Institutional Pressures and Relationships in the Wine Supply Chain

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Abstract

◦Purpose: Business has recognized the importance of effective supply chain relationship management to assuring the firm's access to critical resources. However, prior research assumes that managers are free to choose suitable trading partners. This assumption overlooks the influence of the institutional environment, which shapes perceived legitimacy of organizations within a social context and, thereby, constrains freedom of choice. Therefore the purpose of this research is to examine the effects of the institutional environment in managing supply chain relationships.

◦Design/methodology/approach: Using institutional theory and the resource-based view, we develop a model and hypotheses of the impact of institutional pressures on supply chain relationships. The model is tested using survey responses from 309 producers in the U.S. wine industry, an industry that demonstrates regulatory as well as competitive pressures.

◦Findings: Findings show that institutional pressures do impact supply chain relationships - regulatory pressure inhibits the effects of relational drivers on coordination, while competitive pressure facilitates the effectiveness of some drivers and inhibits others.

◦Practical implications: Results demonstrate that the institutional environment has significant consequences for managing supply chain relationships. Firms should recognize that the drivers which typically result in positive relationship outcomes may respond differently in the presence of institutional constraints. Hence, managers are advised to identify and evaluate the types and levels of institutional pressures that may impinge on their supply chain relationships and adjust behaviors to avoid suboptimal outcomes.

Key words: Supply chain relationships; institutional pressures; global wine industry; survey

1. INTRODUCTION

In the interdependent global business environment of the 21st century, firms are increasingly required to leverage resources and capabilities of trading partners in order to compete. Hence, long-term collaborative relationships with supply chain partners are important to assure the efficiency, flexibility, and responsiveness necessary for improved operational performance (Narasimhan et al., 2009; Nyaga et al., 2010). However, building and sustaining such relationships have proven difficult, as research reveals that the most underdeveloped area of supply chain strategy is assessing necessary investments to develop and maintain long-term relationships (Hill et al., 2009).

Over the past two decades, scholars have proposed several theoretical approaches to understand the key determinants of successful relationship performance (e.g., Ganesan, 1994; Morgan and Hunt, 1994; Krause et al., 2007; Palmatier et al., 2007; Autry and Golicic, 2010). Implicit in these prescriptive models is the assumption that firms are free to choose appropriate trading partners. However, the presumption of freedom of choice does not account for "the ubiquitous influence of the institutional environment" (Grewal and Dharwadkar, 2002, p. 82), which encompasses the social structures and mechanisms of influence that determine the legitimacy of organizations in a particular societal context (North, 1990). The constraints imposed by institutions have significant consequences for managing supply chain relationships, which stem from firms being compelled to adjust their behaviors to institutions, rather than vice versa (Grewal and Dharwadkar, 2002). Hence, institutional pressures can drive firms to maintain supply chain relationships that are suboptimal for achieving operational performance objectives (Bello et al., 2004; Yaibuathet, et al., 2008). Managers must balance conflicting goals to operate efficiently and effectively while complying with various institutional constraints (Grewal and Dharwadkar, 2002; Ketokivi and Schroeder, 2004).

It is through the lens of institutional theory that this research addresses the question, "What is the effect of constrained choice imposed by the institutional environment in managing supply chain relationships?" An example of constrained choice is provided in the wine industry, where government regulations require producers to sell through certain distributors in order to reach consumers in various regions of the United States. Our contention is that institutional theory offers a useful theoretical perspective for examining the effects of constrained choice, as it provides a more complete understanding of supply chain behavior by incorporating consideration of the social context inherent in supply chain management strategies (Scott, 2001; Rogers et al., 2007; Carbone and Moatti, 2011). While recent supply chain research demonstrates the importance of relational elements to promote coordination between supply chain members, we found no studies that incorporate institutional factors into theoretical models.

The purpose of this research is to address this gap in the literature by examining the effects of constraints imposed by the institutional environment on supply chain relationships. Specifically, we investigate moderating effects of regulatory and competitive pressures on the linkages between relational drivers (i.e., relational norms, communication and opportunistic behavior) and the relationship outcome of coordination (see Figure 1). To test our theoretical model, we develop new measures for regulatory pressure and competitive pressure and utilize the context of the U.S. wine industry, where there are thousands of producers competing for a share of global demand and a government-mandated three-tier distribution system has been in place since the repeal of Prohibition in 1933.

