Competitive Analysis of the P/M Industry

Research Team:  Diran Apelian (Advisor)
               Chickery Kasouf (Advisor)
               Magda Popescu (Research Assistant)

PMPA/PMRC Benchmarking and Statistics Project

Objectives:

The development of a statistical data base for the P/M parts industry to enable firms to:

• Benchmark key performance data vis-à-vis other part producers
• Develop relationships between success measures and independent variables

Strategies:

• Collect annual data from PMPA membership using three reports.

Objectives for the Spring meeting:

• Complete analysis and distribution of Report C
• Present results at the 2003 Fall Management Conference
• Consider other outlets for the data and results
• Improve measure and collection as important

Achievements

• Report C completed and circulated to participants
• Paper accepted for the 2004 PM2TEC meeting
• Significant efficiencies generated in the reporting process. The automation of the process has continued and Magda Popescu has reduced the preparation time for Reports A and B. We will probably generate electronic reports this year. That will reduce time. Production costs, and mailing costs.
• We have continued to identify data collection error points and are working with the PMPA to resolve these.
IDENTIFICATION OF NEW MANAGEMENT PROJECTS

Objective: To identify a research agenda for future management projects.

Methodology: Development of a white paper for discussion at the spring meeting.

Progress/Results:

White paper is now complete and is given in Appendix A - attached
Appendix A: Management Studies in Metal Processing: A Research Agenda for Phase III Projects

Four manuscripts (given as references and resources) accompany the White Paper given in this appendix. The manuscripts are:

- An Exploration of Relationships Among Perceived Market Orientation, Strategic Flexibility, and Customer Value in the Supply Chain Under Different Conditions of Environmental Turbulence

- Interorganizational Buyer-Seller Relationships: The Impact of Individual Perceptions on Relationship-Oriented Action

- The Sarbanes-Oxley Act: Threat Or Opportunity – Part I

- The Sarbanes-Oxley Act: Threat or Opportunity – Part II
Introduction

Management studies have been an integral part of the PMRC’s research agenda since its founding in 1993. The initial Delphi study that set the first Center research priorities identified both technical and management projects. Since then, in two rounds of Sloan funding, a small supplemental grant to discuss industry competitiveness as 2000 approached, PMRC funding, and leveraging finds from the National Science Foundation (through Jackie Isaacs) resulted in several additional research projects.

The results of these studies have been disseminated through several fora and the outcomes will not be repeated in detail here. Interested readers can refer to earlier PMRC reports or contact Chick Kasouf for copies of any papers. Broadly speaking, the projects were conducted in five areas:

- **Interfirm relationships:** This series of projects, which included a set of case studies in 1994 - 1995, a set of bilateral, longitudinal case studies in 1999-2001, and two questionnaires, focused on emerging pressures in the supply chain and identified factors that affect interfirm cooperation, especially effective communication.

- **Cost estimation:** This series of projects, begun in 1994 and continuing through 2000 started with a focus on activity based costing and the research evolved into the development of Technical Cost Models (TCMs) for the P/M process and for competing technologies allows identification of cost drivers as well as the conditions that allow P/M to hold a competitive advantage.

- **E-business in P/M:** First, we assessed the extent of current e-business practices among P/M part producers. Second, considering the wide range of potential e-business applications in the supply chain, we developed a conceptual model to classify buying decisions and potential benefits for the customer, extending work on consumer involvement and risk to the industrial buying decision. Finally, we assessed web site quality in metal processing firms using a well-validated scale developed for business to consumer sites.

- **Globalization:** In 1996 we did an early assessment of globalization in the P/M industry. The Delphi study indicated that most of the industry leaders responding to our questionnaires felt that P/M part producers would have to develop global strategies but that few were doing so. Our 1996 study indicated that some firms were beginning to develop global strategies.

- **Competitive Analysis of the P/M Industry:** The paper prepared for the Science, Technology, and Economic Policy (STEP) Board that was funded by the Sloan Foundation was very well received by our membership and they voted to supplement Sloan funding to continue work in this area. This project focused on cost competitiveness vis-à-vis other technologies and statistical benchmarking in the P/M industry.
Working from this background, that includes several journal and conference papers, we still find that the P/M parts industry, and metal processing in general is a fertile area to develop new management and economic research. In some cases, as in most empirical endeavors, our earlier research has yielded insights and new questions. In other cases, conditions have changed remarkably over the past ten years and these changing conditions resulted in new research opportunities. The purpose of this paper is to lay the groundwork for discussion and the development of new priorities.

The challenges for suppliers have been discussed in the literature for many years. Lorange (1988) argued that a key challenge for materials producers would be to leverage support from upstream suppliers to create value for their downstream customers. As Sheth and Sharma (1997) noted, more complex supply environments have resulted in four new pressures affecting organizational buying behavior:

1. Global competitiveness
2. TQM and quality standards
3. Technology enablers
4. Industry restructuring

We consider these factors to be interdependent. For example, the pressures to meet global sourcing requirements has probably affected the consolidation of the industry that we noted elsewhere (e.g., Kasouf, Apelian, and Gummeson 2003). Given our previous work, and the expected issues in the industry, we are proposing the following projects. As you consider these, bear in mind that not all will be feasible given budgets, and there are synergies that we can generate with multiple projects. For example, funding a full research assistant may be split among two projects. Moreover, travel requirements may have synergies as a trip to PM²TEC may report the results.

The main body of the paper will provide an overview of potential projects and deliverables. More detailed background will be included in attached papers that were recently completed as appropriate. Please note that these are POTENTIAL projects and I am not proposing that we do all of them (although I do think that each is worthy in its own right). The purpose of this paper is to serve as the basis for discussion and selection of projects to pursue.

While I have prepared this work, I am part of a team. In some projects, I have significant contributions to make. In others, I will be recruiting other faculty with more significant expertise in the area.

**Project 1: Continuation of the PMPA/PMRC Statistics and Benchmarking Project**

As we will note in the spring meeting, this project has evolved and improved considerably over the past four years. The research team has automated a considerable part of the process, and we are beginning to generate interesting data that can be the foundation of longitudinal studies in the future. We have increased the number of
participating companies, and this is becoming a relatively inexpensive project that generates good results and give the PMRC a good profile in the industry. Maintaining it will be little effort and we have laid the groundwork for a dynamic database that will be a significant advantage for the industry and potential new members. I would recommend that we continue annual data collection and reporting to participants and PMPA members at the Fall Management Conference and PM²TEC meeting.

Resources: Partial summer support for faculty, travel, student assistant. The need for student time will be determined but Jasvinder and Magda’s work have done a great deal to automate the reporting process.

Project 2: Buyer-seller relations in a global marketplace

The management focus with the longest tradition has been the series of studies that dealt with buyer-seller relations. Two papers are included in the appendix. Theses will be presented next month at the Academy of Marketing Science Meeting in Vancouver.

The Celuch and Kasouf paper is an examination of strategic flexibility among part producers. This paper is especially relevant for two reasons. First, as Flint, Woodruff, and Gardial (2002) concluded, changing customer values is a critical factor in dealing effectively with industrial markets. The ability of suppliers to adapt to the changing expectations of customers noted above is critical for success. Second, globalization is a priority area that we identified in our 1992 delphi study and our survey among membership last year. For many P/M part producers, developing a global strategy involves investment, a reconfiguration of resources, and close and effective working relationships among supply chain participants. The ability to develop an effective global strategy may be a dynamic capability according to Eisenhardt and Martin (2000, p. 1107) define dynamic capabilities as “the firm’s processes that use resources – specifically the processes to integrate, reconfigures, gain and release resources – to match and even create market change.

Integrating strategic flexibility with emerging issues in buyer-seller relations (articulated in the Kasouf, Celuch, and Bantham paper and in the Bantham, Celuch and Kasouf (2003), there is a fertile research agenda that focuses on the management of change and adapting to emerging pressures as relationships evolve. This is especially true given the issues associated with global market entry identified by membership last summer.

Managing customer relationships, potential alliances with competitors (in Kasouf, Jandeska and Zenger 1995, we noted the possibility of using strategic alliances as a key element of global market development), and upstream partners in global markets are a highly complex set of activities. These often include accommodating existing domestic partners who expand overseas, resulting in challenges from new pressures on the customer that are passed on to suppliers. Managing these changes is at the center of the dialectic perspective that our buyer-seller work has addressed over the past three years (and is described in the Bantham, Celuch, and Kasouf paper).
A particularly interesting project in this area could replicate the longitudinal study that we performed domestically, tracking the supplier and customer perspective in three relationships relationship over a 2-3 year period. Two potentially interesting twists on this study could be to: 1) also include upstream partners (e.g., powder producers), or 2) perform a case study in each of the three MPI centers and assess the effects of globalization in each of the related industries.

After completing the qualitative research, results could be further supported with a large sample questionnaire administered to the three MPI industries.

Given the increasing global pressures facing suppliers, this could be a study with significant impact. Its goal is to identify effective management of supply chain relationships for firms that are faced with the changing customer pressures. While the focus would be on globalization, many of the results could be generalized into other firms dealing with changing customer expectations.

Resources: This type of project would require significant resources, although there is potential cost sharing if we combine it with another project. Research Assistant time could be split between two projects. The costs for this project would be a 2-3 year commitment of 2-3 months of summer support (split among 2-3 faculty), travel to sites, transcribing costs, printing and mailing of questionnaires, and some conference travel.

**Project 3: Integrating e-business into the metal processing supply chain.**

Recent commentary surrounding online exchanges illustrates the barriers to widespread adoption of e-business technologies in B to B markets. As Wise and Morrison (2000) observed, two of the most critical flaws of current exchanges are that they ignore much of the research on effective relationship management and that they give sellers little incentive to participate. While price minimization is an intriguing prospect for many buyers, sellers may view price minimization as shifting the benefit-cost portfolio against them. In a paper that we recently published (Hunter, Kasouf, Celuch and Curry 2004), we identified a taxonomy of potential ebusines benefits in the supply chain. This project would use Parauraman’s (2000) model of service marketing, to assess the factors that affect internal coordination and effective implementation of e-business strategies to create value for the customer and the part producers.

The pyramid model of service marketing (Parasuraman 2000), illustrated in Figure 1, depicts the pyramid model that indicates the interrelations between the company, employee, and customer. External marketing referring to the traditional marketing activities related to the 4 Ps—price, product, promotion, and place. Internal customers refer to the service personnel who require appropriate training, support, motivation, and rewards to serve external customers. Somewhat related is Interactive marketing which refers to the service encounter leaving the customer with a good impression of the company and service provided. Technology is the fourth point on the pyramid that ties the company, employees, and customers together and aids in all three forms of marketing.
Figure 1: Pyramid Model of Service Quality

This project will identify the technological infrastructure that is required to support all three forms of marketing in metal processing producers. Next, it will incorporate the customers and suppliers using to assess technology readiness and service quality satisfaction.

This project would start with a set of qualitative case studies to compare conceptual and empirical literature with current practice in the metal processing industries. This would involve site visits to three companies with follow-up phone interviews (one small, one medium, and one large firms). A large sample questionnaire would follow the case studies.

Resources: This project would require 1.5 months of summer support to be split between two faculty for two years, some travel funds for site visits, transcription costs, and a shared GA.

Project 4: The Implications of Sarbanes-Oxley Act for metal processing companies

Attached are two papers prepared by Magda Popescu, PMRC Research Assistant, about the impact of the Sarbanes-Oxley Act. In light of the many scandals that have come to light recently (that do not need an overview here), there is considerable interest in ethical management of companies and the Sarbanes-Oxley Act will require significant reporting and information management adjustments on the part of many companies. Given the timing of the effect of the act, many companies may not be prepared for compliance. Effective management of Sarbanes-Oxley requirements may require IT investment or development. This project would assess the needs of metal processing suppliers and identify best practices for implementation.
Resources: This would be a one-year project that would involve a mail questionnaire with follow-up telephone interviews as needed. It would require one month of faculty time and a shared research assistant.

