

# Industry Peer Networks: Constructive Collaboration for Effective Marketing and Management Practices

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*With small businesses becoming increasingly important to economic growth and job creation, there must be new ways of structuring to take advantage of collaboration and to be able to compete against large firms. Industry peer networks (IPNs) have emerged to meet this challenge. This study investigates the processes and effectiveness of an IPN whose member small firms are located in the United States, Canada, the United Kingdom, and Australia. The findings suggest that the more socially embedded the IPN members are within their respective peer groups (i.e. organizing IPN-related activities, partnering with business endeavors, discussing and advising each other about business issues, and participating in socializing activities), the higher the perceived level of learning in marketing and management practices. The findings also suggest that the implementation of transformational leadership practices is partially mediated by the perceived level of management learning, but the width of the product portfolio was not mediated by the perceived level of marketing learning.*

Successful small business founders are often characterized as being innovative, proactive, and having a strong risk-taking propensity (Covin & Slevin, 1989; Wiklund & Shepherd, 2003). In an ever-changing and increasingly competitive environment, apart from having an entrepreneurial orientation, small business founders need to collaborate and network with external entities to enhance the effectiveness of their operations. Mentors, advisory boards, and trade associations are the traditional external resources for small businesses owners. Mentors can play a critical role in providing the heads of small businesses with crucial opportunity-related information, such as information on industries, technologies, markets, and government policies (Ozgen & Baron, 2007). Active and able advisory boards contribute valuable advice related to operational problems and help founders of new ventures develop strategic networks with their environment (Borch & Huse, 1993). As for trade associations, members collaborate to lobby the state, set industry standards, and develop joint marketing programs (Zuckerman & Sgourev, 2006).

Although these traditional outside resources have been useful, with increased competitiveness, the time has come for new thinking and new collaborative structures for small businesses such as found in industry peer networks (IPNs). IPNs are a unique form of “parallel peers” in which the members of the network belong to a subsegment in a given industry that draws on similar inputs to provide similar goods or services targeted to different sets of customers, such as automobile dealers with well-defined sales territories. These non-competing (and non-colluding) members gather regularly in small groups (typically 20 or fewer carefully selected members), in an atmosphere of significant trust, to share knowledge, exchange information about industry trends beyond their core markets, and discuss issues related to company performance (Sgourev & Zuckerman, 2006). Such private information is often hard to obtain either through the market or other social relationships, such as rivals and suppliers.

In their own way, IPNs embody many important characteristics of mentors, advisory boards, and trade associations. Individual members often discuss their management issues one-on-one with specific peers whom they identify as mentors. Moreover, during a typical IPN meeting, a facilitator guides the members to present their operational/financial data, discuss their management, finance, and marketing issues, and provide constructive criticism of their business. In other words, the group members act as an advisory board for each of the members. It is also not uncommon for members to collaborate together to achieve a common goal, such as submitting business proposals together. Through face-to-face meetings and electronic communications in between the meetings, IPN members stave off problems of myopia and inertia by staying current with industry changes, learning vicariously from the experiences of their peers, and collaborating on mutually beneficial projects (Sgourev & Zuckerman, 2006).

The two major objectives of this article are to show how industry peer networks facilitate business learning among founders of small businesses and to shed light on how participating in IPN activities positively influences business performance in terms of marketing and management practices. After providing the theoretical foundation and deriving the study hypotheses, the context and results will be presented. The paper will conclude by discussing the key findings and considering the practical implications of the lessons learned from the investigation.

## Theoretical Foundation and Study Hypotheses

### *Meaning and Dynamics of Industry Peer Networks*

Previous cross-industry research has suggested that IPNs are most common in retail and service industries as they draw on similar inputs but serve customers in non-competing geographic areas. It is estimated that about 10% of U.S. retail and service industries have one or more IPNs, with incidence rates ranging from about 1% (e.g., residential remodeling) to 25% (e.g., auto retailing) (Zuckerman & Sgourev, 2006). Prior research has also suggested that IPNs are likely to be absent in manufacturing and distribution industries as firms in these industries tend to operate across geographic boundaries such that parallel (i.e., noncompeting) peers are unlikely to exist (Zuckerman & Sgourev, 2006).

Although IPNs should intuitively provide a lot of value to their members, they also require members to invest time and effort in maintaining active membership. IPN members are generally selectively admitted. For example, the admission of a prospective member into an established peer group may require unanimous consent of the existing group members. Also, members of a peer group typically have similarly sized companies, comparable business models, and do not compete in the same geographic markets (Zuckerman & Sgourev, 2006).