Figure 1: Conceptual framework
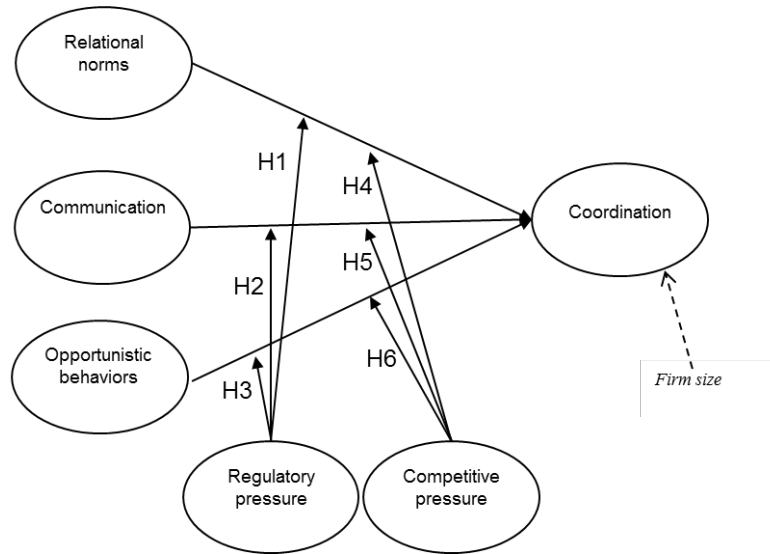
2. THEORETICAL BACKGROUND AND HYPOTHESES

As supply chain exchanges move from transactional to relational, firms seek to leverage resources that promote relational coordination. However, supply chain relationships are embedded in an external institutional environment that can affect efforts to develop and maintain successful relationships. Illustrated in Figure 1, we expect that relational norms, communication, and opportunistic behaviors are relational drivers that directly impact coordination. However, exogenous factors, such as institutional pressures, are likely to exert moderating effects that can strengthen or weaken the mechanisms that promote relational outcomes.

2.1. Institutional Theory

Institutions refer to the relatively stable structures that guide expectations and determine socially acceptable actions and outcomes in society (Suchman, 1995). Something becomes "institutionalized" when it is well approved and commonly accepted without question by other organizations in the environment (Selznick, 1957). The underlying premise of institutional theory rests on the contention that organizations are social systems as well as production systems, influenced by the institutional environment and embedded in a larger social context (Granovetter, 1985; Scott, 2001). As a result, organizational choices and actions are constrained and influenced by social behaviors, norms, and values in the external environment (Selznick, 1957). In contrast to theories that emphasize economic and rational motivations to operate efficiently, institutional theory considers the imperative to achieve "social fitness" which influences organizational structure and practice (Ingram and Simons, 1995; Williams, 2009). The distinctive difference of institutional theory involves its examination of decision making in the context of social constraints inside a social reality that is created and defined by the institutional environment (DiMaggio and Powell, 1983; Scott, 2001).

The interrelated concepts of legitimacy and isomorphism are inherent to understanding institutional theory. The drive for legitimacy ensures that "the actions of an organization are desirable, proper, or appropriate within the environmentally and socially constructed system of

norms, values, beliefs, and definitions" (Suchman, 1995: p. 574). In other words, legitimate organizations benefit from perceptions of credibility, persistence, and meaningfulness, thereby increasing the possibility of survival (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). The quest for legitimacy leads to homogeneity among firms as they adopt shared notions and routines (Zsidisin et al., 2005). This process of institutional homogenization generates organizational isomorphism, such that firms facing the same set of institutional pressures tend to resemble each other (Hawley, 1968; DiMaggio and Powell, 1983).

