




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Trust and the Decision to Outsource: Affective Responses and Cognitive Processes

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Abstract

Many of the various forms of cooperative strategy that firms are pursuing in today's economy entail the placing of important business functions in the hands of a partner. This paper examines the role of trust in the decision by a producer to place the marketing function in the hands of another entity, namely a cooperative. Although others have studied the effect of what may be termed general trust on inter-organizational relationships, few have examined the antecedents of that trust. We propose a model in which affective responses and cognitive processes are precursors to a sense of general trust, which, in turn, influences the outsourcing decision. These affective responses and cognitive processes have both direct and indirect (mediated) effects on the decision to place an important function in the hands of another entity. Perceptions of partner expertise in the business function at hand and the perceived need for the focal firm to maintain control over that function are also considered in the model. The model is tested in a somewhat novel context: the decision of cotton producers to outsource the marketing of their cotton fiber. Using survey data gathered from the actual decision-maker, and structural equations modeling, we find that the inclusion of affective responses and cognitive processes in our model produces a richer explanation of the outsourcing decision. The differences between the effects of affective responses and cognitive processes have potentially important implications for managers engaged in cooperative strategies and for the scholars who study them.

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Strategic alliances appear to be an increasingly important business model for conducting economic exchange. The strategic alliance form of organization is widely used throughout the food and agribusiness industry. The agricultural marketing cooperative may be viewed as one of the oldest, most well established forms of strategic alliance (Staatz, 1983; Vitaliano, 1983). Grocery retailers also use the cooperative form of organization to gain purchasing and distribution efficiencies. (Progressive Grocer, 2000).

One important source of economic benefit to be gained from the strategic alliance model is outsourcing (Murray & Kotabe, 1999; Quinn & Hilmer, 1994; Venkatraman, 1997). Outsourcing through a strategic alliance typically involves the placing of a business function in the hands of a partner. Agricultural marketing cooperatives have been facilitating the transfer of the marketing function from the producer to the management of the cooperative, in varying degrees, for decades. More recently, a similar transfer has been observed in many other industries. For example, e-businesses often enter into alliances with logistics and shipping firms. In these alliances, the e-business places all the necessary logistics and shipping functions in the hands of their partners. The economic benefit of these alliances stems primarily from efficiency advantages of specialization. These advantages are revealed not only in the lowered costs of logistics and shipping but also in the increased ability of the e-business to focus on core competencies such as product development, marketing, financing, etc. Similarly, agricultural marketing cooperatives have allowed producers to focus their efforts on production.

Entering into a strategic alliance is a significant decision for a firm. Scholars have argued that trust plays an important role in the adoption and management of the strategic alliance model (Barney & Hansen, 1994; Dyer, 1996, 1997; Gulati, 1995; Sako, 1992). Placing a business function, especially a critical one, in the hands of a partner is also a significant decision. In fact, some have argued that this decision may be a critical determinant in economic performance (Quinn & Hilmer, 1994; Venkatraman, 1997). It stands to reason that if trust were important in the initial decision to enter an alliance, it would also play a role in subsequent outsourcing decisions. The purpose of this paper is to develop and test arguments as to what the role of trust is in outsourcing decisions. Specifically, we examine the affective responses and cognitive processes that lead to a sense of general trust. We also examine how the relationship between trust and outsourcing is mediated by perceptions of competency and the need to maintain control over a business function.

The research on trust in organizations, including strategic alliances, may be divided into two broad categories: 1) the development of trust, and 2) the effect of trust. This paper is an attempt to link these two broad categories. Several models of the development of trust have been offered by scholars: repeated ties (Gulati, 1995), affect- and cognition-based trust (McAllister, 1995, high initial trust (cognition) (McKnight, Cummings, & Chervany, 1998); conditional, unconditional, distrust (Jones & George, 1998), exchange framework (Whitener, Brodt, Korsgaard, & Werner, 1998), weak-, semi-strong-, and strong form (Barney & Hansen, 1994). The definitions offered in the development of trust literature are usually specific to the

model being developed. However, a common thread running through each one of these models, to varying degrees, is that of trust resulting from affective responses and cognitive processes.

Whereas the definitions in the trust development literature tend to be relatively specific, the definition of trust used in much of the effect of trust literature is more general. For example, Brockner, Siegel, Daly, Tyler, & Martin (1997) use a working definition of trust offered by Mayer, Davis, and Schoorman (1995: 712): “The willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party.” Brockner, et al., (1997) did elaborate on this definition so as to include the elements of risk, competency, and motivation. In the end, however, the notion of trust is very general in nature. For example in casual conversation, if a person is asked whether or not another individual can be trusted, the person asking and the person responding both understand what is meant by ‘trust’. In fact, Brockner, et al., (1997: 563) measured trust by asking simple, straightforward questions such as “I trust the management to treat me fairly.” We refer to such trust as general trust.

Regardless of whether the definition of trust used is general or specific, the notion of an expectation about the behavior of another party seems to be a constant in the effect of trust literature (e.g., Barney & Hansen, 1994; Brockner, et al., 1997; Dyer, 1997; Sako, 1992; Zaheer, McEvily, & Perrone, 1998). Much of this research has focused on the cost savings associated with trusting relationships (Dyer, 1996,1997; Parkhe, 1993, Sako, 1992). As such, trust is generally viewed as an important element in minimizing transaction costs. However, some have also argued that trust may be an important element in expanding the set of potential revenue opportunities associated with alliances (Barney & Hansen, 1994; Dyer & Singh, 1998; Hansen, Hoskisson, & Barney, 1999). Outsourcing is one of the vehicles by which alliances may offer the dual benefits of cost reduction and revenue enhancement. We argue that general trust is an important element in the decision to outsource. However, we also argue that there are significant antecedents to general trust that must be considered in any robust explanation of the role of trust in the outsourcing decision.

Nature of Outsourcing

Outsourcing is largely a matter of degree for most organizations. For example, a firm could outsource its janitorial function and, it could also outsource key elements of its R&D function. Both would be outsourcing, and yet, the strategic relevance of the two decisions would likely range from trivial to critical, respectively. Certainly a company faces less risk in outsourcing janitorial services than it does in outsourcing an R&D function. Thus, the significance of the decision to outsource varies depending on what is being outsourced. This is not to say that decisions such as the janitorial outsourcing decision are not important, as such a decision may present significant cost savings opportunities. Although trust is likely a factor in both

strategically relevant and strategically irrelevant decisions, the focus in this paper is on outsourcing decisions that are strategically relevant.

Researchers have concluded that outsourcing definitely has its upside and its downside. Quinn (2000) argues that outsourcing is a strategic necessity in today's innovation-dependent economy. He argues that no single firm can innovate as efficiently or as effectively alone as it could with the collaboration of other firms through outsourcing. Bettis, Bradley, and Hamel (1992), on the other hand, warn that outsourcing may also lead to industrial decline if done without the proper care. They point out that firms stand to lose important competencies over time that may be critical to strategic competitiveness. Once a firm has lost these competencies, the firm may be unable to regain these competencies to a degree that would confer competitive advantage. There is broad agreement in the literature that outsourcing done correctly has the potential to enhance a firm's competitive position, but that outsourcing done incorrectly will almost certainly be detrimental (Bettis, et al., 1992; Murray & Kotabe, 1999; Quinn, 2000; Quinn & Hilmer, 1994).

