A Measure of Relationship Cultivation Strategies

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A multiple-item scale for measuring relationship cultivation strategies, the essential day-to-day activities of public relations practitioners, was developed to meet the standards of reliability and validity in measurement. After a discussion of the definition of the relationship cultivation strategies, the procedures used in developing and refining the multiple-item measures are described. The developed measures can help public relations professionals better understand how to nurture and sustain relationships with their target publics.

Studies of organization–public relationships include three stages: (a) antecedents of relationships, (b) relationship maintenance strategies,\(^1\) and (c) relationship quality outcomes. The first category, antecedents of

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\(^1\)Relationship maintenance has been renamed to relationship cultivation to emphasize the dynamic nature of building and sustaining quality organization–public relationships (J. E. Grunig, 2006). Although this study used the relationship maintenance strategies as conceptualized by Hon and J. E. Grunig (1999), this article refers to these strategies as relationship cultivation strategies.
relationships, describes the underlying reasons why organizations establish relationships with specific publics (Broom, Casey, & Ritchey, 1997). Antecedents of relationships are defined as “social and cultural norms, collective perceptions and expectations, needs for resources, perceptions of uncertain environment, and legal/voluntary necessity” (Broom et al., 1997, p. 94). The second category, relationship cultivation strategies, covers the strategies used to build and sustain quality relationships. Finally, relationship outcomes are the consequences, or measures of relationship quality, that are produced by effective relationship cultivation strategies (J. E. Grunig & Huang, 2000). In effect, relationship cultivation strategies lead to quality relationship outcomes.

Scholars posit that several relationship cultivation strategies (e.g., access, positivity, openness, sharing of tasks, networking, and assurances) can produce better relationship quality outcomes (e.g., control mutuality, satisfaction, trust, and commitment; J. E. Grunig & Huang, 2000; Hon & J. E. Grunig, 1999). Some organization–public relationship studies have attempted to measure quality relationships between an organization and its strategic publics and refine existing measurement scales (e.g., Bruning & Ledingham, 1999; Ferguson, 1984; J. E. Grunig & Huang, 2000; L. A. Grunig, J. E. Grunig, & Ehling, 1992; Hon & J. E. Grunig, 1999; Huang, 1997, 2001; Jo, 2003, 2006; Kim, 2001). Because these studies focused on scale development for relationship quality outcomes, they did not emphasize creating measurements for relationship cultivation strategies, which are the organizational relationship building efforts. Thus, this research was designed to develop multiple-item measures of relationship cultivation strategies that meet standards for reliability and validity. Spector’s (1992) framework, which provides a model for creating multiple-item scales, was followed.

This study contributes to theoretical developments explicating the conceptual definition and operational measures of relationship cultivation strategies. These findings will benefit scholars and practitioners, not only in the field of public relations, but also those studying interpersonal relations, as well as interorganizational relations. This is the first study to empirically measure relationship cultivation strategies—which are essentially the day-to-day activities of practitioners at the program level.

Additionally, as J. E. Grunig (2006) pointed out, relationship theory has been studied among most of the common stakeholder groups for organizations suggested by the Excellence study. However, member relations is one of the exceptions. This study’s focus on a membership organization and current members helps to extend the “edifice,” the metaphor J. E. Grunig used to describe the Excellence program of research, to “specialized areas of public relations” (p. 169).
Relationship Cultivation Strategies

Scholars measure the relationships between an organization and its strategic constituencies because relationship quality outcomes are the most meaningful means of evaluating public relations effectiveness. Several studies show that organizations that develop positive, long-term relationships with their publics are more effective and achieve their organizational goals (Dozier, L. A. Grunig, & J. E. Grunig, 1995; L. A. Grunig, J. E. Grunig, & Dozier, 2002; Hon, 1997; Huang, 1999). Furthermore, a positive relational outcome is dependent on an organization’s effort to cultivate and sustain positive relationships.

Several studies have suggested a dialogical approach for relationship management. In one study, Kent and Taylor (1998) established a theoretical framework applicable to the Web as a guide for building relationships with Internet publics. Specifically, they recommended five strategies that can be used via the Web for relationship cultivation—the dialogic loop,\(^2\) usefulness of information,\(^3\) generation of return visits,\(^4\) intuitiveness/ease of the interface,\(^5\) and the rule of conservation of visitors.\(^6\) Taylor, Kent, and White (2001) examined how activist organizations were using the Web to build relationships by applying the five strategies. According to their study, although the sampled activist organization’s Web sites satisfy some dialogical strategies, including usefulness of information and generation of return

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\(^2\)Dialogic loops allow publics to give feedback to an organization. Examples of the dialogic loop on the Web can be an e-bulletin board or e-mail address through which members of publics can post or send their inquiries, questions, concerns, and problems.

\(^3\)Kent and Taylor (1998) indicated that an organization’s Web sites should contain information of general value to all publics, such as the organization’s background or historical information. Audience-specific information and providing contact information for organizational members, external experts, etc., were the suggested examples of the second principle, the usefulness of information.