The pressure for organizations to accept the institutionalized norms that describe reality emanate from *formal constraints* – such as rules, laws, and constitutions – and *informal* constraints – such as social norms, conventions, and self-imposed codes of conduct (North, 1990). For this research, we examine the effects of formal constraints due to regulatory pressure and informal constraints arising from competitive pressure. Regulatory pressure often takes the form of governmental rules or laws, where the basis of compliance is expedience, and noncompliance can result in regulatory sanctions (Grewal and Dharwadkar, 2002). For example, in the context of the wine industry, producers are heavily regulated, and isomorphism occurs as they are forced to adhere to product specifications (e.g., labeling, alcohol content, etc.) and distribution restrictions (e.g., choice of distributors, channel constraints, licensing agreements, etc.). Producers who do not comply with these strictly enforced standards are levied heavy fines and face the threat of sales restrictions.

Competitive pressure arises as organizations seek to accrue prestige and favorable competitive positions (Perrow, 1961) and may stem from uncertainty about what constitutes efficient, effective practices (DiMaggio and Powell, 1983). Therefore, the pressure to reduce perceived risks by pursuing status-conferring legitimacy induces organizations to model themselves after competitors by adopting best practices (John et al., 2001; Grewal and Dharwadkar, 2002). A relevant example in the wine industry is the move by wine producers to partner with online retailers, such as Wine.com and Winetasting.com, to establish a presence in the growing direct-to-consumer e-commerce distribution channel (McMillan, 2012).

2.2. Supply Chain Relationships

The relational exchange paradigm suggests that collaborative relationships represent an intermediate mode of exchange to manage increasing complexity (Dwyer et al., 1987), grounded in the contention that exchange is shifting from pure market transactions to long-term relationships as an alternative to vertical integration (Cannon and Perreault, 1999). To enhance performance, firms voluntarily engage in activities that emphasize relational governance mechanisms to replace unilateral or contractual mechanisms (Williamson, 1975). In a recent study, Palmatier et al. (2007) rely on the resource-based view of the firm (RBV) to provide a comprehensive framework of factors that influence relationship performance. Interorganizational RBV research proposes that superior performance can be attributed to effective governance structures that facilitate the development of resources, knowledge, and capabilities within the relationship (Dyer and Singh, 1998).

As illustrated in Figure 1, we propose three antecedent variables determine the level of coordination. *Relational norms* refer to the shared expectations between supply chain partners regarding behavior. Because they involve expectations rather than rigid requirements, relational norms create a cooperative rather than a confrontational environment for negotiating adaptations (Cannon et al., 2000). Normative expectations comprise three dimensions: 1) *solidarity* to cooperate together versus competing against one another; 2) *mutuality* to promote joint responsibility; and 3) *flexibility* to modify the structure of the relationship as conditions

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change (Palmatier et al., 2007). *Communication* refers to the amount, frequency, and quality of information shared between supply chain members (Mohr et al., 1996). Communication is critical in developing coordination because it creates an atmosphere of participative and cooperative decision-making. Additionally, there is strong support for communication strategies being instrumental in preventing operational problems (Mohr and Nevin, 1990). Finally, *opportunistic behavior*, or supply chain members' deceitful pursuit of self-interest (Williamson, 1975), has a negative influence on the development of coordination because it raises suspicion that supply chain partners are not concerned with the well-being or fairness of the relationship (Palmatier et al., 2007).

2.3. The Moderating Influence of Institutional Pressures

2.3.1 Regulatory Pressure

Regulatory pressure is a formal constraint that encompasses laws, regulations, and supporting apparatuses imposed to monitor exchange and enforce rules and sanctions (North, 1990). Regulatory bodies exert pressure for various reasons including the need to ensure stability, promote fair competition, and protect social welfare. The traditional assumption is that firms can terminate a supply chain relationship when they do not build good relationships or do not extract expected benefits. However, regulatory pressure can limit or negate a firm's free choice of supply chain partners. For wine producers, some state regulations dictate that they must sell through one specific distributor in order to have a brand presence to consumers in that state. In other states, wine producers must sell through a proscribed set of distributors.

Relational norms and communication should have a stronger impact on coordination when there is a cooperative environment without hindrance of rigid and complex rules governing the terms of exchange (Molm et al., 2000). Under pressure to conform to regulatory requirements and strict adherence to policies, the ability of firms to use relational norms and communication to demonstrate coordination becomes a much more arduous task. However, we expect that opportunistic behaviors are even more harmful to engendering coordination in supply chains relationships that are constrained by heavy regulatory pressure. Coordination is diminished when a firm feels exploited by a trading partner's opportunistic behavior. This negative reaction would be intensified when regulations and strict adherence to policy interfere with the firm's ability to take substantial measures of corrective action or to end the relationship. Therefore, we hypothesize the following:

> H1: Regulatory pressure weakens the positive relationship between relational norms and coordination.
> H2: Regulatory pressure weakens the positive relationship between communication and coordination.
> H3: Regulatory pressure weakens the negative relationship between opportunistic behavior and coordination.

