

THE INTERRELATIONSHIP OF REGULATORY UNCERTAINTY AND COALITION FORMATION WITHIN MARKETING CHANNELS

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This study investigated the relationship between three types of regulatory uncertainty (state, effect, and response) and regulatory-related coalition activity within a marketing channel. The U.S. pharmaceutical industry was the specific channel studied. Significant differences were found between four major functional areas of responsibility at the manufacturing level in the channel in terms of: (1) the type and degree of regulatory uncertainty perceived, (2) the degree of involvement with other channel members on regulatory issues, and (3) the benefits perceived from participating in coalitions with other channel members on regulatory issues. The findings have relevance for both marketing theorists and practitioners in the interactions and outcomes between regulatory uncertainty and coalition activities in a marketing channel.

INTRODUCTION

The individual company has often been viewed as a system wherein individuals and departments perform different tasks directed toward the objectives of the whole (Lawrence and Lorsch, 1967). Marketing channels have also been characterized from a systems perspective (Stern 1969). In a marketing channel, individual organizations (e.g., manufacturer) often rely on others (e.g., wholesalers and retailers) to partially or fully perform activities vital to the continued success of the whole. The specific activities performed within any given channel and the structural form used to accomplish these activities are influenced by forces both external and internal to the system.

As a system, the marketing channel exhibits similarities and differences in comparison to the individual organization. For example, as envisioned by Daft and Weick (1984, p.285):

"Organizations can be conceptualized as a series of nested systems, and each subsystem may deal with a different external sector.

Upper managers bring together and interpret information for the system as a whole."

Marketing channels may also be viewed as nested systems. For the non-vertically integrated channel, however, there may not be any "upper managers" to bring together and interpret information for the system as a whole. Alternative methods are necessary to collect and interpret relevant information.

In an indirect marketing channel, two or more organizations not under common ownership perform marketing-related activities involving varying levels of coordination and control. These marketing-related activities include aspects of production, pricing, promotion, and distribution between the point of manufacture of a product and purchase by the final user or customer. The role of each channel member in these activities is usually determined by some combination of mutual agreement, prior norms, or situation specific factors. The difficulty of allocating roles and responsibilities between independent channel members has long been recognized (Alderson, 1965).

At the individual organization level, information critical to the organization's success or survival may be collected on a routine or ad hoc basis. This would include information on customers, competition, new technologies, new laws and regulations. Individuals

at various levels in the organization and in various functional areas may be involved with collecting this information which is then funneled to top management for interpretation and decision making (Aguilar, 1967). These individuals perform boundary spanning activities due to their position at the organization-environment interface (Thompson, 1967). Management's subsequent collective evaluation and interpretation of this external information then allows for a system perspective of the environment (Daft and Weick, 1984). The question arises as to whether this model would also apply to marketing channels. To what extent are attempts made to collect information at the organizational level which is then evaluated and acted upon at the system level? To further complicate matters, top management in an organization tends to base its company's course of action on a perceived environment which may well be different than the actual environment. What management perceives as true is acted upon and those forces or factors not perceived do not affect decision making (Lawrence and Lorsch, 1967; Weick, 1969). To demonstrate this perceptual problem, in a study by Miles, Snow, and Pfeffer (1974), some respondents characterized their industry as unchanging with no environmental uncertainty while other respondents in the same industry at the same level of management characterized the same environment as continuous change and uncertainty. The present study focuses on individual managerial perceptions of the environment as opposed to an "objective" environment.

The external environment is a critical factor which can impact marketing channels both at the system and individual organization level (Achrol, Reve, and Stern, 1983; Duncan, 1972; Dwyer and Welsh, 1985; Etgar, 1977; Pfeffer and Salancik, 1978; Stern and Reve, 1980). The environment has been described in terms of "... more and increasing knowledge, more and increasing complexity, and more and increasing turbulence" (Huber, 1984, p.931). The way in which an organization interprets its environment affects organizational strategy, structure, and decision making (Daft and Weick, 1984) and may have a direct impact on performance (McCabe, 1990). Therefore, organizations allocate varying amounts of resources directed toward learning about and perhaps

predicting external events (Thompson, 1967). The intent of this activity is not necessarily limited to reducing executive anxiety levels but rather due to the impact of environmental uncertainty increasing transaction costs for the organization (Williamson, 1975, 1981).