\(^4\)The generation of return visits is a strategy whereby an organization’s Web site includes attractive features so that members of public continuously come back to the sites. Examples can be frequently updated information, changing issues, special forums, new commentaries, etc. (Kent & Taylor, 1998).

\(^5\)The intuitiveness/ease of the interface indicates that the Web site should be easy for visitors to find the information they need. Kent and Taylor (1998) suggested that Web sites could help visitors by including a table of contents, well typeset pages, textual pages, and an interface accommodating to a slightly below average user.

\(^6\)The rule of conservation of visitors implies that an organization’s Web page should not lead visitors astray. Kent and Taylor (1998) suggested including the link to return to the organization site when Web pages include other related links, and avoiding sponsored advertising or placing ads in a strategic place that does not distract visitors.
visits, the sites do not truly employ a dialogical approach to its full potential. In a later essay, Kent and Taylor (2002) emphasized the dialogic approach as a more ethical relationship management approach and discussed how five tenets of dialogue can be applied to organizational environments. The features are mutuality,\(^7\) propinquity,\(^8\) empathy,\(^9\) risk,\(^10\) and commitment.\(^11\)

Other studies adopted relationship cultivation strategies from interpersonal communication and applied them to public relations (e.g., J. E. Grunig & Huang, 2000; Hon & J. E. Grunig, 1999). A handful of studies have explored how relationship cultivation strategies have been used in the online environment. For example, Ki and Hon (2006) explored how corporations used relationship cultivation strategies—access, positivity, openness, sharing of tasks, and networking—through their Web sites. They found that openness and access are the most commonly used relationship strategies among organizational Web sites. Following the steps of Ki and Hon (2006) study, Hong (2006) tested how relationship cultivation strategies for financial publics have been used in Forbes 200 Web sites. This study found that openness was the most common strategy, and positivity was used least prevalently. In another study that applied relational cultivation strategies to new technology, Kelleher and Miller (2006) concentrated on organizational blogs as a communication channel between an organization and its strategic publics. They discovered that perceived relational cultivation strategies, especially conversational human voice and communicated relational commitment, were significantly associated with relationship quality outcomes. However, these studies are limited to online communication. So far, no study has

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\(^7\)Mutuality is also called “the recognition of organization–public relationships” and defined as “an acknowledgement that organizations and publics are inextricably tied together” (Kent & Taylor, 2002, p. 25). Collaboration and a spirit of mutual equality are the characteristics of mutuality.

\(^8\)Propinquity refers to the temporal and spontaneous interactions between organizations and publics. With regard to propinquity, the organization consults with publics affected by issues, and publics provide input about what they need from the organization. The three characteristics of propinquity are “immediacy of presence,” “temporal flow,” and “engagement” (For detail, see Kent & Taylor, 2002, pp. 26–27).

\(^9\)Empathy is defined as “the atmosphere of support and trust that must exist if dialogue is to succeed” and is characterized by “supportiveness,” “communal orientation,” and “confirmation or acknowledgement” (Kent & Taylor, 2002, p. 27).

\(^10\)Risk is the willingness to interact with individuals and publics on their own terms and is characterized by “vulnerability,” “unanticipated consequences,” and “recognition of ‘strange otherness’” (Kent & Taylor, 2002, p. 28).

\(^11\)Commitment refers to the extent to which an organization gives itself over to dialogue, interpretation, and understanding in its interactions with publics and is characterized by “genuineness,” “commitment to conversation,” and “commitment to interpretation” (Kent & Taylor, 2002, p. 27).
empirically examined how relationship strategies can be measured through a variety of public relations efforts aimed at one or more key publics.

Hon and J. E. Grunig (1999) suggested that the relationship cultivation strategies used in interpersonal relationships can be applied to organization–public relationships by changing the focus of communication strategies from individuals to publics. These strategies are more likely to affect relationship quality outcomes, such as control mutuality, satisfaction, trust, and commitment (J. E. Grunig & Huang, 2000; Hon & J. E. Grunig, 1999).

As Spector (1992) proposed, the first step in developing multiple-item measurement scales is to define the construct. Also, definitions are fundamental because they specify the nature of, and guide boundaries for, the phenomenon under investigation (Canary & Stafford, 1994). This study defines relationship strategies as any organizational behavioral efforts that attempt to establish, cultivate, and sustain relationships with strategic publics.

This study also posits that positive evaluations of these strategies among publics lead to better relational outcomes.

Cultivating and sustaining organization–public relationships are a goal for organizations that desire long-term, stable, and satisfying relationships with their key publics. Making this point, Hon and J. E. Grunig (1999) highlighted the necessity of effective relationship management in public relations by explaining that most public relations professionals retain knowledge that has “something to do with how to communicate with publics, in order to maintain a relationship with those publics” (p. 13).