2.3.2 Competitive Pressure

Competitive pressure is an informal constraint that arises from the desire to achieve legitimacy by mimicking other organizations' structures, practices, or outputs (Williams, 2009). It differs from competitive intensity, which evaluates the level of competition faced in a particular market (Mahapatra et al., 2012). In contrast, competitive pressure arises from firms' attempts to gain legitimacy by benchmarking competitors, especially when faced with environmental uncertainty or ambiguity about solutions to problems (DiMaggio and Powell 1983). We contend that competitive pressure differs across wine producers. For instance, some wineries

offer a wide array of wine varietals, often including those not appropriate for their region, because they feel they need to offer a product line similar to competitors while others concentrate on one or two focal varietals in order to differentiate themselves.

We expect that this contextual condition will have a significant effect on supply chain relationships. Relational norms and communication facilitate joint problem-solving that can lead to greater market power and learning (Mahapatra et al., 2012). As a firm extends its knowledge base, there are coinciding legitimacy gains. Thus, as firms respond to competitive pressure and copy competitors' best practices in order to achieve legitimacy, then the mechanisms that engender coordination should have a greater impact. Furthermore, when competitive pressure limits innovative or creative choices in supply chain relationships due to mimicry, then we expect that firms are likely to work more diligently to maintain and improve the performance of current relationships to gain a competitive edge. In contrast, although opportunistic behavior hampers coordination, we expect that the negative impact is weaker as isomorphism among firms leads them to concentrate more heavily on copying best practices.

> H4: Competitive pressure strengthens the positive relationship between relational norms and coordination.
>
> H5: Competitive pressure strengthens the positive relationship between communication and coordination.
>
> H6: Competitive pressure strengthens the negative relationship between opportunistic behavior and coordination.

3. RESEARCH METHOD

3.1. Sample

The U.S. wine industry was chosen to assure variation in the level of institutional pressures as wine distribution is highly regulated and prone to mimicry. Producers use various distribution channels to reach end consumers (e.g., through distributors, through retail customers, and direct-to-consumer through tasting rooms and ecommerce sales). An electronic survey was distributed to owners or senior-level managers at 5117 U.S. wineries using contact lists from two organizations. First, InfoUSA provided access to businesses in SIC code 208401 (Manufacturing: Wines). Because of the policy not to release email addresses, they controlled electronic distribution of the survey. To supplement the InfoUSA list of companies, email addresses for owners and top managers at wineries were purchased from Wines & Vines. The two lists were cross-referenced to ensure only one survey was sent to each company. A set of random item responses from the two samples were compared using t-tests, and no differences were found.

3.2. Survey Measures

To design our web-based survey instrument, we began with an extensive review of the literature to identify existing scales that would be appropriate for operationalization of the constructs in our model. With the exception of the institutional pressure scales, all remaining variables were taken with minor modification from the literature: relational norms (Kaufmann and Dant, 1992), communication (Palmatier et al., 2007), opportunistic behavior (John, 1984), and coordination (Omar et al., 2012). Following Churchill's (1979) approach for developing new scales for theoretical constructs, items measuring regulatory pressure and competitive pressure were derived from our review of the institutional theory literature and subsequently reviewed by practitioners and researchers. Items used in the survey and item loadings are presented in the Appendix.

The survey instrument was examined for content/face validity by a panel of three researchers familiar with the constructs and eight practitioners in the alcoholic beverage industry. The panelists assessed the survey for readability, item clarity and comprehension, ambiguity, appropriateness, and time necessary to complete. Items and format were revised as needed based on feedback from the informants. To test the robustness of the survey structure prior to distribution (Dillman, 2000), an electronic version of the final survey was completed several times by the researchers to verify that the skip and branch logic functioned appropriately.