When faced with uncertainty, the organization may develop several avenues of inquiry concerning critical environmental forces (Aldrich 1979; Daft and Lengel 1986) and is more likely to develop formal interorganizational relationships (Cook, Shortell, Conrad, and Morrissey, 1983; Leblebici and Salancik, 1982). The more difficult the environment is to analyze, the more managers seek to gather information from colleagues in other similar organizations (Keegan, 1974). Three critical dimensions affecting the degree of this environmental scanning have been proposed: The rapidity of environmental change; How long it takes to collect relevant information; and How quickly the system can respond (Hannan and Freeman, 1984). Professional trade associations or interorganizational coalitions are sometimes used in an attempt to influence an uncertain or turbulent external environment (Baysinger, 1984; Miles, Snow, and Pfeffer, 1974). Galaskiewicz (1985, p.287) postulates "... we will argue that environmental uncertainty can motivate organizations to develop interorganizational relations - both vertically and horizontally - to cope with uncertainty." These views would seem particularly appropriate within a marketing channel with ongoing relations and commonalities in terms of products and services. Within this context, the extent to which independent channel members actively seek to share some of this environmental scanning responsibility with other channel members or to use other channel members' specialized sources of information seems worthy of further examination.

In virtually all industries, regulatory and political processes are viewed as critical environmental forces whose impact cannot be ignored. Most organizations are very politically aware and many business entities are intensely involved in instituting, shaping, and modifying laws and regulations either individually or though joint efforts (Baysinger and Woodman, 1982).

The focus of the present study is the impact of regulatory environmental uncertainty and its relationship to joint efforts within the marketing channel. How a marketing channel system collectively perceives and reacts to environmental forces should be a critical area for exploration due to its possible impact on channel structure and behavior.

ENVIRONMENTAL UNCERTAINTY

The impact of environmental uncertainty on the organization has long been recognized as an important consideration (March and Simon, 1958). Uncertainty relates to happenings in the external environment which cannot be accurately predicted or understood. The degree of this uncertainty may vary from a small amount to almost total uncertainty. Perceptions of environmental uncertainty may vary substantially between individuals due to a mixture of objective environmental factors, individual characteristics, and task specificity (Bourgeois, 1985; Lorenzi, Sims, and Slocum, 1981).

Organizations typically have a variety of individuals at various levels and functional areas performing boundary spanning activities (interacting with and/or collecting information about the environment). Information and environmental interpretation is subsequently passed upward from these individuals to top management for decision making. Organizations experiencing high levels of environmental uncertainty may increase the number and/or diversity of individuals performing such a role (At-Twajri and Montanari, 1987; Leifer and Huber, 1977). Similarly, at the marketing channel level, channel members experiencing environmental uncertainty may be able to reduce uncertainty by engaging in boundary spanning activities with other channel members. As suggested by Allaire and Firsirotu (1989, p. 13), "An attractive form of partial integration consists of integrating the information flow across independent businesses throughout a supply chain." Matters relating to environmental or regulatory issues could be included in this exchange.

At the organization level, organizational structure has been shown to influence perceived environmental uncertainty in addition to the common perception of

perceived environmental uncertainty influencing organizational structure (Jauch and Kraft, 1986; Leifer and Huber, 1977). What may exist is therefore a circular relationship. This relationship, if applicable at the level of the organization, should theoretically apply at the marketing channel or system level also. In the present study, the degree of association between environmental uncertainty and intrachannel behavior will be examined rather than a presupposed directional causality.

Previous research (Duncan, 1972; Tosi and Slocum, 1984) has indicated the use of generalized conceptualizations of environmental uncertainty as often inappropriate. Research efforts are deemed better directed toward a specific component of the environment (e.g., supplier uncertainty, customer uncertainty, competitor uncertainty and regulatory uncertainty). The rationale behind the recommendation being that the specific factors and possible interaction of factors influencing uncertainty will vary between the different environmental areas (Achrol, Reve, and Stern, 1983). Organizational outcomes have also been seen to vary by type of uncertainty (Carter, 1990). Ungson, James, and Spicer (1985) found government regulatory agencies to be the least controllable or predictable component in the primary task environment (competitors, customers, suppliers, and regulators).

A further refinement on the topic of environmental uncertainty, based on Duncan (1972), has led to the supposition that within perceived environmental uncertainty there exist three distinct components: state, effect, and response uncertainty. Each of these with "its own particular antecedents and implications for the behavior of organizations" (Milliken, 1987, pp.136-37).