A key element in an outsourcing strategy is deciding which activities to outsource. Indeed the main problem with outsourcing noted by Bettis, et al., (1992) was that firms too often choose to outsource activities that are key to competitiveness. Quinn and Hilmer (1994: 43) suggest that firms follow a dual approach to outsourcing: 1) concentrate on core competencies and achieve definable preeminence, and 2) strategically outsource other activities for which the firms have neither a critical need nor special capability. This logic suggests that firms must understand the relevant marketplace and firm-specific capabilities in order to determine which firm competencies are or may become preeminent. Firms must then exercise discipline in deciding which activities to outsource and which activities to nurture and protect. Further discipline is required as firms choose suppliers to whom activities are to be outsourced.

Given the potential benefits and pitfalls of outsourcing, the decision to outsource is one that deserves careful consideration. The decision is made even more salient by the fact that most supplier markets are imperfect (Quinn & Hilmer, 1994). This imperfection arises, in part, from the uncertainty associated with turning over an important business function to another entity. Assessments of the trustworthiness of the managers of the other entity play a crucial role in attenuating these uncertainty concerns. Trust helps facilitate exchanges in uncertain circumstances because of the expectation that supplier-firms will not exploit vulnerabilities. While we recognize that trust alone is not a sufficient condition, we argue that it is certainly a necessary condition of the outsourcing decision. As such, the development of trust in the outsourcing context merits explanation.

The Development of General Trust

While many scholars may agree on a fundamental definition of trust and the conditions necessary for trust to arise, a variety of conceptualizations of trust have been offered, particularly in terms of the nature of trust and its dimensionality. For example, among the different forms of trust suggested by Rousseau et. al. (1998) are deterrence-based trust, calculus-based trust, and relational trust. Sako (1992) categorized trust as being of three basic types: contractual, competence, and goodwill. Other conceptualizations view trust as having conditional and unconditional states (Jones & George, 1998) or weak, strong and semi-strong forms (Barney & Hansen, 1994). Several scholars have conceptualized trust as having cognitive and affective dimensions (e.g., Cummings & Bromiley, 1996; Lewis & Weigert, 1985; McAllister, 1995; Zaheer, McEvily, & Perrone, 1998). Empirically, McAllister (1995) found that interpersonal trust among members in an organization was both affect-based and cognition-based.

The Cognitive and Affective Bases of Trust

What are the antecedents of general trust? While Jones and George (1998) conceptualized trust as consisting of three states: conditional, unconditional, and distrust, they described both cognitive processes and affective influences in arriving at the different states of trust. Thus, trust develops from a process, or pattern, of thinking and feeling on the part of the trustor regarding the potential object of trust. Others have described this process and the resulting cognitive and affective trust (Cummings & Bromiley, 1996; Lewis & Weigert, 1985; McAllister, 1995; Zaheer, McEvily, & Perrone, 1998).

Cognitive processes. McAllister (1995) argued that interpersonal trust is cognition-based because individuals choose who they will trust and base this decision on what they believe are “good reasons” (Lewis & Weigert, 1985). The choice to trust and the search for “good reasons” suggest a cognitive process by which one determines that an individual, group or organization is trustworthy. Therefore, a key to understanding general trust is the recognition of the process by which individuals arrive at some assessment of the trustworthiness of another individual, group, or organization. In other words, cognitive processes are descriptive of *how* one develops “good reasons” that others are trustworthy. Thus, we define cognitive processes as a series of careful, methodical thought routines that culminates in a general belief that an individual, group or organization is trustworthy. This careful, methodical process involves the consideration of “empirical evidence” (Jones & George, 1998). That portion of general trust resulting from cognitive processes is therefore not an instantaneous phenomena, it develops only after an individual is able to cognitively process and assess the available evidence.

The cognitive process base of general trust seems consistent with what Jones and George (1998) termed unconditional trust. Their unconditional trust state is reached only after an individual is able to develop confidence in others that is “backed up by empirical evidence” (1998: 537). Jones and George also argued that

trust is based on attitudes, which can be viewed as “(1) the knowledge structures containing the specific thoughts and feelings people have about other people, groups, or organizations and (2) the means [process] through which they define and structure their interactions with others” (1998: 532). Thus, attitudes, which partially determine trust, may be developed as individuals engage in a cognitive process to assess the trustworthiness of others.

Calculus-based trust as described by Rousseau, et al., (1998) is also consistent with a cognitive process base of general trust. They argued that calculus-based trust is the result of a rational choice that is made based on “credible information” concerning the intentions or competence of others. Thus, a rational, cognitive-based process is needed for individuals to gain “proof sources” that provide this credible evidence concerning the trustworthiness of others (Rousseau et. al., 1998).

Finally, a cognitive-based process is also crucial to Barney and Hansen’s (1994) typology of semi-strong and strong form trustworthiness. In both of these forms of trustworthiness, one party assesses the trustworthiness of another party. The party weighs the evidence embedded in both the attributes of the transaction and the characteristics of the other party(s) to the transaction. In the case of semi-strong form trustworthiness, the cognitive process results in the determination that the costs of opportunistic behavior by a partner would outweigh the benefit of such behavior to the other partner, and, therefore, the other party may be trusted. Strong form trustworthiness suggests that a party to a transaction has come to the conclusion, after weighing the evidence of partner characteristics, that the other partner’s own moral development would likely prevent such opportunistic behavior.

A sense of general trust develops as managers engage in the cognitive process of evaluating the available information about the trustworthiness of the managers of supplier-firms. While it is certainly the case that in some instances such cognitive processes result in lower general trust or perhaps even distrust, we argue that increasing levels of cognitive processes will result in increasing levels of general trust. Thus,

H1: Cognitive processes will have a positive effect on the general trust that managers have for the managers of supplier-firms.

Affective responses. Lewis and Weigert (1985) argued that trust also consists of an emotional base that is distinct from, but complementary to, its cognitive base. Thus, we define affective responses as the response an individual experiences based on one’s instincts, intuitions or feelings that culminate in a general belief that an individual, group or organization is trustworthy. While cognitive processes refer to *how* one develops “good reasons” that others may be trusted, affective responses refer to the “emotional bonds” that may result in trust between parties. Affective responses may lead to general trust because these emotional bonds may eventually provide the basis for trust (Lewis & Weigert, 1985; McAllister, 1995). Jones and George explained that the development of trust begins with one party “suspend[ing] belief that the other party may not be trustworthy” (1998: 536). This suspension

takes place because of the initial absence of evidence to cognitively evaluate. We argue that during this suspension the parties to an exchange are relying on affective responses (e.g., instincts, intuitions, and feelings) to arrive at some determination of the trustworthiness of the other party(s). Affective responses in the very early stages of an exchange relationship may be likened to a “gut” or “knee-jerk” reaction based on the intuitive feelings generated by the experience with the other party. As the relationship progresses, these initial instincts, intuitions and feelings influence the cognitive processes by which perceptions of trustworthiness continue to develop. The affective states experienced during interactions with others influence the level or state of trust held among parties (Jones & George, 1998).

While Jones and George argued that moods and emotions impact all types of trust, we suggest that the notion of affective responses is consistent with their *conditional trust* construct. They defined conditional trust as a state in which the attitudes of parties toward each other are favorable, thus they are willing to continue future interactions, as long as both parties exhibit appropriate behavior. Jones and George note that “sufficient positive affect and a relative lack of negative affect” act to reinforce the attitudes that lead to conditional trust (1998: 536). This suggests that conditional trust has a strong affect-based component.

