Satisfaction, Investment, and Alternatives Predict Entrepreneurs’ Networking Group Commitment and Subsequent Revenue Generation

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Prevailing wisdom across the body of research regarding social ties suggests that quantity matters. However, this logic is less applicable in formal networking groups, which have a bounded (and stable) membership. In such a setting, we argue that the quality of an entrepreneur’s relationship with the networking group is what matters. Accordingly, we suggest that the networking group setting is one in which core tenets of the literature need refining. Consistent with our predictions, findings from a sample of 279 entrepreneurs across 25 separate networking groups demonstrated that entrepreneurs’ affective commitment to the group mediated the relations among (1) satisfaction with their group, (2) investment in their group, and (3) perceptions of alternatives to their group with the outcome of percentage of revenue generated from the networking group. These data provide insight into the psychological and behavioral antecedents of performance for entrepreneurs in networking groups: entrepreneurs who are more affectively committed to their networking groups are more likely to experience gains in revenue attributed to the group. We discuss the implications of these findings as well as offer multiple directions for future work.

Introduction

For entrepreneurs, networking—forging new social ties that lead to information and resources and, ultimately, increased value creation for the venture—is considered an
essential component of the firm start-up and growth process (Delmar & Shane, 2004; Vissa, 2011, 2012; Zhao & Aram, 1995). Bird (1988) conceptually related networking skills to a greater level of attunement—the readiness to send and receive information—and proposed that entrepreneurs with greater networking skills will achieve greater attunement, and ultimately more success, than entrepreneurs who lack such skills.

An increasingly popular route through which entrepreneurs attempt to acquire new social ties, via networking, is through membership in a formal networking group (e.g., Pollack, VanEpps, & Hayes, 2012). The way entrepreneurs’ membership in a formal networking group fosters access to potential new clients is through the social ties generated from attending weekly meetings and having fellow members provide referrals to new contacts (e.g., Gilmore & Carson, 1999; de Janasz & Forret, 2007; O’Donnell, 2004; Parrott, Roomi, & Holliman, 2010). Business Networking International (BNI), for example, is the world’s largest business networking organization with operations in over 50 countries and over 2,800 chapters (Thompson, 2010)—the goal of BNI is to connect group members with one another to exchange referrals, and other resources, and increase members’ income.

Although a growing body of research highlights the importance of networking across the stages of entrepreneurial development (Greve & Salaff, 2003; Le & Nguyen, 2009; Malewicki, 2005), very little is known about how networking actually leads to beneficial business-related outcomes. Prevailing wisdom based on extant research suggests that a greater quantity of ties is beneficial for the discovery of business opportunities (Singh, Hybels, & Hills, 2000) as well as better business performance (e.g., Kilduff & Brass, 2010; Lerner, Brush, & Hisrich, 1997; Watson, 2007; Witt, 2004). Yet, in a formal networking group—where the number of group members is relatively bounded and stable—the standard recommendation of generating more social ties is not as applicable as compared to other avenues of networking where one can add any number of social ties at will (e.g., Facebook, LinkedIn). Thus, we argue that the networking group is one setting in which core tenets of research on social ties need refining.

Accordingly, in the present work, we take a different approach. We address this issue by integrating the burgeoning literature on entrepreneurial networking with well-established empirical work on the investment model of commitment (Rusbult & Farrell, 1983) to investigate how an entrepreneur’s relationship with a formal networking group leads to increased revenue generation. Research on the investment model identifies three crucial antecedents to individuals’ commitment: satisfaction, investment, and alternatives. Investment model research has illustrated the ability of satisfaction, investment, and alternatives to predict commitment to groups such as companies or universities (Farrell & Rusbult, 1981; Hatcher, Kryter, Prus, & Fitzgerald, 1992; Rusbult & Farrell), commitment in romantic relationships and friendships (Agnew, Van Lange, Rusbult, & Langston, 1998; Drigotas & Rusbult, 1992; Le & Agnew, 2003; Rusbult, Martz, & Agnew, 1998), as well as commitment to broad targets such as the natural environment (Carpenter & Coleman, 1998; Davis, Le, & Coy, 2011). In turn, commitment predicts a host of pro-relationship cognitions and behaviors (Rusbult & Van Lange, 2003), including greater relationship persistence (e.g., Wieselquist, Rusbult, Foster, & Agnew, 1999), forgiveness (Finkel, Rusbult, Kumashiro, & Hannon, 2002), accommodation (i.e., turning the other cheek when the partner behaves badly; Kilpatrick, Bissonnette, & Rusbult, 2002), and sacrifice for the partner (Van Lange et al., 1997).

In the present work, focused on networking groups, we suggest that entrepreneurs’ satisfaction (the net positive feelings and benefits derived from the working relationship with the group), investments (time spent cultivating the relationship), and alternatives (the extent to which individuals’ needs may be met by another networking group), will predict...
commitment to the group. In turn, we argue that greater commitment will predict greater revenue generated from the networking group. In our extension of this theory to the domain of entrepreneurship, multiple theoretical and practical contributions emerge. First, we confirm these three antecedents to entrepreneurs’ affective commitment to their networking groups and show, in turn, how this commitment drives revenue generation from the networking group. This provides a new way to think about the investment model of commitment, as we extend the work beyond mere psychological variables and examine a more objective outcome that is of great importance to business owners. As such, our focus on revenue generated as an outcome advances the literature related to the investment model of commitment.