"State uncertainty" is defined as uncertainty about the state of the environment.

"Effect uncertainty" is defined as an inability to predict the nature of the impact of environmental changes or future environments on the organization.

"Response uncertainty" is defined as a lack of knowledge of response options and/or inability to predict the likely consequences of a response choice.

The main basis for differentiating between the different types of uncertainty is the knowledge or understanding lacking in the organization. With state uncertainty, the organization has insufficient facts concerning the situation in the environment. In effect uncertainty, the problem is not absence of facts about the environment. On the contrary, factual information on the state of the environment could be available but knowledge concerning how environmental conditions or changes will affect the organization is lacking. Response uncertainty corresponds to lack of knowledge pertaining to what options for response are available and/or the selection method to use in choosing between response options. The three component model for environmental uncertainty appears conceptually appealing and has received empirical support in terms of its existence (Gerloff, Muir, and Bodensteiner, 1991; McNeeley, 1989) and in terms of differing impact on organizational performance (Gerloff, Muir, and Bodensteiner, 1991).

REGULATORY UNCERTAINTY

Most industries interact with numerous regulatory agencies. Regulatory agencies have been found to

".. differ in terms of the frequency of their contacts and of their inspections of firms, in their effects on managerial morale, in the magnitude of record-keeping costs imposed on firms, in the type of attitude and dispositions exhibited by inspectors in their routine inspections, and in the degree in which they are able to provide information on new requirements, or interpretations of existing regulations" (Ungson, James, and Spicer, 1985, p.429).

Regulatory agencies may also overlap in terms of jurisdiction and their rules may sometimes conflict which leads to organizational difficulties and uncertainties.

Regulatory uncertainty may arise from both new regulations and changes in existing regulations and/or level of enforcement. Further complexities may be introduced when new or changing regulations impact firms differentially in an industry (i.e., a large, diversified consumer product manufacturer may have only five percent of its business affected by a new law while a smaller, more specialized manufacturer may have ninety-eight percent of its business affected). An alternative perspective, as proposed by McCaffrey (1982, p. 402), "... one corporation's problem is another's opportunity, since regulations affect organizations in different ways." Regulatory uncertainty may also have an indirect impact on an organization by means of the impact it has on customers, suppliers, or competitors.

One common impact of regulatory action on the company/channel is to increase costs. At a minimum, this would include the cost of monitoring for regulatory changes and the cost of compliance with new regulations. Even socially desirable regulations may pose unnecessary problems if the method chosen for enforcement is poorly administered or inefficient. Modifying or preventing a proposed law or regulation perceived as unfair is much easier done beforehand rather than after it becomes enacted. For this reason, organizations will actively commit resources to monitor proposed laws and regulations. Industry trade associations often perform this role. Some of these functions, such as monitoring, may also be shared in different ways with other channel members. When regulatory uncertainty inhibits goal accomplishment, marketing channels must find ways of coping with the problem.

COALITIONS

Pfeffer and Salancik (1978) referred to coalitions as "exchanges of inducements and contributions" between parties. They postulated that there were no requirements for participants to share vested interests or even a single overriding goal. Participants would enter into a coalition when an advantage was perceived and leave when the perceived advantage ended. Coalitions could also be short-term in nature focusing on a single issue or long-term focusing on areas of ongoing concern.

In a coalition, individuals, or companies, may achieve objectives more effectively or efficiently than by individual action (Kelley, 1968). Individual participant action may be directed toward narrow, self-serving goals or toward the good of the whole (Cobb, 1991). Participation in a particular coalition will be influenced by the degree participants feel coalition efforts will focus on matters of substance to all or be unduly directed toward the self-interests of more powerful group members. In coalitions consisting of members of unequal power, participants may direct most of their efforts toward either defending their "turf" or wielding their power, depending on whether they are in the under-powered or over-powered category (Mannix, 1993).

Industry trade associations may be likened as a form of coalition and they often employ political influence to accomplish economic ends desired by their members (Assael, 1968). The degree of involvement, however, may vary by individual trade association and the makeup of its membership. Birnbaum (1984), for example, found larger firms in high technology industries more likely than smaller firms to join trade associations to address regulatory issues.