Apart from paying membership dues and receiving information of industry trends (as a “spectator”), members are also expected to actively participate (as a “player”) in all formal and informal IPN activities. Some of the formal activities include attending face-to-face quarterly meetings that last two to four days, interacting with vendors during annual (or bi-annual) IPN conferences, and sharing operational/financial data in a prescribed template to allow for easy benchmarking. Members who fail to consistently engage in these activities are often voted out by their peers. In other words, membership within a peer group is dynamic and changes over time, as new members are inducted into peer groups while non-contributing members are expelled. Therefore, myopic vision is avoided as new perspectives are regularly introduced and stimulated by new members.

Of special interest to this study was that IPN peer group activities are set up to help members achieve a high level of learning (Zuckerman & Sgourev, 2006). In particular, IPNs may have discussion guidelines in place to encourage disclosing key performance information. This practice allows members to maintain a big-picture orientation, as the open disclosure of financial information allows companies to compare how they are performing relative to their peers. Thus, IPN members are exposed to alternative business models, and their performance impact, that are not available through their local market. This practice allows member firms to learn vicariously through the successes and/or failures of other parallel peers within their groups.

Finally, IPNs also provide a trusting environment for firms to acquire and absorb complex tacit knowledge that would otherwise be difficult to obtain. Beyond mere observation of other firms’ activities, IPN members are encouraged to critique one another and challenge each other’s assumptions in order to facilitate the learning process and instill accountability of management actions for their members.

### *Social Embeddedness and Organizational Learning*

If the social interactions among IPN members were only limited to quarterly face-to-face meetings, it is unlikely that they would develop strong, trusting ties, and open their books to share confidential information. While veteran members might be willing to share their private operational/financial data with peers, new affiliates might be more reluctant to open up during initial meetings. To facilitate information sharing and knowledge transfer, IPNs are set up to encourage the development of what has become known as “swift trust” (Meyerson, Weick, & Kramer, 1996). Apart from meeting their peers formally for quarterly group meetings, IPN members are generally encouraged to also network with their colleagues intensively between meetings. These activities include participating in monthly teleconferencing, conducting on-site visits at peer firms, and communicating privately via phone, e-mail, or publicly via listserv or chat boards to discuss organizational issues. Moreover, even during quarterly meetings, significant time is allocated for socializing activities such as prayer breakfasts, organized morning jogs, golf tournaments, card games, and dining out. These informal ties facilitate the development of embedded relationships among IPN members. Therefore, it becomes important to examine what impact these formal and informal types of IPN networking activities have on the learning of effective marketing and management practices for small business founders.

Extant research on social networks has demonstrated that network members acquire knowledge through repeated and enduring exchange relationships (Inkpen & Tsang, 2005). Network size, accessibility, and diversity are associated with the founding, legitimacy, and future profitability of new ventures (Aldrich, Rosen, & Woodward, 1987; Dubini & Aldrich, 1991). Individuals and organizations develop the relational dimension of exchange relationships through a history of frequent and close interactions (Krackhardt, 1992). Through these exchanges of information, individuals and organizations are able to access and leverage resources embedded in relationships. Weak network ties are characterized by infrequent contact between individuals but do offer flexibility and access to new information (Burt, 1982; Granovetter, 1973). Such weak network ties have been identified as critical for opportunity discovery (Elfring & Hulsink, 2003).

By contrast, strong network ties are characterized by frequent contact. The social embeddedness of these strong network ties are more likely to promote an in-depth and efficient exchange of information between network partners (Kraatz, 1998) and facilitate vicarious learning from the insights and experiences of peers (Hansen, 1999; McFadyen & Cannella 2004). In addition, research has also stressed the need for strong tie networks that can provide sufficient density and diversity to establish the legitimacy of a new venture (Dubini & Aldrich, 1991). Finally, the trust and mutual identification among network partners with strong ties makes it more likely that valuable tacit knowledge will be shared and acted upon (Lubit, 2001), resulting in better firm performance (Collins & Clark, 2003) and start-up success (Baum, Calabrese, & Silverman, 2000).

Based upon the above, it is hypothesized that socially embedded ties will be positively associated with a high level of organizational learning, particularly in the areas of effective marketing and management practices. Although marketing and

management principles may be learned via codified formats (e.g. books and trade newsletters), the tacit knowledge of implementing effective marketing strategies and executing effective management practices (e.g., partnering with specific vendors, offering leadership retreats for management teams) is not easily transmitted in written documents. Trustworthy, embedded relationships are a prerequisite for the transfer of complex knowledge (Hansen, 1999), particularly among small business founders who often obtain new information filtered through their social contacts (Martin, 2009). For example, it has long been understood that friendship and colleague networks are instrumental in product-related decisions such as the adoption of new industrial technology (Czepiel, 1974) or the introduction of new drugs to patients (Coleman, Katz, & Menzel, 1957). Therefore, for this study the following is hypothesized:

*Hypothesis 1a: The higher the level of social embeddedness, the higher the perceived level of marketing learning.*

Moreover, interorganizational networks also encourage the spread of management practices, such as matrix management (Burns & Wholey, 1993), human resource compensation strategies (Westphal, Seidel, & Stewart, 2001), foreign country entry decisions (Connelly et al., 2011), and acquisitions and mergers (Haunschild & Beckman, 1998). Therefore, the following is hypothesized:

*Hypothesis 1b: The higher the level of social embeddedness, the higher the perceived level of management learning.*

### *Consequences of Learning*

Apart from acquiring new knowledge, another major motivation for small business founders to join an IPN would include being held accountable for their business decisions. As mentioned previously, IPNs serve as a *de facto* “board of directors” for network members. The role of peer network members is to provide advice and hold each other accountable for improving performance by applying the knowledge acquired through the IPN or other sources (Zuckerman & Sgourev, 2006). Nevertheless, prior IPN research has not directly measured the consequences of learning (i.e., if small business founders implement the recommended practices after they have been exposed to new knowledge about industry trends and effective management practices). Therefore, an interesting research question is whether the learning gained as an IPN member translates to improvement in business performance.

Research on organizational learning suggests that companies with a strong learning orientation are likely to engage in a high level of market information-processing behaviors, which in turn increases the degree to which companies make changes in their marketing strategies (Sinkula, Baker, & Noordewier, 1997). Specifically, a firm’s learning orientation is likely to facilitate generative learning that leads to innovations in products, procedures, and systems (Baker & Sinkula, 1999). Moreover, a learning orientation helps firms improve their relative market share, new product success, and business performance by improving the quality of their market-oriented behaviors (Baker & Sinkula, 1999; Mavondo, Chimhanzi, & Stewart, 2005) and by increasing

flexibility and proactivity in allocating resources (Hughes, Morgan, & Kouropalatis, 2008), especially under high environmental turbulence (Hanvanich, Sivakumar, & Hult, 2006).

However, many of the above performance measures do not necessarily apply to small businesses. For example, the operations of a small business may be limited to product reselling that has only negligible market share in its sales territory. Small businesses often do not conduct separate analysis for marketing decisions from other business decisions. They perceive the various functional issues are highly intertwined and often lack the expertise that distinguish between the various business issues in order to implement “business decisions.” This is especially true among those who start their companies with only technical competencies and have no prior knowledge or experience in business management (Carson & Gilmore, 2000). In addition, small business founders often lack experience, knowledge, and education in strategic planning. Instead of focusing on price, small businesses tend to prioritize quality, delivery performance, responsiveness, flexibility, and service in choosing their suppliers in order to maintain their operations and solve their problems (Ellegaard, 2009).

In this study, the consequences of marketing learning on the width of IPN members’ product portfolio were specifically examined. Such product offering is generally recognized to be the heart of marketing strategy. As the technological environment evolves, members with a high level of marketing learning are likely to partner with more vendors, so as to keep up with the changes in external industry trends and customer needs. Thus, the following hypothesis is tested:

*Hypothesis 2a: The higher the perceived level of marketing learning, the greater the width of the product portfolio. That is, marketing learning mediates the relationship between social embeddedness and the width of the product portfolio.*

As for the consequences of management learning, the extent that IPN members have carried out transformational leadership practices was examined. While small business founders have a diverse set of knowledge, skills, and abilities, competencies in the area of management can be developed with the growth and expansion of their businesses (Lichtenstein & Lyons, 2010). A transformational leadership approach by small business founders is recognized to stimulate and inspire employees to both achieve extraordinary outcomes and, in the process, develop their own managerial effectiveness (Bass & Riggio, 2006). Moreover, transformational leaders do not merely react to circumstances in the competitive environment, they also attempt to shape and create the future. Transformational leadership has also been found to be positively related to subordinate satisfaction and performance (Lowe, Kroeck, & Sivasubramaniam, 1996). Specifically, small business founders who practice transformational leadership are likely to meet the challenges of adapting and growing their companies to an ever-changing business environment. Therefore, the following hypothesis is presented:

*Hypothesis 2b: The higher the perceived level of management learning, the greater the extent of implementation of transformational leadership*

*practices. That is, management learning mediates the relationship between social embeddedness and the implementation of transformational leadership practices.*

## Study Context and Method

IPN members of “technology industry resellers” were studied. What began in 2005 as an informal gathering of 12 small companies in the Midwest expanded to include groups based throughout the United States, Canada, the United Kingdom, and Australia. As of December 2009, there were 22 peer groups in the network, comprised of 6 to 12 firms in each peer group. The peer group members gather each quarter for several days of intense face-to-face meetings. Peer group members also communicate with each other extensively throughout the year via electronic means. In addition, the IPN under investigation holds bi-annual “ALL” conferences in which all members of the 22 peer groups convene together. During the ALL conference, in addition to the meetings with their own peer group, IPN members attend special sessions and events that provide them with opportunities to meet people outside of their own peer group.