Second, we further advance the literature by focusing on an interdependent behavior rather than a purely independent behavior. Almost no research has addressed this point, and the limited work that has been conducted has focused on romantic relationships (e.g., VanderDrift, Agnew, Harvey, & Warren, 2012). In contrast, our outcome of percentage of revenue generated (from networking) is a function of the relationship (with an entrepreneur’s networking group) rather than one individual. That is, revenue is the outcome of the interplay among at least two individuals in order to obtain referrals. No studies, to date, have examined this type of relationship. Accordingly, this work not only contributes back to the domain of psychology, but also refines the way in which researchers and entrepreneurs can more effectively understand how entrepreneurial networking group members’ actions, and revenue, can be influenced.

From a practical perspective, we examine an entrepreneur’s relationship and commitment to her networking group. Our work highlights the usefulness of a relationship-focused, commitment-based, perspective for entrepreneurs. Just as a romantic relationship, or friendship, takes work so too does an entrepreneur’s relationship with her networking group. Accordingly, our findings suggest that entrepreneurs in networking groups would benefit, in terms of greater commitment and subsequent revenue, from effort put into the group that leads to greater satisfaction, investment, and perceptions (lesser) of alternatives. We outline the literatures related to these contributions in the following sections.

Theoretical Background

Networking and Entrepreneurial Success

New firms are dependent on social ties with external sources of information and resources. The theoretical and empirical entrepreneurship literature amply supports the notion that networking is positively related to desirable firm outcomes such as legitimacy, information exchange, and coordination, as well as business performance (Johannisson & Monsted, 1997; Larson, 1991; Starr & MacMillan, 1990; Szarka, 1990; Tornikoski & Newbert, 2007; Vissa & Chacar, 2009).

Networking has been defined as activities ranging in scope from the “initiation and sustenance of interpersonal connections for the rather Machiavellian purpose of tapping those relationships later for commercial gain” (Iacobucci, 1996, p. xiii), to career success and the process of “building, maintaining, and using informal relationships that possess the potential benefit of facilitating work-related activities of individuals by voluntarily granting access to resources and maximizing common advantages” (Wolff & Moser, 2009, p. 197). Across diverse contexts, one clear common theme emerges: individuals forge relationships in order to gain access to resources. Oddly, thus far, no research has
examined how entrepreneurs in formal BNI groups function with regard to their relationship with the group.

Accordingly, we turn to the well-established literature on relationships to provide insight into how entrepreneurs function within their networking group. The relationships literature is particularly relevant to our context, as it provides a framework for examining the structure of diverse types of relationships (Thibaut & Kelley, 1959). Rusbult’s investment model of commitment (Rusbult et al., 1998) is the most widely applied and empirically validated model of relational commitment (Le & Agnew, 2003), and, more broadly, one of the most influential relationships theories in psychology. We apply insights from the investment model theory to an entrepreneurship context: networking groups.

The Investment Model of Commitment

Over the last 30 years, the investment model framework has been used to examine a variety of interpersonal relationships (e.g., homosexual and heterosexual romantic relationships, friendships), as well as other contexts such as commitment to a local community, organizations, colleges, sports teams, musical activities, and a medical regimen (e.g., Geyer, Brannon, & Shearon, 1987; for a review see Le & Agnew, 2003). The three antecedents to commitment in this model are: satisfaction, investment, and alternatives. Research has illustrated that satisfaction, investment, and alternatives predict commitment across a wide array of situations involving companies or universities (Farrell & Rusbult, 1981; Hatcher et al., 1992; Rusbult & Farrell, 1983), romantic relationships and friendships (Agnew et al., 1998; Drigotas & Rusbult, 1992; Le & Agnew; Rusbult et al., 1998), and the environment (Carpenter & Coleman, 1998; Davis et al., 2011).

Meta-analytic results (Le & Agnew, 2003) summarizing 60 independent samples involving 11,582 individuals found robust links between commitment and its antecedents and the results generalized across a host of individual (i.e., sex, ethnicity, sexual orientation) and relational (e.g., dating vs. cohabiting vs. married) variables. The magnitude of the correlations varied somewhat in only a few cases (e.g., smaller investment size for homosexual men), but all three were strongly related to commitment and accounted for over 60% of the variance in commitment. Commitment, in turn, predicted a variety of outcomes, including breakup, infidelity, sacrifice, idealization of partner, perspective taking, and accommodation.

Of particular relevance to the present work, the investment model has been applied to several work and managerial settings. For example, a 12-month longitudinal study (Rusbult & Farrell, 1983) found that commitment predicted job satisfaction as well as job turnover. Though the constituents of commitment (i.e., satisfaction, investment, and alternatives) also predicted job turnover, commitment was the best predictor. This pattern of results mimics investment model results found in many studies: commitment is greater than the sum of its parts, and mediates the effects of satisfaction, investment, and alternatives on behaviors such as leaving a job, group, or relationship. Put another way, though there may be some cyclical patterns such that commitment may modestly predict satisfaction or investment in limited circumstances (though it is hard to conceive of changes in commitment affecting alternatives), the preponderance of evidence favors the other causal direction when using mediational or similar analyses.