For effective political action by a trade association, similarities of members in terms of economic factors, desired objectives, and backgrounds has been suggested as one of the critical prerequisites (Assael, 1968; Galaskiewicz and Shatin, 1981; Kelley, 1968). It would seem these characteristics would be easier to equate within the confines of an industry trade association rather than within a marketing channel. However, a high degree of similarity between coalition members is not mandatory. Coalitions consisting of ideologically diverse groups are possible when directed toward common goals (Bacharach and Lawler, 1980).

As previously discussed, various levels within the organization may differ in their perceptions of the environment and subsequently in their approach to environmental monitoring. However, all groups should benefit, even if to a different extent, by forming coalitions with other channel members regarding regulatory issues. Thus,

Hypothesis #1: There will be differences between functional area personnel in terms of perceived regulatory uncertainty.

Hypothesis #2: There will be differences between functional area personnel in terms of coalition activities within the marketing channel.

Hypothesis #3: Coalitions with other channel members will be associated with reduced perceived regulatory environmental uncertainty.

METHODOLOGY

The domain of the study was the pharmaceutical industry, both prescription and non-prescription drugs. Many federal regulatory groups are involved in various aspects of product planning, manufacture, promotion, distribution and patient drug coverage under federally funded programs. The pharmaceutical industry was selected because it is subject to above-average regulatory attention which should facilitate distinguishing regulatory effects.

The focus of the study was the manufacturer level in the marketing channel. The population consisted of manufacturers bearing the Standard Industrial Classification Code for "Pharmaceutical Preparations" SIC #2834 (Standard & Poor's, 1988a). The sample frame consisted of companies with this SIC Code as listed in Standard and Poor's Register of Corporations, Directors, and Executives (1988b). In most cases, the Standard and Poor listing provided information on annual sales and number of company employees. After a few initial deletions from the list (e.g., two companies listed at the same address with the same executive officer) a final census total of 301 companies remained.

An initial mailing was directed to the CEO of each organization (as identified in Standard and Poor's). The CEO received a cover letter and eight sets of survey instruments and postage-paid return envelopes. The cover letter explained the purpose of the study and the need for multiple responses per organization. The suggestion was presented that

respondents to be chosen from such areas as top management, regulatory/legal, marketing, advertising, manufacturing, packaging, and distribution. The CEO was asked to complete one of the surveys personally and then to select up to seven additional respondents within the company whom the CEO felt most appropriate to participate. The need for perceptions from diverse positions within the company was stressed in the cover letter as well as the request for the respondents to complete the survey individually.

The surveys were openly coded with an identifying number to indicate the recipient organization. Five weeks after the initial mailing, nonrespondent organizations were sent a follow-up mailing. A different return envelope was used on the second mailing to allow distinction of first and second wave responses.

Fourteen initial mailings were returned as "nondeliverable" (company no longer in business, etc.). Respondents in an additional six companies wrote letters informing that they had either sold or discontinued their pharmaceutical operations and therefore were ineligible to participate. The final effective population was therefore 281 organizations. A total of 228 individual usable responses were received from both waves of mailings. Table 1 presents a breakdown of the frequency of responses by company. A total of 85 companies returned at least one survey (30.2% of the population). Approximately half of the responses (112) were from companies returning four or more surveys. The initial mailing resulted in 178 responses representing 61 companies. The second mailing produced an additional 50 responses representing an additional 24 companies. Table 2 indicates the titles/positions of respondents. The most common respondent title was vice-president, representing approximately one-third of the responses. A representative cross-section of job titles appeared present. Table 3 depicts the respondents primary area of responsibility within their organization. Approximately half of the respondents' primary area of responsibility involves general management or regulatory affairs. All of the respondents appeared to be at the managerial level or

above and all job titles indicated areas representing qualified respondents.