Relationship cultivation strategies in organization–public relationships have been derived from interpersonal communications because public relations studies suggest that interpersonal relationship perspectives can be applied to public relations (Thomlison, 2000; Toth, 2000; Wood, 1995). Both interpersonal and organization–public relationships share several key relational features such as trust (L. A. Grunig et al., 1992), control mutuality (Burgoon & Hale, 1984, 1987; Canary & Spitzner, 1989; Canary & Stafford, 1992; Ferguson, 1984; Stafford & Canary, 1991), and commitment (Aldrich, 1975, 1979; Burgoon & Hale, 1984, 1987; Canary & Spitzberg, 1989; Canary & Stafford, 1992).

Several studies in the field of interpersonal relationship studies have found that relational strategies are associated with perceptions of equitable relationships (Canary & Stafford, 1992). In public relations, the ideal relationship between an organization and its publics is perceived as fair and equitable by both parties. Likewise, scholars proposed that the five cultivation strategies used in interpersonal relationships are analogous to public relations strategies in the two-way symmetrical model of public relations (J. E. Grunig, 1989; J. E. Grunig & L. A. Grunig, 1992; J. E. Grunig &
Huang, 2000; J. E. Grunig & White, 1992; Ki & Hon, 2006, 2007). Scholars have regarded these strategies as the most effective for maintaining and fostering positive, stable relationships in public relations (J. E. Grunig & Huang, 2000; Hon & J. E. Grunig, 1999). These relationship strategies are considered process indicators that are useful as communication strategies for producing desirable relationship quality outcomes.

The six relationship cultivation strategies adopted from Hon and J. E. Grunig (1999) are discussed in detail next. Although Hon and J. E. Grunig conceptualized all of the cultivation strategies as two-way (organizations and publics use these with each other), as a first step this study emphasizes measures of organizational efforts.

**Access.** Hon and J. E. Grunig (1999) suggested access as one strategy in the organization–public relationship and identified access as follows:

Members of publics or opinion leaders provide access to public relations people. Public relations representatives or senior managers provide representatives of publics similar access to organizational decision-making processes. Either party will answer telephone calls or read letters or e-mail messages from the other. Either party is willing to go to the other when they have complaints or queries, rather than taking negative reactions to third parties. (Hon & J. E. Grunig, 1999, p. 14)

Access is a strategy that a party (either a public or an organization) uses to reach the other party and express or share opinions and thoughts. Based on Hon and J. E. Grunig’s (1999) guidelines, this study defines access as the degree of effort that an organization puts into providing communication channels or media outlets that assist its strategic publics in reaching it.

**Positivity.** Interpersonal communication studies define positivity as “attempts to make interactions pleasant” (Canary & Stafford, 1994, p. 15). In Canary and Stafford’s (1994) study, positivity consisted of cheerful and nice behavior, courteous and polite communication, and uncritical behaviors toward partners. Positivity has consistently been revealed as an essential predictor of control mutuality (Canary & Stafford, 1992, 1993; Dainton, 1991; Stafford & Canary, 1991). In addition, positivity was found to be a proactive strategy in constructive maintenance action (Guerrero, Eloy, & Wabnik, 1993).

Hon and J. E. Grunig (1999) adopted positivity from interpersonal communication literature and applied it to public relations. They conceptualized positivity as “anything the organization or publics do to make the relationship more enjoyable for the parties involved” (p. 14). Positivity is similar to
the “Be Unconditionally Constructive” principle for developing relationships espoused by Fisher and Brown (1988).

Because this study regards relationship strategies as organizational behavioral efforts designed to result in positive relationship quality outcomes, positivity in this study is defined as the degree to which members of publics benefit from the organization’s efforts to make the relationship more enjoyable for key publics.

**Openness/disclosure.** Openness, which is also called disclosure, is a concept studied actively by researchers of interpersonal communication. Openness has been defined as “direct discussion about the nature of the relationship and setting aside times for talks about the relationship” (Canary & Stafford, 1994, p. 12). Examples of openness in interpersonal communication are: “We share things with each other that no one else knows;” “We discuss our problems in the relationship;” “We often talk about how things used to be;” “I try to provide advice through past experience,” and “I rely on her for advice” (p. 15). Guerrero et al. (1993) found that, like positivity, openness represents proactive and constructive maintenance actions.

Openness in public relations involves disclosing thoughts and feelings among parties in a relationship (Hon & J. E. Grunig, 1999, p. 14). More specifically, openness is the condition in which both organizations and publics are open and honest with each other and more than willing to share their opinions about how they think, what concerns or problems they have, and how satisfied or dissatisfied they are with each other (L. A. Grunig et al., 2002). Furthermore, openness is a vital component of trust (Dimmick, Bell, Burgiss, & Ragsdale, 2000). J. E. Grunig and Huang (2000) further explained that this strategy corresponds with the symmetrical model and that it leads to positive relational outcomes. Openness can be helpful to equally distributing power in a relationship (Bok, 1989).