Data gathered for this study were generated from observations and interviews conducted during face-to-face peer meetings and sessions held during the ALL conference, along with numerous communications with the IPN founder, committee chairpersons, and peer group facilitators. The cases with missing data were not included in the analysis, yielding an effective sample size of 111. Based on the understanding of the context, a longitudinal survey was developed to track the social interactions and the level of learning of the members. The findings reported here are based on this survey data.

### *Dependent Variables*

To test the learning hypotheses, two dependent variables were used: marketing and management learning. The two variables were measured with a list of five and seven items respectively, adapted from a knowledge transfer scale developed by Griffith, Zeybek, and O'Brien (2001). Additional items, such as industry trends and peer benchmarking, were included in the “management learning” variable based on insights that emerged during initial fieldwork. Specifically, respondents indicated how much new knowledge they acquired from their peer groups in the past 12 months. An index was constructed by adding the responses to each item ( $\alpha = .88$  for marketing learning and  $\alpha = .90$  for management learning).

To test the mediation model hypotheses, two dependent variables were used: product portfolio and transformational leadership. Product portfolio was measured by adding a list of 28 supplier relationships that are relevant to the IPN in this study, such as Microsoft, Ingram Micro, ConnectWise, Hewlett Packard, and so on ( $\alpha = .82$ ). As for transformational leadership, respondents were asked to report their practices on the 20-item Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1995). An index was constructed by adding the responses to each item ( $\alpha = .90$ ). Almost all variables, except the transformation leadership scale items, were collected first and then three months later the leadership data were collected in order to help minimize same source bias (Podsakoff et al., 2003).

### *Independent Variables*

The level of social embeddedness was measured with a list of sociometric questions (Ibarra, 1993) regarding respondents' relationships with their peer group members since the last IPN meeting: (1) "which of the following persons have you collaborated on IPN-related activities?", (2) "which of the following persons have you collaborated on non-IPN activities?", (3) "with whom have you discussed what is going on in your organization between the IPN meetings?", (4) "who are important sources of professional advice who you approach if you have a work-related problem or when you want advice on a decision you have to make?", and (5) "who are very good friends of yours, people whom you see or talk to socially outside of work?" Answers to these questions provided the raw data used to define networking activities beyond formal IPN activities, such as communication, advice, and friendship networks outside of regularly scheduled meetings.

Principal component factor analysis was conducted to determine if the five embeddedness questions should be combined. The five questions made up a single factor, with eigenvalues dropping to .72 beyond the first factor. Despite the conceptual difference in instrumental (i.e., questions #'s 1-4) and friendship networks (i.e., question #5), the 60% of variance accounted for by this factor strongly suggested combining the five questions into a single composite index, social embeddedness ( $\alpha = .83$ ).

## **Control Variables**

### *Company Size*

Company size is a surrogate measure such as total resources, slack resources, technical expertise of employees, and organizational structure that favors learning and adoption of new practices (Rogers, 1995). The mean company size of the small businesses sampled in this study was 13.83 employees.

### *Number of Years Firm in Business*

Over time, a company accumulates institutional knowledge, such as routines and competencies, and new practices are judged and selected based on that accumulated knowledge (Aldrich, 1999). Moreover, older firms are more likely to overcome the liabilities of newness and smallness (Aldrich & Auster, 1986). Therefore, the number of years a firm is in business would likely have a positive impact on business performance and the speed of acquiring new knowledge. The mean age of the small businesses sampled in this study was 14.46 years.

### *Predominant Business Model*

Since 2008, IPN members have used a third-party service to process their operational/financial data and provide members with comparative data for use in analyzing the outcomes of their managerial actions. In order to facilitate meaningful benchmarking, the third-party service provider identified ten "predominant business models" that help the members devise model-specific best practice applications and optimized channel programs. Based on discussions with representatives of the IPN leadership team and the third-party service provider, the ten predominant business models were further consolidated into three models: product-centric, managed



services, and other services. Therefore, two dummy variables, “predominant business model managed services” and “predominant business model others” were included in the regression analyses, while “product-centric” was identified as the comparison dummy variable. Compared to other business models, product-centric companies are likely to have higher revenues but lower profit margins and such phenomenon may influence the level of slack resources that can be allocated for the implementation of new practices.