TABLE 1
Response Frequencies by Company

<u>COMPANY RESPONSE FREQUENCY</u>	<u>NUMBER OF COMPANIES</u>
8	3
7	4
6	5
5	6
4	6
3	9
2	13
1	<u>39</u>
	Total 85

TABLE 2
Title/Position of Respondents

<u>TITLE/POSITION</u>	<u>FREQUENCY</u>	<u>PERCENT</u>
Vice-President	75	32.9
Director	50	21.9
Manager	37	16.2
President	26	11.4
Corporate Counsel	9	3.9
Chairman/CEO	8	3.5
Other	<u>23</u>	<u>10.2</u>
	228	100

As anticipated from the original population, great variation existed between respondent companies. Sales revenue ranged from a low of \$1 million to \$7 billion annually. The number of employees varied from a minimum of 4 to a maximum of almost 75,000. Average annual sales were \$665 million (median \$20 million) and average number of employees was just under 5,000 (median 320). With

such wide variation between the means and the medians, a question arises as to the representativeness of the respondents to the original population. To examine this question, sales and number of employee data were examined for companies responding to both waves of mailings and non-respondent companies. A one-way ANOVA was performed for these three groups testing for equality of means for sales and employees. Equality of means between first wave, second wave and non-respondent companies could not be rejected for company sales ($F_{2,189} = 1.719$, $P = .1820$). Equality of means for number of employees between the three groups could also not be rejected ($F_{2,218} = 1.442$, $P = .2386$). Based upon these criteria, respondent and nonrespondent companies did not appear to be significantly different.

TABLE 3
Respondents' Primary
Area of Responsibility

<u>AREA OF RESPONSIBILITY</u>	<u>FREQUENCY</u>	<u>PERCENT</u>
General Management	64	28.1
Regulatory Affairs/Legal	72	31.6
Marketing/Public Relations	38	16.7
Quality Control/R&D/Production	48	21.1
Other	<u>6</u>	<u>2.6</u>
	228	100

The questionnaire items in the study which operationalized regulatory uncertainty were adaptations based upon Milliken's (1987) descriptions of state, effect, and response uncertainty. While not presenting actual questionnaire items, Milliken suggested the domain and types of questions each form of uncertainty should encompass. Scales were developed and evaluated empirically in McNeeley (1989). Coalition construct items were based upon the literature and adapted to a regulatory orientation. The scale items used in the study are shown in the Appendix. Table 4 indicates reliability

values (Cronbach alpha) for the scales. All scales appear within acceptable ranges.

TABLE 4
Scale Reliabilities

<u>SCALE</u>	<u>NUMBER OF ITEMS</u>	<u>CHRONBACH ALPHA</u>
State Uncertainty	4	.79
Effect Uncertainty	4	.84
Response Uncertainty	3	.79
Coalitions with Suppliers	3	.83
Coalitions with Competitors	3	.85
Coalitions with Customers	3	.85

RESULTS AND DISCUSSION

The first stage in data analysis was examination of the four major functional area classifications of respondents (General Management, Regulatory Affairs/Legal, Marketing/Public Relations, and Quality Control/R&D/Production) to see whether they differed significantly in terms of perceived regulatory uncertainty and coalition formation. Previously discussed literature suggested they might, but if they did not, their responses could be combined for an overall analysis. Since six of the two hundred and twenty-eight respondents did not reasonably fit into any of the four major categories (these six included titles such as "salesman" and "coordinator"), these six responses were not included in any further analyses. Each construct was evaluated by a one-way analysis of variance with a Bonferroni test for multiple comparisons. Results of this analysis are shown in Table 5.

Hypothesis 1, the supposition that different functional area personnel perceive and react to the environment in different ways, received partial support. General Management, Marketing/Public Relations, and Quality Control/R&D/Production all

TABLE 5
Functional Area Anova Results

<u>CONSTRUCT</u>	<u>FINDINGS</u>
State Uncertainty	Regulatory Affairs/Legal was lower and significantly different from the other three functional categories.
Effect Uncertainty	Regulatory Affairs/Legal was lower and significantly different from the other three functional categories.
Response Uncertainty	No two groups were significantly different.
Coalitions with Suppliers	No two groups were significantly different.
Coalitions with Competitors	General Management was lower and significantly different from Regulatory Affairs/Legal.
Coalitions with Customers	Regulatory Affairs/Legal was lower and significantly different from Marketing/Public Relations.

indicated perceived state uncertainty in the "moderate" to "considerable" range while Regulatory Affairs/Legal was significantly lower in the "some" to "moderate" range.² This finding would seem logical since one of the primary job functions of regulatory personnel would be to monitor ongoing regulatory activities. The same type of situation was found for Effect Uncertainty except now all four groups were in the "some" to "moderate" uncertainty category but Regulatory/Legal was very close to the "some" end and the other three categories were nearer the "moderate" degree of how future regulatory efforts would affect their organizations. No two functional areas differed in terms of Response Uncertainty and all groups reported just under "moderate" levels of uncertainty as to how their

² Individual functional area group means and confidence intervals are available from the author upon request.

organization could and should respond to new regulations.