Summary

The purpose of this paper is to propose new areas of research that extend current research streams or open new areas for investigation. It is, by design, brief with attached supporting documents. Its goal is to generate discussion at the spring PMRC meeting that will set priorities and move toward developing a plan for execution.

Other areas of interest to membership can certainly be discussed, and I welcome suggestions for additional projects.

References


An Exploration of Relationships Among Perceived Market Orientation, Strategic Flexibility, and Customer Value in the Supply Chain Under Different Conditions of Environmental Turbulence

Kevin Celuch
Blair Chair of Business Science
Department of Management and Marketing
School of Business
University of Southern Indiana
8600 University Boulevard
Evansville, IN 47712
(812) 461-5297
kceluch@usi.edu

Chickery J. Kasouf
Department of Management
Worcester Polytechnic Institute
Worcester, MA 01609
(508) 831-5548
chick@wpi.edu
ABSTRACT

Understanding the dynamics of competitive advantage in the context of rapidly changing environments is a significant concern for academics as well as practitioners. This research examines propositions related to the interplay among perceived marketing orientation, strategic flexibility, and customer value for smaller suppliers under conditions of high and low environmental turbulence. It was expected that strategic flexibility would mediate the effect of market orientation on customer value under conditions of high turbulence and that relationships would be stronger among variables under such conditions. Findings were largely supportive of expectations. Results are discussed in terms of future research and implications for practitioners.

There is no shortage of academic or business literature addressing the changing business environment. Hitt, Keats, and DeMarie (1998) described a “new competitive landscape” driven by rapid technology evolution and globalization. In this environment, firms face increasing strategic discontinuities, blurred industry boundaries, hypercompetitive markets, simultaneous price and quality pressure, and a need for continuous learning and innovation. This was also observed by Sanchez (1995) in his discussion of the impact of technology and managerial innovations on escalating change, and by Nadler and Tushman (1999) who contended that the end of the Cold War and the opening of markets has resulted in a significant shift in business since the late 1980s.

Twenty-five years ago, Wilson, George, and Solomon (1978) argued that uncertainty made flexibility a critical element of strategy. More recently, Sashittal and
Jassawalla (2002) suggest that half of all managerial time and energy is spent implementing plans and adapting to the changing reality. Moreover, accelerated change is affecting many traditional business as well as the high technology industries.

As Fine (2000) noted, firms with technologies that change relatively slowly can still be experiencing pressures from a volatile environment because of customer demands or the changes generated by new e-business platforms. Two examples of the pressures that firms in these industries may face are the increasing flexibility that DaimlerChrysler expects from their suppliers (Armstrong 2003), and the emergence of China as a market for part suppliers who often perceived their market opportunities bound by domestic U.S. sales (Teece 2003). Moreover, for many small firms, flexibility is a critical part of their competitive advantage vis-à-vis larger competitors (Yu 2001).

Flexibility is a concept with roots in several disciplines and may be subject to many different conceptualizations and measurements. Aaker and Mascarenhas (1984), Evans (1991), and Genus (1995) identify the wide variety of concepts that are folded into flexibility. These include economics (responses to business cycle fluctuations), finance (liquidity and portfolio theory), operations (plant location and capacity), marketing (the size of the customer base), and organizational theory (flexibility in response to rapidly changing environments).

There are many related definitions in the literature (e.g., Aaker and Mascarenhas 1984, Harrigan 1985, Genus 1995, Sanchez 1995; Johnson, Lee, Saini, and Grohmann 2003). However, common threads among these definitions are the ability to change strategy as environmental conditions shift. These changes may be reactive (a defensive response) or proactive (a market changing course of action that exploits technology or
operational development). In their comprehensive review, Johnson, et al. (2003, p.77) defined market focused strategic flexibility as “the firm’s intent and capabilities to generate firm specific options for the configuration and reconfiguration of appreciably superior customer value propositions.” By focusing on customer value, this represents a subtle but significant addition over Harrigan’s (1985) definition that focused on repositioning plans and strategies when the customers that firms serve become less attractive.

In the strategic management literature, there has been considerable recent interest in dynamic capabilities (e.g., Teece, Pisano, and Shuen 1997; Eisenhardt and Martin 2000). This literature stream, with its roots in the resource based view (RBV) of the firm, incorporates specific processes such as product development and the management of alliances as specific examples of flexibility. Eisenhardt and Martin (2000, p. 1107) define dynamic capabilities as “the firm’s processes that use resources – specifically the processes to integrate, reconfigures, gain and release resources – to match and even create market change.”

Considering these rich literatures, we agree with Johnson, et al. (2003) that strategic flexibility has powerful potential as a critical variable in the development of competitive advantage. While Emerson and Grimm (1999) found a relationship between flexibility and satisfaction in relationships between manufacturers and resellers, we suggest that its role as an enabling variable has the potential to be more interesting conceptually, and may provide strategic justification for the costs associated with managing a flexible organization. Whether one focuses on the traditional strategic flexibility literature or the dynamic capabilities research, these concepts generate value
by facilitating the conversion of capabilities and resources into new or modified strategic initiatives that have value for the customer. This paper will examine the argument that, under certain conditions, flexibility is the enabling condition that translates market capabilities into value for the customer.

In some cases this may be new product development through innovation, in others it may result in the modification of products or channels, or perhaps business exit in the case of a changing competitive landscape. In a remarkable example of strategic flexibility, Intel exited its memory business (DRAM) after losing its long-held leadership position as manufacturing efficiency became a critical success factor (Burgelman 1994). By redirecting its capabilities to microprocessors, the company laid the foundation for its 1990s growth.

One foundation for customer value, conceptually linked to strategic flexibility by Johnson, et al. (2003) is market orientation. The foundations of market orientation are well developed and need little elaboration here (e.g., Kohli and Jaworski 1990, Narver and Slater 1990; Day and Nedungadi 1994; Slater and Narver 1994a; 1994b). Essentially, market orientation is a focus on creating customer value through gathering information about customers and competitors and using it to make decisions to profitably meet customer needs.

While the benefits of market orientation are intuitively appealing, empirical connections to performance have generated mixed (but often positive) results. Narver and Slater (1990), Ruekert (1992), Slater and Narver (1994a), and Tay and Morgan (2002) reported positive relationships between market orientation and performance. However, Harris (2001) found that subjective measures of performance tended to exhibit
a positive relationship with market orientation. But when financial measures are used to assess performance, the results are mixed – market turbulence and competitor hostility moderated the relationship between market orientation and performance. This contradicts the work of Slater and Narver (1994a) who did not find environmental moderating effects in the relationship between market orientation and return on assets but is similar to the findings of Jaworski and Kohli’s (1993) that identified positive relationships between market orientation and judgemental variables, but not market share.

Later research found that innovativeness mediated the relationship between market orientation and business performance (Han, Kim, and Srivistava 1998). This result has interesting implications because one can argue that innovativeness is a dynamic capability using Eisenhardt and Martin’s (2000) criteria. This is a potentially fertile arena for research. As Johnson, et al. (2003) note, the mixed results between market orientation and performance may suggest that mediating factors are critical in the translation of market orientation into performance. Given the enabling role of flexibility in organizational responsiveness, and considering that an organization responsive to market opportunities is at the core of market orientation, we agree with Johnson, et al. that flexibility has the potential to mediate the relationship between market orientation and performance.

Johnson, et al. (2003) also suggest that environmental turbulence moderates the influence of market orientation on flexibility. Turbulence has been defined as high levels of change in the levels of important environmental variables (Glazer and Weiss 1993). Evans (1991) and Hamel and Prahalad (1994) have noted the criticality of flexibility in turbulent environments. Thus, as offered by Johnson et al., in low turbulence
environments, market orientation may not be related to strategic flexibility given that the firm may not require certain options that it would in more highly turbulent environments. Under conditions of high turbulence, a firm’s market-linking activities are much more likely to be oriented toward increasing the flexibility of strategic options.

The Johnson, et al. model has substantial potential to increase our understanding of value creation because of its rich interplay of culture (market orientation), capabilities (flexibility), and environment. In this perspective, flexibility translates market linking activities into value through a set of capabilities that facilitate execution. Moreover, by considering the moderating effects of the environment, the model develops contingencies that explain value creation and investment for firms in different circumstances.

Based on the preceding discussion, the objective of this study is to examine relationships among market orientation, strategic flexibility, and customer value for firms operating under low and high turbulence environments. Therefore we formally propose that:

\( P_1 \): Strategic flexibility will mediate the relationship between market orientation and customer value under conditions of high environmental turbulence. Strategic flexibility is not expected to mediate the relationship between market orientation and customer value under conditions of low environmental turbulence.

Further:

\( P_2 \): It is expected that stronger relationships among variables will exist under conditions of high environmental turbulence with market orientation positively related to strategic flexibility and customer value. Lastly, strategic flexibility will be positively related to customer value.

**METHODOLOGY**
Sample

This study involved a sample of metal part producers from three separate metal forming technologies: powder metallurgy, casting, and heat treating. Although distinct, these technologies all deal with the mid-point of the supply chain (i.e., they manufacture component parts from raw materials and sell them to equipment manufacturers or higher tier suppliers) and deal with a common set of problems. While their base technology does not change especially quickly compared to electronics manufacturers, they are often facing a rapidly changing competitive environment depending on their customer selection (e.g., automotive or other manufacturers).

Three different industry lists comprised the sampling frame; the directory of powder metallurgy part producers maintained a by leading industry consultant; the industry directory maintained by of the Aluminum Casting Research Laboratory at Worcester Polytechnic Institute, and the membership of the Center for Heat Treating Excellence. Using these lists, suppliers or firms that engage in specialized markets were eliminated. This resulted in a total of 247 firms (72 in heat treating, 81 in casting, and 94 in powder metallurgy).

Procedure

Following the Dillman Total Design Method (Dillman 1978), a preliminary letter was sent to each respondent outlining the project, explaining its importance to them, and the importance of their participation. One week later, each subject received a cover letter, survey, and a postage paid return envelope. Participants were promised a summary of results if they participated in the study. One week later a reminder post card was sent,
and a follow-up survey package was sent to each non-respondent three weeks later. Data collection was terminated after another four weeks. The overall response rate was 51% with details for each industry summarized in Table 1. Most participating firms were small companies. The median employment of the sample was 100 people, consistent with our intention to analyze small firms that often rely on flexibility as a source of advantage (Yu 2001).

-----------------------
Place Table 1 Here
-----------------------

**Questionnaire**

Measures employed in the questionnaire consisted of scales developed specifically for constructs relevant to this research based on literature reviews and knowledge of metal part producer industries. Industry representatives not included in the study reviewed an initial draft of the questionnaire. The final questionnaire included measures of managerial perceptions related to firm market orientation, strategic flexibility, the delivery of customer value, environmental turbulence, and demographic descriptors. Note that measures are oriented toward capturing managerial perceptions under the assumption that these define the reality of organizations. This approach is consistent with the work of Day and Nedungadi (1994), among others, who note the significance of perceptual aspects of managerial decision making in the competitive strategy domain.
**Measures**

As a means of differentiating among firms perceiving themselves to be operating in lower versus higher turbulent environments the following procedure was used. A respondent was asked to indicate the extent to which the number of part producers would decrease, remain constant, or increase over the next five years. Respondents indicating a 10% or less change (decrease or increase) were grouped in the low perceived turbulence group (n = 64) and those indicating an 11% or greater change (decrease or increase) were grouped as high perceived turbulence group (n = 62). Note that this operationalization is consistent with environmental turbulence literature that characterizes turbulence in terms of high levels of change in magnitude and/or direction of important environmental variables (Glazer and Weiss 1993).

Market orientation was operationalized via four items asking respondents their views regarding their company’s use of customer information, use of competitor information, (very small extent; very great extent), orientation to customer needs, and ability to anticipate competitor responses (strongly disagree; strongly agree). All items utilized seven-point scales (Cronbach’s alpha = .67). Such aspects of market orientation are consistent with conceptions that include customer and competitor focus (Kohli and Jaworski 1990; Day and Nedungadi 1994).

