading to the virtual corporation using a process which is not free of some uncertainties which affect its conceptualization and empirical analysis.

Recommendations

First of all, outsourcing usually reduces a company's control over how certain services are delivered, which in turn may raise the company's liability exposure. Companies that outsource should continue to monitor the contractor's activities and establish constant communication.

Secondly, outsourcing strategy should come from the workers themselves. That is, workers should be made to embrace the strategy before implementation so as to allay the fear of loss of jobs.

Also, successful implementation of an outsourcing strategy has been credited with; cost increase profitability and productivity. Therefore, organizations are system; enjoined to reduce the outsourcing strategy and improve their service delivery.

Company managers agree that successful outsourcing requires a shift in their mindset, which means that they must manage their contractors and workers in order to improve on efficient service delivery. Integrating and managing a diverse, split work force embodying different corporate cultures and perhaps divided loyalties can be a daunting assignment compared to the more traditional approach to work force management.

References:

- Allen S., & Chandrashekar, A. (2000). "Outsourcing services: The Contract Is Just the Beginning." *Business Horizons*, 43: 25-34.
- Asika, N. (2004). *Research Methodology: A Process Approach*, Lagos, Mukugamu and Brothers Enterprises
- Bartell S.M. (1998). Information systems outsourcing: a literature review and agenda for future research. *Inter. J. Organ. Theory. Behav.*, 1(1):17-44.
- Behara, R., Copozzoli, E., & Gundersen, D. (1995). Trends in information systems: Outsourcing. *International Journal of Purchasing and Materials*, 46-51.
- Belcourt, M. (2006). Outsourcing — The benefits and the risks. *Human Resource Management Review*, 16 (2), 269-279.
- Bender, P. (1999). Cashing in on competition. *Outsourcing Journal*. www.outsourcingjournal.com/issues. (Dec.):1-3.
- Berger, A.N., (1993): Distribution-Free Estimates of Efficiency in the U.S. Banking Industry and Tests of the Standard Distributional Assumptions, *Journal of Productivity Analysis* 4, 261-92.
- Bettis, R. A., S. P. Bradley, G. Hamel. (1992). Outsourcing and industrial decline. *Academy of Management Executive* 6(1) 7–22.
- Brannemo A. (2006). How does the industry work with sourcing decisions? Case study at two Swedish companies. *J. Manufacturing. Technol. Manage.*, 17(5): 547-560.
- Carney, W. (1997). Outsourcing HR and benefits: Navigating the right course. *Compensation International* 26(7):15-23.
- Casale, F.J. 1996. Introduction to outsourcing. *The Outsourcing Institute* 1.
- Chaudhury A., Nam K. & Rao H.R. (1995). Management of information systems outsourcing: a bidding perspective. *J. Manage. Info. Syst.* 12(2): 131–159.
- Conner, K.R. and C.K. Prahalad (1996). "A Resource-based theory of the firm: Knowledge versus opportunism. *Organization Science* 5:477-501.
- Corbett, M.F. (1999). Multiple factors spur outsourcing growth. www.Outsourcing-Journal.com/issues/jan. 1-6.
- Cousins, P.D., Lawson, B., & Squire, B. (2006). "An Empirical Taxonomy of Purchasing Functions", *International Journal of Operations & Production Management*, Vol 26, No 7, pp. 775-794.
- David Ulrich. (1996). *Human resource champions*, Human Resource Development Quarterly, 8: 186–190. Boston: Harvard Business School Press.
- De Bandt, J. (1996). "Business services: Markets and Transactions", *Review of Industrial Organization* 11, p. 19-33.
- Duncan, D.G. and T. Groves-Rowan. (1997). Outsourcing and the bottom line. *Mortgage Banking* 48-56.