3.3. Data Collection and Analysis

Following Dillman's (2000) total design method, personalized email messages identifying each contact person and winery by name were sent to potential key informants on both mailing lists. The message included a very brief description of the study with a hyperlink to the web-based survey, which was designed and deployed using Qualtrics. To encourage participation, the message included a goodwill gesture (an opportunity to be entered into a drawing for one of four $100 donations to the charity of their choice) as well as a copy of the results for those who completed the survey. To verify that the contact person on the mailing list was the appropriate person to complete the survey, the recipient was instructed that "the survey should be completed by someone who has knowledge of your company's distribution relationships. If you are not the appropriate person, please forward this survey link to someone at your company who is knowledgeable about these relationships." Three waves of emails were sent approximately two weeks apart.

Because the unit of analysis in our model is the supply chain relationship, key informants were qualified as appropriate for the survey if they responded positively to an initial question asking if their products were distributed through a distributor/wholesaler and/or a business customer (i.e., retailer or restaurant). Those that sold only direct-to-consumers were thanked for their time and exited from the survey. Based on their responses, qualified informants were directed to one of three surveys designed to collect information related to the manufacturer's relationship with: (1) a distributor/wholesaler, (2) a retail or restaurant business customer, or (3) both if they indicated that their product was distributed through both channels. To avoid the inclination of participants to focus on only their most important supply chain relationships, thereby reducing variability of responses, informants were instructed to answer the questions about the distributor and/or business customer to whom they most recently shipped an order.

Of the original total of 5117 emails sent, 3598 appeared to have been received (i.e., did not generate an "undeliverable" auto-reply). Of these, 434 clicked into the survey providing an initial response rate of 12.1%. Those respondents that indicated they sold only directly to end consumers (13%) were disqualified, leaving 379 that were qualified to answer the survey questions. After eliminating responses with high levels of missing data, 309 usable records were obtained resulting in a response rate of 71.2% of those who clicked into the survey (8.6% of the original sample).

A statistical pretest of the construct items was conducted in a separate survey with a sample of 70 informants from various industries (wine, beer, and consumer packaged foods) to ensure variation in responses. These informants were located through online industry organizations; contact procedures mimicked those of the final survey. An exploratory factor analysis (EFA) of the data resulted in 8 factors explaining 75% of the variance. Four items (MUT3, COMM4, OB4, COMP4) had low loadings (below 0.50); these were removed from the instrument due to the coverage of the construct with the remaining items with the exception of the mutuality item

since there were only three items measuring this construct.

The potential for non-response bias was examined in three ways (Armstrong and Overton, 1977; Wagner and Kemmerling, 2010). Item responses from six constructs (SOL1, COMM3, OB3, COOR1, REG1, COMP3) from the initial and final waves of the two samples were compared using t-tests. No significant differences were found in the means of responses. Finally, the demographics from the sample were found to be representative when compared with overall U.S. wine industry statistics. Therefore, we concluded that non-response bias was not a threat to the validity of findings.

Since surveys were completed by a single key informant within each company, procedures were taken to protect against common method variance (Podsakoff et al., 2003). Clear and concise survey items were created and reviewed by industry experts. Informants' anonymity was protected so they could feel comfortable answering questions honestly. Different response formats and scale endpoints were used for the independent and dependent variables. Harman's one-factor analysis demonstrated that no single factor accounted for more than 50% of the variance in the data; the first factor in an un-rotated factor analysis accounted for 33.8%. A theoretically unrelated marker variable (environmental uncertainty) was included in the survey and tested as a predictor (Malhotra et al., 2006). Although significantly correlated with solidarity (.143), this variable was not significantly correlated with the criterion variable. The criterion correlation (coordination at -0.037) was partialed out, and the corrected variable correlations retained their practical significance in terms of a meaningful amount of variance explained. Thus, common method bias should not be a threat to the results.

4. RESULTS

4.1. Sample Demographics

Our U.S. wine industry sample was representative of the population in that it primarily consisted of smaller firms (71% had revenues less than $1 million and 73% had 10 employees or less) from the major wine producing states of California, Oregon, and Washington (58% with 29 other states contributing to the remainder). The informants were owners of the winery (79%) or senior managers, and 95 percent had worked for the winery for at least three years. Additionally, most had been engaged with the target distributor or business customer about whom they answered questions for a minimum of three years. All indicators provided confidence that the informants were knowledgeable of the industry as well as their companies' operations and performance. The majority of the companies had been in business for at least 6 years (72%) with 42 percent operating a minimum of 11 years – long enough to have established relationships with distributors or business customers.