The strategic flexibility measure consisted of four, seven point items related to respondent perceptions of organizational capabilities related to learning, change, and partnering including capabilities related to developing and maintaining external relationships (much worse than competitors; much better than competitors; Cronbach’s alpha = .77). Note that this operationalization is consistent with strategic flexibility
perspectives that conceive of higher order, dynamic capabilities tied to adaptation and adjustment of resource portfolios in response to environmental variability (Sanchez 1995; Teece, Pisano, Shuen 1997; Eisenhardt and Martin 2000).

Customer value was utilized as a key outcome variable given that Johnson, et al. explicitly include customer value as a key outcome of flexibility, in addition to its prominence in the marketing strategy literature. Customer value was assessed via two items related to respondent perceptions of their company’s overall ability to deliver value to customers now and in the future (not at all confident in company’s ability; extremely confident in company’s ability). Again, these items used seven-point scales (Cronbach’s alpha = .72). All multi-item dependent variable measures were summed and averaged.

RESULTS

Regression Analyses

In order to test whether strategic flexibility mediates the effect of market orientation on customer value three conditions must be met. 1. Market orientation should have a significant effect on strategic flexibility. 2. Market orientation should also have a significant effect on customer value. 3. As compared to condition #2, the impact of market orientation on customer value should significantly diminish when strategic flexibility is included in a regression model with market orientation predicting customer value (Baron and Kenny 1986).

The above conditions were examined separately for low and high turbulence groups using ordinary least squares regression to examine the Baron and Kenny criteria, and are reported in Table 2. Thus, for the low and high turbulence groups, strategic
flexibility is regressed against marketing orientation (condition #1). Next, customer
value is regressed against marketing orientation (condition #2). Lastly, customer value is
regressed against marketing orientation and strategic flexibility (condition #3). Please
note that Table 2 includes the standardized coefficients, model R² and F value for each
tested relationship.

-----------------------
Place Table 2 Here
-----------------------

With respect to the low turbulence group, market orientation had a significant
effect on strategic flexibility, thus, condition #1 is met. Market orientation also had a
significant effect on problem solving efficacy, thus, condition #2 is met. Note that
although the influence of market orientation was diminished somewhat when strategic
flexibility was included in the regression model predicting customer value (with the
standardized coefficient for market orientation dropping from .43 to .33), strategic
flexibility did not have a statistically significant effect in condition #3.

Regarding the high turbulence group, market orientation had a significant effect
on strategic flexibility, thus, condition #1 is met. As before, market orientation had a
significant effect on customer value, thus, condition #2 is met. Further, the influence of
market orientation was diminished somewhat when strategic flexibility was included in
the regression model predicting customer value (with the standardized coefficient for
market orientation dropping from .64 to .49), and in contrast to the low turbulence group,
strategic flexibility had a statistically significant effect, partially fulfilling condition #3.
Note that directional relationships between variables were as expected with market orientation positively related to strategic flexibility and customer value and strategic flexibility positively related to customer value.

In summary, findings are largely consistent with P₁, for the high turbulence group, strategic flexibility was found to partially mediate relationships between market orientation and customer value. This was not the case for the low turbulence group. Further, consistent with P₂, the high turbulence group evidenced stronger relationships (greater explained variance) than the low turbulence group and relationships were directionally consistent with expectations as well.

DISCUSSION

This paper contributes to the marketing strategy literature in several ways. First, from an academic perspective, we have presented an initial test of propositions that have their roots in the strategic flexibility and, more recently, the marketing literature, specifically the work of Johnson, et al. (2003). We have added depth to our understanding of the relationships among marketing orientation, strategic flexibility and customer value. First, findings relating to the partial mediating effect of strategic flexibility under high environmental turbulence generate greater insight into how market orientation translates into customer value. Complementing Han, et al. (1998), and supporting the Johnson, et al. (2003) model, the “how” of market orientation is incrementally being clarified.

Second, there are implications for future research. In terms of specific relations among concepts, the role for strategic flexibility as a mediator of the influence of market orientation on other firm performance variables in other industries begs exploration.
Further, the area is ripe for measurement development efforts with respect to strategic flexibility. While the present study utilized an approach consistent with flexibility as a broader macro capability, Johnson, et al. (2003) provide an excellent review of prior conceptualizations and offer a more nuanced approach which includes reactive (market driven) and proactive (market driving) components which would allow for more fine-grained explorations in which specific capabilities and/or managerial intent/behavior could be incorporated. Another area for research may be to evaluate whether flexibility mediates the relationship between more specific firm capabilities (i.e., at a more micro level than market orientation) and value creation.

From a practitioner standpoint, findings of this research have important implications. First, as noted by Johnson, et al. (2003), the significance of the need for broader thinking cannot be overemphasized as a means of addressing potential options particularly in more turbulent environments. Thus, thinking beyond tactical flexibility to an orientation that includes market linking activities that contribute to strategic capabilities which allow for learning and change would appear to be a critical organizational “mindset” requirement.

As noted by Johnson et al., this broader orientation is typically embedded in a firm’s culture and as such is more difficult to develop, yet addressing organizational culture issues may pay the biggest dividends in terms of sustainable competitive advantage. The organizational culture literature places primary emphasis on the role of the leader and leader behavior in the creation of embedding mechanisms (role modeling, coaching, resource allocation, reaction to critical incidents) that would contribute to the development of more strategically flexible “mindsets.”
The moderating effect of environmental turbulence, which broadly supports the Johnson, et al. (2003) perspective of a contingency relationship that affects the market orientation-value linkage, also holds managerial implications. Recall that, for high turbulence environments, marketing orientation not only has direct effects on customer value but also partially works through strategic flexibility in influencing customer value creation. Thus, under some conditions, in order to better understand customer value creation, and presumably other strategic outcomes as well, one must understand how the expression of market orientation contributes to more strategically flexible options. By understanding the impact of the environment on strategic requirements, we can help managers allocate resources more efficiently and more effectively. While some may regard flexibility as an expense that generates benefits for customers for little return, the mediating relationship demonstrates a strategy-performance connection that may justify the expense. In fact, taking the long term view, flexibility may be an investment, albeit one that is not always as important across different conditions.

In conclusion, understanding the dynamics of competitive advantage in the context of more rapidly changing environments will continue to be a significant topic within the business literature. It is our hope that this initial exploration of relationships among market orientation, strategic flexibility, and customer value will contribute to further efforts aimed at increasing our understanding of theses significant strategic concepts.
REFERENCES


Armstrong, Julie. 2003. DCX Seeks more Flexibility from its Suppliers. Automotive News 77 (6052):16C.


TABLE 1

Sample and Response Rates by Industry.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Sample</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat treating</td>
<td>72</td>
<td>44 (61.1%)</td>
</tr>
<tr>
<td>Metal casting</td>
<td>81</td>
<td>41 (50.6%)</td>
</tr>
<tr>
<td>Powder metallurgy</td>
<td>94</td>
<td>44 (46.8%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>247</strong></td>
<td><strong>126/247 (51%)</strong></td>
</tr>
</tbody>
</table>
## TABLE 2

Regression Analyses Testing Mediating Effect of Strategic Flexibility on Market Orientation and Customer Value

<table>
<thead>
<tr>
<th>Model Results</th>
<th>( R^2 )</th>
<th>F value</th>
</tr>
</thead>
</table>

### Low Turbulence Group

- Strategic Flexibility = (.51*) Market Orientation
  - .26 21.63*
- Customer Value = (.43*) Market Orientation
  - .19 14.33*
- Customer Value = (.33*) Market orientation + (.19) Strategic Flexibility
  - .21 8.10*

### High Turbulence Group

- Strategic Flexibility = (.58*) Market Orientation
  - .34 30.37*
- Customer Value = (.64*) Market Orientation
  - .41 40.95*
- Customer Value = (.49*) Market orientation + (.26*) Strategic Flexibility
  - .45 23.98*

Note: Standardized coefficients appear in parentheses.
* p < .05.
INTERORGANIZATIONAL BUYER-SELLER RELATIONSHIPS:
THE IMPACT OF INDIVIDUAL PERCEPTIONS ON RELATIONSHIP-
ORIENTED ACTION

Chickery J. Kasouf*
Department of Management
Worcester Polytechnic Institute
Worcester, MA 01609
Voice: 508.831.5548
Fax: 508.831.5720
chick@wpi.edu

Kevin G. Celuch
Blair Chair of Business Science
School of Business
University of Southern Indiana

John H. Bantham
College of Business
Illinois State University
Normal, IL  61790

*Corresponding author
Abstract: The past ten years have seen considerable interest in interorganizational relationships, and a number of insightful frameworks have elaborated the components of relationship commitment. However, the execution of managing customer relationships involves the decisions made on a continuing basis by individual members of the selling team (marketing managers, sales representatives, customer service representatives, engineers, etc.). The purpose of this paper is to contribute to better understanding of relationship-oriented action through the development of a framework based largely on two cognitive psychology concepts – self-efficacy and explanatory style. The framework describes the perceptions and decision processes of individuals that may contribute to a range of actions including managing accounts and creating value for customers as well as a determination to terminate a relationship.

Introduction

As Sheth (1996) and Wilson (1996) have argued, research in organizational buying behavior has changed dramatically since the development of the Sheth (1973) model 30 years ago. That evolution is driven by the attempt to explain a much more rich and complex environment in which industrial suppliers conduct business. Even for small suppliers, there are more demands by the customer for globalization, on-time delivery, value-added engineering, and other capabilities that often require additional investment for the vendor. In many of these cases, both Sheth and Wilson note that the vendor may be treated more as a partner than a seller.

Many transactions are part of an ongoing relationship between buyer and supplier (Webster 1992). Firms that focus primarily on discreet transactions in their supply chain in the face of today's competitive forces have unintentionally put themselves at a competitive disadvantage relative to firms that recognize their interdependence with other members of their supply chain (Ashkenas 1990). Indeed, the ability to establish collaborative relationships across organizational boundaries can be a source of competitive advantage (Liedtka 1996). This point is further underscored by Morgan and Hunt (1994) who note, “…to be an effective competitor in today’s global marketplace requires one to be an effective cooperator in some network of organizations” (p. 34).
While several empirical efforts in the area have generated insightful results (c.f., Morgan and Hunt 1994; Ganesan 1994), this paper proposes a model with a different perspective that explicitly integrates cognitive psychology variables to explain decisions developed by individual managers and sales representatives in the selling team. The model was developed under the assumption that while corporate policy may drive much of the selling firm’s strategy, strategy is implemented by people who make decisions on a regular basis, responding to a constellation of data through a perceptual filter.

Certainly, as Jap (2001) observed, there is some disagreement among researchers about the role of individual participants in interorganizational relationships. Williamson (1996) argues that strategy is developed independently of individuals. However, Larson (1992) found that interpersonal relationships were critical in developing relationships between organizations. Also, Johnson, Barksdale, and Boles (2001) found that buyer satisfaction with the salesperson increased the commitment to the salesperson. In turn, that commitment to the salesperson increased the benefits necessary to switch suppliers.

Jap concluded that an intermediate position is a more balanced perspective, arguing that interpersonal trust facilitates relational processes but has a limited impact on performance. In a similar vein, we propose that it is individual decisions that comprise the mosaic of the relationship over time and that these decisions are rooted in perceptions of their own organization as well as those related to the established or potential partner. Individuals define relationships, and the perception of individuals in buying centers or selling teams can be a fertile ground for research in relationship management.

While this is a conceptual paper, we will be illustrating our propositions with examples from our qualitative research in metal forming industries. These industries are
a powerful arena to study the challenges of industrial marketers who face the challenges of developing more value-added services for customers under conditions of continuing cost pressure. These companies, in the middle of the supply chain between large material suppliers and large original equipment manufacturers (OEMs) or Tier 1 suppliers typically make difficult investment decisions that involve the assumption of significant risk given their size.

**A Model of Individual Perceptions of Buyer-Seller Relationships**

Figure 1 is the proposed model of individual perceptions of buyer-seller relations. The model incorporates individual perceptions and interpretations to explain the actions taken over time to sustain, modify, or exit the relationship. The purpose of this model is to develop some key constructs to describe how individuals evaluate situations and make decisions to act. These potential actions may include the development of a new project, remedy a problem, manage customer expectations, or termination.