Affective responses are also conceptually similar to what Rousseau and her colleagues (1998) termed *relational trust*. Indeed, they acknowledged that because relational trust has a large emotional component, scholars often refer to this form of trust as affective trust. An element of affective trust is also present in Barney and Hansen’s (1994) typology of trustworthiness. The affective states experienced in dealing with a partner would certainly influence perceptions about the trustworthiness of that partner. Positive affect would serve to bolster perceptions that another partner possessed the type of character that would prevent opportunistic behavior (strong form trustworthiness). Negative affect, on the other hand, would likely cause partners to insist on contractual safeguards (semi-strong form trustworthiness).

General trust may vary in the degree to which it is based on cognitive processes and affective responses. As suggested above, the balance between these two antecedents of general trust may shift depending on the experiences of the partners. For example, the trust that one has for a fellow airline passenger who is a complete stranger is largely a matter of affective response to initial appearances and impressions. However, as one visits with the fellow airline passenger and learns of accomplishments and experiences cognitive processes begin to influence the sense of trust felt. Likewise, the general trust that one has for colleagues at work may be affect-based because these individuals seem like “nice” people and everyone “gets along.” However, if one is considering pursuing a business venture with colleagues from work where the potential for opportunistic behavior is high, then the general trust that one has for colleagues is likely to be more informed by cognitive processes.

The intensity of the affective response experienced by a person is dependent upon factors that are both internal and external to that person. Internal factors such as

attitudes, likes and dislikes that have developed over time, and memories of past experiences strongly influence the affective response a person will have to any given situation. These factors lead to a reaction with little or no cognitive effort or process. External factors such as the appearance, language, and mannerisms of the party with whom the focal person is interacting also influence the affective response. The setting of the interaction may also influence the affective response of a person. Lighting, sound, and smell can play a role in determining the intensity of affective response. Managers who have a more intense affective response are more likely to develop higher levels of general trust. Of course, the affective response managers experience may also be negative, in which case low levels of general trust would likely result. However, we argue that overall, managers experiencing more intense affective responses will develop higher levels of general trust. Thus, we propose,

H2: The affective response of managers will have a positive effect on the general trust felt for the managers of supplier-firms.

The Effect of General Trust on Outsourcing

The primary effect of general trust on the outsourcing decision lies in the expectation that supplier-firm managers can and will perform the business function in question in a manner consistent with the interests of the focal firm. The role of trust in facilitating economic exchange is well documented (Barney & Hansen, 1994; Rousseau et. al., 1998; Williamson, 1993). A sense of trust for another economic actor reduces the inherent uncertainty surrounding any transaction.

General trust as defined here, and trust as used in common language, entails an expectation as to both the competence and the character of another economic actor. If one were to lack confidence in the competence of another, one would probably have a low level of general trust, even though one might have confidence in the character of the other person. Thus, if a person holds a high level of general trust for another person it is assumed that the person has confidence in the other person's competence and character. This confidence therefore reduces both ability-to-perform uncertainty and behavioral uncertainty (Williamson, 1993).

The uncertainty reducing nature of general trust leads managers to favor supplier-firm managers who are judged to be trustworthy. Again, we do not argue that trust is the only factor influencing the outsourcing decision. Rather, we argue that general trust matters in the decision and that managers will tend to choose supplier firms whose management is trusted. Thus,

H3: General trust will be positively associated with the decision to outsource.

Expertise and The Need for Control

In addition to the influence of general trust, two other important factors influence the decision to outsource, namely the perceived expertise of the supplier firm and

the need for control on the part of the focal firm. As managers decide which activities to outsource these two factors create a tension. Managers may recognize that a supplier firm has more expertise in a certain business function than the focal firm. On the other hand, the managers may feel compelled to maintain control of that particular business function. The resolution of this tension may largely determine the success or failure of not only the outsourcing strategy but of the firm (Bettis, et al., 1992).

Central to the outsourcing decision is the issue of whether or not an outside supplier can perform an activity better than the focal firm can. Indeed, Quinn and Hilmer (1994) would argue that identifying the best-in-world supplier of an activity, be it internal or external, is the first step in a successful outsourcing strategy. The routines used in making this important first-step decision likely vary from firm to firm. These routines may range from casual observation to intense study and research. Regardless of how the conclusion is reached, the perception that an outside supplier possesses more expertise than the focal firm in a particular business function bears a strong influence on the outsourcing decision. Managers who arrive at this conclusion would likely opt to outsource in the absence of any tension due to the need to control a function.

As managers develop perceptions of supplier-firm expertise, cognitive processes and affective responses shape those perceptions. These cognitive processes and affective responses are likely very similar to those involved in developing general trust. We propose that general trust for managers of a potential outside supplier influences perceptions of expertise. In other words, managers of the focal firm develop some level of general trust for managers of a potential outside supplier that, in turn, affects the perception of the expertise of those outside suppliers. General trust felt for managers of outside suppliers will have a positive effect on the development of perceptions of expertise. Thus, we propose:

H4: General trust is positively associated with perceptions of supplier-firm expertise.

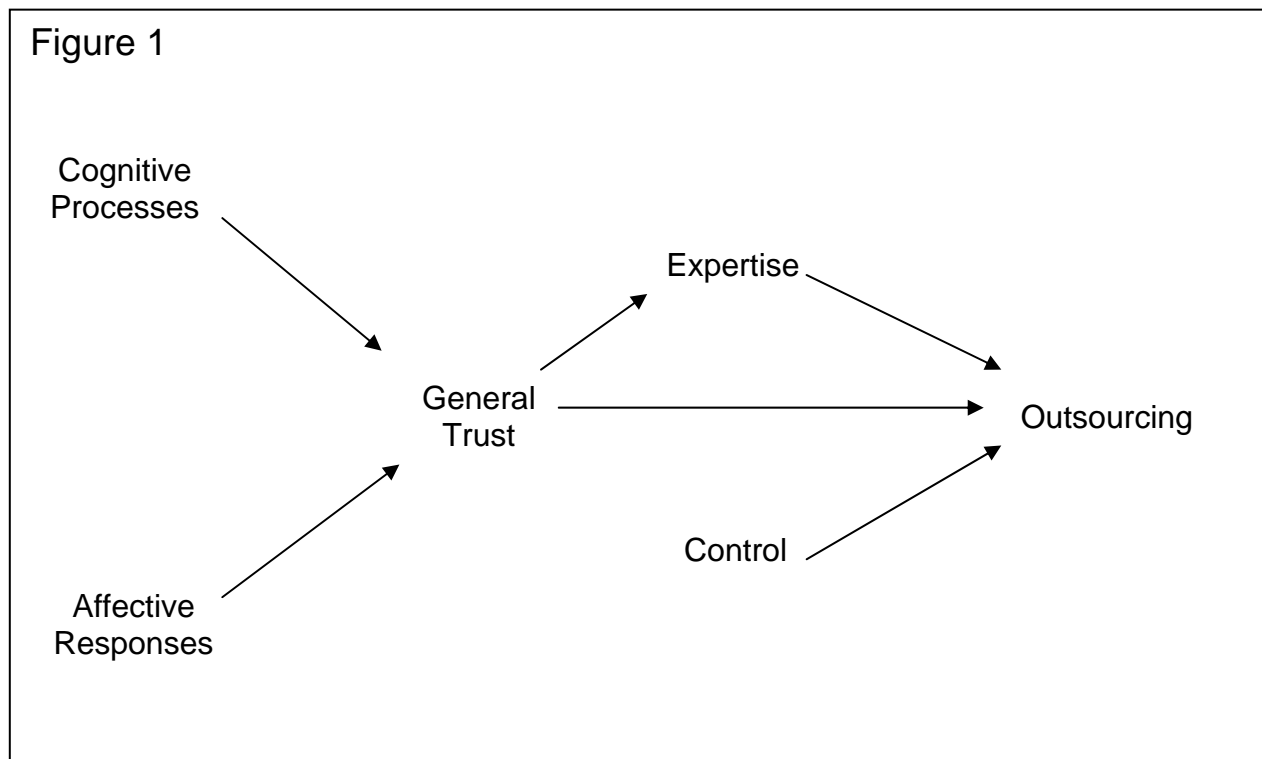
Obviously, managers who are convinced that supplier firms possess superior expertise would be inclined to choose an outsourcing strategy. However, the influence of general trust and the tension created by the need to maintain control of a business function may make the correct outsourcing decision less obvious. Owens Corning recently outsourced its expense management function to VIN.net on an ASP basis (Kearney, 2000). An important consideration for Owens Corning was the potential loss of control. Owens Corning determined that any loss of control in outsourcing was more than offset by the cost savings provided by VIN.net's system. We suspect that for every outsourcing decision that gets written-up in a trade journal like Owens Corning's did, there are many more decisions not to outsource that never become publicly known. The proportion of these decisions not to outsource that result from a need to control concern outweighing the benefit of supplier-firm expertise remains an empirical question beyond the scope of this paper. However, it seems reasonable to assume that many managers decide against