4.2. Measurement Model

We employed structural equation modeling (SEM) using maximum likelihood estimation to evaluate the measurement and structural models and test the hypotheses. The initial, unpurified measurement model retained all items from the pretest evaluation and was a reasonable fit with the data (X2=1112, df = 459, RMSEA = .068, CFI = .894). However, several measurement items that were problematic in the pretest analysis continued to perform poorly. Six items with high cross-loadings on other constructs (SOL3, FLEX3, OB1, OB2, REG2, and COMP1) were removed to ensure discriminant validity. Item loadings were significant at $p<.01$ for all retained items, and all but three loaded on their constructs with path weights greater than 0.70. Two items on existing scales adapted for this study (SOL2 and COOR1) loaded at less than

.70, but were retained for theoretical reasons. One item on a scale developed for this study (REG1) exhibited a low loading (.47), but was retained to tap the full domain of the theoretical construct.

Composite reliabilities ranged from .73 to .95, above the recommended threshold of .70. Average variance extracted ranged from .48 to .87, with only one scale (coordination, AVE=.48) slightly below the recommended level of .50 (Bagozzi and Yi, 1988). These convergent validity statistics are displayed in the Appendix. Discriminant validity was tested by comparing the shared variance among indicators of a construct with the variance shared between constructs. The test for discriminant validity is met when the square root of AVE for the construct is greater than its correlations with other constructs (Fornell and Larker, 1981). The square root of AVE for each construct is greater than the correlation with other constructs without exception, meeting the test for discriminant validity. Following scale purification, the measurement model was deemed to be a close fit with the data (X2=426, df = 287, RMSEA = .040, CFI = .975) and sufficiently robust to proceed with hypothesis testing.

4.3. Structural Model

The tests of hypotheses were conducted in a three-step process; results are shown in Table 1. Before estimating the fit of the base and moderated structural models, we calculated the means for solidarity, mutuality, and flexibility and assigned them as the three manifest variables for relational norms (Kaufmann and Dant, 1992). As a first step, we estimated the fit of the data with the base structural model (Model 1), controlling for firm size. Next, we fit the data to the model with regulatory pressure as a moderating variable (Model 2). Finally, we estimated the fit of the model with competitive pressure as a moderating variable (Model 3).

The fit of Model 1 was good (X2=1807, df = 97, RMSEA = .053, CFI = .975). As expected, relational norms and communication were positively associated with coordination (.64 and .28, respectively, p<.01). Surprisingly, opportunistic behavior had a positive, rather than negative, effect on coordination (.36, p<.01).

Table 1: Structural model and hypotheses tests

Path	Weight
Model 1. Base structural model	
Relational Norms →Coordination	0.64**
Communication → Coordination	0.28*
Opportunistic Behavior → Coordination	0.36**
Model 2. Regulatory Pressure moderating effects	
H1: Regulatory Pressure X Relational Norms → Coordination	-0.16**
H2: Regulatory Pressure X Communication → Coordination	*ns*
H3: Regulatory Pressure X Opportunistic Behavior → Coordination	-0.36**
Model 3. Competitive Pressure moderating effects	
H4: Competitive Pressure X Relational Norms → Coordination	-0.33**
H5: Competitive Pressure X Communication → Coordination	0.41**
H6: Competitive Pressure X Opportunistic Behavior → Coordination	0.18**

ns indicates non-significant at *p* =.05; * *p* <.05; ** *p* < .01

4.4. Moderating Models

After estimating relationships in the base structural model, we constructed two models to test hypothesized moderating effects. To the base structural model, we added a latent variable for each type of institutional pressure (i.e., Model 2 regulatory pressure and Model 3 competitive pressure) along with three latent constructs that model the interaction between the institutional pressure and the three antecedent constructs. Manifest indicators for interaction constructs were created by generating matched-pair cross-products of the indicators for each construct (Marsh et al., 2004). Where the number of measures in a scale was not identical, we selected conceptually related items and averaged them to form an item parcel and then randomly matched the product indicators to generate cross-products. Because interaction terms are non-linear, they are not normally distributed; thus, fit statistics for such models are meaningless (Joreskog and Yang, 1996). Instead, we report the change in R^2 in the endogenous variable, coordination, as an indicator of the explanatory power of the moderated models compared to the base model. The R^2 for the base model was .42 whereas the R^2 for the models that included regulatory pressure and competitive pressure were .71 and .66 respectively.