J. E. Grunig and Huang (2000) suggested that monitoring openness can be an effective gauge of relationship quality. For example, J. E. Grunig and Hunt (1984) found that AT&T community leader teams under evaluation in the 1970s tended to interact more openly among effective teams than less effective teams. In addition, J. E. Grunig and Huang suggested that public relations managers could quantify openness through evaluating suggestions, complaints, inquiries, and other contacts from members of publics, the media, government, or leaders of activist groups registered with the organization.

In an organization–public relationship, scholars have continuously revealed that openness is an important indicator of relationship quality outcomes. Ledingham and Bruning (1998), for instance, asserted that openness leads to satisfying relationships. L. A. Grunig et al. (1992) argued that
openness is an essential dimension for evaluating relationship quality with an organization’s strategic constituencies. Therefore, this study defines openness as an organization’s efforts to provide information about the nature of the organization and what it is doing.

**Sharing of tasks.** Studies on interpersonal relationships have examined the sharing of tasks between couples who share household duties and perform shared responsibilities (Canary & Stafford, 1994; Stafford & Canary, 1991). Furthermore, studies have shown that an example of this strategy is the mutual performance of routine tasks and chores (Canary & Stafford, 1994). Sharing of tasks is a consistent and important predictor of relational characteristics such as control mutuality, commitment, liking, and satisfaction. It significantly explains control mutuality and liking (Canary & Stafford, 1994), as well as commitment and satisfaction (Stafford & Canary, 1991), in relationships between two individuals. Other studies also have emphasized the importance of sharing tasks for relational satisfaction (Huston, McHale, & Crouter, 1986; Wilmot & Sillars, 1989).

This strategy can be applied to the public relations environment. For example, publics and organizations could share tasks such as reducing pollution, providing employment opportunities, making a profit, and staying in business, in the interests of either the organization, publics, or both (J. E. Grunig & Huang, 2000). In other words, this strategy is conceptualized as “organizations’ and publics’ sharing in solving joint or separate problems” (Hon & J. E. Grunig, 1999, p. 15). Sharing of tasks could be assessed through social responsibility reports that explain the degree to which an organization has made an effort to respond to problems or issues of interest with publics. By adopting Hon and J. E. Grunig’s conceptualization, this study defines sharing of tasks as an organization’s efforts to share in working on projects or solving problems of mutual interest between the organization and its publics. Thus, sharing of tasks entails the organization’s willingness to address its and its publics’ joint responsibilities so that both may achieve their interdependent goals.

**Networking.** The term network or networking is commonly used for the structure of ties between actors in a social system. The actors can be individuals, organizations, industries, or even nation states (Nohria & Eccles, 1992). Networking can be formed through conversation, friendship, kinship, authority, economic exchange, information exchange, or anything that builds the basis of a relationship (Nohria & Eccles, 1992). In interpersonal relationships, networking means the practice of spending time with mutual friends to gain support and make the relationship enjoyable (Canary & Stafford, 1994). Networking is performed through shared explanation, control
mutuality, and liking (Canary & Stafford, 1994). Moreover, Guerrero et al. (1993) have suggested that networking should be proactive and nurture constructive maintenance behaviors.

Expanding this idea to organization–public relationships, organizations can build networks with the same groups that network with their publics, such as unions, community groups, activist groups, and environmentalists (Hon & J. E. Grunig, 1999). And as J. E. Grunig and Huang (2000) have suggested, one method for evaluating networking efforts is documenting organizational contacts with external actors who engage with organizational publics. Adopting Hon and J. E. Grunig’s definition, this study defines networking as the degree of an organization’s effort to build networks or Coalitions with the same groups that their publics do, such as environmentalists, unions, or community groups.

Assurances. In the interpersonal relationship literature, assurances are behaviors that imply an expression of love between two individuals (Canary & Stafford, 1994). In the literature on organization–public relationships, assurances occur when “each party in the relationship attempts to assure the other that it and its concerns are legitimate and to demonstrate that it is committed to maintaining the relationship” (L. A. Grunig et al., 2002, p. 551). Using assurances as a relationship cultivation strategy, an organization can reinforce how it values its key publics (Hon & J. E. Grunig, 1999).

Providing assurances has been found to be most effective in nurturing commitment between two individuals (Canary & Stafford, 1992, 1993; Stafford & Canary, 1991). For example, Canary and Stafford (1992) studied the association between relationship cultivation strategies and relational outcomes in married couples. They found that the perception of assurances most affected the commitment of both partners. In their studies, assurances continuously appeared as a strong predictor of trust in interpersonal relationships (Canary & Stafford, 1993; Stafford & Canary, 1991). This study defines assurances as any efforts by an organization to assure its strategic publics that they and their concerns are attended to.