outsourcing because the expected costs of loss of control exceed the expected benefits of putting a business function into the hands of an outside supplier.

The expertise-control tension begs an intriguing question: Does control of a second-rate business function ever trump having that business function in the hands of the best-in-world supplier? The arguments of Bettis, et al., (1992) would suggest that firms should avoid losing competencies even if other suppliers may have an advantage. Quinn and Hilmer (1994) and Quinn (2000) suggest that firms should strive to be best-in-world in their own core competencies and outsource other activities to best-in-world suppliers. It is important to note that in the eight years between Bettis, et al., (1992) and Quinn (2000) rapid innovation has become increasingly relevant to strategic success. Therefore, it would appear that having business functions in the hands of best-in-world suppliers would generally offset any loss of control disadvantages in today's innovation-intensive environment. Thus, we argue that:

H5: Perceptions of supplier-firm expertise in a business function will have a stronger influence on the outsourcing decision than the focal firm's need for control.

The outsourcing decision model developed here is depicted in Figure 1. This paper focuses primarily on the antecedents of general trust and its effect on the outsourcing decision. Certainly there are other important relationship possibilities and influences on the decision to outsource. For example, the effects of cognitive processes and affective responses on perceptions of supplier-firm expertise are especially interesting. However, by linking the development of trust with the effect of trust on an important management decision this model bridges a gap in the trust literature.



Methods

We have chosen a somewhat novel context in which to study the outsourcing phenomena. The business function of interest is the marketing function of cotton producers. The data for this study were gathered through a survey of the membership of a cotton-fiber marketing cooperative located in the Southeastern United States. This cooperative is the largest of its type in the world. The novelty of this context lies in the fact that member producers are not obligated to market their cotton through the cooperative, even if such members use the other services of the cooperative.

Harvested cotton is first sent to a ginning operation to separate the seed from the fiber. Cotton seed is often taken by the ginning operation as payment for the ginning service. Cotton fiber is then graded, baled, and stored in a storage facility. The ginning operation and storage facility may or may not be owned by the cooperative. In some areas there may be only one ginning operation—sometimes owned by the cooperative, sometimes owned by some other entity. Even though all cotton fiber must pass through these processes of ginning, baling, and grading, choices about the marketing of the cotton fiber may be completely independent of these processes. Thus, a cooperative member may use the ginning and/or storage services of the cooperative, but choose not to use the marketing services of the cooperative.

Producer-members of the cooperative must choose each year to either market their cotton on their own or to market through one of two programs offered by the cooperative. In the cooperative's Seasonal Program the farmer effectively outsources the marketing function by turning all the marketing over to the management of the cooperative. The cooperative markets cotton fiber throughout the year at its discretion and farmers receive a price based on the average price obtained by the cooperative. In the Call Program, the farmer retains some control of the marketing by determining a price at which the cotton is to be sold. If and when the market reaches that price, the cooperative sells the cotton to a buyer of its choosing and the farmer receives that price (adjusted for the appropriate marketing fees).

The agricultural cooperative context is especially salient because the marketing of a crop is definitely a core or critical activity (Quinn & Hilmer, 1994; Venkatraman, 1997) to a farmer. This context allows data collection from the key decision-maker. Indeed, for a farmer whose harvested crop may be worth several million dollars, placing the marketing of the crop in the hands of someone else is a profoundly significant decision. Thus, we examine outsourcing in a setting in which the stakes are extremely high for managers (farmers). The context also allows outsourcing to

be measured on a continuous scale because farmers can choose to split the marketing of their output among three very different marketing approaches.

Furthermore, we find this agricultural setting particularly interesting because these marketing arrangements have arisen in response to a nearly perfectly competitive market. As more and more markets are driven closer to perfect competition because of technology (e.g., e-commerce) it may well be that traditional, low tech industries can offer new, fast-paced, high-tech industries workable business models. Specifically, this agricultural setting helps to illustrate the benefits, and perhaps the necessity, of extremely high levels of cooperation in the face of highly competitive markets.

Survey Instrument Development

We developed the survey instrument following guidelines outlined by Dillman (1978) and Tull and Albaum (1973). A combination of original questions and modified scales developed by others was used. Some questions were intended to gather objective information. Other questions were developed with the intent of tapping into abstract constructs. Rather than simply asking, "Do you trust the managers," we asked several questions regarding how respondents went about determining if and how the managers of the cooperative were to be trusted. We modified a scale developed by Rosseau (1988) to assess the level of trust producers had for the managers of the cooperative.

After developing the questions through a process of suggestion and review by the co-authors, a pilot survey was administered to an agricultural marketing cooperative separate from the cotton cooperative surveyed for the present study. Cronbach's alpha statistics were used to assess the degree to which our questions were reliably measuring the intended constructs. Some questions were dropped and others changed as a result of the pilot study. The resulting final survey instrument was then administered to members of the cotton cooperative.

The survey is divided into nine sections, with each section intended to gather a specific type of information. The entire survey is included as Appendix 1, although not all data collected was used in this study. Data gathered in sections 1 and 9 are descriptive in nature. Data gathered in sections 2-8 are scale data. In these sections, respondents were asked to indicate their level of agreement or disagreement with various statements using either a 5- or 7-point scale. These data were used in the study to develop latent variables as described below.

Sample Selection

A survey questionnaire was mailed to 2,819 members of a farmer-owned marketing cooperative headquartered in the southeastern United States. A farmer-owned cooperative is a classic example of a strategic alliance. Members of the cooperative

agree to pool their resources (in this case, crops that have been produced) in the alliance (cooperative). Managers of the co-op then seek to sell crops from the pool throughout the year at prices that maximize returns to the members. In essence, members must trust that management can achieve a higher average price for the pooled crops than an individual farmer could achieve acting on his/her own. Thus, there is an opportunity for trust to develop because of potential fluctuations in crop prices (risk) and the interdependence that exists between the farmers and the co-op managers (Rousseau et al., 1998).

