

2008

A Social Status Perspective of Network Utility Over Electronic Channels in Academic Communities

Karma Sherif

Texas Southern University, sherifk@tsu.edu

James Wilcox

Texas Tech University, jim.wilcox@ttu.edu

Jaeki Song

Texas Tech University, jaeki.song@ttu.edu

Follow this and additional works at: <http://aisel.aisnet.org/amcis2008>

Recommended Citation

Sherif, Karma; Wilcox, James; and Song, Jaeki, "A Social Status Perspective of Network Utility Over Electronic Channels in Academic Communities" (2008). *AMCIS 2008 Proceedings*. 85.

<http://aisel.aisnet.org/amcis2008/85>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISEL). It has been accepted for inclusion in AMCIS 2008 Proceedings by an authorized administrator of AIS Electronic Library (AISEL). For more information, please contact elibrary@aisnet.org.

A Social Status Perspective of Network Utility over Electronic Channels in Academic Communities

Karma Sherif

Texas Southern University
sherifk@tsu.edu

James Wilcox

Texas Tech University
jim.wilcox@ttu.edu

Jaeki Song

Texas Tech University
jaeki.song@ttu.edu

ABSTRACT

Research on the social implications of e-mail has promoted the role of electronic communication channels in reaching social equality and dissipating gaps between the social classes. Other streams of research maintain that social status attributions are mentally salient, and that people continue to rely on social cues in electronic communication as a way of dealing with uncertainties and reducing feelings of discomfort associated with unfamiliar contexts. In this paper, we use social cognitive theory (Bandura 1986) to derive a model that explains how attained social status and self-perception play a critical role in the use of e-mail to seek help and accrue social resources. The model is tested using data collected from 206 faculty members in a major U.S. University. The empirical results support the proposed research model implying that subjective measures of social status influence social assertiveness and the seeking of help through electronic channels.

Keywords

Network Benefits, Electronic Communication, Social Cognitive Theory, Social Resources, Survey, Structural Equation Modeling.

INTRODUCTION

A growing body of literature addressing the implications of e-mail has evolved over the last two decades. Early work on the social implications of electronic communication predicted that “computer-mediated communication... will do by way of electronic pathways what cement roads were unable to do, namely connect us rather than atomize us, put us at the controls of a “vehicle” and yet not detach us from the rest of the world,” (Patton 1986, p. 20). The technology is believed to have the potential of affecting many aspects of personal communities (Hampton and Wellman 2001; Wellman et. Al. 2001) by blurring the lines between social groups thereby promoting social equality (Siegel et. Al. 1986). Frequent use of electronic communication structurally embeds users in a virtual network that gives access to a diversified set of resources from multiple sources (Ahuja et. al. 2003; Wasko and Faraj 2005).

Researchers examining the social implications of electronic communication have typically focused on the structural characteristics of the network and its impact on the acquisition of social resources (Ahuja et. al. 2003; Ahuja and Carley 1999; Hampton and Wellman 2001). While these studies have produced important insights, they are limited in terms of the insight they provide regarding the impact of social status on the acquisition of social resources over electronic channels. Recent studies have demonstrated evidence that social status attributions are important, and that people continue to rely on such cues for social judgment whether they are visible or not (Bodenhausen and Macrae 1998).

Studies on the social implications of CMC found that social status attributions are still used as a way of dealing with uncertainties and reducing feelings of discomfort associated with unfamiliar contexts (Clark 1995). Individuals of lower status are likely to acquire fewer resources over the electronic channels, even when the structural characteristics of their networks are similar to those with high status. This appears to result from the fact that the social exchanges we engage in are profoundly impacted by how we perceive ourselves with respect to others.

The present article seeks to examine the effect of social status on access to social resources via email. Social cognitive theory (Bandura 1986) provides the basis for this examination. The theory presents a view of human behavior in which self-perceptions and environmental factors moderate behavior, such that “what people think, believe, and feel affects how they behave” (Bandura 1986, p. 25). It posits that cognitive assessment of social experiences lead to the selective encoding of information and the enforcement of structure on actions (Jones, 1989).