This review of literature offers compelling insights into how relationship cultivation strategies can be defined and applied to public relations. Yet, direct measurement of relationship cultivation strategies in a public relations context has not been attempted systematically. Based on the exploratory nature of this study, the following research question was posed:

Research Question: How can relationship cultivation strategies be measured?
METHODOLOGY

This study was designed to develop empirical measures of relationship cultivation strategies based on the steps for developing a summated rating scale suggested by Spector (1992). The organization in this study was a Florida Farm Bureau (FFB hereafter), which is the largest agricultural organization in a state for which agriculture is the second most important economic activity (FFB Federation, 2004a). Because FFB is a grassroots organization, communication with its members is vital to the organization’s operation. In essence, the organization’s life and power are dependent on its membership. Increasing the membership base of an association is the best way to leverage the power and influence of the organization (Kile, 1948). If a farm bureau did not make efforts to sustain or cultivate better relationships with its members, members would not likely remain affiliated with the organization.

The population of this study is current members of FFB, which currently include a membership of more than 140,000 (FFB Federation, 2004b). Members obviously can give valuable assessment about the strategies FFB has employed for cultivating relationships with them because members are the most important public and target for FFB’s relationship cultivating efforts.

Scale Development

The measures for relationship cultivation strategies were developed based on two procedures. First, this study adopted the scales from interpersonal relationships developed by Stafford and Canary (1991) and modified them to be applicable to organization–public relationship settings. For example, one of the items measuring positivity in interpersonal relationships originally stated, “S/he is very nice, courteous, and polite when we talk” and was changed to “FFB’s communication with members is courteous.” To establish additional measurement items, the researchers met twice with three top-level public relations professionals who are key decision-makers in the organization’s public relations program. The professionals first were provided with the explanation of each concept of the six cultivation strategies and examples of each strategy. After this Q & A session, the researchers then asked the practitioners to list all of the communication strategies that they believe represent each relationship cultivation strategy. Also, after these meetings, the researchers and practitioners exchanged several e-mail communications for clarifications. This process produced 4–7 items measuring each cultivation strategy.
Pretest
A pilot test was administered online during a 1-week period in April 2006, which included one e-mail reminder. An e-mail requesting participation in the pilot study was sent to 140 current members of the organization. Out of 140, 16 e-mails failed to be delivered. Out of 124 valid samples, 28 members participated in the pilot test, resulting in a 23% response rate for the pilot study. Respondents were asked to identify ambiguous or unclear items and provide suggestions for changes.

The pilot test revealed that a couple of questions related to relationship cultivation strategies were not applicable to the members of the public in this study. For example, several members commented that they have never used the organization’s Web site, so that they could not answer the questions related to Web site. As a result, the word *Web site* was dropped from the survey, and Web site-related questions were modified to become questions related to other communication media used by FFB.

Administration
A statewide mail survey was administered using three waves of mailing. One week before the mail survey packages were sent, an invitation postcard was sent to each member of 2,100 randomly selected individuals from the current membership directory of State Farm Bureau. In the second mail, the 2,100 individuals received a package that contained a cover letter, the survey questionnaire, and a return envelope with paid postage. As the last wave, a follow-up reminder was mailed 1 week after the original questionnaire was sent.

Out of the 2,100 members, a total of 553 responded to the survey. Among these 553 surveys, 493 were completed, 9 were incomplete, 26 were refused and returned by the respondents, and 25 failed to deliver. The response rate was, therefore, 24.2%. The researchers examined the 493 completed questionnaires and eliminated 24 of those that displayed response set. Additionally, for data analysis, listwise deletion was used for missing variables, which in turn reduced the final sample size to 429.

Survey Instrument
In this study, relationship cultivation strategies describe the organization’s behavioral efforts to cultivate a relationship with its key publics. Concepts representing six dimensions of relationship cultivation strategies—access, positivity, openness, sharing of tasks, networking, and assurances—were measured using a nine-point Likert scale. The scale’s responses ranged from *strongly disagree* (1) to *neutral* (5) and *strongly agree* (9) with no verbal
labels for scale points 2 through 4 and 6 through 8. Respondents were instructed to evaluate what FFB has done in terms of cultivating relationships with them.

Cronbach’s alpha for the initial measures were as follows: access, .83; positivity, .81; openness, .76; sharing of tasks, .79; networking, .70; and assurances, .82. Although there is no universally accepted standard, one of the most commonly accepted rules of thumb is that the alpha should be at least .70 for a scale to demonstrate internal consistency (Nunally, 1978). Therefore, all of the initial measures met this criterion.

Demographic Profiles

The questionnaire included several demographic items—gender, age, level of education, ethnicity, and the number of years as a member. Among the 429 respondents in the sample, the composition of gender was skewed toward men (approximately 68% are men and 32% are women) when compared to the population, according to the 2002 Census of Agriculture State Profile.