As Good and Evans (2001) argued, terminating a customer relationship (or perhaps an individual product or contract) may be the most advisable strategy in some circumstances. While the marketing concept clearly has a strong customer focus, profitability is one of its pillars (Kotler 2001). One does not satisfy an unprofitable customer at all costs; some customers and some projects are not worth the investment.
Efficacy, confidence, and relationship-oriented action. The core of the model is the relationship between confidence in one’s own firm, confidence in the partner, and relationship-oriented action. Relationship-oriented actions are those that are directed toward initiating a project (e.g., investing the R&D to develop a new part for a customer), continuing a partnership (e.g., developing quality remedies to address deficiencies, investing in global capabilities), or terminating a relationship. This paper views the relationship from the perspective of the individual in the selling organization, but these propositions could be expanded to include individuals in the buying organization - a parallel of Ganesan’s 1994 research. In this paper, the focus is on a few key immediate antecedents of relationship action and not on all possible variables and/or variables that have been elaborated in previous work (e.g., shared values, communication, etc.).
A major driver of this model is that confidence in skills and trust in the partner affect whether a situation is perceived as an opportunity. This model borrows heavily from Bandura’s (1986; 1997) theory of self-efficacy. Bandura (1986, p. 391) defines self-efficacy as “people’s judgments of their capabilities to organize and execute courses of action to attain designated types of performance.” Self-efficacy is a concept that has been applied often in management research (Luthans 2002a; 2002b), and is linked to a number of workplace behaviors and skills such as ability to adapt to advanced technology (Hill, Smith, and Mann 1987), performance in employee training (Karl, O’Leary-Kelly, and Martoccio 1993), and the perceived benefit of market information use (Celuch, Kasouf, and Streiter 2000). Indeed, Stajkovic and Luthans (1998) provided strong evidence of a relationship between self-efficacy and workplace performance in their meta-analysis.

As we discuss below, a key element of the model is the perception of the individual team member about the selling firm’s capability to meet the need of the customer. This application of self-efficacy parallels organizational efficacy, an extension of Bandura’s construct incorporated by Celuch, Kasouf, and Streiter (2000) who used the perceptions of organizational efficacy by individuals within the organization to explain market information use. Similarly, this model uses the individual’s perception of organizational efficacy to explain decisions about actions directed at customers.

An event may be perceived as a threat or opportunity. Issue categorization research found the perceptions of threats and opportunities to be distinct. Opportunities are situations with potential gain, likely resolution, and within the organization’s means to resolve the issue (Dutton and Jackson 1987; Jackson and Dutton 1988). This work was
extended by Krueger and Dickson (1994) who linked opportunity recognition to self-efficacy. In an experimental design, they found that changes in perceived self-efficacy resulted in changes in opportunity perception (for positive change) or threat perception (for negative change). Thus, self-efficacy perceptions influence whether a situation is perceived as a threat or opportunity. We argue that an individual’s perception of organizational efficacy, i.e., the subjective likelihood that the organization has the ability to successfully resolve the situation affects the decision to act.

However, efficacy is only one part of the criteria used to assess a situation and its options. Someone may perceive that an organization is able to address a problem, but other conditions affect their willingness to commit resources. The trust in the partner affects the person’s likelihood of making an investment, or engaging in other relationship sustaining action. Investment and risk undertaken by suppliers intuitively implies a degree of trust in the partner. The link between trust and commitment is well established (e.g., Ganesan 1994; Morgan and Hunt 1994). We view the discrete decisions made by individuals to sustain relationships as the building blocks of investments. These combinations are identified in Table 1. As we will discuss below, these situations may result in actions that develop or sustain a relationship, or actions that terminate a relationship or project.
Table 1. Trust/efficacy combinations in buyer-seller relationships.

<table>
<thead>
<tr>
<th>Trust in partner</th>
<th>Individual perception of organizational efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Skill development</td>
</tr>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Investment/action</td>
</tr>
<tr>
<td>Low</td>
<td>Ignore opportunity</td>
</tr>
<tr>
<td></td>
<td>Customer management</td>
</tr>
</tbody>
</table>

In addition to perceptions of organizational capabilities and trust, the individual also compares the relationship with other available alternatives (Bantham, Celuch, and Kasouf 2003). We argue that the attractiveness of developing or sustaining a relationship with a partner is considered in light of the cost of foregoing other opportunities.

Considering these three factors together, each cell in Table 1 is discussed below. Since this model addresses individual decision making, each proposition will be framed considering a selling team member. This may be a marketing or sales representative, or other team member dealing with the account.

**High perceived organizational efficacy/high trust in partner.** This situation is the most attractive for the seller. S/he is confident about the ability of the company to meet the demands of the required action and s/he also has a high degree of trust in the buyer.

In this situation, there is a high probability of undertaking relationship sustaining action, i.e., action that develops or strengthens the relationship (such as R&D on a new part, sharing cost reduction ideas). Thus:

**P₁:** When the selling team member has a high degree of confidence in their own organization’s ability to meet the customer’s need, and a high degree of trust in the buyer, the likelihood of engaging in relationship sustaining activities is high.
An example of this type of activity is investing in cost-savings programs that lower component costs or costs in use for the customer. Under the Supplier COst REduction (SCORE) program administered by Chrysler’s supply chain program in the 1990s, Chrysler worked with its supply base to reduce costs and meet performance goals such as minority sourcing. Chrysler explicitly recognized the need for suppliers to be profitable and thrive, and worked to be a trusted partner. By avoiding adversarial relationships with its upstream suppliers, Chrysler generated more cooperation from its vendors than other OEMs (Dyer 1994).

Low perceived organizational efficacy/high trust in partner. In this situation, the individual perceives that a trustworthy partner is making demands that the supplier organization may have difficulty meeting. This is a difficult circumstance because, if the issue is important enough, the customer could redirect business if the requirements are not met. Under these conditions, in addition to efficacy and trust, the perceived viability of alternatives is likely to play an important role. An example of this situation is an upstream supplier that must develop global capabilities to support offshore operations for an OEM or Tier 1 supplier who is a trusted customer. This may be beyond the current abilities of the supplier, and it will be faced with a strategic decision whether to acquire the skills or pursue other opportunities. In evaluating this situation, we propose the following relationships for individuals in the selling organization:

P₂: When perceived organizational efficacy is low and partner trust is high, a member of the selling team will attempt to engage in activities to develop appropriate skills if the perceived alternative opportunities are less attractive than accommodating the customer.

P₃: When perceived organizational efficacy is low and partner trust is high, a member of the selling team will attempt to pursue other opportunities if they are more attractive than accommodating the customer.
High perceived organizational efficacy/low trust in partner. This is a situation where the individual perceives that the organization has the ability to meet the customer’s requirements, but s/he also has little trust in the customer. An example of this situation is when a part producer has the ability to successfully convert a part from a different technology (e.g., designing a part using powder metallurgy rather than casting). This conversion may save the customer money, but if the selling team member is anxious about losing the business to another part producer after the R&D is complete, s/he may be reluctant to pursue the opportunity. S/he perceives that the organization has the ability to successfully execute the project, but is also concerned about the risk. Again, a significant issue influencing the expected response is the perceived opportunity cost:

P₄: When perceived organizational efficacy is high and partner trust is low, the member of the selling team will attempt to engage in activities to pursue relationship sustaining action if the perceived alternative opportunities are less attractive than accommodating the customer.

Further, we propose that in a low trust position, the supplier will attempt to take steps to protect itself. Often for small suppliers with a limited R&D budget developing a part is a significant deployment of resources, and there is a concern about recovering the investment in volume. In our qualitative research, we have discussed projects in which the part was re-sourced or subject to substantial price cuts after development. Cannon, Achrol, and Gundlach (2000) found that contractual agreements enhance partnership performance when transactional uncertainty is high (when market dynamics or task ambiguity make forecasting difficult), but that contracts should be mixed with greater relational content under conditions of high uncertainty. While this research focused on buyers, we propose that the same self-defense strategies will hold from the seller’s perspective.

P₄b: If a selling team member pursues relationship sustaining action when perceived organizational efficacy is high and partner trust is low, then s/he will seek formal protection (i.e., contracts) to protect the interest of the selling organization, if there is little transactional uncertainty associated with the project.

P₄b: If a selling team member pursues relationship sustaining action when perceived organizational efficacy is high and partner trust is low, then s/he will seek to
supplement formal protection (i.e., contracts) with the development of relational norms to protect the interest of the selling organization, if there is high transactional uncertainty associated with the project.

**Low perceived organizational efficacy/low trust in partner.** Finally, when individuals perceive neither organizational capabilities to deal with the requirements of the customer, nor is the customer a trusted partner, individuals are less likely to either accommodate the customer through relationship sustaining action or develop new business if there are other opportunities available:

P₅: When perceived organizational efficacy is low and partner trust is low, individuals in the selling firm will not attempt to engage in activities to pursue relationship sustaining action if the perceived alternative opportunities are more attractive than accommodating the customer.

In this case, there is little economic justification in trying to maintain or develop the business.

*Antecedents of organizational efficacy.* One of the most appealing elements of self-efficacy from a practical perspective is that it is an acquired perception. Thus, if we would like to increase the likelihood of a behavior, we can increase a person’s related self-efficacy. Bandura (1982; 1997) identified four factors that influence self-efficacy: enactive mastery (repeated performance of the skill), vicarious experience (observation of another of equal ability performing a skill), verbal persuasion (encouragement by another), and physiological arousal (the inhibition of self-efficacy in an aroused or anxious state).

An individual’s perception of organizational efficacy is the perception that an organization can meet the needs of a given situation. In part, this is driven by the actual capabilities of the organization. However, since efficacy is a perception, it is driven by
interpretation of data. It is important to note that self-efficacy is domain specific. People have a high degree of self-efficacy for certain skills (e.g., learning calculus) but not others (e.g., pitching a baseball 95 miles per hour). Moreover, two people with equal abilities may not have equal perceptions of self-efficacy for that behavior. We argue that perceptions of organizational efficacy are driven by the actual skill set of the organization, but that it is moderated by explanatory style (Peterson 1991; Seligman 1991). This integration of efficacy and explanatory style proposes a cognitive based explanation to account for differences in interpreting the same information. Luthans (2002a; 2002b) noted that self-efficacy and explanatory style have both generated significant empirical support to account for performance in a wide area of human behavior and accomplishment, but that they have been infrequently linked. One exception to this in the marketing literature was the proposition that explanatory style was a moderating variable accounting for efficacy differences in market information use (Streiter, Celuch, and Kasouf 2000).

Explanatory style is the interpretations that people give to events in their lives (Peterson 1991; Seligman 1991). The concept has been related to sales force performance (Seligman 1991), performance after athletic setbacks (Seligman, Nolen-Hoeksema, Thornton, and Thornton 1990), and illness (Peterson and Seligman 1987). The development of substantial self-confidence depends on the interpretation of events beyond the substance of the actual events themselves.

When considering antecedents to individual perceptions of organizational efficacy, we argue that the interpretation of organizational capabilities is driven by explanatory style. True self-confidence is developed under conditions in which one deals
with both accomplishments and setbacks and is dependent on how each is interpreted.

Explanatory style is measured on a continuum from pessimism to optimism and involves the following interpretational dimensions:

- **Permanence**: Is the event permanent or transient? In the case of a setback, if the person perceives the setback to be permanent, s/he is left with less confidence that it can be overcome. In contrast, for an accomplishment, if the person perceives the accomplishment to be permanent, s/he is left with more confidence that it can be repeated.

- **Pervasiveness**: Is the event (or related outcomes) likely to affect many other areas/elements? In the case of a setback, if the setback is perceived as pervasive, the person will have less confidence that s/he can deal with a future setback. Negative events are interpreted in light of a generalized incompetence. In the case of an accomplishment, if the accomplishment is perceived as pervasive, the person will have more confidence that s/he can achieve similar success in the future. Positive events are interpreted in light of generalized competence.