- Ellram L.M., Tate W.L. and Billington C. (2007). Services supply management: the next frontier for improved organizational performances. *California. Manage. Rev.*, 49(4): 44-68.
- European Commission (2003). *The competitiveness of business related services and their contribution to the performance of European enterprises*, COM (2003) 747 final, Brussels,
- Fill C. & Visser E (2000). The outsourcing dilemma: a composite approach to the make or buy decision. *Manage. Decision.*, 38(1): 43-50.
- Foster, T.A. (1999). Lessons learned. *Logistics Management and Distribution Journal* (Apr.) 38(4):67-69.
- Frayer J.K., Scannell J.D. and V. Thomas. (2000). An empirical investigation of global sourcing strategy effectiveness. *Journal of Supply Chain Management* (Spring) 36(2):29-38.
- Ghodeswar B. & Vaidyanathan J. (2008). Business process outsourcing: an approach to gain access to world-class capabilities. *Bus. Process. Manage. J.*, 14(1): 23-38.
- Goldfarb, J., & Naasz, K. (1995). "Shrinking Investments in HR Departments Reveal New Outsourcing. Cutting Trends." *BNA's Employee Relations Weekly* (July 31): 815-816.
- Grant, R. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal* 17:109-122.
- Greaver, M. (1999). *Strategic Outsourcing: A structured approach to outsourcing decisions and initiatives*. American Management Association, New York.
- Greer, C.R., Youngblood S.A. and Gary D.A. (1999). Human resource management outsourcing: The make or buy decision. *Academy of Management Executive* 13(3):85-96.
- Hilmer, F. & Quinn, J. (1994). Strategic Outsourcing, *Sloan Management Review*, 43-55.
- Jennings, D. (1996). Outsourcing opportunities for financial services. *International Journal of Strategic Management* (June) 29(3): 93-403.
- Johnson J. & Schneider K. (1995). Outsourcing in distribution: the growing importance of transportation brokers. *Bus. Horizons.*, 38(6): 40-49.
- Jones, T.M. and Wicks, A.C. (1999), "Convergent stakeholder theory", *Academy of Management Review*, Vol. 24, pp. 206-21.
- Juma'h A.H. & Wood D. (1999). Outsourcing implications for accounting practices. *Manage. Auditing. J.*, 14(8): 383-395.
- Kakouris A.P., Polychronopoulos G. & Binioris S. (2006). Outsourcing decisions and the purchasing process: a system-oriented approach. *Mark. Intell., Plan.*, 24(7): 708-729.
- Klaas, S.B., J.A. McGlendon, and T.W. Gainey. (2001). Outsourcing HR: The impact of organizational characteristics. *Human Resource Management* (Summer) 40(2):125-138.
- Kotabe, M., Murray J., and Javalagi R. (1998). Global sourcing of service and market performance: An empirical investigation. *Journal of International Marketing* 6(4): 10-13.
- Lacity, M. and Willcocks, L. (1998). An Empirical Investigation of Information Technology Sourcing Practices: Lessons From Experience. *MIS Quarterly* , 22, 3, 363-408.
- Lau, R.S. and C.N. Hurly. (1997). Outsourcing through strategic alliances. *Management Journal* 38(2):52-57.
- Lee J.N., Kim Y.G. (1997). Information systems outsourcing strategies for affiliated firms of the Korean conglomerate type. *J. Strategy. Info. Syst.*, 6(3): 203-228.
- Malhorta, Y. (1997). An empirical analysis of the determinants of information systems productivity and the role of outsourcing policy. www.brint.com/papers/outsource. Virtual Institute of Information 38-46.
- Markides C.C. & Berg N. (1998). Manufacturing offshore is bad business. *Harvard. Bus. Rev.*, 66(5): 113-120.
- McIvor R. (2000). A practical framework for understanding the outsourcing process. *Supply Chain Manage. Int. J.*, 5(1): 22-36.
- Mol M.J., Pauwels P., Matthyssens P. & Quintens L. (2004). A technological contingency perspective on the depth and scope of international outsourcing. *J. Int. Manage.*, 10(2): 287-305.
- Mook, D. G. (1983). *In defense of external validity*. *American Psychologist*, 38, 379-387
- Mucchielli J.L. (2008). *La mondialisation. Chocs et mesure*, Hachette, Paris.
- Quinn, B.J. (2000). Outsourcing innovation: The new engine of growth. *Sloan Management Review* 41(14):13-23.

- Rumelt R. 1984. Toward a strategic theory of the firm. In *Competitive Strategic Management*, Lamb R (ed.). Prentice-Hall: Englewood Cliffs, NJ; 556–570.
- Spector, P. E. (1997). *Job Satisfaction: Application, Assessment, Causes, and Consequences*. Thousand Oaks, CA: Sage.
- Steensma, K.R. and K.G. Corley. (2000). On the performance of technology-sourcing partnerships: The interaction between partner interdependence and technology attributes. *Academy of Management Journal* 43(6):1045-1067.
- Wernerfelt B. 1984. A Resource-based View of the Firm. *Strategic Management Journal* 5: 171-180
- Yankilovich D. (2003). GBC presentation: Outsourcing offshore-balancing the equation (concentric solutions)