Hypothesis 2, relating to participation in coalitions, also received partial support. No two functional respondent categories differed significantly in terms of forming coalitions with suppliers to deal with regulatory issues. All category responses were near the midpoint between "not at all" and "very great extent" of coalition activity with suppliers. In terms of coalition activities with competitors on regulatory issues, General Management was significantly lower than Regulatory Affairs/Legal. Marketing/Public Relations and Quality Control/R&D/Production were both near the midpoint with General Management a bit below and Regulatory Affairs/Legal a bit above the midpoint. This finding was slightly surprising since top managements usually support industry trade associations which often play a major role in monitoring and assisting their members in regulatory issues. Finally, Regulatory Affairs/Legal was significantly lower than Marketing/Public Relations in regulatory related coalition activity with customers, although all four categories were a bit below the midpoint. Marketing typically has ongoing contacts with customers and it would seem likely that regulatory issues would be discussed when appropriate as part of normal activities. Significant differences were therefore found for state and effect uncertainty and coalitions with competitors and customers. Overall, due to functional area respondent differences found for some of the constructs, subsequent relationships between constructs were evaluated separately by functional area.

Pearson product-moment correlations between the constructs for General Management, Regulatory Affairs/Legal, Marketing/Public Relations, and Quality Control/R&D/Production are shown in Tables 6, 7, 8, and 9 respectively. One-tailed tests of significance were employed since regulatory related coalition activity was presupposed to be associated with reduced regulatory uncertainty.

As seen in Table 6, Hypothesis 3 received only weak support for general management. Coalitions with suppliers were negatively associated with all three categories of regulatory uncertainty. The only

TABLE 6
General Management Construct Correlations

	STATE UNCERT.	EFFECT UNCERT.	RESPON. UNCERT.	COALIT. SUPP.	COALIT. COMPET.	COALIT. CUST.
STATE UNCERT.	1.00					
EFFECT UNCERT.	.60*	1.00				
RESPON. UNCERT.	.28*	.54*	1.00			
COALIT. SUPP.	-.18	-.31*	-.04	1.00		
COALIT. COMPET.	-.07	-.11	-.08	.12	1.00	
COALIT. CUST.	-.13	-.06	.02	.29*	.18	1.00

* Significant at alpha = .05

TABLE 7
Regulatory Affairs/legal Construct Correlations

	STATE UNCERT.	EFFECT UNCERT.	RESPON. UNCERT.	COALIT. SUPP.	COALIT. COMPET.	COALIT. CUST.
STATE UNCERT.	1.00					
EFFECT UNCERT.	.73*	1.00				
RESPON. UNCERT.	.57*	.68*	1.00			
COALIT. SUPP.	-.20*	-.14	-.18	1.00		
COALIT. COMPET.	-.24*	-.16	-.04	.07	1.00	
COALIT. CUST.	-.05	.06	-.03	.28*	.14	1.00

* Significant at alpha = .05

TABLE 8
Marketing/public Relations Construct Correlations

	STATE UNCERT.	EFFECT UNCERT.	RESPON. UNCERT.	COALIT. SUPP.	COALIT. COMPET.	COALIT. CUST.
STATE UNCERT.	1.00					
EFFECT UNCERT.	.72*	1.00				
RESPON. UNCERT.	.59*	.64*	1.00			
COALIT. SUPP.	-.36*	-.42*	-.43*	1.00		
COALIT. COMPET.	-.06	.11	.18	-.14	1.00	
COALIT. CUST.	-.14	-.29*	-.33*	.54*	-.15	1.00

* Significant at alpha = .05

TABLE 9
Quality Control/R&D/Production Construct Correlations

	STATE UNCERT.	EFFECT UNCERT.	RESPON. UNCERT.	COALIT. SUPP.	COALIT. COMPET.	COALIT. CUST.
STATE UNCERT.	1.00					
EFFECT UNCERT.	.68*	1.00				
RESPON. UNCERT.	.54*	.73*	1.00			
COALIT. SUPP.	.08	-.21	-.24	1.00		
COALIT. COMPET.	-.37*	-.27*	-.14	.13	1.00	
COALIT. CUST.	-.18	-.15	-.15	.27*	.07	1.00