- **Personal**: Is the event rooted in the abilities (lack of) the individual or tied to external factors? If setbacks are perceived as being caused by a lack of ability, the person will be more likely to interpret negative events as his/her “fault.” Thus, confidence is less likely to develop. If accomplishments are perceived as being caused by individual ability, the person will be more likely to interpret positive events as under his/her control. Thus, confidence is more likely to develop.

To illustrate the dynamics of how optimistic vs. pessimistic styles can affect interpretation for the same event, someone with an optimistic explanatory style might explain a quality problem by seeing the event as a temporary setback that was confined to that situation and the result of a short-term process problem. This person would perceive that the situation could be remedied. Thus, perceived confidence in organizational capabilities would not be denigrated. On the other hand, if the event was interpreted as a serious systemic problem that was pervasive and tied to weaknesses in firm capabilities, the person would probably lose confidence in the firm and its ability to deal with the situation.
Considering the link between organizational capabilities, explanatory style, and organizational efficacy:

P₆: The relationship between organizational capabilities and organizational self-efficacy is likely to be moderated by explanatory style.

P₆ₐ: Selling team members with an optimistic explanatory style are more likely to perceive a strong positive relationship between organizational capabilities and organizational efficacy than those with a pessimistic explanatory style.

Discussion and Implications
This work contributes to the business relationship literature in several ways. First we have extended existing conceptual perspectives through an incorporation of individual perceptions that drive decisions affecting relationships between buyers and sellers. Relationships are an accretion of individual actions that have the effect, in the aggregate, of supporting or inhibiting cooperation among buyers and their suppliers. In an era of focusing on core competence, a critical challenge of the supply chain is to link effectively with upstream partners to create value (Lorange 1988). Specifically, we have considered the potential interplay of perceived organizational efficacy, trust, and perceived alternatives on relationship-oriented action. We have also considered the moderating effects of an individual’s explanatory style on interpretations of relationship-related events. Interpretational processes may be significant in that they are implicated in efficacy development, maintenance, and enhancement.

The model has value for academics, since it views the buyer-seller dyad through a series of individual decisions and tactical actions and, as such, offers a new perspective –
one that is potentially insightful but not yet heavily researched in marketing beyond the sales force literature. The present framework offers testable propositions for quantitative exploration. Clearly, the operationalization of constructs, particularly, efficacy and explanatory style requires attention. In addition, while the present framework was oriented from the selling organization’s perspective, the model could easily be extended to buying organizations and examined in such contexts. Future research could also focus on individual decision-making longitudinally, that is, the processes underlying the development of efficacy and trust which are implicated in managing customers in relationships. Finally, an examination of the relationship between more macro-level concepts – organizational culture – and individual-level perceptions of firm capabilities which influence relationships might prove interesting.

The model also holds practitioner implications. Given future empirical support, it has the potential to identify strategies for intervention to improve value creation, since both key constructs – efficacy and explanatory style are amenable to change which can serve as the foundation for training and development programs. For example, even with significant investments in organizational capabilities, the development of efficacious individual perceptions of organizational efficacy still may not materialize or may not be as strong if a pessimistic explanatory style is adopted by key relationship players. This type of explanatory style could be a holdover as a result of negative prior client relations, industry trends, and personal factors. However, interventions in the attributional process can alter the process as well as subsequent cognitions.

Further, with respect to developing individual perceptions of organizational efficacy, the present perspective suggests that top management pronouncements of the
firm’s ability to deliver customer value may not be enough to engender strong efficacy cognitions within personnel involved in customer relations. The notion of direct or vicarious experiences tied to significant organizational capabilities for the key customer boundary spanners are likely to contribute to more potent efficacy cognitions as opposed to top management exhortations or “cheerleading.”

In conclusion, understanding business relationships will continue to be a significant topic within the marketing discipline. It is hoped that the conceptual framework offered herein contributes to future conceptual and empirical efforts aimed at increasing understanding of relational behavior.


The Sarbanes-Oxley Act: Threat or Opportunity

A series of three white papers addressing the Sarbanes-Oxley Act compliance issues

Part I

Introduction to the Sarbanes-Oxley Act
Implications and Trends

for

Private & Public
Companies
# Table of Contents

1. Introduction .................................................................................................................. 52
2. Sarbanes-Oxley Act - Background and Summary ......................................................... 53
3. Implications for Private Companies ............................................................................... 55
4. Trends for Private Companies ....................................................................................... 57
5. Implementation Strategies for Public Companies ......................................................... 58
6. Conclusion ..................................................................................................................... 61

Appendix 1 - Effects of the Sarbanes-Oxley Act .............................................................. 63
Appendix 2 - Compliance Costs ......................................................................................... 65
Appendix 3 - Trends for Public Companies ....................................................................... 66
1. **Introduction**
The Sarbanes-Oxley Act is a theme affecting the entire business landscape. Driven by a series of accounting scandals, the Act is aimed at eliminating conflicts of interests, providing additional oversight of the auditing process, and building corporate transparency. It is a topic at the crossroads between corporate governance, financial management, technology and ultimately company wide strategy.

Although at the current time the Act concerns only publicly traded companies, it is generally accepted that it is a matter of time until private companies will have to adopt certain provisions. Moreover, research is showing that even private companies are seeing immediate consequences in the areas of Mergers and Acquisitions, Financing, and Insurance costs.

This research paper is the first in a series of three white papers that have the purpose to raise awareness regarding the new SEC regulations among private companies, to highlight areas of concern (I), to provide insight into best implementation practices adopted by leading companies (II), and present a framework for strategic management (III). The structure of the Reports is as follows:

**Part I- Introduction to the Sarbanes-Oxley Act**
- Sarbanes-Oxley Act- background and summary
- Implications for private companies
- Trends for private companies
- Trends for public companies

**Part II – Implementation- Best practices for internal controls**
- Business processes and IT evaluation
- The Hawthorne effect and how it can be mitigated
- IT vendor evaluation

**Part III- The big picture- ERM (Enterprise Resource Management) at work**
- ERM- background
- Sarbanes-Oxley in the context of ERM
2. Sarbanes-Oxley Act - Background and Summary

The Sarbanes-Oxley Act is a reaction to a series of accounting scandals that need no further introduction. It is the most comprehensive change to the US Securities Law since 1934 and is affecting the entire financial reporting landscape.

The Act attempts to reinforce and strengthen the standards for corporate governance. It is comprised of 11 parts and 66 sections describing the new corporate governance standards and the penalties for non-compliance. Below is a summary of the selected few, most debatable sections that have captured the attention of both public and private companies:

• **Section 404 - Management assessment of internal controls.** This is the section that carries the most financial burden for companies in their Sarbanes-Oxley compliance efforts. It states that each Annual Report will have to contain an “internal control report”, describing the responsibility of management to maintain the structures and procedures for financial reporting, and an assessment of the effectiveness of the internal control structure. This section regulates the financial reporting process, not the final reports. In other words, it does not concern the results per se, but the processes that lead to those results.¹

  The definition of “internal control” entails “a process implemented by the board, management, and the other personnel that is designed to provide reasonable assurance regarding the reliability of financial reporting and preparation of financial statements in accordance with GAAP”².

• **Section 302 - Executive accountability for Financial Reporting;** according to this section, the CEO and the CFO will have to prepare a statement to accompany the audit report to certify the “appropriateness of the financial statements”.

• **Section 103 - Oversight of the auditing processes** by an independent Public Company Oversight Board, a non-profit entity – funded by the public companies and subject to SEC supervision.

---

¹ Gartner Reports: Management Alert, April, 2003  
² Leibbs, S.; Internal controls; CFO Winter 2003; 19 (15); p21-23
• **Section 101- Board membership** comprised of five financially literate members (two CPAs and three non CPAs) appointed for five year terms, on a full time basis, who cannot receive payments from any public accounting firm (salary, pension or other type of compensation).

• **Section 201- Services outside the scope of the practice of auditors:** registered public accounting firms are prohibited to provide non-audit service to an organization, contemporaneously with the audit (bookkeeping, consulting in the area of financial information system, actuarial services, valuations, etc.).

• **Section 409- Real time reporting disclosure** requirements: information on material changes in the financial reporting must be disclosed on a current basis.

• **Section 403- Conflict of interests disclosures** regarding disclosures of transactions involving management and principal stockholders.

Given the level of accountability placed on top management and the financial burden for organizations, the reaction from the trenches is mainly negative. In a survey conducted in 2002 by CFO magazine on 170 CFOs (of whom 51% at public companies), financial executives clearly expressed their concern regarding some of the provisions:

• 52% believed that audit firms should not be banned from providing consulting services
• 65% did not think auditors should be forbidden to work for clients for a specific period
• 52% did not think it was wise to rotate auditors

At the same time, the survey found that despite pressures on auditors to question financial statements, companies could successfully negotiate during the audit process. Out of 170 CFOs surveyed, 38% were challenged during an audit last year. As a result, only 43% actually changed their practices to meet the auditor’s requests. The rest of 57% did not alter their results: they either got the auditor to agree with the practice in question (25%), or convinced the auditors that the results were immaterial (75%). The questionable results involved reserve amounts (69%) and revenue recognition (36%).³

---

³ CFO; September 2002
The facts presented previously demonstrate both the need for some sort of regulation of the audit process, and the ambiguous reaction surrounding the implementation of such regulation. No matter how necessary the introduction of the Sarbanes-Oxley Act was, executives cannot ignore the hurdle ahead of them and contemplate the inevitable financial burden. In this context, it is important for both public and private companies to understand the Act and its repercussions, and chose an implementation method that is also cost efficient.

3. Implications for Private Companies

The ripple effects of the Sarbanes-Oxley Act are felt across the board. For public companies the effects are touching upon areas other than those intended, such as Marketing\(^4\), Mergers and Acquisitions\(^5\), partnerships with non-compliant foreign companies, and costs of D&O insurance (directors and officers’ liability insurance). For a complete list of effects please consult Appendix\(^1\).

For private companies, implications are emerging in the area of Mergers and Acquisitions and Banking, to name two the most visible areas. Managers of private companies are also feeling pressure from insurance, customers, lenders, and accountants to show compliance with internal documentation and control (6). Moreover, some Sarbanes-Oxley provisions are directly applicable to both public and private companies: “document retention, increased penalties for mail and wire fraud, as well as liability for retaliation against whistleblowers”.\(^7\) Both private and public companies must ensure a safe environment for whistleblowers to anonymously report wrongdoings to audit committees.

Companies seeking loans will face increasing scrutiny from bankers regarding Sarbanes-Oxley compliance measures. “If lenders see public companies doing things differently, they may expect us to do them differently” stated in an interview Don Munchrath, the CFO of a family owned wholesale distribution company with manufacturing subsidiaries\(^8\).

\(^4\) Marcus, C. Sarbanes-Oxley requires tracking Marketing spending; Gartner Reports; 30 May 2003
\(^5\) Calabro, R.; CFO Jan 2004; 20 (1); 10-11
\(^6\) Koehn, J. L., Del Vechio, S.; Ripple effects of the Sarbanes-Oxley Act; The CPA Journal; Feb 2004; 74 (2); 36-40
\(^7\) deMesa Graziano, C.; Defining moment for good governance; Financial Executive; Nov. 2003; 19 (8); 48-50
\(^8\) Sinnett, W.; Even private company board of directors are changing; Financial Executive; October 2003; 46-49
According to a RHI (Robert Half International) study of 1,400 privately held companies, companies adhering to the act’s provision may even encounter lower interest rates. (7)

Another area impacted by the Sarbanes-Oxley Act is the D&O Insurance costs that have seen a severe increase since insurers have realized that shareholders (for both private and public companies) can sue the board of directors for breaches of duty. There is a sense of an increased litigation risk that has subsequently raised insurance premiums (for details please consult Appendix 2). Overall, rates for D&O insurance have increased dramatically: from 100% to 400%, according to the size of the company. In the case of American United Life Insurance, the D&O insurance carrier asked questions regarding Sarbanes-Oxley compliance when it was time to renew the company’s policy (6).