A letter from the President and CEO of the cooperative endorsing the survey and encouraging the members to respond was included with the survey. Members were also informed that respondents would be entered in a drawing for a free weekend in a popular Southern city. The drawing was chosen as an incentive in place of more traditional follow-up letters and reminders. 708 individuals completed and returned the survey for a response rate of 25.1%. Missing data reduced the usable responses to 690. The respondents were virtually all white males who farmed an average of 2,042 acres (ranging from 20 to 25,000 acres). The respondents had been members of the cooperative for an average of 11.25 years (ranging from 1 to 57 years). The only non-response bias testing available to us was a geographic test based on zip codes because we did not have any economic performance or size data from non-respondents. A t-test analysis indicated there was no significant geographic difference between respondents and non-respondents.

Modeling

Structural equations modeling (SEM) is a comprehensive modeling technique (Hoyle, 1995). The nuts and bolts of the SEM method is covariance matrix analysis. A model is carefully specified which implies a covariance matrix for each relationship in the model. The implied covariance matrix for each relationship is compared to the covariance matrices resulting from the observed data. The differences between the implied and observed covariance matrices produce residual covariance matrices. An iterative process is used until values in the residual covariance matrices are minimized. The closer the values in the residual covariance matrices are to zero the closer the specified model is to perfectly fitting the observed data.

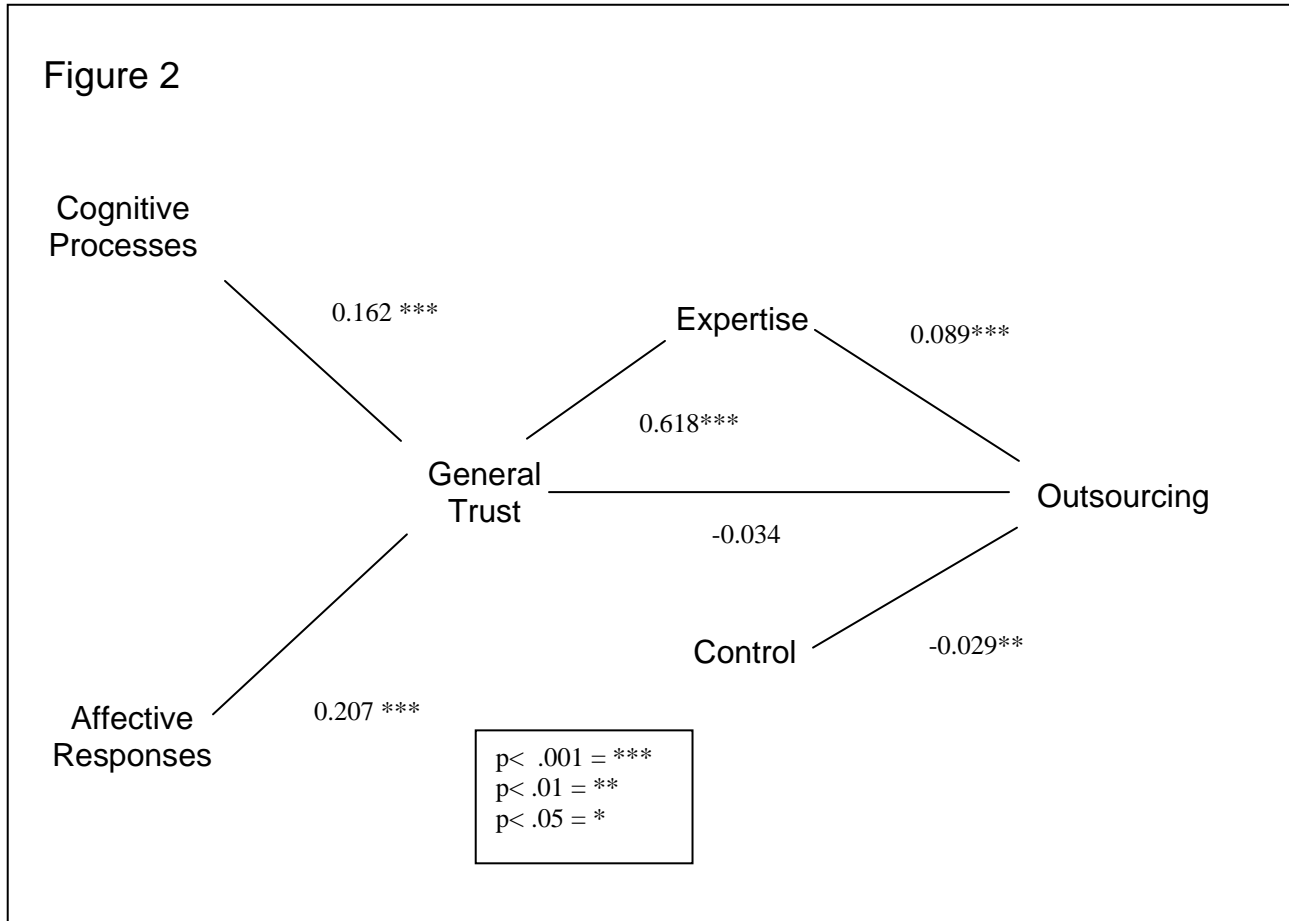
The general SEM consists of a measurement model and a structural model. In the measurement model latent variables are established. These are variables that are not directly observed, but that are indicated by variables that are measured. In the structural portion of the model, relationships are specified among latent variables and those measured variables which are not used as indicators of latent variables. This methodology may be viewed as more comprehensive than other methodologies in that the measurement portion of the model is akin to confirmatory factor analysis and the structural portion of the model is akin to regression analysis. The combined general SEM model allows an examination of relationships among variables that is free of measurement error (Hoyle, 1995).

SEM is an appropriate methodology for analyzing the data in this study because it allows for the simultaneous estimation of the proposed relationships in Hypotheses 1-5 (Bollen, 1989). The examination of relationships between abstract concepts such as general trust and perceptions of expertise is made possible through one of the key features of SEM: the use of latent variables and measured variables (MacCallum, 1995). For example, we used the scales described below to obtain *measured* variables, which were then used to develop the *latent* variable *general trust*. The relationships described in Hypotheses 1-5 are represented in the structural model depicted in Figure 1.

The treatment of the latent variables Expertise and Control in the model depicted in Figure 1 are indicative of another compelling feature of SEM. Expertise is treated as an endogenous variable and Control is treated as an exogenous variable. As we specified the model we reasoned that a producer's perceptions of the marketing expertise of the cooperative's managers would likely be influenced by the general trust the producer had for management. Expertise is an endogenous variable because it is partially determined by some other element within the model, namely, general trust. The latent, endogenous variable 'Expertise' is thus determined by the measured variables from the survey (not depicted in Figure 1) and general trust. Control on the other hand, is not partially determined by any other element in the model, rather it is determined by the measured variables from the survey. Our theoretical reasoning was that the need for control was independent of the general trust the producer had for management.