* Significant at alpha = .05

statistically significant relationship was for Effect Uncertainty. Coalitions with competitors was again negatively associated with all three types of uncertainty but none of the relationships were very large or statistically significant. Coalitions with customers were associated with reduced regulatory uncertainty in only two of the three cases from the general management perspective. As also seen in Table 6, general managers perceived a significantly positive relationship between the three types of regulatory uncertainty. State uncertainty had a very strong association with effect uncertainty. Effect uncertainty had a strong relationship with response uncertainty. This seems to indicate that top management has a difficult time anticipating the direction of regulatory activities and how their firms would be affected. This is compounded by general managers then having difficulty in responding to regulatory activities when their effect is uncertain. In addition, general managers indicated a positive association between the three types of coalition activity within the marketing channel. The correlations between coalitions with suppliers, competitors and customers were all positive, but the only statistically significant relationship was between suppliers and customers. If general managers engaged in activities with one of these two regarding regulatory matters they were also likely to form a relationship with the other on regulatory issues.

The Regulatory Affairs/Legal area respondents exhibited somewhat different relationships. Hypothesis 3 received partial support here. As seen in Table 7, this group also perceived coalition activity with suppliers to be negatively associated with all three categories of regulatory uncertainty. Only the state uncertainty correlation was statistically significant. Coalition activity with competitors was negatively associated with all three uncertainty measures but again only state uncertainty was significant. Coalition activity with customers was negative in two of the three cases but all three relationships are almost nonexistent. Regulatory Affairs/Legal personnel appear to concentrate their efforts on coalition activities with suppliers and competitors and perceive the greatest benefits in terms of reduced state uncertainty. As seen with general managers, this group also indicated a strong

positive relationship between the three types of regulatory uncertainty. As previously, coalition activities between the various types of channel members were positively related but only the relationship between coalitions with suppliers and customers was significant.

Marketing/Public Relations personnel presented a somewhat different perspective as seen in Table 8. Here, Hypothesis 3 received stronger support, at least from two of the three channel levels. Coalitions with suppliers were negatively associated with all three categories of regulatory uncertainty. All three relationships were found to be statistically significant. Coalition activities with competitors were perceived by this group to be very weakly negative for state uncertainty and positive for effect and response uncertainty. While true that neither of these positive relationships was statistically significant, it is still an unexpected finding. Coalition activity with customers was found negatively associated with all three categories of regulatory uncertainty and two of these relationships were significant. From a marketing perspective, coalitions with customers were perceived as helpful in terms of regulatory effect and response considerations. This relationship was not seen for general managers or regulatory/legal. The fact that marketing personnel routinely have contact with customers as a normal activity may partially explain this finding as general managers and regulatory/legal might have to make a special effort to develop a direct relationship with this group. As previously seen, a strong positive relationship was perceived between the three categories of regulatory uncertainty. Marketing personnel differed however in terms of coalition related activities between channel members. Regulatory related coalition activities with suppliers were again positive and significantly related to customers. Coalition activities with competitors were found to be negatively associated with both suppliers and customers, although neither was statistically significant. If not simply an artifact of the data, it might be that marketing personnel perceive coalition activity with competitors to be some type of impediment to coalition formation with other channel members.

Quality Control/R&D/Production personnel also provide moderate support for Hypothesis 3 as shown in Table 9. Coalition activity with suppliers was found to be negatively related with effect and response uncertainty but not with state uncertainty. None of the relationships were significant, however. Coalition activity with competitors was negatively related with all three categories of regulatory uncertainty and significant for state and effect uncertainty. Unlike marketing personnel, this group perceived positive benefits from interacting with competitors on regulatory matters especially in terms of new regulatory activities and their impact on their work. Coalitions with customers were negatively associated with all three categories of regulatory uncertainty, but none were significant. As with all other groups, quality control/R&D/production personnel perceived a positive and significant relationship between the three types of regulatory uncertainty. In addition, they indicated a positive relationship between the three types of coalition activity between channel members but only the relationship between coalitions with suppliers and customers was statistically significant.

CONCLUSIONS

This study investigated the relationship between three types of regulatory uncertainty (state, effect, and response) and coalition involvement with other channel members on regulatory issues. Four functional areas of employees at the manufacturing level of the channel were evaluated: General Management; Regulatory Affairs/Legal; Marketing/Public Relations; and Quality Control/R&D/Production.