In sum, commitment is theorized to be greater to the extent that individuals are dependent on a group (or individual) to uniquely gratify their needs, and is characterized by long-term orientation to the group, psychological attachment to the group, and intent
to persist in a relationship with the group (Rusbult, Olsen, Davis, & Hannon, 2001). Thus, perhaps not surprisingly, theoretically and empirically Rusbult’s conceptualization of commitment appears to most closely resemble affective organizational commitment (e.g., psychological attachment to an individual or group).

The Antecedents of Affective Commitment in a Networking Context

In the management literature, the construct of commitment typically has been operationalized as organizational commitment—the linking of individuals’ identity with the organization and the process by which individuals adopt the goals of the organization (Mathieu & Zajac, 1990; Meyer & Allen, 1997; Tett & Meyer, 1993). For instance, Mowday, Steers, and Porter (1979) described organizational commitment as a strong acceptance of the organization’s goals, willingness to exert substantial effort on behalf of the organization, and desire to maintain membership in the organization. Empirical work (e.g., Hackett, Bycio, & Hausdorf, 1994; Meyer & Allen; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002) has revealed three facets of organizational commitment: emotional attachment to and identification with an organization (i.e., affective commitment), perceiving potential costs incurred with leaving an organization (i.e., continuance commitment), and feeling obligated to maintain membership in an organization (i.e., normative commitment, though this facet of commitment has been problematic empirically). Meyer et al.’s meta-analysis identified several antecedents to commitment (e.g., alternatives, investment, socialization experiences), general correlates (e.g., job satisfaction, job involvement), and outcomes (e.g., turnover, health and well-being, attendance). Notably, this meta-analysis revealed that affective organizational commitment, relative to normative and continuance commitment, had the strongest positive relations with relevant outcomes.

In the present work, we focus on affective commitment, rather than normative and/or continuance commitment, for two primary reasons. First, as noted above, affective commitment demonstrated the strongest positive relations with key outcomes (Meyer et al., 2002). Thus, in the interest of creating a parsimonious conceptual model, which has the greatest likelihood of accounting for the most variance, we assessed affective commitment. Previous research has shown that examining affective commitment (while excluding normative and continuance commitment) is justified (e.g., Restubog, Bordia, & Tang, 2006; Vandenberghhe, Bentein, & Stinglhamber, 2004). Second, from a relationships perspective, affective commitment is a more consistent theory-based construct. To be specific, the commitment measures used in the investment model of commitment relate more closely to affective commitment. For example, Rusbult et al. (1998) developed a commitment scale that assesses the desire of an individual to maintain the relationship, feel attached to the relationship, and view the relationship with a long-term perspective. These concepts are very closely aligned with the measure of affective commitment but not normative or continuance commitment. Thus, to remain true to our theory-based approach, we adopted an affective commitment lens through which we apply the investment model variables.

Applying the Investment Model. Very little, from a theory-based perspective in entrepreneurship, is known about how individuals develop or enhance their long-term commitment to networking groups (e.g., Malewicki, 2005). Adding to extant theory, the present work is the first to apply the investment model of commitment to the domain of entrepreneurial networking groups (Rusbult & Farrell, 1983). In applying the investment model to this setting, we ask the question: “Under what conditions will entrepreneurs
experience greater commitment to their networking groups?” We focus on the investment model antecedents described below: satisfaction, investment, and alternatives.

In the networking context, satisfaction consists of the net positive feelings and benefits derived from one’s working relationship with the group. Greater satisfaction increases commitment. Investments are resources connected to the group (e.g., time spent cultivating the relationship) that would be lost if the relationship were to end; greater investments increase commitment. For example, Ping (1997) found that the more years a retailer had done business with a firm, the more likely that the retailer perceived a high cost of exiting the relationship with the firm. Alternatives refer to the extent to which individuals’ needs may be met outside the current relationship (e.g., by joining a different networking group); poor alternatives increase commitment. Overall, individuals’ commitment to a group can be predicted by their levels of satisfaction, investment, and alternatives. Findings from the literature on organizational commitment are consistent with this approach: alternatives and investments are key antecedents to commitment (Meyer et al., 2002).

An investment model of commitment perspective allows us to examine the antecedents of commitment, and thus how entrepreneurs in networking groups function and gain access to crucial resources needed for firm survival. Overall, an entrepreneur who is satisfied with the experience in the networking group, is highly invested (e.g., increased length of time as a member in the group), and who perceives few viable alternatives (i.e., other networking groups) should exhibit increased commitment to the group. Rusbult and colleagues’ investment model of commitment illustrates how these antecedents foster increased commitment (Agnew et al., 1998; Rusbult & Farrell, 1983), and in extending this model to the entrepreneurial context of networking groups, we propose the following hypotheses.

Hypothesis 1a: An entrepreneur’s increased satisfaction (with the networking group) predicts increased affective commitment.
Hypothesis 1b: An entrepreneur’s increased investment (to the networking group) predicts increased affective commitment.
Hypothesis 1c: An entrepreneur’s increased perception of alternatives (to the networking group) negatively predicts affective commitment.