#### *New Knowledge Source Diversity*

This variable measured the respondent’s propensity to learn new knowledge from diverse sources. Firms that are exposed to a variety of sources are more likely to learn about different types of best practices and choose the most appropriate ones for implementation. Respondents indicated the relative importance of various sources (such as vendor newsletters, trade journals, and membership in professional associations) in helping them learn new knowledge. A composite index was constructed by adding the responses to each item ( $\alpha = .79$ ).

#### *Number of Months in IPN*

As relationships need time to develop and new knowledge of best practices also takes time to implement, the longer the small business founder is an IPN member, the more likely that member’s business can improve. On average, the members in the study have joined the IPN under investigation for 37 months.

## **Analysis and Results**

Table 1 shows the correlation matrix for the study variables. The hypotheses was tested related to marketing and management learning using a two-step hierarchical linear regression analysis. In Step 1, the control variables were entered (i.e., company size, number of years in business, predominant business model, new knowledge source diversity, and number of months in the IPN), followed by the social embeddedness composite in Step 2 (see Table 2). The model with only the control variables (Model 1) explained 10% of the variance in marketing learning ( $F = 3.05, p < .01$ ). Adding the social embeddedness composite in Model 2 further increased the explained variance to 16% and had the highest positive significant impact on marketing learning (Model 2:  $\beta = .27, p < .01$ ), which supported Hypothesis 1a. Similar results were found for the models that tested management learning. The model with only the control variables (Model 3) explained 10% of the variance in the dependent variable ( $F = 3.07, p < .01$ ). Adding the social embeddedness composite in Model 4 further increased the explained variance to 15% and had the highest positive significant impact on management learning (Model 4:  $\beta = .25, p < .01$ ), which supported Hypothesis 1b.

**Table 1: Descriptive Statistics and Correlations**

Variables	Means	s.d.	N	1	2	3	4	5	6	7	8	9	10	11
<i>Dependent Variables</i>														
1. Perceived marketing learning	24.03	6.33	158											
2. Perceived management learning	36.32	8.29	158	.88**										
3. Product portfolio	4.25	1.66	163	.10	.07									
4. Transformational leadership	60.89	8.80	130	.21*	.25**	.07								
<i>Control Variables</i>														
5. Company size	13.83	14.16	116	-.02	-.04	.13	.13							
6. No. of years firm in business	14.46	9.42	161	.03	.05	-.15*	.06	.37**						
7. PBM: managed services	.43	.50	115	-.13	-.12	-.01	-.09	-.18*	-.33**					
8. PBM: others	.45	.50	115	.11	.10	-.003	-.09	.09	.31**	-.77**				
9. New knowledge diversity	49.13	8.15	161	.30**	.26**	.17*	.09	-.002	.03	-.05	.007			
10. No. of months in IPN	37.13	17.94	163	.24**	.27**	.30**	-.04	.25**	.23**	-.08	.09	-.02		
<i>Independent Variable</i>														
11. Social embeddedness	20.00	10.81	163	.33**	.36**	.49**	.15	.04	.124	.05	.06	.15	.34**	

\*p < .05, \*\*p < .01

**Table 2: Standardized Estimates of the Impact of Social Embeddedness on Marketing and Management Learning**

Variables	Model 1: Marketing Learning		Model 2: Marketing Learning		Model 3: Management Learning		Model 4: Management Learning	
	b	t-value	b	t-value	b	t-value	b	t-value
<i>Control Variables</i>								
Company size	-.10	-.94	-.09	-.90	-.17	-1.59	-.16	-1.57
Number of years firm in business	-.006	-.06	-.06	-.57	.06	.58	.01	.12
Predominant business model: managed services	-.15	-.98	-.22	-1.47	-.17	-1.15	-.24	-1.60
Predominant business model: others	-.03	-.20	-.11	-.73	-.08	-.53	-.15	-1.01
New knowledge source diversity	.31**	3.39	.25**	2.74	.27**	3.02	.22*	2.40
Number of months in IPN	.21*	2.16	.16	1.63	.25**	2.62	.20*	2.12
<i>Independent Variable</i>								
Social embeddedness			.27**	2.88			.25**	2.64
Adjusted R <sup>2</sup>	.10		.16		.10		.15	
Δ R <sup>2</sup>			.06				.05	
N	111		111		111		111	