The average respondent age was 64, which is comparatively older than the average population age ($M = 57$). Education levels of the sample were as follows: some schooling (7%), a high school diploma (29%), some college (27%), college degree (19%), and a graduate degree (18%). In terms of ethnicity, 97% of respondents were White/Caucasian; Native Americans constituted 1% of the respondent population, and the remaining 2% indicated other categories, including Latino/Hispanic and African American. The reflection of these figures is similar to the ethnic distribution of the population, according to 2002 Census of Agriculture State Profile. The average length of participant membership in the organization was 25 years. This lengthy involvement with the organization suggests that participants can provide meaningful evaluations of the relationship cultivation strategies the organization uses in its day-to-day public relations initiatives.

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12 It has been suggested that a Cronbach coefficient alpha of approximately .90 is excellent, around .80 is very good, and values around .70 are adequate (Hair, Anderson, Tatham, & Black, 1998; Kline, 2005).

13 This study uses the demographic data from United States Department of Agriculture—Florida Agricultural Statistics Service, because the demographic information about the member population of Florida Farm Bureau is not available. There may be some differences between the demographic information from Florida Agricultural Statistics Service and the member population of Florida Farm Bureau. However, the demographic information used here is the most similar available to that of the population of the Florida Farm Bureau members.

14 The demographic information from United States Department of Agriculture does not provide educational information about the population. Therefore, comparison of demographic information in this category could not be provided.
Statistical Procedures for Data Analysis

For scale purification, both exploratory and confirmatory factor analyses were used. Exploratory factor analysis (EFA) established a preliminary version of relationship cultivation strategy measures by identifying items with low factor loadings and determining whether each measurement item loaded on its intended factor. In this step, the primary goal was to assess the dimensionality and the appropriateness of the measurement variables for each latent variable. Measurement items were deleted if they (a) were extracted as the second factor of the intended factor, (b) included opposite signs of factor loading coefficients among the other items in the intended factors, and (c) had factor loading values of less than .65 with the other items of their respective subscales (Hair et al., 1998). After removing those items, CFA was conducted to test and confirm the theoretical factor structure. Confirmatory factor analysis (CFA) can specify which variables characterize which factor by testing for construct validity (reliability between items) and discriminant validity (difference between factors). Construct validity specifies the extent to which the scores measure the hypothetical construct. Confirmatory factor analysis is one of the most frequently used procedures for evaluating construct validity. Construct validity was measured based on the average amount of variance among indicator variables as accounted for by each factor in the confirmatory factor analysis.

To evaluate the degree to which the proposed model, the measurement model, fits the observed data, this study employed several criteria shown in Table 1. A common model estimator is maximum likelihood (ML; Bollen, 1989; Chou & Bentler, 1995). ML is suitable for use with large samples due to its normality assumption of the sample, resulting in normal error distribution. That is, when a sample size is large, the robustness of ML deviates from normal distribution (Hu, Bentler, & Kano, 1992).

First, the $\chi^2$ goodness of fit statistic is used as a criterion of model adequacy with a nonsignificant value indicating a good fit to the data.

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<tr>
<th>Models Fit</th>
<th>Measurement Criteria</th>
<th>Revised Model</th>
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<tbody>
<tr>
<td>Chi-square/(df)</td>
<td>≤ 5</td>
<td>4.1</td>
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<tr>
<td>Comparative fit index (CFI)</td>
<td>≥ .90</td>
<td>.90</td>
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<tr>
<td>Goodness of fit index (GFI)</td>
<td>≥ .90</td>
<td>.84</td>
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<tr>
<td>Normed fit index (NFI)</td>
<td>≥ .90</td>
<td>.87</td>
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<tr>
<td>Rood mean squared error residual (RMSEA)</td>
<td>≤ .08</td>
<td>.85</td>
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(i.e., the proposed measurement model does not vary significantly from the observed data). However, this study opted to use the ratio of $\chi^2$ to the degree of freedom rather than the value of $\chi^2$ itself, because $\chi^2$ is affected by sample size. As sample size increases, the value of $\chi^2$ is more likely to indicate a significant probability level and vice versa (Bollen, 1989). A value less than five of the ratio generally indicates a good fit (Bollen, 1989). Other model fit criteria commonly used to indicate how well the specified model explains the observed data include comparative fit index (CFI), goodness of fit index (GFI), normed fit index (NFI), and root mean squared residual approximation (RMSEA). Values of CFI, GFI, and NFI range from 0 to 1.00, with higher values indicating better fit; .90 or higher is considered as a good fit. Values of RMSEA that are close to .08 or less commonly indicate a good fit (Byrne, 2001; Kline, 2005). Regression coefficients for the hypothesized structural relations were reported with their statistical significance, and significant alpha levels for all tests are .05.