Commitment as a Predictor of Revenue Generated from Networking

Commitment, typically, is greater than the sum of its parts (antecedents), by mediating the effects of satisfaction, investment, and alternatives on a variety of relationship outcomes, with greater power than the three constituents alone. Commitment predicts a host of pro-relationship cognitions and behaviors including relationship persistence, forgiveness, accommodation, and sacrifice (e.g., Finkel et al., 2002; Kilpatrick et al., 2002; Rusbult & Van Lange, 2003; Van Lange et al., 1997; Wieselquist et al., 1999). The fact that commitment has strong links to pro-relationship behavior is relevant for entrepreneurs in networking groups. And, this commitment-based framework may offer substantial benefits for management scholars examining the entrepreneurial networking context.

From a traditional economic standpoint, an entrepreneur is viewed as an individual competing alone (e.g., in a solely self-interested manner). However, contemporary perspectives highlight the interdependence dynamic that new firms are dependent on relationships formed with external stakeholders in which resources essential for firm survival can be obtained.
With regard to our context of interdependent entrepreneurs in networking groups, recent research on the affective climate in teams explains how greater affective commitment leads to positive dyadic outcomes (Banks et al., 2013). In particular, teams with greater affective bonds are more likely to have members exhibit reciprocally beneficial behavior. This is consistent with work in the literature related to small groups and teams that shows how commitment is a marker for more cohesive groups—and, accordingly, as team members feel more attracted (i.e., committed) to the group they are more likely to engage in communal, reciprocal, and helping behavior (Baker, Day, & Salas, 2006; Salas, Burke, Bowers, & Wilson, 2001; Salas, Sims, & Burke, 2005). We suggest that, in the present context of networking groups, an individual’s greater affective commitment will translate to greater revenue generated for that member from her interactions with other group members.

Typically, investment model of commitment research examines whether individuals’ commitment predicts their own cognitions and behavior (e.g., whether entrepreneurs’ commitment predicts referrals shared with other network members). We take a novel approach, examining whether entrepreneurs’ commitment predicts what they receive from group members, namely revenue. We chose this outcome (i.e., percentage of an entrepreneur’s total revenue generated from networking) for several reasons. First, revenue generation is the ultimate motivator for joining a networking group. Second and relatedly, it is quite literally the bottom line for new business owners: Revenue generation will determine the fate of their business. In BNI groups, members report each week on the number (and monetary value) of referrals—thus, this is an observed variable (Stephenson & Holbert, 2003). Third, such an outcome is reasonable based upon previous investment model research but would constitute a more distal and more stringent test of the investment model and of relationship dynamics.

Commitment-promoting behaviors trigger a pattern of mutual cyclical growth in ongoing relationships (such as the ongoing relationship with an entrepreneur with her networking group). Individuals who expect relationship partners to engage in pro-relationship behaviors are more likely to engage in such behaviors themselves (Van Lange et al., 1997). Indeed, time-lagged analyses have revealed that when individuals sacrifice for their partners, the partners experience gains in trust and subsequently are more likely to enact relationship-building actions themselves. Thus, individuals engaging in pro-relationship behaviors (e.g., weekly attendance at meetings, giving a referral to a fellow member) are likely to trigger relationship-building processes. Partners who receive such benefits are likely to reciprocate by providing useful information and referrals that can be used to generate revenue. This is a special and pertinent case of the powerful and culturally universal norm of reciprocity (Molm, Schaefer, & Collett, 2007; Rusbult & Van Lange, 2003), the powerful pull to repay kindness with kindness, and cruelty with cruelty. As commitment has consequences for pro-relational behavior and reciprocity, we can begin to conceptualize how an individual member’s affective commitment to an overall entrepreneurial community (i.e., her networking group) could lead to increased beneficial outcomes (e.g., revenue generation). Building on this framework, we propose our final two hypotheses.

**Hypothesis 2:** Entrepreneurs’ increased affective commitment (to the networking group) positively predicts revenue generation.

**Hypothesis 3:** Entrepreneurs’ affective commitment (to the networking group) mediates the relation between satisfaction, investment, and perception of alternatives on the outcome revenue generation.
Method

Organizational Context, Participants, and Procedures

Organizational Context. We examined how the antecedents of satisfaction, investment, and alternatives influenced entrepreneurs’ affective commitment, and subsequent performance in networking groups via an online survey. These data were collected as a part of a larger project, the 2009 Survey of Entrepreneurial Networking Dynamics (SEND), from which multiple manuscripts have emerged (e.g., Pollack, Burnette, & Hoyt, 2012; Pollack, VanEpps, et al., 2012). Each participating entrepreneur was an active member in one of 25 BNI groups in a large mid-Atlantic city in the United States. The annual fee for membership in each group is approximately $300. Each group meets weekly. At these structured meetings, entrepreneurs take turns describing their ideal customers, and group members work to generate referrals for their fellow group members that resemble the ideal customers. These individuals are, by definition, entrepreneurs in that they are actively engaged in the processes of discovering, evaluating, and exploiting opportunities to create goods and services (McMullen & Shepherd, 2006; Shane & Venkataraman, 2000), and past research specifically using BNI groups affirms this characterization (e.g., Dafna, 2008; Pollack, Burnette, et al.; Pollack, VanEpps, et al.).