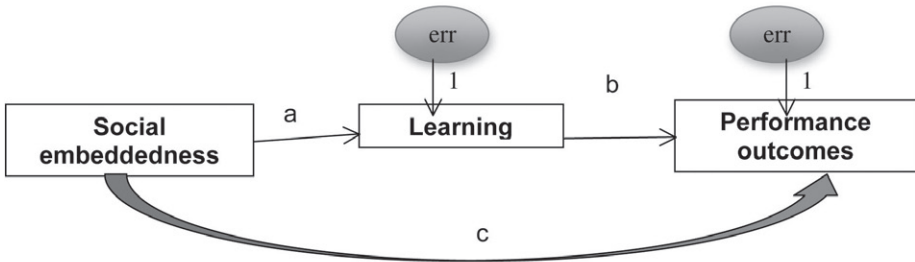
\*p < .05, \*\*p < .01

The control variable of new knowledge source diversity was a significant positive predictor of both marketing and management learning in Models 1 to 4. This suggested that small business founders who were exposed to multiple sources of information were more likely to obtain a high level of marketing and management learning (Model 1:  $\beta = .31, p < .01$ ; Model 2:  $\beta = .25, p < .01$ , Model 3:  $\beta = .27, p < .01$ , Model 4:  $\beta = .22, p < .05$ ). The number of months in an IPN was also found to be a significant positive predictor in Models 1, 3, and 4. However, the variable became insignificant after the social embeddedness composite was added in Model 2 (Model 1:  $\beta = .21, p < .05$ ; Model 2:  $\beta = .16, p = .11$ , Model 3:  $\beta = .25, p < .01$ ; Model 4:  $\beta = .20, p < .05$ ), suggesting the variance explained by the length of membership in an IPN may be partially attributed to the network interactions that occur. Nevertheless, the VIF of length of membership and network interactions were low (ranges from 1.1 to 1.3), suggesting no problems with multicollinearity.

Next, the role of learning as a mediator between social embeddedness and performance outcomes was examined. Instead of using the traditional three-step method of testing mediation (Baron & Kenny, 1986), a relevant alternative was used to estimate the path model as shown in Figure 1. In this model, the direct effect of social embeddedness on performance is represented by path c, and the indirect (mediation) effect by paths a and b. If a, b, and c are path coefficients, the strength of the mediation effect is  $a \times b$ , and the percentage mediation (i.e. mediation effect/total effect) is given by  $a \times b / (a \times b + c)$  (Iacobucci, Saldanha, & Deng, 2007). In the analyses described below, model parameters were derived using the AMOS program. Two path models

were estimated (one for product portfolio, one for transformational leadership) and the results are shown in Table 3.

**Figure 1: Mediation Path Model**



Note: “err” is error variance.

**Table 3: Mediation Model Results**

Dependent variables	$\alpha$	a	Standardized path coefficients				% mediation*	Sample items
			t-score	b	t-score	c		
Product portfolio	.82	.21**	5.12	.02	.65	.09**	7.24	- Microsoft Ingram Micro ConnectWise Hewlett Packard
Transformational leadership	.90	.28**	5.25	.24*	2.46	.05	.72	I instill pride in others for being associated with me I talk about my most important values and beliefs I talk optimistically about the future I seek differing perspectives when solving problems I help others develop their strengths

\*p < .05, \*\*p < .01  
\*Omitted where mediation effects are insignificant

The first column of Table 3 shows the Cronbach’s alpha of the measures, and the next six columns present the path coefficients and their corresponding t-score for the paths depicted in Figure 1. This is followed by the percentage mediation, with the significance level for the null hypotheses of no mediation, based on a test of the joint significance of a and b. The results demonstrate that although product portfolio is not mediated by marketing learning, a sizeable proportion of the variance in transformational leadership can be accounted for by social embeddedness and management learning. Therefore, while Hypothesis 2a was not supported, Hypothesis 2b was supported.

### Discussion and Implications

This study used qualitative data to design a quantitative analysis that for the first time examined the impact of IPN members learning and implementing specific effective marketing practices such as the width of their product portfolio and effective management such as taking a transformational leadership approach. Small businesses are becoming increasingly recognized as an important source of innovation processes, products, services, and job creation. For example, small firms accounted for 65 percent (or 9.8 million) of the 15 million net new jobs created in the U.S. between 1993 and

2009 (Headd, 2010). However, it is also true that nearly half of all small businesses fail within their first five years of operation (Headd, Nucci, & Boden, 2010). Thus, it is critical that new business founders collaborate and learn through peer networks in order to improve their likelihood of success and to be able to compete against counterparts both domestically and abroad.

Specific results from this study indicated that IPNs serve as an important source of new knowledge for small business founders. New knowledge source diversity was identified as the best predictor in the baseline model (Models 1 and 3), indicating that as small business founders are exposed to a more diverse set of knowledge sources through IPN networking activities, they achieve a higher level of perceived marketing and management learning. As social embeddedness is added in the regression analysis (Models 2 and 4), the beta coefficient values of source diversity decrease and those of social embeddedness become statistically significant. Such findings suggest that industry peer networks provide a facilitating platform for marketing and management learning on a variety of levels. Exposure to diverse knowledge sources within an IPN provides access to non-redundant information (e.g., approaching members for professional advice about work-related problems) while forming embedded network ties with peer group members (e.g., sharing financial data and best practices). In other words, IPN membership can help develop valuable tacit knowledge for effective business practices that the small business would not be able to attain by itself. The IPN supports the commonly expressed truism that “we is stronger than me.”