RESULTS

Exploratory Factor Analysis

The six latent variables with multiple items (four items for access, seven items for positivity, five items for openness, four items for sharing of tasks, four items for networking, and five items for assurances) were analyzed. EFA reduced 29 items to 23 items—four items for access, five items for positivity, four items for openness, three items for sharing of tasks, three items for networking, and four items for assurances. The results demonstrated that all six dimensions were viable constructs for measuring relationship cultivation strategies. Cronbach’s alpha after removing the items with low factor loadings were follows: .83 for 4-item access, .82 for 5-item positivity, .80 for 4-item openness, .82 for 3-item sharing of tasks, .81 for 3-item networking, and .84 for 4-item assurances. All of the reliability measures met the “very good” criterion (Hair et al., 1998; Kline, 2005). Table 2 shows the correlations among the final measurement items. Table 3 presents factor loadings for each item on the intended factor and internal consistency.

Confirmatory Factor Analysis

As the second step, CFA was conducted to assess the adequacy of the factor structure for relationship cultivation strategies that had been constructed using AMOS 6.0. CFA confirms if a hypothesized factor model or measurement model fits the observed data and is appropriate to use following EFA. First, CFA is appropriate for the proposed structural validity that is derived
### TABLE 2
Correlation Matrix

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<td>Q.2</td>
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*Note. N = 429. All correlations are significant at the 0.01 level (2-tailed).*
<table>
<thead>
<tr>
<th>Strategy</th>
<th>Variable</th>
<th>Factor Loading</th>
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</thead>
<tbody>
<tr>
<td>Access $\alpha = .83$</td>
<td>Q2. — provides members with adequate contact information.</td>
<td>.79</td>
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<tr>
<td></td>
<td>Q8. — provides members opportunities to meet its staff.</td>
<td>.77</td>
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<td>Q26. When members have questions or concerns, — is willing to answer their inquiries.</td>
<td>.85</td>
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<td>Q29. — provides members with adequate contact information for specific staff on specific issues.</td>
<td>.84</td>
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<td>Positivity $\alpha = .82$</td>
<td>Q7. The member benefits — provides are important to members.</td>
<td>.68</td>
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<td>Q13. Receiving regular communications from — is beneficial to members.</td>
<td>.77</td>
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<td>Q15. —’s communication with members is courteous.</td>
<td>.80</td>
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<td>Q18. — attempts to make its interactions with members enjoyable.</td>
<td>.82</td>
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<td>Q28. — is cooperative when handling disagreements with members.</td>
<td>.68</td>
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<tr>
<td>Openness $\alpha = .80$</td>
<td>Q3. —’s Annual Report is a valuable source of information for members about what it has done.</td>
<td>.75</td>
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<td>Q12. — shares enough information with members about the organization’s governance.</td>
<td>.75</td>
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<td>Q22. —’s member meetings are a valuable way for members to communicate their opinions to the org.</td>
<td>.76</td>
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<td>Q24. The issue briefings — provides help members understand the issues.</td>
<td>.83</td>
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<td>Sharing of tasks $\alpha = .82$</td>
<td>Q5. — works with members to develop solutions to problems that benefit members.</td>
<td>.81</td>
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<td>Q6. — is involved in managing community issues that members care about.</td>
<td>.86</td>
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<td>Q9. — works effectively to resolve regulatory issues its members are facing.</td>
<td>.84</td>
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<tr>
<td>Networking $\alpha = .81$</td>
<td>Q11. — effectively builds coalitions with groups that impact members.</td>
<td>.68</td>
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<td>Q17. The coalitions that — forms with other agricultural groups benefit its members.</td>
<td>.69</td>
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<td>Q20. The Ag Coalition for legislative activities that — is involved in is helpful to its members.</td>
<td>.71</td>
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<td>Assurances $\alpha = .84$</td>
<td>Q4. — makes a genuine effort to provide personal responses to members’ concerns.</td>
<td>.82</td>
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<td>Q14. — communicates the importance of members.</td>
<td>.78</td>
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from questions such as: (a) the number of factors (i.e., latent variables) that underlie responses to items on a test, (b) the associations among those factors, and (c) the contribution of the factors to the items of the test (Hoyle & Smith, 1994). These questions help answer the major research question for this study. Second, CFA can offer a statistical test of the extent to which a proposed measurement model fits observed, empirically collected data (Hoyle, 1991). More important, CFA is appropriate for this study because the hypothesized factor structure was deductively established. In other words, the structure was developed based on existing literature and theories.

The CFA measurement model presented in Figure 1 shows a six-factor model with 23 items without correlating error terms between the errors of the observed variables. Overall goodness-of-fit indices were calculated using $\chi^2/df$, CFI, GFI, NFI, and RMSEA. As shown in Table 1, only a couple of indexes met established fit criteria ($\chi^2/df = 4.1$, CFI = .90) and others are close to good fit. Modification indexes suggested correlating error terms. Therefore, the measurement model was revised based on the modification indexes. The revised measurement model is presented in Figure 2. As shown in Table 1, critical GFIs were significantly improved beyond their criteria ($\chi^2/df = 3.3$, CFI = .93, NFI = .90, RMSEA = .07) and the remaining index was also close to a good fit (GFI = .87).