The ability to include endogenous variables in the model as described above allows the testing of mediating relationships (Hoyle, 1995). Mediating relationships can be tested by comparing two models that are specified *a priori*: one with the mediating relationship and one without the mediating relationship in the model. A change in chi-square test and changes in other goodness of fit indices are then used to determine which model better fits the data (Hu & Bentler, 1995). This process of comparing alternative models is a very different process from modifying a model once results are obtained. Modifying a model after results are obtained in order to achieve a better fitting model subjects any further results to sample specific biases. Indeed, one of the criticisms of SEM has been that researchers can so easily modify models on a *post hoc* basis.

Figure 1 is the structural portion of the general model. The results of the measurement portion of the general model are reported below in detail for the affective response and cognitive process variables. The indices of fit for the other variables in the measurement portion of the model are not reported in detail (they were all likewise indicative of a good fitting model). The results of the structural portion of the general model are reported in Figure 2. This path diagram approach is a common expression of SEM results. The values on the path diagram are used in concluding whether or not the hypotheses are supported by the data (Hoyle, 1995).



SEM is similar to other statistical approaches, such as correlation, regression, and ANOVA, in that all are based on linear methods, they all depend on normality assumptions, and none of them can test for causality. The important differences between SEM and other models include the SEM requirement of careful model specification. For example, researchers are forced to develop a model of relationships rather than relying on a series of straightforward regression tests. Also, SEM allows the testing of relationships among latent variables where other methods do not. Another key difference is the ability to test for goodness of fit. SEM models should be tested for goodness of fit using several different approaches as opposed to a single metric (see Hoyle (1995) for a more thorough comparison).

Statistical Analysis

Our model of trust was examined using AMOS 4.0, a structural equations modeling program (Arbuckle & Wothke, 1999). The maximum likelihood fitting function was used to estimate the measurement and structural models. Bollen (1989) recommends using a variety of goodness-of-fit indices to assess the fit between the actual data and that predicted from the proposed model. These indices are categorized as measures of absolute fit (GFI), measures of incremental fit (NFI), and measures of parsimonious fit (AGFI) (Hair, Anderson, Tatham, & Black, 1992). These indices were all above .90, indicating a good fitting model.

Measures

Our approach to measuring affective responses and cognitive processes is somewhat different from other operationalizations of affective and cognitive trust (Cummings & Bromiley, 1996; McAllister, 1995). Whereas other operationalizations of affective and cognitive trust have been intended to assess levels of these trust constructs, our operationalizations are intended to help us understand how subjects get to some level of general trust.

Cognitive process. The cognitive process was measured by the following items: I considered objective criteria when assessing the trustworthiness of management; I assessed the trustworthiness of management in an orderly fashion; I relied on a rational process to gauge whether management could be trusted; and I used a business-like approach to determine if I could trust management.

Affective reaction. Affective reactions were measured by the following items: My sense of intuition tells me that management can be trusted; I have a hunch that I can trust management; My instincts tell me I can trust management; and I have a “gut feeling” that management is trustworthy. Respondents scored each of the cognitive and affective items using a seven-point Likert scale (1=strongly disagree; 7=strongly agree).

The measurement portion of the general model was used to assess the construct validity of the cognitive and affective measures. The four-item cognitive process measure yielded adequate fit (chi-square with 2 degrees of freedom = 18.93, $p = 0.0$; GFI = .99; AGFI = .93). Likewise, the affective measure also yielded adequate fit (chi-square with 2 degrees of freedom = 28.68, $p = 0.0$; GFI = .98; AGFI = .90). Reliability of the measures was tested using Cronbach’s alpha. The Cronbach’s alpha for the cognitive measure was .86, while the Cronbach’s alpha for the affective measure was .91.

General trust. General trust was measured using 4 items that were adapted from a scale developed by Rousseau (1988). This scale was also used to measure trust in a study by Brockner, et al. (1997). In their study, Brockner and his colleagues asked respondents to differentiate between pairs of words that “best described your employer’s relationship with you *in general*” (emphasis added). Respondents used five-point scales placed between opposing pairs of words (e.g. trustful/distrustful; family-like/uncaring). In our study, respondents also used a five-point scale to rate their answer to the following question: “In general, the trust that I feel toward management may be described as.” The opposing word pairs were weak/strong; small/large; insignificant/significant; and low/high (see Appendix 1).

Expertise and Need for Control. Perceptions of expertise and the need for control were both measured using multiple item scales. Expertise questions asked subjects to compare the marketing expertise of the managers of the cooperative to the producer's own marketing expertise. Need for control questions focused on the importance to the subject of maintaining control of the marketing function. Cronbach's alphas for both measures were above .85.

Outsourcing. The level of outsourcing was measured as the percentage of the producer's total output that was marketed exclusively by the cooperative. In other words, the percentage of the producer's output to which all marketing control was relinquished to the managers of the cooperative. Outsourcing is a measured, endogeneous variable in our model.

Results

Path coefficients between cognitive processes and general trust; and affective responses and general trust were statistically significant and directionally correct in support of hypotheses H1 and H2, indicating that cognitive processes and affective responses are antecedents of general trust. The path coefficient for the relationship between general trust and outsourcing was not significant, indicating no support for hypothesis H3. Path coefficients and a comparison of alternative SEM models, using a chi-square test, and GFI and AGFI comparisons, indicated that the mediating role of perceptions of marketing expertise was significant with respect to general trust. Thus, hypothesis H4, concerning the effect of general trust on perceptions of expertise was supported. Finally, the parameter estimate of the path from Expertise to Outsourcing was compared to the parameter estimate of the path from Control to Outsourcing using a t-test. The difference in the absolute values of the critical ratios (t-value) between the path from Expertise to Outsourcing and the path from Control to Outsourcing was statistically different, with the estimate for Expertise being almost three times as large as that for Control. This finding supports hypothesis H5.

Discussion

Our results provide empirical support to the general argument that trust matters in outsourcing decisions. However, it appears that trust matters in a different way than one might expect. Perhaps the most interesting finding of the paper is that the effect of trust is mediated by perceptions of expertise. This mediation model augments our understanding of the role of trust in important managerial decisions such as outsourcing. Rather than trust having a direct effect on a major decision like outsourcing, the effect of trust appears to be in its influence on perceptions that, in turn, lead to major decisions.

Effects of perceptions of expertise are particularly interesting in the agricultural marketing cooperative context because marketing is certainly critical to the success of the producer. Bettis, et al. (1992) strongly cautions against outsourcing critical functions while Quinn & Hilmer (1994) argue for outsourcing any function in which

the firm is not likely to have a competitive advantage. The data in the present study clearly show that many producers are willing to place the marketing function *completely* in the hands of the managers of the cooperative. However, that decision is apparently based on an assessment of the expertise of the people doing the marketing. Thus, the results obtained in the present study support the notion that managers (producers) are willing to outsource critical business functions, but only when general trust, mediated by perceptions of expertise, warrants such a decision.

The explicit empirical consideration of affective responses and cognitive processes in arriving at general trust advances our understanding of the development of trust, especially given the integration within a model that also includes an important organizational outcome such as outsourcing. By linking affective responses and cognitive processes to an organizational outcome through perceptions of expertise, we have provided an important empirical linkage between the trust development literature and the trust effect literature.

These results also provide insight into the causality issue that is often raised concerning trust and outcomes. SEM cannot 'prove' causality, just as regression analysis, ANOVA, and correlation analysis cannot 'prove' causality. Although the survey data were cross-sectional in nature, subjects were asked to consider how they arrived at the perceptions they held. Whereas simple 'do you trust...' questions tend to invite the direction of causality criticism, we believe the survey questions and the structural modeling of the data help to attenuate causality issues. The survey questions were designed to gather information about the process of coming to a sense of general trust. Our structural model was an attempt to accurately model that process.