As for the mediation models that tested the implications of perceived level of learning, it was found that the implementation of transformational leadership practices was partially mediated by the perceived level of management learning. In other words, networking with peers exposes IPN members to various effective leadership approaches. However, peer network members need to own such an approach as transformational leadership, share the knowledge, and model the actual leadership behaviors with their own management teams back home. Therefore, network embeddedness indirectly influences the adoption of transformational leadership practices within membership firms.

In the marketing area, the width of a product portfolio was not found to be mediated by the perceived level of marketing learning. This result suggested that even though IPN members who engaged in IPN networking activities achieved a significant level of marketing learning and were likely to offer a wide array of products to their clients, their product width decisions seemed to be more influenced by their embedded ties and did not require a high level of marketing learning. While a significant gain in knowledge about marketing-related supplier information may be evident after just a few peer group meetings, the implementation of newfound leadership and management knowledge demands significantly more efforts and learning from the members.

This study supported the value of IPNs in marketing and management practices. However, with increasing global competitiveness, small business founders who join an IPN may be more interested in growing their business and more disciplined in efforts toward reaching those goals. Therefore, future research needs to test the mediation model of learning among a sample of new small business founders who do not belong to an IPN, to better isolate and confirm the learning benefits brought about

by IPN participation. Such research could also yield important insights regarding the differential learning effects of other types of network sources, such as chambers of commerce, trade associations, individual mentors, and professional organizations. In conclusion, there seems little doubt that much can be gained by small business owners participating in an IPN, but this study empirically verifies that they “get what they put in” to such IPN membership.

## References

- Aldrich, H. (1999). *Organizations evolving*. Thousand Oaks, CA: Sage Publications.
- Aldrich, H., Rosen, B., & Woodward, W. (1987). *The impact of social networks on business foundings and profit: A longitudinal study*. Paper presented at the Seventh Annual Babson College Entrepreneurship Research Conference, Wellesley, MA.
- Aldrich, H. E., & Auster, E. R. (1986). Even dwarfs started small. In B. M. Straw & L.L. Cummings (Eds.), *Research in organizational behavior* (pp. 165-198). Greenwich, CT: JAI Press.
- Baker, W. E., & Sinkula, J. M. (1999). The synergistic effect of market orientation and learning orientation on organizational performance. *Journal of the Academy of Marketing Science*, 27, 411-427.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Bass, B. M., & Avolio, B. J. (1995). MLQ Multifactor Leadership Questionnaire for Research: Permission Set.
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Baum, J. A. C., Calabrese, T., & Silverman, B. S. (2000). Don't go it alone: Alliance network composition and startups' performance in canadian biotechnology. *Strategic Management Journal*, 21, 267-294.
- Borch, O. J., & Huse, M. (1993). Informal strategic networks and the board of directors. *Entrepreneurship Theory and Practice*, 18, 23-36.
- Burns, L., & Wholey, D. R. (1993). Adoption and abandonment of matrix management programs: Effects of organizational characteristics and interorganizational networks. *Academy of Management Journal*, 36, 106-138.
- Burt, R.S. (1982). *Toward a structural theory of action*. New York: Academic Press.
- Carson, D., & Gilmore, A. (2000). Marketing at the interface: Not "what" but "how." *Journal of Marketing Theory and Practice*, 8, 1-7.
- Coleman, J., Katz, E., & Menzel, H. (1957). The diffusion of an innovation among physicians. *Sociometry*, 20, 253-270.
- Collins, C. J., & Clark, K. D. (2003). Strategic human resource practices, top management team social networks, and firm performance: The role of human resource practices in creating organizational competitive advantage. *Academy of Management Journal*, 46, 740-751.
- Connelly, B. L., Johnson, J. L., Tihanyi, L., & Ellstrand, A. E. (2011). More than adopters: Competing influences in the interlocking directorate. *Organization Science*,