The findings support H1 and H5; regulatory pressure weakens the positive relationship between norms and coordination, and competitive pressure strengthens the positive relationship between communication and coordination. H2 was not supported in that the effect of regulatory pressure on the relationship between communication and coordination was not significant. Interestingly, H4 was not supported as the impact of competitive pressure weakened rather than strengthened the relationship between norms and coordination. The moderating effects of regulatory and competitive pressure on the relationship between opportunistic behavior and coordination were as hypothesized (H3 and H6 respectively); however, the relationship itself between opportunistic behavior and coordination was not negative as expected, but positive.

4.5. Rival Model

One could argue that institutional pressures have direct effects on coordination, rather than moderating effects. To test this rival model, we added the two latent constructs for regulatory pressure and competitive pressure as antecedents in the base structural model. The fit of the resulting model was good (X2=348, df = 193, RMSEA = .051, CFI = .969). However, the direct effects of the two institutional pressures were not significant. The relationships were not significant between regulatory pressure and coordination ($p=.397$) and competitive pressure and coordination ($p=.470$). In addition, the R^2 of coordination in the rival model was lower than the moderated models (.44). Thus, we can conclude that modeling institutional pressures as moderating effects offers a more robust explanation, compared to considering them as direct effects.

5. DISCUSSION AND IMPLICATIONS

The purpose of this research was to examine the effects of constrained choice imposed by institutional pressures on managing supply chain relationships. We studied the phenomenon in an under-researched but significant context – the wine industry. The underlying premise is that when firms operate under institutional constraints, such as stiff regulations or strong competition, then institutional theory offers new insight about how relationship management is affected. Under these conditions, relationships operate differently, compared to predictions generated by research conducted in the absence of considerations of institutional pressures. This research not only supports the relevance of institutional theory in studies of supply chain relationships, but also extends institutional theory by providing evidence that institutional pressures can vary within a country and within a single industry.

Using the wine industry as our context was ideal to test our hypotheses and provided strong internal validity for our results. However, collecting data from a single industry is a limitation of our study. While the results may apply beyond the U.S. wine industry (e.g., the wine industry in another region), the model should actually be tested in international contexts and across other industries to expand the generalizability of findings. Additionally, we examined supply chain relationships from the supplier's point of view. Distributors and retailers are likely to experience effects of institutional pressures on their upstream relationships, and it would be informative to compare the impact of institutional pressures from the customer's point of view. Ideally, future studies would examine the dyad to capture both views simultaneously.

Our findings have implications for practice. Results demonstrate to wine managers that the institutional environment imposes constraints that have significant consequences for managing supply chain relationships. Producers often struggle in working with wholesalers and retailers, and this research contributes to explaining this. Firms should recognize that the drivers and mechanisms which typically result in positive relationship outcomes respond differently in the presence of institutional constraints. Hence, managers are advised to identify and evaluate the types and levels of institutional pressures that may impinge on their supply chain relationships and adjust behaviors to avoid suboptimal outcomes.

For example, relationships built on coordination respond quite differently to regulatory versus competitive pressures. Overall, regulatory pressure makes obtaining relationship coordination more difficult while competitive pressure makes it a bit easier. Findings indicate that under high regulatory pressure relational norms do not secure the same level of coordination experienced in environments characterized by greater freedom of choice in trading partners. Surprisingly, competitive pressure weakens the impact of relational norms on coordination. The high levels of competition in the industry may make it more difficult to cooperate and share responsibilities with downstream partners as firms fight for share of wholesalers and retailers. Thus under both conditions, firms will have to work harder at building relational norms in order to achieve the desired level of coordination. Communication is important for coordination, and this is strengthened under competitive pressure but not affected by regulatory pressures. Therefore, in this industry communication is key for achieving coordination with downstream partners and institutional pressures should not hurt and can even help this.