Given societal differences in treatment between low and high status individuals (Ibarra 1995), those of high status will tend to enjoy a disproportionate share of the social assets (Sidanius and Pratto 1999) because members of a community have an “automatic tendency” to treat higher status individuals better (Aquino and Bommer 2003) and are likely to judge these individuals favorably on underlying traits like intelligence and competence. Cognitive processing of social experiences that emphasize the importance of social status will cause people to engage in self-evaluation and social categorization before initiating social contacts. Self-perceptions will affect the degree of assertiveness people exhibit in using electronic communication to accrue social resources as they anticipate the likely consequences of contacting someone with higher status, and thus, plan courses of action that are congruent with that conception (Tajfel, 1978).

High status individuals are likely to be more socially assertive (Aquino et al. 1999) because their attained status increases confidence and perceptions of control over the environment (Aquino et al. 1999). Because self-evaluation act as a personal incentive, high status are likely to exhibit competence in establishing and maintaining positive relationships (Rodkin et al. 2000). The status and power they possess provide resources and opportunities for career advancement and functioning.

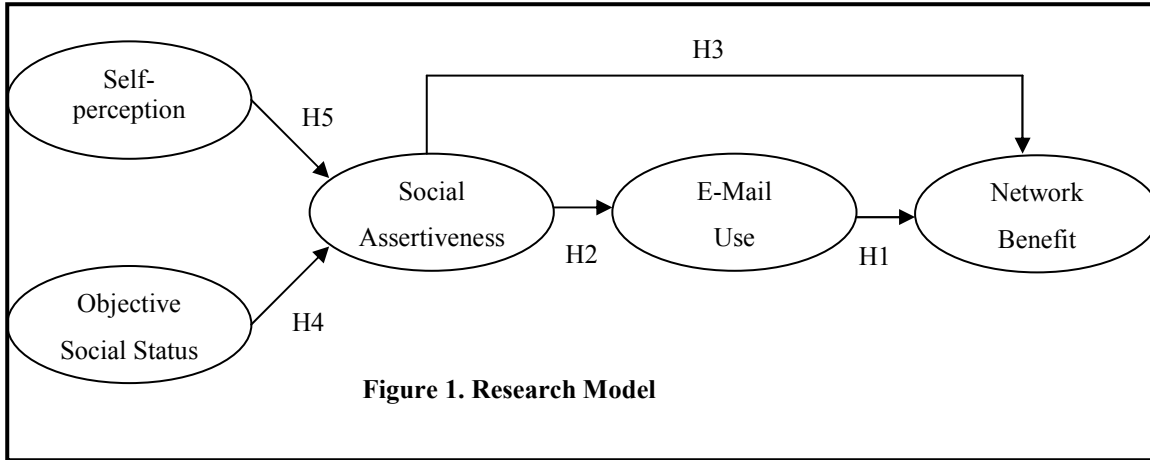
In this paper, we attempt to explain how cognitive perceptions of one’s social status operate to guide the use of e-mail to seek help and accrue social resources. Rather than simply assuming that email will promote egalitarian participation of low and high status individuals and facilitate equal access to social resources, we suggest that a social stratification perspective can enrich our understanding of the effect of e-mail use on the acquisition of social resources.

THEORETICAL BACKGROUND AND CONCEPTUAL MODEL

Social Cognitive Theory (Bandura 1986) highlights the role of cognition in defining behavior. The theory posits that cognition exerts a considerable influence on the construction of one’s reality, as it selectively encodes information, and imposes structure on actions (Jones, 1989). How people interpret their own achievements and status affects their self-perception and influences the strategies they use to build and maintain their social networks. A person who enjoys high levels of self-efficacy will have more confidence in establishing relationships with high status individuals and will utilize these relationships to access social resources. The relationships that one establishes, however, will then affect self-perceptions. Contacts may reinforce or demote the self-image.