Participants. Recruited participants (N = 279; women = 97, gender unreported = 25) were of varying ages (M = 43.19 years, standard deviation [SD] = 10.87 years), had an average tenure in their company of just over 3 years (M = 3.25 years, SD = 2.09 years) and had been members of their BNI group for over 2 years on average (M = 2.45 years, SD = 1.97 years). The number of employees per company was small (M = 33.81, SD = 98.41). Regarding the size of these firms, though the mean number of employees was 33.81, the median was 5. In fact, over half of the sample (54.9%) had five or fewer employees. Overall, the age of these firms as well as the small number of employees is consistent with our characterization of them as entrepreneurial.

Procedures. Participants provided self-reported responses to the measures described below. Consistent with best practices, when surveying audiences (in this case entrepreneurs) who have limited time to participate (Bergkvist & Rossiter, 2007; Drolet & Morrison, 2001; Pollack, VanEpps, et al., 2012; Wanous, Reichers, & Hudy, 1997), we chose shorter but reliable scales, where available, to measure our focal constructs.

To reduce bias related to common methods, we followed recommendations by Podsakoff, MacKenzie, Lee, and Podsakoff (2003, pp. 887–888) by intentionally incorporating the following in our data collection and analyses: “protecting respondent anonymity,” “reducing evaluation apprehension,” and “improving scale items.” Additionally, we also, per the recommendations of Podsakoff et al., integrated the procedural remedy of varying response formats (see measures described below; e.g., varying response anchors, reverse-worded items) which decreases response selection bias and, subsequently, common method variance.

Measures

Satisfaction. Satisfaction was measured via three items. Two items were measured on a 1 (very unsatisfied) to 7 (very satisfied) scale. The first item (M = 5.05, SD = 1.51) was, “Overall, how satisfied are you with the contribution you make to your BNI group?” and
the second ($M = 4.96, SD = 1.63$) was, “Overall, how satisfied are you with the value you receive from your BNI group?” The third item ($M = 3.70, SD = .74$), measured on a 1 (extremely ineffective) to 5 (extremely effective) scale was, “How would you characterize your working relationship to other group members in general?” Items were sufficiently correlated ($r$'s $= .50$ to $.79$, $p$’s $< .001$), and results from both an exploratory factor analysis, and the confirmatory factor analysis described below, provide evidence that these three items warrant aggregation into one measure of satisfaction ($\alpha = .65$).

**Investment.** We measured an entrepreneur’s degree of investment in the group with one item ($M = 2.45$ years, $SD = 1.97$) that asked, “How long have you been a member of this networking group?” Duration of relationship is a widely accepted measure of investment and, accordingly, our measure follows this past related research which has similarly examined the investment of individuals with the organizations in which they are involved (e.g., Goodfriend & Agnew, 2008; Rusbult, 1980; Rusbult & Farrell, 1983).

**Quality of Alternatives.** Alternatives to the group were measured using three items: “In one year, I will be a member of a different BNI Group,” “In one year, I will still be a member of this BNI Group,” and “In one year I will not be a member of any BNI Group.” Participants responded on a 1 (strong disagree) to 7 (strongly agree) scale that demonstrated good reliability ($\alpha = .78$). We recoded such that higher numbers represented higher perceived quality of alternatives on this measure ($M = 2.24, SD = 1.27$).

**Affective Commitment.** We administered an established 8-item scale ($M = 5.70$, $SD = .98$), adapted to the BNI Group context to measure affective organizational commitment (Mowday, Porter, & Steers, 1982). Consistent with extant research, we believe that the BNI group is an “organization.” Accordingly, we measured affective commitment as such, and the measures we used treat “BNI group” as the organization, and the language is adapted accordingly. Participants responded to four positively phrased items including, “I would be very happy to spend the rest of my time as a group member in this group” and “This BNI Group has a great deal of meaning for me.” Participants also responded to four negatively worded items (subsequently recoded such that higher numbers meant greater affective commitment) including, “I think I could easily become as attached to another BNI Group as I am to this one” and “I do not feel a strong sense of belonging to my BNI Group.” Participants responded on a 1 (strongly disagree) to 7 (strongly agree) scale ($\alpha = .84$). We used a factorial parceling strategy to group the 8 items into two parcels (Williams, Vandenberg, & Edwards, 2009; Williams & O’Boyle, 2008).

**Networking Performance.** Networking performance was assessed by asking individuals what percentage of their annual revenue was generated from networking activity with their group ($M = 16.56\%, SD = 19.99\%$). At each weekly meeting, BNI members report on the number, as well as the monetary value, of referrals received from fellow group members. Accordingly, revenue is tracked on a weekly, monthly, and annual basis, and this represents an observed variable (Stephenson & Holbert, 2003) that these entrepreneurs can easily recall.