Interestingly, opportunistic behavior was positively, rather than negatively, related to coordination. This is likely due to the nature of this industry; producers often feel as if their downstream partners have the power and sometimes take advantage of them. Thus, perhaps opportunism is understood and even expected, and firms increase their coordination efforts to try to monitor this behavior. Regulatory pressure weakens this positive relationship. Therefore, regulations are a catch-22 in this instance. Higher opportunism normally drives higher coordination, but regulations, which should protect firms from opportunism, actually hinder the achievement of coordination. Alternatively, competitive pressures strengthen this positive relationship. While high competition enables downstream partners to behave more opportunistically, this results in higher coordination to try to combat this behavior. Therefore, when faced with high competition, firms should continue to strive for higher coordination in response to opportunistic behavior.

In conclusion, this study examined the effects of constrained choice on managing supply chain relationships and found that pressures imposed by the institutional environment influence attempts to assure high performing supply chain relationships. The effects of institutional pressures are significant and complex. We hope this study contributes to researchers' and

managers' understanding of the interplay between the institutional environment and supply chain relationship management, particularly within the highly competitive and regulated wine industry.

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APPENDIX: MEASURES AND STANDARDIZED LOADINGS

Scale		Measure	Load
Reln. Norms	SOL1	We consider this customer to be one of our business partners.	.87
	SOL2	We conscientiously try to maintain a cooperative relationship with this customer.	.66
Solidarity	SOL3	Our relationship with this customer is more important to us than profits from individual transactions. [a]	---
CR .75			
AVE .60	MUT1	Even if costs and benefits are not evenly shared between us in a given time period, they balance out over time.	.75
Mutuality	MUT2	This customer and we each benefit in proportion to the efforts we put in.	.73
CR .82	MUT3	My business usually gets a fair share of the rewards and cost savings in doing business with this customer.	.85
AVE .60			
Flexibility	FLEX1	We would willingly make adjustments to help out this customer when faced with special problems or circumstances.	.87
CR .77	FLEX2	We would gladly set aside the contractual terms in order to work through difficult situations with this customer.	.71
AVE .63	FLEX3	This customer gladly sets aside the contractual terms in order to work with us in difficult times. [a]	---
Communication	COMM1	Communications from this customer are prompt.	.96
CR .95	COMM2	Communications from this customer are timely.	.98
AVE .87	COMM3	Communications from this customer are complete.	.86
Opportunistic		*In our relationship, this customer …*	
Behavior	OB1	Alters facts slightly in order to gain our cooperation. [a]	---
CR .92	OB2	Does not share information in a timely manner. [a]	---
AVE .69	OB3	Promises to do things without actually doing them later.	.80
	OB5	Makes vague promises that they later ignore.	.85
	OB6	Withholds information that would put them in a bad light.	.83
	OB7	Tells us what they think we want to hear instead of telling the truth.	.85
	OB8	Takes advantage of us.	.82
Coordination	COOR1	We have more fully integrated operations with this customer than we have with other business partners.	.59
CR .73	COOR2	We coordinate operations with this customer.	.75
AVE .48	COOR3	Our firm and this customer have processes in place to facilitate the movement of products.	.72
Regulatory		*In managing the relationship with this customer, my company …*	
Pressure	REG1	Is required to comply with a large number of government regulations.	.47
CR .80	REG2	Is subject to severe penalties if we fail to comply with government regulations. [a]	---
AVE .59	REG3	Is forced to do business with them due to government regulations.	.86
	REG4	Has very few alternatives when it comes to choosing a different customer due to government regulations.	.89
Competitive		*In managing the relationship with this customer, we feel we should …*	
Pressure	COMP1	Benchmark competitors in order to improve our performance. [a]	---
CR .86	COMP2	Adopt innovations developed by competitors.	.73
AVE .67	COMP3	Borrow good ideas from the competition.	.92
	COMP5	Copy best practices of the competition.	.80

[a] Deleted in measurement model analysis; CR is scale composite reliability and AVE is scale average variance extracted; items missing were deleted based on the pretest