The magnitude of the factor loadings demonstrated that all items of each indicator in the revised measurement model demonstrated highly strong loadings. All items had higher than .60 standardized loadings, except one item of positivity. All factor loadings in the standardized solutions were statistically significant at $p < .001$.

**DISCUSSION AND CONCLUSION**

A primary purpose of this research was to construct the means for measuring relationship cultivation strategies. Measures of relationship cultivation...
were developed based on the suggestions provided by J. E. Grunig and Huang (2001) and Hon and J. E. Grunig’s (1999) study using multiple-item measurement procedures suggested by Spector (1992). The constructed measures were refined further using two steps of factor analysis—EFA and CFA. Factor analysis suggested the inclusion of 23 items consisting of four items for access, five items for positivity, four items for openness, three items for sharing of tasks, three items for networking, and four items for assurances. The final measurement items appear in Table 3. CFA was used

FIGURE 1 Original measurement model. Note: e = error term of each observed variable, rectangular indicates observed variables. Oval indicates latent variables.
to evaluate the hypothesized factor structure and showed that measures for relationship cultivation strategies had reliable and valid factor structures.

Theoretical and Managerial Implications

Empirical research on relationship cultivation strategies has been scant due to existing scholarship’s emphasis on evaluating organization–public relationship outcomes as a means of measuring the effectiveness of public relations. Thus, this is the first study to focus on and develop quantitative measures for relationship cultivation strategies, or the daily communication activities performed by organizations. As such, this study advances relationship management theory and helps practitioners identify strategies...
for maintaining and improving organization–public relationships. The measures of relationship cultivation developed in this research were established as reliable and valid.

Although the focus of this study was the member public, the ultimate goal was to develop an instrument that provides a basic skeleton for each of the six relationship cultivation strategy dimensions. This skeleton then can be adapted to fit other types of organization–public relationships, such as those with customers, employees, investors, community publics, etc. Further work still is needed to address the question of whether a universal scale might be developed that captures cultivation strategies for any OPR. Therefore, future researchers should be encouraged to (a) scrutinize the face validity of measures adapted from this skeleton scale, and (b) employ the same kind of rigorous scale reliability testing.

This instrument can prove valuable when used periodically to track the efficacy of relationship cultivation efforts, and when used in conjunction with existing measures of organization–public relationship outcomes. Specifically, by administering an instrument that combines measures of relationship cultivation and relationship quality among a target public, an organization would learn a great deal about the strategies available to improve its public relations. Furthermore, this instrument could evaluate the quality of cultivation that an organization uses along each of the six strategy dimensions by averaging the different scores on items. It also can assess an overall measure of the cultivation strategies as an average score across all six dimensions. However, obviously respondents surveyed should have some relationship or experience with the organization being researched for the measures to be meaningful. Members of some publics—customers in particular—may have limited direct contact with an organization. In this scenario, the cultivation strategies may need to be defined and measured differently.

Limitations and Future Research

Although this study is original and compelling in several ways, it has limitations that can, nonetheless, help guide future research endeavors. The definitions and measurement tools used in this study were developed based on the literature. However, there are some shortcomings to the measurements. As an outcome of the pilot test of the questionnaire, questions related to new technologies for communication were dropped. Corporate Web sites are a commonly used communication channel today, suggesting that measurement items for relationship cultivation strategies through Web sites should be considered in future research.

This study used random sampling so that the results may be at least suggestive for other state farm bureaus. However, external validity is still
questionable. Future studies should apply the developed measures to other types of organizations such as profit, nonprofit, governmental organizations, etc., as well as various industries to refine the scales.

Although the reliabilities of all the indicators met an acceptable level, some were weaker than desired. The lower reliabilities are probably due to the insufficient number of items used for each scale, especially for access, networking, sharing of tasks, and assurances, all of which have only three or four items. Therefore, to better tap each dimension, future research might need to increase the number of items for these scales.

Additionally, several measurement items have marginally acceptable factor loadings. For example, two items for positivity loaded at .68, and three items for networking loaded at .68, .69, and .71. Future research should strive to improve the overall measurement validity for these concepts.

This study is limited to developing measures for relationship cultivation strategies. In the extant scholarship, these strategies have been posited as precursors to relationship quality (J. E. Grunig & Huang, 2000; Hon & J. E. Grunig, 1999). However, future research needs to establish, empirically, how relationship cultivation strategies used by an organization are predictive of relationship quality. And, other important questions yet unexplored have to do with levels of desired effect and resources needed. In other words, what is the level of relationship quality needed for an organization–public relationship—ranging from viable to optimal—and which combination of cultivation strategies is needed to achieve various levels? How then should budget be allocated to maximize the effectiveness of relationship cultivation? A truly meaningful model of public relations evaluation would answer these questions both for theory and practice.

REFERENCES