Research Implications. Clearly there is a need for more research to be done on the phenomenon of outsourcing. All along the food and fiber chain there appears to be opportunity and pressure to outsource business functions in the pursuit of competitive advantage. This study has examined only the role of trust, perceptions of expertise, and the need for control in one type of outsourcing decision. There is obvious need to examine other factors that influence the decision to outsource. For example, several different relationship issues may provide further insight into the outsourcing decision, such as the length of the relationship between the relevant economic actors, demographic and geographic considerations, and various cost and quality issues. Decisions of managers as to *what* to outsource and to *whom* it should be outsourced are also worthy of further research attention.

Further research on trust is also warranted as global trade expands and trading pressures intensify. Specifically, the development of trust among parties from different countries and regions of the world deserves more research attention. One intriguing issue is the notion of universal trust. How similar is the conception of trust across cultures? Can trading partners from several different cultures simultaneously rely on a trusting relationship? Another interesting issue is the role of trust in governing ongoing relationships (Dyer & Singh, 1998; Barney & Hansen,

1994). To what extent and under what circumstances can trust replace contractual relationships? Of course, the trust that consumers have for food retailers and government regulatory bodies will continue to be an important research area.

We encourage the use of SEM in examining these and other issues in agribusiness management. SEM is a powerful, comprehensive modeling tool. It is especially useful in modeling social processes involving abstract constructs that cannot be directly measured. The ability to incorporate measured and latent variables as endogenous or exogenous variables makes SEM particularly useful in examining relationships among multiple parties. SEM could prove to be an extremely valuable methodology as interest continues to grow in studying the complex relationships that characterize agribusiness.

Managerial Implications. One of the main implications of the present study for managers is that cognition and affect are both important in the development of trust. Managers wanting to improve relationships with customers, suppliers, and employees would do well to offer both cognitive and affective experiences. For example, an annual report can incorporate objective data for cognitive analysis as well as graphics and wording that will evoke an affective response. Face-to-face meetings provide context in which affective responses can occur. Cognition and affect are both important. Managers will be better served by recognizing and responding to both.

The results of this study may also prove helpful to managers by highlighting the need for other economic actors to perceive expertise in trading partners. General trust alone is not enough to positively influence others to trade. Furthermore, these results suggest that a party's need for control may be overcome if that party perceives a high level of expertise in a trading partner.

Conclusion

This research is relevant in three ways. First, it extends the body of knowledge on trust. Second, it examines the outsourcing decision. Finally, it introduces SEM in the agribusiness management literature, specifically in the marketing cooperative context. These issues all have implications for researchers and managers interested in the apparently increasing pressure for firms to place important business functions in the hands of other entities. Managers of these "other entities" who are in the business of performing business functions for other firms may benefit from understanding the decision processes of their potential customers. Business models developed in commodity markets in response to 'perfectly competitive' markets may foreshadow high-tech business models of the future. Cooperative strategies will likely continue to be one important response to increasingly competitive markets within and without the food and fiber chain. Also, although there may be a tendency to assume that trust will become less important as commerce becomes more electronic and less face-to-face, we argue that trust will remain an important managerial issue as long as cooperative strategies constitute an important business model.

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Appendix 1

Survey Instrument

1. Marketing Program Participation

The following questions ask about the extent to which you participate in Co-op A's marketing program. Please write your answers in the space provided.

1. Approximately how many total acres do you farm?	_____ Acres
2. Approximately how many acres do you devote to cotton in a <i>typical</i> year?	_____ Acres
3. Approximately how many bales of cotton do you produce in <i>typical</i> year?	_____ Bales
4. Approximately how many bales of cotton do you market with Co-op A in a <i>typical</i> year?	_____ Bales
5. Of the bales that you market with Co-op A in a <i>typical</i> year, approximately how many are marketed using the <i>Seasonal Option</i> ?	_____ Bales
6. Of the bales that you market with Co-op A in a <i>typical</i> year, approximately how many are marketed using the <i>Call Option</i> ?	_____ Bales

2. Co-op A Membership

With these questions, we're interested in knowing how you feel about your membership in Co-op A. Please circle your answer using the scale at the right.

	Strongly Disagree						Strongly Agree
1. I feel a sense of belonging to Co-op A.	1	2	3	4	5	6	7
2. I feel that I am a member of the Co-op A team.	1	2	3	4	5	6	7
3. I see myself as part of the Co-op A team.	1	2	3	4	5	6	7
4. I am enthusiastic about Co-op A.	1	2	3	4	5	6	7
5. I am happy to be a part of Co-op A.	1	2	3	4	5	6	7
6. Co-op A is the best marketing organization in the region.	1	2	3	4	5	6	7

Appendix 1 (cont.)

Survey Instrument

3. Co-op A Marketing Program

Please answer the following questions concerning your views about Co-op A's marketing program. Answer these questions on the basis of how you feel about the marketing program in general, rather than your views of a specific marketing program. Please circle your answer using the scale at the right.

	Strongly Disagree						Strongly Agree
1. The managers of Co-op A are better at marketing than I am.	1	2	3	4	5	6	7
2. I like having autonomy in how my cotton is marketed.	1	2	3	4	5	6	7
3. I don't mind giving the managers of Co-op A the authority to market my cotton.	1	2	3	4	5	6	7
4. The managers of Co-op A can obtain more favorable prices than I can.	1	2	3	4	5	6	7
5. The advantages of marketing my cotton with Co-op A are more important than the control that I have to surrender.	1	2	3	4	5	6	7
6. My desire to maintain some independence influences my level of participation with Co-op A.	1	2	3	4	5	6	7
7. The managers of Co-op A have superior marketing knowledge.	1	2	3	4	5	6	7
8. I am comfortable turning over the marketing of my cotton to the managers of Co-op A.	1	2	3	4	5	6	7
9. It is important to me that I maintain some freedom in marketing my cotton.	1	2	3	4	5	6	7
10. I enjoy marketing the cotton that I produce.	1	2	3	4	5	6	7
11. The managers of Co-op A have strong marketing advantages.	1	2	3	4	5	6	7
12. In the future, I am likely to <i>increase</i> my level of participation with Co-op A.	1	2	3	4	5	6	7
13. In the future, I am likely to <i>decrease</i> my level of participation with Co-op A.	1	2	3	4	5	6	7

Appendix 1 (cont.)

Survey Instrument

4. Written Contracts

These questions are intended to help us understand the extent to which you rely on written contracts to make decisions concerning your membership in Co-op A. Please circle your answer using the scale at the right.

	Strongly Disagree						Strongly Agree
1. I sought legal advice concerning my decision to join Co-op A.	1	2	3	4	5	6	7
2. I am comfortable relying on the integrity of Co-op A management to guide their behavior.	1	2	3	4	5	6	7
3. A written contract is needed to guide the behavior of Co-op A management.	1	2	3	4	5	6	7
4. If not for a written contract, Co-op A management might take unfair advantage of me.	1	2	3	4	5	6	7
5. I feel better about my relationship with Co-op A because we have contracts in place.	1	2	3	4	5	6	7
6. I feel comfortable relying only on verbal contracts to govern my relationship with Co-op A.	1	2	3	4	5	6	7
7. Relying on written contracts is necessary for the proper operation of Co-op A.	1	2	3	4	5	6	7
8. A written contract is necessary to assure that Co-op A management acts in my best interest.	1	2	3	4	5	6	7

Appendix 1 (cont.)