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1. Parcelling is a common technique used to create latent variables for scales with no theoretical underlying structure (i.e., subscales; Kline, 2011). This is useful in structural equation modeling (SEM) when scales have a large number of items and/or the number of observations is relatively low. Items with varying factor loadings are distributed evenly in each parcel (i.e., each parcel has higher-loading as well as lower-loading items).
Control Variables. Based on research that has examined demographic differences in networking (e.g., Kolvereid, Shane, & Westhead, 1993; Pollack, VanEpps, et al., 2012), we included age and sex as additional predictor variables in our model. In addition, in order to rule out two plausible alternate explanations (i.e., a more stringent test of our model and hypotheses), we included measures of entrepreneurial self-efficacy ($M = 5.65$, $SD = .88$), assessed with the Chen, Greene, and Crick (1998) 15-item scale ($\alpha = .94$), as well as social competence ($M = 3.45$, $SD = .52$), assessed with the Baron and Markman (2003) 17-item scale ($\alpha = .84$). Entrepreneurial self-efficacy was included based on research suggesting that social ties along with entrepreneurial self-efficacy predict entrepreneurial intentions and success (e.g., Ozgen & Baron, 2007; Sequeira, Mueller, & McGee, 2007). Social competence was included based on research suggesting that entrepreneurs’ social skills can lead to greater success in obtaining information and resources from various contacts (Baron & Tang, 2009). Using a factorial parceling strategy, we created three parcels each for entrepreneurial self-efficacy and social competence (Williams et al., 2009; Williams & O’Boyle, 2008).

Results

Means and standard deviations for all variables are presented above in the method section. Intercorrelations for principal variables are shown in Table 1. All hypotheses were tested with structural equation modeling (SEM) using Mplus 6.0 (Muthén & Muthén, 2008). We followed the Anderson and Gerbing (1988) two-step recommendation to examine the confirmatory factor analysis (CFA) for the full model. The CFA showed adequate fit, $\chi^2(124) = 272.85$, comparative fit index (CFI) = .92, root mean square error

### Table 1

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*** $p < .001$; ** $p < .01$; * $p < .05$.

ESE, entrepreneurial self-efficacy; SC, social competence; AFFCOM, affective commitment; SAT, satisfaction with the group; INV, investment in the group; ALT, perceptions of alternatives to the group; REV, percentage of revenue generated from networking group.
of approximation (RMSEA) = .07, RMSEA 90% confidence interval (.06; .08), standardized root mean square residual (SRMR) = .08, with all paths loading significantly onto their respective factors.

Following model testing procedures outlined in James, Mulaik, and Brett (1982), we next tested the full mediation model. Our overall proposed model states that affective commitment mediates the relation between the antecedents to commitment (i.e., satisfaction, investment, alternatives) and networking performance (i.e., revenue generated). The fit of the fully mediated model was good, $\chi^2(109) = 224.41$, CFI = .94, RMSEA = .06, RMSEA 90% confidence interval (.05; .07), SRMR = .06. A chi-square difference test between this model and our measurement model indicated that the fully mediated model significantly improved the fit over the measurement model, $\Delta \chi^2(15) = 48.44$, $p = .00$. We then tested partially mediated models, individually examining the three direct paths between satisfaction, investment, and perceptions of alternatives with networking performance. The direct path between alternatives and revenue provided the greatest improvement in model fit, $\chi^2(108) = 223.98$, but this change was not significant, $\Delta \chi^2(1) = 0.43$, $p = .51$. Therefore, we retained the fully mediated model.

As predicted, our fully mediated model demonstrated that the paths from satisfaction, $\beta = .29$, $p < .05$; investment, $\beta = .26$, $p < .001$; and perceptions of alternatives, $\beta = -.49$, $p < .001$, to affective commitment were significant. Further, affective commitment significantly predicted percentage of revenue generated from the networking group, $\beta = .41$, $p < .001$ (see Figure 1). To confirm that commitment mediated the relationship between the predictors and revenue, the indirect effects of each predictor were examined and satisfaction, $\beta = .12$, $p < .05$; investment, $\beta = .11$, $p < .01$; and alternatives, $\beta = -.20$, $p < .001$, all exerted significant indirect effects. These robust findings provided support for hypotheses 1a, 1b, and 1c: satisfaction, investment, and alternatives predict the affective commitment of entrepreneurs to the networking group. Furthermore, we found support for hypotheses 2 and 3: affective commitment predicted networking performance, and

Figure 1

Fully Mediated Model Predicting Percentage of Revenue Generated From Networking Group: $\chi^2(109) = 224.41$, CFI = .94, RMSEA = .06, RMSEA 90% Confidence Interval (.05; .07), SRMR = .06

* ***p < .001, **p < .01, *p < .05. Curved lines represent correlations. Solid lines represent significant standardized path coefficients. Model included control variables not shown for ease of viewing.
commitment mediated the relation between satisfaction, investment, and alternatives. Both the $R^2$ values for the endogenous variables, affective commitment ($0.67, p < .001$), and percentage revenue generated from networking ($0.09, p < .05$), were significant.\(^3\)

**Supplemental Analyses**

**Endogeneity.** Antonakis, Bendahan, Jacquart, and Lalive (2010) describe the issue of endogeneity as potentially caused by issues pertaining to the direction of relationships, or third variables, and suggest correlating the residual variances of a mediator and relevant outcomes to account for these potential influences—the correlation would account for alternatives to the assumed directional path. Accordingly, we correlated the residual variances of our outcome (i.e., revenue) and mediator (i.e., affective commitment) as recommended by Antonakis et al., and the correction is accounted for in the analyses above. This correlation allows for paths in the opposite direction or other outside influences to be modeled. This correction significantly improved the model reported in analyses indicating that the true, directional relationship from affective commitment to revenue was stronger than we had previously found.