Significant differences were found between functional area personnel for perceived state and effect regulatory uncertainty but not for response uncertainty. Significant differences between functional area personnel were also found for regulatory related coalition activity with competitors and customers but not for suppliers. Previous literature had suggested differences by functional area employees for generalized perceived environmental uncertainty. This study has extended this into the more restrictive regulatory environmental

uncertainty and also found support for differences by functional area personnel in terms of coalition activities with other channel members.

General managers indicated coalitions with suppliers were related to a significant improvement in understanding the effect of regulatory activities on their organizations. Regulatory affairs/legal personnel found that coalitions with suppliers and competitors was significantly beneficial in anticipating or discovering new regulations. Marketing/public relations employees found coalitions with suppliers significantly beneficial for reducing all three types of regulatory uncertainty. In addition, marketing/public relations employees also found coalitions with customers to be helpful in terms of evaluating the impact of new regulations and how best to respond. Quality control/R&D/ production personnel found coalitions with competitors to be significant in reducing the uncertainty of becoming aware of new regulations and how they might impact their areas of responsibility.

Overall, the results of this study provide multiple areas of relevance for marketing theorists and practitioners. First, the interrelationship between perceived regulatory environmental uncertainty and coalition activity within a marketing channel was empirically examined, resulting in many significant relationships. Second, significant differences were found between functional areas in manufacturers in terms of the type and degree of regulatory uncertainty perceived in the task environment. Third, different functional areas in manufacturers tended to form coalitions with different types of channel members to address regulatory issues and perceived significantly different benefits from such participation.

Findings in this study are subject to potential limitations. The study examined only a single industry, the pharmaceutical industry, which is subject to above average regulatory attention. An examination of a different industry may have produced different results.

Future research could extend the present study in several directions. Manufacturers in an industry subject to lesser amounts of regulatory intensity might be investigated. A different form of perceived

environmental uncertainty (supplier, competitor, customer) could be studied for comparison. Or perhaps, a larger study doubling or tripling the number of respondents would be possible. This would permit more advanced analytical techniques such as structural equation modeling to investigate the direction of the relationship between channel coalitions and regulatory uncertainty and perhaps answer such questions as: Do pre-existing coalitions help in dealing with the environment? Does environmental uncertainty lead to coalition formation, or is it more of a mutually interactive relationship?

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(consider all possibilities: monetary fines, adverse publicity, lost sales, etc.).

Response Uncertainty

1. Your ability to determine the various alternatives available to comply with new regulations.
2. Your ability to determine the costs associated with implementing each of these alternatives.
3. Your ability to determine the likely consequences of implementing the various alternatives available.

Coalition Construct Items

Each of the following items allowed for a five point response anchored between "Not at All" and "Very Great Extent", the possibility for "Not sure/Don't know" was also offered.

APPENDIX

Scales Used to Measure Regulatory Uncertainty

Regulatory uncertainty scale items provided six response categories to the participants (Very Great, Considerable, Moderate, Some, None/Only Very Little, and Not Sure). The end result was a five point scale with an additional option for "don't know/not sure".

State Uncertainty

1. Your awareness of proposed regulations affecting your area before they are finalized.
2. Your ability to predict the likelihood of specific regulations being imposed.
3. Your ability to predict the likelihood of specific regulations being enforced.
4. Your ability to predict the probability of discovery for noncompliance with regulations.

Effect Uncertainty

1. Your ability to predict whether new regulations will have an impact on your organization.
2. Your ability to predict the severity of the impact of new regulations on your organization.
3. Your ability to predict the timing of the impact of new regulations on your organization.
4. Your ability to predict the likely adverse consequences of being found noncompliant

1. The frequency of contact between your organization and the following organizations concerning regulatory issues.

- ___ Your Organization's Suppliers
- ___ Your Organization's Competitors
- ___ Your Organization's Customers

2. The extent to which you feel your organization benefits in attaining its own goals as a result of interaction concerning regulatory issues with the following organizations.

- ___ Your Organization's Suppliers
- ___ Your Organization's Competitors
- ___ Your Organization's Customers

3. The extent to which your company takes an active role in developing alliances with the following organizations concerning regulatory issues.

- ___ Your Organization's Suppliers
- ___ Your Organization's Competitors
- ___ Your Organization's Customers