There were also instances when companies have been turned down for coverage. For instance, the D&O liability insurance companies are using Sarbanes-Oxley provisions regarding CEO certification. According to the Act, if a company is required to restate financials that have been previously certified, D&O may use this as a reason to deny coverage and cancel D&O policies (6).

Private companies interested in an exit strategy need to keep in mind that potential buyers will look favorably at Sarbanes-Oxley compliance, in either their selling or their IPO initiatives. Proactive efforts may lead to acquisition premiums. (7)

For public companies, some provisions of the Act (Section 101) are aimed at making board members raise issues that have never been raised before in order to mitigate risk factors. Private companies can benefit from adhering to such approach by adding independent directors to audit financial statements and also identify things that may go wrong. Independent directors will force the company to look at all potential issues even when no immediate threat is perceived.(8)

Research suggests that in the past, if the business was profitable, the board of a private company tended to default to an advisory board. (8) By securing support from independent directors, private companies are in a better position to achieve a level of security and avoid potential liabilities.
Another provision of the Act embraced by private companies is the adoption of a **code of ethics** that is communicated and adhered to across the entire organization. In case of legal difficulties, a legal defense can be strengthened if such code is in place and commitment from management to the code can be proven. (8)

The RHI study also found that private companies that are doing business with government entities are more likely to be impacted. Also, **public companies** could pressure private companies to adjust their internal controls as a condition of working together, especially when they operate under long-term agreements or favorable contractual terms. Moreover, **public accounting firms** are likely to extend their audit procedures to private companies as well, especially in the arena of internal control (Section 404). Best practices during the auditing process may evolve and auditors may increase their expectations. Some accountants also fear that “concepts of the Sarbanes-Oxley act may be adopted by state legislatures to affect non public companies”.

### 4. Implementation Strategies for Private Companies

The above-mentioned study showed that 58% of the 1400 private companies responded that their companies are taking actions regarding accounting procedures. Among those who mentioned a specific action, 44% are looking at current procedures and 36% are expanding the current audit function. (7)

![How Private Companies are Managing the Internal Audit Function](chart)

Source: Robert Half International survey of 1,400 CFOs from privately held US companies

---

9 Interview with William Maslo, CPA- A guide to Sarbanes-Oxley; smartpros.com
Those companies that decided to improve internal controls used a thorough analysis of the existing financial processes and underlying IT infrastructure needed to support those processes, allocated budgets, established clear deadlines, and made a strong business case for investments. They also used a clear communication plan that gave employees a sense of ownership over their jobs and the opportunity to see how their tasks integrate into the bigger picture.  

5. Trends for Public Companies

According to some interviews with Fortune 500 officials, there is a strong sense that the compliance burden is neither justifiable (in terms of shareholder benefit), nor welcome among top management of public companies. For more information on spending trends please consult Appendix 2.

Since its inception, the Act has created a lot of controversy: some argue that it is just another piece of useless legislation, while others make the case for financial discipline and increased accountability at the top. In either case, all agree that the costs can be very high and the benefit other than mere compliance is very difficult to assess. Under these circumstances, executives are becoming more and more frustrated with the strain the compliance efforts are placing on existing resources.

The increasing disenchantment with the Act may drive companies to implement compliance mechanisms for the sake of compliance. After all, the Sarbanes-Oxley act is just another piece of legislation and there is no perceived competitive advantage in doing anything more than compliance, some are saying.

Others believe that it is imperative to go beyond mere compliance and adopt a culture of risk awareness and information openness and transparency, the main conditions for a sound corporate governance initiative.

Risk Awareness- There is a high level of uncertainty in the business environment driven by globalization, technology, fluctuating markets and price, competition, and regulation to name just a few factors that increase the level of uncertainty. To mitigate the risks associated with these

---

10 Logan, D. and Mogull, R.; Sarbanes-Oxley: The role of technology; Gartner Reports; 10 October 2003
uncertainties, a risk awareness culture (integrated into an Enterprise Risk Management*—ERM- initiative) will develop a better decision-making environment. The Sarbanes-Oxley Act will also drive more frequent and longer board meetings that have the potential to force independent directors to look for all kinds of risks, not just to discuss problems as they arise.

* Enterprise Risk Management has at its core the continuous assessment of an organization’s risk profile. The concept idea is migrating from the Financial Services Industry- Banking and Insurance (in the UK, companies are risk audited two times per year12) and it is based on the saying that: “it is not the catastrophe that makes a company go bust, but the business practices that cannot anticipate the catastrophe”.13

Transparency increases the loyalty of all partners in the supply chain: investors, customers, vendors, partners, and suppliers. A foundation of corporate transparency strengthened by a culture of openly sharing critical performance indicators with all stakeholders leads to an optimized value chain and increased loyalty. Moreover, research is showing a close connection between stakeholders’ loyalty, an optimized value chain and financial performance. Under these circumstances, compliance costs will not seem unjustified at all.

However, how can one company achieve transparency when its Chief Officers must protect themselves from the negative consequences of the provisions in Section 302 (which state that top management, CFOs and CEOs are liable for the quality and the timeliness of financial reporting)? Instinctively, executives will become tempted to limit their exposure and protect information. The consequence is information protectionism that ultimately nourishes power struggles and leads to everything but transparency. In addition, transparency and visibility in the financial reporting system give employees the tools they need to make decisions, including decisions that may be different than those hoped for. The answer, controlled information flows and distribution of information on a need to know basis14, will be difficult to reach without a thorough analysis of the specific topic.

12 Harvard Business Review; Breakthrough Ideas for 2004- ERM; “Watch your back”; Feb 2004; 82(2); P36
13 Miccollis, J.; Insurers and ERM: Working on the “How”; National Underwriter; April 7, 2003
14 Gartner Reports ; 30 Sept. 09 2003; Don’t let Sarbanes-Oxley lead to an information dark age F. Buytendijk
Those who want to comply for the sake of compliance will implement a solution suggested by the auditors that most likely is not ingrained in the particularities and the strategy of the organization. On the other hand, those who are looking to go beyond compliance will come up with solutions specific to their business environment and try to integrate them in a long-term strategy.

Although in theory it is easy to describe the positives of a certain approach, in practice companies struggle with contradictions driven by the intricacies of the business environment. While the formation of independent board members requires a fairly straightforward implementation, achieving the desired level of financial process transparency is not a simple task. Under these circumstances, a good understanding of all implications, the current trends and best practices will ease the pains associated with the selection of the right path.

To achieve financial process transparency, best practices show that the most suitable approach for implementation rests in each company’s ability to leverage existent technology and financial processes into its strategy15 and use corporate financial performance measurement without Sarbanes-Oxley as the main driver. Research is also showing that proactive companies (Type A* companies) that go above and beyond in their quest to achieve business efficiency are using this opportunity to improve their document and content management procedures and software to address inadequacies in their operations.16 In contrast, passive/ regressive, Type B companies will become tempted not to go beyond legal counsel. They will obtain the right tools to comply, however in their aspiration to obtain the Type A status will incur higher costs and will get lost in tactical details along the way.

*Type A, leading edge companies, are proactive companies that are always ahead of the curve. These are also technologically aggressive companies characterized by an effective use of information technology to achieve competitive advantage. Type B, mainstream companies prefer the status quo and are reluctant to change until the marketplace requires them to do so.17

In sum, the Sarbanes-Oxley Act defines the new rules for Corporate Governance and carries a high price tag. Those who will look at mere compliance will not be able to take full advantage of

15 D. Logan and F. Buytendijk; Management Alert: The Sarbanes-Oxley Act will affect your enterprise; Gartner Reports; April 01 2003;
16 Logan, L., D.; Sarbanes-Oxley compliance requires trust and cash; Gartner Reports; 07 October 2003 ‘.
17 C. Moore and M. Haines; Buyer behavior and attitudes: technology stance; Gartner Reports; 05 Nov 2001;
their investment and implement an efficient risk awareness culture, one in which potential risks for the enterprise are consistently assessed, neither will they achieve the level of transparency that will help them gain stakeholders’ loyalty and optimize the value chain. The Sarbanes-Oxley Act is the wake up call that has the potential to induce these changes if it is regarded not as a scope in itself and a threat, but as an as an opportunity to build more efficient business environments.

6. Conclusion

Although both public and private companies are feeling the ripple effects of the Sarbanes-Oxley Act, private companies are in a better position than their counterparts. There is no deadline and no immediate consequences for non-compliance. However, research is showing that it is a matter of time until the provisions of the Sarbanes-Oxley Act will be imposed to the private companies directly- as specific provisions, or indirectly- as consequences of the pressure exerted by internal and external factors (exit strategies, D&O Insurance costs, audit procedures and financing activities).

Private companies have the advantage to learn from best practices, to plan and strategize each step along the way, while keeping their eyes on the balance sheet. They have the time and can use the experience of public companies to determine the best approach, and integrate it into a broader strategic plan.

For both private and public companies, the most desirable implementation of a Sarbanes-Oxley initiative requires proactive behavior that means adopting a sense of awareness of the new business environment and knowing how to acquire the right tools to adapt success stories to particular business setting. Proactive companies know how to build a strong culture, whether it is risk awareness or open information flow, that will help them create a fully accountable and informed decision-making environment; they also know how to integrate this culture into their long-term strategy. A clearly defined Risk Management strategy makes investors and business partners more comfortable with a companies’ ability to make better and faster decisions, regardless of the ownership structure.

At a first glance, the Sarbanes-Oxley Act redefines the rules of corporate governance at a very high cost. Moreover, there is little to no competitive advantage in accounting or financial reporting: various valuation methodologies have attributed between 35-70% of a typical valuation
to soft factors like management, corporate culture, intellectual property and regulatory issues. However, a company culture defined by financial process transparency and risk awareness (as induced by the Sarbanes-Oxley compliance Act) can contribute to a healthy ERM (Enterprise Risk Management) business environment that will ensure positive ROI.
### Appendix 1- Effects of the Sarbanes-Oxley Act

<table>
<thead>
<tr>
<th>Effects</th>
<th>Intended Consequence</th>
<th>Unforeseen Consequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Influence on Corporate Mergers and Acquisitions</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Increased Efforts by Audit Committees</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Contradiction of the Audit Market</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Decreased Competitiveness of the Audit Market</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Increase in Accounting Costs</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Increasing Records Management Requirement</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Salary Increases</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Increase in Audit Fees</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Influence on SEC Sanctions</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td><strong>The Impact on Private Companies</strong></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Reluctance of Foreign Companies to Comply</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Increased Volume of Corporate Disclosure</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Trickle-Down Accountability</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Trickle-Down Power to Shareholders</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Impact on D&amp;O Insurance Underwriting</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Increased Costs of D&amp;O Insurance</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Consulting is Booming</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>New Compliance Software Production</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>More Work for Lawyers</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Educational Impact</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Company Loans to Executives Prohibited</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Change in the Audit Process</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>----------------------------</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Two Tiers of Compliance?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Auditing of the Auditors</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Changes in Attorney’s Legal Conduct</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>New Metrics</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Source: The CPA Journal; February 2004 p.39
Appendix 2-Compliance Costs
Findings of a survey conducted by the law firm Foley and Lardner on 32 midsize companies.