Additionally, we tested an alternative model with satisfaction, investment, and alternatives predicting revenue and revenue predicting affective commitment (i.e., reversing our proposed causal direction between affective commitment and revenue). In this model, fit was less good and satisfaction, investment, and alternatives were worse predictors of revenue than they were of affective commitment. Moreover, the observed relationship between the residuals for revenue and affective commitment was significantly negative, whereas the relationship was nonsignificant in the previous model. Thus, reversing the directional assumptions resulted in a worse model overall. In sum, we believe that this evidence is consistent with the inference that our model, as specified, is appropriate.

**Common Method Bias.** To evaluate the possibility of common method bias, we used the Williams, Hartman, and Cavazotte (2010) CFA marker technique. In sum, these analyses indicated that common method bias did not exist in our analysis and is not a concern. This technique calls for the evaluation of multiple models using a variable theoretically unrelated to those of interest as a marker of method bias. In our analysis, we used entrepreneurial self-efficacy (ESE). In the first model, a standard CFA was analyzed. In the second model, known as the baseline model, the CFA was re-specified with the factor loadings and error variances for the marker variable fixed to those in the original CFA. In addition, the correlations between the latent marker variable and the other latent variables were fixed to zero. In the third (method C) model, the baseline CFA was re-specified with the marker variable indicated by the fixed marker items and the other items in the model constrained to have the same factor loading. In the fourth (method U) model, the loadings for the nonmarker items in the third model were unconstrained. Model comparisons between the second, third, and fourth models determine which one will be retained for the comparison with the final model. This final (method T) model consisted of either the third or fourth model with the correlations between the nonmarker latent variables constrained to those found in the baseline CFA. The comparison of this fifth model with that retained

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3. A model was run controlling for the effects of sex, age, entrepreneurial self-efficacy, and social competence on percentage of revenue generated. None of the control variables were significant and including them did not alter fit statistics significantly.
from the previous comparisons allowed for a test of method bias in the relationships between the latent variables. Our analyses demonstrated the fourth model, with unconstrained factor loadings, was superior and that bias was not a concern in the relationships among latent variables.

An examination of the factor loadings in the retained model indicates that only two items significantly load onto the latent method variable. However, our comparison between the method U and method R models indicated that the bias in these two variables did not affect the relationships between the variables. However, to be thorough, we examined two additional models to test the sensitivity of these findings, as recommended by Williams et al. (2010). In these analyses, the non-method item loadings on the latent method variable are fixed at more extreme levels. The relationships between the latent variables of interest remained relatively unchanged across all of the specified models, including the sensitivity analyses. This further supports the inference that common method bias is not a concern in these data.

Discussion

Overview and Implications

Our primary theoretical question was whether applying a commitment-based perspective to an entrepreneur’s interactions with her networking group could advance the literature on social ties. In particular, we hoped to refine the core tenets of research on social ties and their applicability within the networking group setting. As predicted, what we found is that an entrepreneur’s relationship with her group—specifically, her affective commitment—matters. These data suggest that an entrepreneur’s level of satisfaction, investment, and perceptions of alternatives toward her networking group predict affective commitment to the group. This commitment, in turn, predicts percentage of revenue generated from networking activity.

Prevailing wisdom across the social ties literature suggests that quantity matters. However, our novel approach to the study of networking (and social tie formation) via a commitment-focused perspective provides a meaningful theoretical contribution to the literature: quality also matters. We demonstrated empirically that an entrepreneur’s relationship with her networking group also can have a significant impact on revenue generation.

Multiple theoretical contributions emerge from this work. First, these data extend and validate findings from the relationships literature on the investment model of commitment. We confirm the three antecedents to an entrepreneur’s affective commitment to her networking groups, and show, in turn, how commitment drives revenue generation from the networking group. In particular, we provide a new way to look at the investment model by examining the novel outcome of revenue generated. Our work further develops this well-researched theory by noting the connection between an entrepreneur’s commitment to her networking group and the benefits received from the group—this finding that entrepreneurs’ commitment to her group relates to individual dyadic benefits (i.e., greater revenue generated from networking group members) enhances both the investment model literature as well as work on the usefulness of social tie formation in groups.

Second, our work provides insight into how the core tenets of social ties research can be refined in the context of networking groups. These data provide support for contextualizing the networking endeavor as relationship building and highlight the critical role of commitment to one’s networking group. To our knowledge, this study is the first to suggest a relationship-focused approach to examine the factors that can improve
networking performance. This work reveals that, in addition to quantity of ties, relationship quality (commitment) plays a vital role in networking. In particular, in the networking group setting, social ties research can benefit from the examination of how relationships affect positive outcomes.

We submit that these findings have substantial practical relevance for entrepreneurs. Put simply, an entrepreneur’s relationship with her networking group matters for revenue generation. That is, increasing commitment should help everyone increase revenue (Drigotas, Rusbult, & Verette, 1999). Efforts of entrepreneurs to increase members’ satisfaction, investment, and perceptions of (worse) alternatives to the group should foster greater commitment and, thus, revenue generated for each member. Our work complements previous research noting that greater affective bonds are likely to produce reciprocally beneficial behavior among members. This holds important implications for the administration, training, and recruitment of new BNI members. Since team members who are more attracted (i.e., committed) to their group are more likely to engage in communal, reciprocal, and helping behavior (Baker et al., 2006; Salas et al., 2001, 2005), we suggest that BNI groups pay close attention to existing members’ feelings about the group and ensure that prospective members can build an affective affinity towards the group as well.