- 22, 688-703.
- Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, 10, 75-87.
- Czepiel, J. A. (1974). Word-of-mouth processes in the diffusion of a major technological innovation. *Journal of Marketing Research*, 11, 172-180.
- Dubini, P., & Aldrich, H. (1991). Personal and extended networks are central to the entrepreneurial process. *Journal of Business Venturing*, 6, 305-313.
- Elfring, T., & Hulsink, W. (2003). Networks in entrepreneurship: The case of high-technology firms. *Small Business Economics*, 21, 409-422.
- Ellegaard, C. (2009). The purchasing orientation of small company owners. *Journal of Business & Industrial Marketing*, 24, 291-300.
- Granovetter, M.S. (1973). The strength of weak ties. *American Journal of Sociology*, 78, 1360-1380.
- Griffith, D. A., Zeybek, A. Y., & O'Brien, M. (2001). Knowledge transfer as a means for relationship development: A Kazakhstan-foreign international joint venture illustration. *Journal of International Marketing*, 9, 1-18.
- Hansen, M. T. (1999). The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. *Administrative Science Quarterly*, 44, 82-111.
- Hanvanich, S., Sivakumar, K., & Hult, G. T. M. (2006). The relationship of learning and memory with organizational performance: The moderating role of turbulence. *Journal of Academy of Marketing Science*, 34, 600-612.
- Haunschild, P. R., & Beckman, C. M. (1998). When do interlocks matter?: Alternate sources of information and interlock influence. *Administrative Science Quarterly*, 43, 815-845.
- Headd, B. (2010). *An analysis of small business and jobs*. Washington, D.C: Office of Advocacy, United States Small Business Administration.
- Headd, B., Nucci, A., & Boden, R. (2010). *What matters more: Business exit rates or business survival rates?* Washington, D.C.: United States Census Bureau's Business Dynamics Statistics.
- Hughes, P., Morgan, R. E., & Kouropalatis, Y. (2008). Market knowledge diffusion and business performance. *European Journal of Marketing*, 42, 1372-1395.
- Iacobucci, D., Saldanha, N., & Deng, X. (2007). A mediation on mediation: Evidence that structural equations models perform better than regressions. *Journal of Consumer Psychology*, 17, 139-153.
- Ibarra, H. (1993). Network centrality, power, and innovation involvement: Determinants of technical and administrative roles. *The Academy of Management Journal*, 36, 471-501.
- Inkpen, A. C., & Tsang, E. W. K. (2005). Social capital, networks, and knowledge transfer. *Academy of Management Review*, 30, 146-165.
- Kraatz, M. S. (1998). Learning by association: Interorganizational networks and adaptation to environmental change. *Academy of Management Journal*, 41, 621-643.
- Krackhardt, D. (1992). The strength of strong ties: The importance of philos in organizations. In N. Nohria & R.G. Eccles (Eds.), *Networks and organizations: Structure, form, and action* (pp. 216-239). Boston: Harvard Business School Press.
- Lichtenstein, G. A., & Lyons, T. S. (2010). *Investing in entrepreneurs: A strategic approach*

- for strengthening your regional and community economy*. Santa Barbara, CA: Praeger.
- Lowe, K. B., Kroeck, K. G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the MLQ literature. *Leadership Quarterly*, 7, 385-425.
- Lubit, R. (2001). Tacit knowledge and knowledge management: The keys to sustainable competitive advantage. *Organizational Dynamics*, 29, 164-178.
- Martin, D. M. (2009). The entrepreneurial marketing mix. *Qualitative Market Research: An International Journal*, 12, 391-403.
- Mavondo, F. T., Chimhanzi, J., & Stewart, J. (2005). Learning orientation and market orientation: Relationship with innovation, human resource practices and performance. *European Journal of Marketing*, 39, 1235-1263.
- McFadyen, M.A., & Cannella, A.C. (2004). Social capital and knowledge creation: Diminishing returns of the number and strength of exchange relationships. *Academy of Management Journal*, 47, 735-746.
- Meyerson, D., Weick, K. E., & Kramer, R. M. (1996). Swift trust and temporary groups. In R. M. Kramer & T. R. Tyler (Eds.), *Trust in organization: Frontiers of theory and research* (pp. 166-195). Thousand Oaks, CA: Sage Publications.
- Ozgen, E., & Baron, R. A. (2007). Social sources of information in opportunity recognition: Effects of mentors, industry networks, and professional forums. *Journal of Business Venturing*, 22, 174-192.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- Rogers, E. M. (1995). *Diffusion of innovations* (4th ed.). New York: The Free Press.
- Sgourev, S. V., & Zuckerman, E. W. (2006). Improving capabilities through industry peer networks. *MIT Sloan Management Review*, 47, 33-38.
- Sinkula, J. M., Baker, W. E., & Noordewier, T. (1997). A framework for market-based organizational learning: Linking values, knowledge, and behavior. *Journal of the Academy of Marketing Science*, 25, 305-318.
- Westphal, J. D., Seidel, M. D. L., & Stewart, K. J. (2001). Second-order imitation: Uncovering latent effects of board network ties. *Administrative Science Quarterly*, 46, 717-747.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24, 1307-1314.
- Zuckerman, E. W., & Sgourev, S. V. (2006). Peer capitalism: Parallel relationships in the U.S. economy. *American Journal of Sociology*, 111, 1327-1366.