### EXHIBIT 1
COSTS OF SARBANES-OXLEY COMPLIANCE

<table>
<thead>
<tr>
<th>Cost</th>
<th>Before</th>
<th>After</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance personnel</td>
<td>$36,000</td>
<td>$132,000</td>
<td>266.7%</td>
</tr>
<tr>
<td>Accounting</td>
<td>243,000</td>
<td>499,000</td>
<td>105.3</td>
</tr>
<tr>
<td>Lost productivity</td>
<td>46,000</td>
<td>93,000</td>
<td>102.2</td>
</tr>
<tr>
<td>Board compensation</td>
<td>107,000</td>
<td>212,000</td>
<td>98.1</td>
</tr>
<tr>
<td>D&amp;O Insurance</td>
<td>329,000</td>
<td>639,000</td>
<td>94.2</td>
</tr>
<tr>
<td>Legal</td>
<td>212,000</td>
<td>404,000</td>
<td>90.6</td>
</tr>
<tr>
<td>Financial reporting</td>
<td>47,000</td>
<td>85,000</td>
<td>80.9</td>
</tr>
<tr>
<td>Investor relations</td>
<td>35,000</td>
<td>58,000</td>
<td>65.7</td>
</tr>
<tr>
<td>Transfer agent</td>
<td>25,000</td>
<td>37,000</td>
<td>48.0</td>
</tr>
<tr>
<td>Public relations</td>
<td>197,000</td>
<td>221,000</td>
<td>12.2</td>
</tr>
<tr>
<td>Other costs</td>
<td>26,000</td>
<td>83,000</td>
<td>219.2</td>
</tr>
<tr>
<td>Total costs</td>
<td>$1,303,000</td>
<td>$2,463,000</td>
<td>88.3%</td>
</tr>
</tbody>
</table>

### EXHIBIT 2
RAMIFICATIONS FOR LAW FIRMS

<table>
<thead>
<tr>
<th>Survey Conducted By</th>
<th>Survey Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Lawyer</td>
<td>Profits at nation’s 100 largest firms up 8.5% in 2002</td>
</tr>
<tr>
<td>Altman Weil (consulting firm)</td>
<td>Profits up at law firms nationwide by 10%</td>
</tr>
<tr>
<td>Corporate Counsel</td>
<td>Pay for in-house counsel up 9%</td>
</tr>
<tr>
<td>Foley &amp; Lardner (law firm)</td>
<td>Legal fees at public companies up 91%</td>
</tr>
</tbody>
</table>

Source: The CPA Journal; Feb 2004
Appendix 3- Trends for Public Companies
Gartner’s inaugural survey conducted in September 2003\(^\text{18}\) found significant challenges for public companies in their compliance efforts. The number of respondents was 75, representing companies in the following areas: manufacturing (29), finance (20), retail (7), wholesale and distribution (7). The executives involved in the surveyed were the CFO, CIO, and or the Legal Counsel representative. The revenue structure was as follows:

<table>
<thead>
<tr>
<th>Revenue</th>
<th>&lt;500 Mil</th>
<th>500Mil-1B</th>
<th>+1B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies</td>
<td>26</td>
<td>20</td>
<td>29</td>
</tr>
</tbody>
</table>

The findings of the surveyed highlighted expense, management and IT compliance issues for 2003. Subsequent surveys conducted in 2004 confirmed the veracity of these preliminary results.

<table>
<thead>
<tr>
<th>People involvement</th>
<th>Finance: 6.9 people (Mean)</th>
<th>Operations: 4.32 people (Mean)</th>
<th>Information Systems: 2 people (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarbanes-Oxley</td>
<td>65% have a steering committees</td>
<td>28% have no plans to form one</td>
<td></td>
</tr>
<tr>
<td>Steering committee</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Sarbanes-Oxley     | Legal compliance: 87%       |
| steering committee | Internal compliance legal management: 78% |
| roles              | Corporate governance policies and guidelines: 78% |

| Chief Governance Officer (CGO) | 40% of the companies surveyed have a CGO responsible for reporting to the Board of Directors financial, IT, and legal related compliance activities |
|                               | 75% of these positions have been added since 2002 |

| Involvement with other competing regulations | 94% of the respondents |

---

\(^{18}\) Gartner Reports: 09 October 2003; Sarbanes-Oxley Readiness Study: Preliminary Results; L. Leskela, R. Mogul, and D. Logan
Sarbanes-Oxley spending | 85% had no official budget
Expenses ranged between $15,000 - $4 Mil.

Leading spending categories | Internal and external auditing 30% in 2003; expected to rise to 50% in 2004\(^{19}\)
Outside consulting 25%
Personnel 24%
Other: insurance and software 21%

Other projects sacrificed as a result of no dedicated budget for Sarbanes-Oxley | External consulting – 53%
ERP projects- 36%
Merger and Acquisition 32%

IT solutions | The majority is not using specific software solutions to comply

Source: Gartner Reports: 09 October 2003; Sarbanes-Oxley Readiness Study: Preliminary Results

The most recent survey regarding Sarbanes-Oxley compliance found the following trends:

<table>
<thead>
<tr>
<th>I year Revenue</th>
<th>COSTS</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;$25 M.</td>
<td>$0.28 million</td>
<td>1,996</td>
</tr>
<tr>
<td>$ 25 M- $99 M.</td>
<td>$0.74 million</td>
<td>3,080</td>
</tr>
<tr>
<td>$100 M- $499 M</td>
<td>$0.78 million</td>
<td>5,118</td>
</tr>
<tr>
<td>$500 M. -$999 M</td>
<td>$1.04 million</td>
<td>6,950</td>
</tr>
<tr>
<td>$1 B.- $4.9 B.</td>
<td>$1.83 million</td>
<td>13,355</td>
</tr>
<tr>
<td>+$5 B.</td>
<td>$4.67 million</td>
<td>41,201</td>
</tr>
</tbody>
</table>

\(^{19}\) Gartner Reports; You have to spend to attain Sarbanes-Oxley compliance; 03 October 2003; D. Logan
The survey was administered on 321 companies, of which 20% have revenues of over $5Bil, and 3.3% of under $25 Mil.
The Sarbanes-Oxley Act: Threat or Opportunity

A white paper concerning implementation best practices to achieve Sarbanes-Oxley compliance

Part II

Sarbanes-Oxley Implementation Considerations
Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction</td>
<td>71</td>
</tr>
<tr>
<td>2. Implementation- General considerations</td>
<td>71</td>
</tr>
<tr>
<td>3. Need and timing for investing in IT: The Hawthorne effect</td>
<td>72</td>
</tr>
<tr>
<td>4. Sections 302 and 404: Background</td>
<td>74</td>
</tr>
<tr>
<td>4.1. Sections 404: Action steps</td>
<td>75</td>
</tr>
<tr>
<td>4.2. Section 404: Software acquisition- Best practices</td>
<td>75</td>
</tr>
<tr>
<td>5. Section 301: Whistle-blower protection clause</td>
<td>75</td>
</tr>
<tr>
<td>6. Section 802: Ensuring tamper proof records</td>
<td>76</td>
</tr>
<tr>
<td>7. Emerging trends- the office of the CGO</td>
<td>76</td>
</tr>
<tr>
<td>8. Implementation: The big picture</td>
<td>78</td>
</tr>
<tr>
<td>9. Conclusion</td>
<td>79</td>
</tr>
<tr>
<td>Appendix 1</td>
<td>81</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>82</td>
</tr>
<tr>
<td>Appendix 3</td>
<td>83</td>
</tr>
<tr>
<td>References</td>
<td>84</td>
</tr>
</tbody>
</table>
**Introduction**
The implementation of an effective compliance mechanism involves a plan that includes a combination of strategies, tactics and tools for implementing each individual section, along with a big picture approach that views each section in congruence with the others in the context of company wide strategy.

Although the Act has no Information Technology (IT) requirement, the market abounds with “IT solutions” that claim to offer the Sarbanes-Oxley compliance panacea. However, history has shown that IT alone cannot offer the right business solution unless it is closely connected to the intrinsic business aspects it is trying to address.

At the same time, non-IT compliance solutions are perfectly valid tools, however it is less likely that financial process compliance achieved manually will be the universal approach: the use of IT is inevitable, as technology is such a defining component of today’s business environment. In this context, caution should be applied in the new the technology selection and implementation process.

This paper highlights Sarbanes-Oxley implementation guidelines, emerging trends, and overall best practices, while keeping in focus on the bigger picture, company wide strategy. Special attention will be paid to Sections 404 (internal compliance), 302 (executive accountability for financial report accuracy), 301 & 307 (whistle-blower protection clause), and 802 (tamper proof record management).

**Implementation- General considerations**
The main sections of the Sarbanes-Oxley Act require various levels of compliance efforts. Some tasks, such as the ensuring of an ethical work environment or board membership are fairly straightforward tasks in terms of implementation requirements. Other tasks, such as internal controls involve financial business process change, a task that is extremely challenging, costly and difficult to implement.

It is generally accepted that IT is a useful tool in acquiring Sarbanes-Oxley compliance, especially in a process-oriented environment, where IT is considered “the backbone of the processes regulated by the law” (3). IT is usually part of the solution, but there is a danger that organizations will rely heavily on IT solutions that are not connected to the particularities of that organization, and will not leverage current resources and capabilities. The explanation is simple:
in the past, auditors were also involved in the recommendation and the implementation of various changes afferent to financial processes and the IT systems supporting those processes. In many instances, the auditors had a better understanding of their clients’ financial processes, and internal expertise in many cases was nonexistent. Now, the Sarbanes-Oxley Act specifically prohibits the interference of an auditor in the implementation efforts (Section 200). Under these circumstances, the temptation to embrace an “off the shelf” IT solution that promises to ensure compliance at low costs can be quite high.

Best practices suggest that in a Sarbanes-Oxley compliance implementation, companies need to audit existing processes and determine how they comply with the new rules, assess their existing technologies and the way they support those processes, determine the gaps, and only then invest in new technologies. Best practices also suggest that a dedicated budget for this endeavor may help organizations keep their focus on the balance sheet during their compliance efforts.

From a theoretical stance, Operations and System Development and Design theories suggest that in order to implement an IT solution to a business environment, business processes must be very well defined. Once existing processes (As Is process) are mapped out and the desired target is clear, improvements and gaps can be easily identified. An IT solution is justified only when it addresses those gaps, while building the platform for future improvements.

From a practical standpoint, there are serious constraints to investing in IT before the auditing process: the fees associated with internal and external auditing (up to 75% of all compliance costs), along with the increasing cost of directors’ insurance (cost that has increased by 100%-300%) are leaving the budgets literally drained: there will not be much left to invest in new IT solutions (11). Moreover, existing technologies already have the capabilities to address compliance. It is critical to determine what exactly needs to be acquired to achieve immediate compliance and build a strong business case for IT before investing. This cannot be achieved before the audit of the financial processes and the existing IT infrastructure.(9)

Need and timing for investing in IT: The Hawthorne effect
The need and timing for making the business case for IT spending can be illustrated through the lens of the Hawthorne effect. The Hawthorne Effect was a study performed between 1924 and 1933 and involved a productivity experiments in a supervised environment. During the study, when a work group knew it was under supervision and the incentive for increased output was
present, group performance increased. When the management’s attention was drawn somewhere else, and the group knew it was not under observation anymore, the productivity recorded previously vanished. (7)

Applied to a Sarbanes-Oxley compliance scenario, the Hawthorne effect can be illustrated in Chart 1.

![Chart 1: Source- Gartner Reports](image)

The explanation is as follows: Enron and other corporate scandals represent the trigger event for the Sarbanes-Oxley Act. The immediate threat that Section 302 poses to executives (criminal penalties for executives aware of financial results distortion) catches executives’ attention and increases the hype: the Hawthorne effect kicks in. Vendor activity peaks and the highest point is attained when auditors declare to management section 404 compliance (existence of internal controls). At this point, temptation for management to turn their attention elsewhere is most likely to occur. However, Section 409 also needs attention (disclosure of material changes that will materially affect the financial reporting in a given quarter). It is at this point when CIOs should make the case
for IT investment. When investing in compliance, companies need to build a strong business case that goes beyond mere compliance and also seeks a positive Return on Investment.

**Best practice:** to avoid falling into the pit of disillusionment, IT departments must consistently evaluate existing technologies and the way they address the compliance process. As internal controls are being refined, the compliance process is also changing, uncovering the need for additional IT. It is at this point when companies must build a strong business case for IT, and this case must include additional functionalities that will support other critical business areas, not just Sarbanes-Oxley compliance (sales, knowledge management, product development). (6)

Research is showing that during the first year of implementation, companies must be very wary to invest into new technologies, unless it is required by compliance. A thorough understanding of the current processes and the change that needs to take place is the place to start. Working closely with the auditors to identify the necessary process changes represent the first step in achieving compliance (3). For a complete description of the steps and the timing for IT investment please consult Appendix 1.