Limitations and Future Directions

We offer the following thoughts on the limitations and associated future research directions of this work. This sample has limited diversity as only small business owners in networking groups in the United States were sampled. Future work should examine potential cultural differences related to networking in various contexts. For example, some of these relationships dynamics may be slightly different in collectivistic cultures.

Our results could be bolstered by replications employing different methodologies (e.g., in addition to self-reports), especially those that could help to solidify causal conclusions and further eliminate common method variance (Podsakoff et al., 2003). Although self-ratings, such as those we used (Conway & Lance, 2010), show strong construct validity and “valid performance-related variance and not mere measurement method bias” (Lance, Dawson, Birkelbach, & Hoffman, 2010, p. 328), gathering data from both the individual group members, BNI administrative staff, and other stakeholders, as well as assessing predictors and outcomes at two separate time periods (i.e., temporally separating data collection for predictors and outcomes) could build on our work. Longitudinal research that examines overall group membership as well as business revenue (as opposed to only membership at one time period or revenue from networking at one time period) also has the potential to bring additional clarity (e.g., Wolff & Moser, 2009).

Though our measures of satisfaction, investment, and alternatives predicted commitment as well as revenue generation, different operationalizations of these constructs could complement our work. Future work could incorporate an adapted measure of an existing satisfaction with work scale, and alternative conceptualizations for investment could include assessing time spent developing new social ties and effort meeting with fellow members outside of the weekly meetings. Examining the availability of other local networking groups (formal or informal) and the extent to which these networking group members were involved in them may provide an additional assessment of alternatives. Future research should also examine how the relation between commitment and performance functions in additional BNI groups (i.e., other regions, other countries) as well as in less formal settings (e.g., Facebook, LinkedIn).

These data highlight the importance of affective organizational commitment and the relation between affective commitment and networking performance. One of our research
goals was to answer the question of how networking behavior predicts performance. A partial answer to that question appears to be affective organizational commitment. Thus, our findings add to growing literature on the nature of affect within the domain of entrepreneurship (e.g., Baron, 2008). Future research should build on this work on affective commitment but also should explore the role of normative commitment and continuance commitment. It could be that the costs (potential) associated with leaving a group and the social norms inherent to each group have performance-related implications. Though the constructs of normative and continuance commitment were not applicable within the investment model framework, future work may well find valuable insights here.

Future work is also encouraged to explore multiple lines of inquiry focused on the entrepreneur-entrepreneur relations within each networking group. Moving forward, research from this perspective can draw on the rich theoretical roots of the relationships literature and explore variables such as attachment style and trust that also may play prominent roles in the interaction of entrepreneurs in networking settings. Future work also could complement our focus on commitment to the networking group by examining commitment to individual dyadic relationships. Though challenging to collect and aggregate these data, particularly with larger networking groups, this approach may provide a more fine-grained analysis of relational dynamics in networking. Research in which commitment to networking groups predicts attendance at meetings as well as length of time in the group (i.e., the analogy to relationship maintenance vs. dissolution) would complement our work and further validate our approach focused on commitment to the group. Relatedly, commitment to networking groups might predict outcomes such as idealizing one’s group and sacrificing time or resources for members.

An additional area for future research concerns the growing body of literature regarding both a social capital (i.e., the immediate and future resources an individual gains from her interactions with other people) as well as a social competence perspective (i.e., a person’s overall effectiveness in interacting with other people) (Baron & Markman, 2003; Nahapiet & Ghoshal, 1998). In our study, social competence was positively related to affective organizational commitment and satisfaction with the networking group, and negatively related to perceptions of alternatives. Examining the role of social capital, in addition to social competence, may be particularly relevant to the idea of how entrepreneurs network and market themselves in order to gain access to new business.

One final area that future research can explore focuses on the nonfinancial outcomes of networking group involvement. Alternative measures of business performance such as self-report measures of satisfaction and performance relative to competitors could be fruitful. Additional questions might include what role networking group involvement could play in predicting responses to challenges. As an example, from social support and stress-buffering perspectives, research shows that social ties formed from membership in BNI buffer against the deleterious effects of stress (e.g., Pollack, VanEpps, et al., 2012). These, and other, nonfinancial outcomes related to membership in a networking group could provide avenues for future research.

**Conclusion**

The present work, extending the investment model framework, reveals several advantages to understanding how involvement in networking groups, as assessed by commitment to BNI groups, can lead to greater business success. This research provides an additional bridge over the gap between psychology and entrepreneurship, a gap that many
scholars aim to lessen (e.g., Baron, 2000, 2008; Baum, Frese, & Baron, 2007; Hisrich, Langan-Fox, & Grant, 2007). We provide a novel way to think about the investment model of commitment in a new area, the domain of entrepreneurship. This work provides insight on how the networking group context is a setting in which the core tenets of research on social ties needs to be refined; the quality of an entrepreneur’s relationship with her group—commitment—matters. We hope that this work provides a solid foundation for future explorations that may offer entrepreneurs insight into improving networking effectiveness.

REFERENCES


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