Survey Instrument

5. Relationship with Other Members

These questions are intended to help us understand the nature of your relationship with other members of Co-op A. In particular, we're interested in the trust that you have for other members of Co-op A and how you determine whether other members are trustworthy. In answering these questions, consider your relationship with other members of Co-op A in general, rather than your relationship with a particular member. Please circle your answer using the scale at the right.

	Strongly Disagree						Strongly Agree
1. I was impartial when deciding the trust that should be placed in other members.	1	2	3	4	5	6	7
2. My sense of intuition tells me that other members can be trusted.	1	2	3	4	5	6	7
3. I have a hunch that I can trust other members.	1	2	3	4	5	6	7
4. I considered objective criteria when assessing the trustworthiness of other members.	1	2	3	4	5	6	7
5. I assessed the trustworthiness of other members in an orderly fashion.	1	2	3	4	5	6	7
6. The trustworthiness of other members can be determined by relying on my common sense.	1	2	3	4	5	6	7
7. I feel that other members have a reputation for being trustworthy.	1	2	3	4	5	6	7
8. My instincts tell me that I can trust other members.	1	2	3	4	5	6	7
9. I used a business-like approach to determine if I could trust other members.	1	2	3	4	5	6	7
10. I relied on a rational process to gauge whether other members could be trusted.	1	2	3	4	5	6	7
11. I intuitively know whether other members can be trusted.	1	2	3	4	5	6	7
12. I was unbiased when judging the trustworthiness of other members.	1	2	3	4	5	6	7
13. I have a 'gut feeling' that other members are trustworthy.	1	2	3	4	5	6	7

Appendix 1 (cont.)

Survey Instrument

5. Relationship with Other Members (continued)

Please use the scales below to rate your answer to the following question: In general, the trust that I feel toward other members of Co-op A may be described as . . .

14.	Weak	1	2	3	4	5	Strong
15.	Small	1	2	3	4	5	Large
16.	Insignificant	1	2	3	4	5	Significant
17.	Low	1	2	3	4	5	High

6. Performance and Satisfaction

Here, we're interested in how your membership in Co-op A has affected the financial performance of your farm and how satisfied you are with your membership in Co-op A. Please circle your answer using the scale at the right.

	Strongly Disagree						Strongly Agree
1. My Co-op A membership has resulted in increased profits.	1	2	3	4	5	6	7
2. My Co-op A membership has resulted in increased sales revenue.	1	2	3	4	5	6	7
3. Overall, I am satisfied with the results of my Co-op A membership.	1	2	3	4	5	6	7
4. Overall, Co-op A has failed to meet my expectations.	1	2	3	4	5	6	7
5. Overall, I am getting what I bargained for when I joined Co-op A.	1	2	3	4	5	6	7
6. I have viable alternatives but I have chosen to remain with Co-op A.	1	2	3	4	5	6	7
7. I would like to leave Co-op A, but I feel I'm better off staying.	1	2	3	4	5	6	7
8. I wish I could accomplish my objectives without being a member of Co-op A.	1	2	3	4	5	6	7

Appendix 1 (cont.)

Survey Instrument

7. Member Relations Activities

Many co-ops engage in a variety of activities to provide information and feedback to their members. In answering these questions, consider how you feel about these activities as they pertain to Co-op A, rather than your feelings about these activities in general.

	Very Unimportant						Very Important
1. How do you rate the importance of Co-op A's magazine, <i>Co-op A Review</i> ?	1	2	3	4	5	6	7
2. How do you rate the importance of the grower meetings held in your region?	1	2	3	4	5	6	7
3. How do you rate the importance of Co-op A's office in your region?	1	2	3	4	5	6	7
4. How do you rate the importance of personal contact with a cotton specialist in your region?	1	2	3	4	5	6	7
5. How do you rate the importance of the year end financial statement information that Co-op A provides to you?	1	2	3	4	5	6	7
6. How do you rate the importance of an annual membership meeting held in Greenwood, MS?	1	2	3	4	5	6	7
7. How do you rate the importance of having a representative from your region on the Co-op A Board of Directors?	1	2	3	4	5	6	7
8. How do you rate the importance of the involvement in your local community by your region's cotton specialists?	1	2	3	4	5	6	7

Please use the scales below to rate your answer to the following question: In general, the overall success of Co-op A's efforts in the area of member relations may be described as . . .

9.	Weak	1	2	3	4	5	Strong
10.	Small	1	2	3	4	5	Large
11.	Insignificant	1	2	3	4	5	Significant
12.	Low	1	2	3	4	5	High

Appendix 1 (cont.)

Survey Instrument

8. Relationship with Management

The purpose of these questions is to help us understand the nature of your relationship with the management of Co-op A. In particular, we're interested in the trust that you have for Co-op A management and how you determine whether management is trustworthy. In answering these questions, consider how you feel about the management team of Co-op A in general, and not any specific member(s) of management. Please circle your answer using the scale at the right.

	Strongly Disagree						Strongly Agree
1. I was impartial when deciding the trust that should be placed in management.	1	2	3	4	5	6	7
2. My sense of intuition tells me that management can be trusted.	1	2	3	4	5	6	7
3. I have a hunch that I can trust management.	1	2	3	4	5	6	7
4. I considered objective criteria when assessing the trustworthiness of management.	1	2	3	4	5	6	7
5. I assessed the trustworthiness of management in an orderly fashion.	1	2	3	4	5	6	7
6. The trustworthiness of management can be determined by relying on my common sense.	1	2	3	4	5	6	7
7. I feel that management has a reputation for being trustworthy.	1	2	3	4	5	6	7
8. My instincts tell me that I can trust management.	1	2	3	4	5	6	7
9. I used a business-like approach to determine if I could trust management.	1	2	3	4	5	6	7
10. I relied on a rational process to gauge whether management could be trusted.	1	2	3	4	5	6	7
11. I intuitively know whether management can be trusted.	1	2	3	4	5	6	7
12. I was unbiased when judging the trustworthiness of management.	1	2	3	4	5	6	7
13. I have a 'gut feeling' that management is trustworthy.	1	2	3	4	5	6	7

Appendix 1 (cont.)

Survey Instrument

8. Relationship with Management (continued)

Use the scales below to rate your answer to the following question: In general, the trust that I feel toward Co-op A management may be described as . . .

14.	Weak	1	2	3	4	5	Strong
15.	Small	1	2	3	4	5	Large
16.	Insignificant	1	2	3	4	5	Significant
17.	Low	1	2	3	4	5	High

9. Tell us some things about yourself.

1. How long (in years) have you been growing cotton?	_____ Years
2. How long (in years) have you been a continuous member of Co-op A?	_____ Years
3. Is/was your father a member of Co-op A?	Yes or No (circle one)
4. Are other members of your family besides your father (such as brothers, uncles or in-laws) also members of Co-op A?	Yes or No (circle one)
5. Are growers who you consider to be your neighbors members of Co-op A?	Yes or No (circle one)
6. Are growers who you consider to be among your friends members of Co-op A?	Yes or No (circle one)
7. Have you ever discontinued your membership in Co-op A?	Yes or No (circle one)
8. What is your zip code?	

Please provide any comments you may deem relevant

Thank you for your participation.
Please return the completed survey in the envelope provided.