**Sections 302 and 404: Background**
The two sections that have the highest impact on the business environment and have captured the attention of all top executives at public companies without any exceptions are Sections 302 and 404. These are also the areas that require the most financial commitment and are very critical in the compliance effort.

Both sections address financial reporting issues, the difference being that while the first is concerned with the accuracy of output documents (financial reports), the other regards the accuracy of all business processes involved in the creation of those output documents. The accountability for the implementation of any the two Sections rests with top executives. For instance, Section 302 stipulates criminal penalties if CEOs and CFOs willingly or knowingly submit inaccurate reports. With such threatening penalties, top management will do everything to implement all required changes to demonstrate compliance. However, there is a price to be paid, and that price will vary depending on the executives’ ability to find the lowest possible implementation cost. A strong business case for IT investments is a very important contributor to such a costly initiative.
**Sections 404: Action steps**

The steps involved in Section 404 implementation requires a Business Process Management outlook and entail four phases as depicted in the Appendix 1 (6).

**Phase 1:** Initial assessment- discovery. This phase entails the assessment of current processes and their underlying technologies

**Phase 2:** Gap Analysis. The process changes that need to be performed to meet compliance must also be illustrated in the IT compliance architecture. Research is showing that 80% of all anticipated process changes will require updates to the existing systems and only 20% will require new technology (3).

**Phase 3:** Compliance. This step can be achieved with the aid of internal resources and also by hiring external support. Only those inadequacies highlighted in the gap analysis must be addressed. Scope creep must be managed, as the temptation to invest in non-necessary additional functionalities is high.

**Phase 4:** The development of a compliance architecture with the perspective of the future in mind. Business Process Management and Record Management are the main components of a compliance mechanism.

**Section 404: Software acquisition- Best practices**

**Best practices** highlight some of the qualities that need to be addressed in the acquisition of new technologies (14):

1. Must be consistent with existing infrastructure
2. Considers downloading options: PC vs. Web; the web option is preferable to the PC version due to the compatibility and support issues
3. Addresses security procedures
4. Is well documented
5. Ensures additional business benefits other than compliances
6. Includes audit trail capability: Tracking and communicating changes
7. Is provided with future upgrades

**Section 301: Whistle-blower protection clause**

This section concerns a work environment in which personnel must feel safe to submit complaints regarding mishandled accounting procedures and controls. A Record Management view is needed to address this section, as companies are required to ensure employee anonymity and
confidentiality regarding the submission of complaints (11). Furthermore, attorneys (2) are also required to disclose any covered irregularities and escalate the findings to the company’s audit committee if not satisfied with the results (Section 307). There are civil and criminal penalties for managers and organizations retaliating against whistle-blowers that can range from imprisonment to further prosecution by the US Racketeer Influence and Corrupt Organizations.

Compliance viewed through the lens of this particular section entails a safe work environment, where employees do not feel threatened, and where an atmosphere of trust is dominant. When all stakeholders know that they are expected to adhere to the rules, that no one is above the law, and that accountability is instilled in the way of doing business, trust is most likely to evolve. An atmosphere of trust leads to reduced managerial supervision, and ultimately is a source of competitive advantage.

**Section 802: Ensuring tamper proof records**
This section is aimed towards accurate Record Management practices that are defined by tamper proof records that enable timely search and retrieval, and hinders the capability to destroy and delete information/communication regarding financial reporting.

In some instances, visibility into an organization’s communication system may entail the storing and accessing of email trail. The implementation of an email archiving system that has all the qualities identified above is an important step towards achieving compliance, especially since many low cost solutions are readily available to the market. However, this should be viewed as the initial step towards achieving an organization wide integrated Record Management system. (13)

**Emerging trends- the office of the CGO**
The increasing number of new legislations such as the Sarbanes-Oxley Act, put pressure on organizations to monitor and reinforce compliance mechanisms. “The CGO (Corporate Governance Officer) is an executive with the accountability to inculcate best practices toward compliance.” (13) The CGO’s role is to help the organization in its legal compliance efforts, and also facilitate business presence in international markets that have different legislations, and help the organization with its privacy initiatives especially on the web.

According to a survey conducted by Gartner on 75 companies (of which 26 companies had revenues less than $500Mil.), 40% of the companies surveyed have made a CGO responsible for
reporting to the Board of Directors compliance activities involving financial, IT, and legal aspects. 75% of these positions have been added since 2002. (1)

Hiring a CGO is possible if the company has the resources to do so. Large companies will not have a problem attracting and compensating one more executive. In contrast, mid size and small companies cannot justify the presence of a CGO (13), however they have two options to deal with compliance:

- Hire temporary help for one to two years
- List the most important elements of a compliance mechanism and divide the CGO’s tasks between the senior team members (CEO, CFO, CLC-Corporate Legal Counsel, and CIO).

Hence, the ideal CGO candidate will have extensive expertise in finance and law, and will have a good IT background.

When a company has the resources to appoint a CGO, his or her responsibilities will entail:

- Work closely with top managers to determine the appropriate policies and procedures to ensure compliance and ethical conduct among employees
- Work with the business units to ensure proper business effectiveness
- Communicate policies and procedures throughout the organization; establish and reinforce consequences for noncompliance
- Monitor and inspect policies and procedures

The biggest challenge for a CGO is to ensure compliance without negatively impacting the business or alienating the entire organization. Because a CGO’s responsibilities cross many areas, this executive will interact and execute audits on other executive’s turfs (CFO, CEO, CRO, Corporate legal counsel). Another reason for concern arises from the level of power this person will have. With no real power, the CGO will have a hard time bringing compliance into effect. Moreover, employees may view this person as a “behavior cop”. In sum, companies that give the CGO broader responsibilities and will allow the person to act upon his/ her mandate will be at competitive advantage. (13)

Some suggestions regarding the appointment of a CGO follow:

- Set a deadline for appointment
• Identify the main regulatory obligations that need to be reinforced (government agency jurisdiction) and establish the infrastructure and the processes needed to achieve compliance. Selected a CGO that has the appropriate expertise in the previously identified areas.
• Staff the CGO’s office with qualified personnel that have expertise in finance, law and IT.
• Ensure that the CGO’s has broad responsibilities that will not be tampered by other executives. Research recommends that a CGO should report to the Board of Directors, and should have enough authority, budget and staff to accomplish his/ her responsibilities.
• Ensure that the CGO’s mandate does not address only compliance issues, but also improves corporate performance (takes a process improvement approach) (13)

**Implementation: The big picture**
Each organization already possesses an arsenal of technology tools to conduct every day business activities; some of these tools already have overlapping functionalities. In an environment where new legislations that carry a heavy financial burden are likely to creep in, the need for a sound compliance architecture becomes very critical (5).

By leveraging existent and new technologies into a compliance architecture, organizations will take a proactive stance and will be in a better position to address future compliance issues, without disrupting daily activities every time a new regulation takes place.

**Best practices** illustrated throughout this report suggest two main elements that surfaced as the main components of a compliance architecture, and they are: **BPM (Business Process Management)** - regards the management of established processes, in this case financial reporting, and their underlying documentation and controls) and **RDM (Record & Document Management)** - applies to the management of records, the storage and dissemination of information regarding policies, processes, and best practices). (4)

The main components of a compliance architecture are presented in Appendix 2 (10). The interpretation is as follows: the technologies\(^{20}\) available to an organization *(Business unit, systems*
*Enterprise Resources Planning or CRM systems* are the pillars at the foundation of a Business Process Management (BPM) oriented business environment that will ultimately lead to better corporate performance. Better corporate performance affects strategic and operational planning activities, forecasting, budgeting, and financial reporting and has the potential to manage risk in a better way. In addition, sound risk management practices are well received by the investor community and are perceived as a critical component of a compliance management initiative. Ultimately, it is an ERM (Enterprise Risk Management) approach that has the potential to affect corporate performance and eliminate all possible unpredictability from the business environment.

Some of the characteristics of the technologies mentioned above are: good record, document and knowledge management, security, and disaster recovery capabilities. These are also the characteristics of a dominantly business intelligence environment, something very difficult for a small company to achieve: the cost of an ERP or a CRM system is very high and most small companies do not have the means to adopt such systems. However, smaller companies can leverage their existing and new technologies with a Business Process and Record Management mind set, never loosing sight of the ultimate goal, that of better corporate performance. (10)

**Conclusion**
The repercussions of corporate fraud have cost market contributors over $500 billion over the past few years (5). The new regulations are very strict and will be very closely monitored and reinforced, as the need for change is more and more acute. For a view of the SEC enforcement actions, please consult Appendix 3.

There are a few trends that are emerging in current implementation efforts. Some tasks are easy to achieve: implementation of a code of ethics, a budget for compliance, the office of the CGO, and board membership.

The most challenging implementation task involves the following scenario: exacerbated compliance costs that are seriously bleeding resources, an unquestionable need to prevent situations that have the potential to lead to executives’ indictment, and new software that promises cost reduction and a safe compliance environment. **Best practices** suggest that companies need to strike the balance between existing capabilities and the acquisition of required changes to achieve compliance. Organizations must be leery about investing in IT solutions that
claim to have the answer, as the power to find the right compliance approach rests within the organization.

A thorough assessment of the existing processes and IT capabilities is the first and the most important step in acquiring compliance and this can only be performed inside each organization by internal personnel with outside help. The temptation to implement IT solutions that claim to have all the answers is high, however new technologies must not be implemented until a strong business case for IT investment is articulated. Research is showing that companies must wait at least one year after they become complaint before they consider additional non-essential IT acquisitions. Future investments are welcome after the organization understands the scope and the benefit driven by the investment. These investments must be considered with a compliance architecture in mind that seeks to increase corporate performance and manage risk at a higher level.
Appendix 1

**Phase 1**
Complete updates to IT systems as required by auditors

**Phase 2**
Timing: 1 year after Phase 1
Evaluate a business process management solution

**Phase 3**
Timing: 1 year after Phase 2
Implement business process management

**Phase 4**
Timing: 1 year after Phase 3
Evaluate and implement a risk management dashboard. Link with other BPM and financial/ERP systems

---

Source: Gartner Reports

**BPM** Business Process Management
**ERP** Enterprise Resource Planning
Appendix 2

Compliance management components; Source: Gartner Reports

ERP: Enterprise Resource Planning (systems that create visibility and manage internal business processes; financial systems could be a part of an ERP system)
CRM: Customer Relationship Management
CPM: Corporate Performance Measurement
Appendix 3
SEC enforcement actions

Source: Critical Perspective on Accounting Journal and SEC 2000 Annual Report
References
1 Gartner Reports: 09 October 2003; Sarbanes-Oxley readiness study: Preliminary results; L. Leskela, R. Mogul, and D. Logan
2. Davis, Jenny B.; Sorting Out Sarbanes-Oxley; American Bar Association Journal; Feb 2003; Vol89, Issue 2, p 44-50
3. Gartner Reports: 01 October 2003; CIO Alert: How you should prepare for Sarbanes-Oxley; R. Mogul, and D. Logan
4. Gartner Reports; 10 October 2003; Sarbanes-Oxley: The role of technology; R. Mogul, and D. Logan
5. Rezaee, Zabibollah; Causes, consequences, and deterrence of financial statement fraud; Critical Perspectives on Accounting; Dec 2002
6. Gartner Reports; 09 October 2003; Free your company from the Sarbanes-Oxley hype cycle; French Caldwell
8. Gartner Reports: 26 September 2003; Compliance legislation hits the storage and record management vendors, Di Cenzo C, and Logan, D
9. Gartner Reports: 07 October 2003; Sarbanes-Oxley compliance requires trust and cash; Leskela, L., Logan, D
10. Gartner Reports: 01 October 2003; Compliance management reduces regulatory burdens; Wood, B., Mogull, R.
11. Gartner Reports; 17 September; Sarbanes-Oxley compliant “Whistle blower tools”; De Lotto R., Leskela, L.
12. Gartner Reports; 03 October 2003; You’ll have to spend to attain Sarbanes-Oxley Compliance
13. Gartner Reports; 23 September 2003; Demand is growing for a Chief Governance Officer