We apply the tenets of SCT to examine how perceptions of one’s social standing operate in concert with self-regulatory mechanisms (social assertiveness - a tendency to seek help from others) to guide the use of email for the acquisition of social resources. While we agree that the value of social resources is partly determined by the structural characteristics of the network, we argue that the ability of the network to affect productivity largely depends on the social assertiveness of the individual (Hawley and Little 1999) evident in their ability to recognize, assess and seek the resources of others (Thomas-Hunt et al. 2003). Such ability will be greatly influenced by self-perceptions and interpretations of one’s achievement compared to others. Positive perceptions will create a social structure with opportunities for personal actions directed towards personal development, while negative perceptions will serve as a disincentive for social assertiveness and impose constraints on personal actions causing individuals to shy away from social contacts. Predictive knowledge of the social outcome associated with requesting help through electronic channels constrain actions and cause low status individuals to refrain from emailing a high status to get rewarding resources. On the other hand, Individuals who perceive themselves as enjoying high social status within their community are more likely to be socially assertive and use electronic email to seek help from others. Their self-perception act as a motivator for socially assertive behavior, like initiating contacts and requesting favors from others.

The key theoretical concepts of our model are social status, social assertiveness, use of email, and network benefits. We test a model that hypothesizes that objective and subjective measures of social status will intensify social assertiveness which in turn will increase the use of email to acquire social resources from others. The remainder of this section will develop the research model from right to left. (Figure 1).



NETWORK BENEFITS AND E-MAIL USE

The value of a social network is determined by the type of resources mobilized within the network (Lin 1999) and the effect of these resources on career success (Seibert et. al. 2001). Network benefits are “resources accessible through one’s direct and indirect ties. The access to and use of these resources are temporary and borrowed.....These resources are ... useful to achieve ego’s certain goal, but they remain the property of the friend or his/her friends.” (Lin 1999, pg. 468).

Network benefits can be either concrete like information, goods, and services; or it can be symbolic like love and status (Flynn 2003; Foa and Foa 1980). In this study, we look at network benefits as a function of: 1) the extent that the contact is willing to support the individual (Borgatti and Cross 2003); 2) the extent that the individual seeks the help of the contact (Borgatti and Cross 2003); and 3) the degree of support that the individual receives from the contact (Ibarra 1995).

Email has been positioned as a technology capable of connecting people across space, time and organizational boundaries. Advocates of the use of email for organizational and social communication argue that the technology’s reach enables the formation of a wide network that facilitates the acquisition of high-volume, diverse informational resources that members of the network can leverage to create new knowledge (Majchrzak et. al. 2000, Tsai 2001). The heavy use of electronic communication is expected to make boundaries more permeable, facilitate interactions with diverse others, and flatten hierarchies (Wellman et. al. 2001). The use of email will support the development of temporal relationships and enable individuals to mobilize resources across networks depending on their need and the resources embedded within these networks. We thus hypothesize that:

HYPOTHESIS 1. The use of email has a positive influence on the accumulation of network benefits

SOCIAL ASSERTIVENESS

Social assertiveness is a critical psychological skill that motivates individuals to express their thoughts in a socially appropriate manner. Socially assertive behavior is associated with the ability to initiate, maintain, or terminate interpersonal interactions that facilitate the achievement of one’s personal goals (Christoff and Kelly 1985; Cooley and Hollandsworth 1977). Socially assertive individuals are equipped with the skill to seek, maintain, or enhance relationships that are self-rewarding (Lorr and More 1980); they act mindfully to seek help from others they believe can help. Unassertive individuals, on the other hand, would shy away from approaching others for resources they need. They use strategies that constrain social engagements and help-seeking behaviors to avoid anticipated negative consequences that give rise to self-dissatisfaction (Bandura 1986).

We expect socially assertive individuals to use e-mail to acquire social resources perceived as instrumental for goal achievement (Ahuja et. al. 2003) and to seek information, help, and advice from those they highly respect. For example a chaired faculty member who has numerous publications is likely to use email to acquire social resources from other researchers known to have expertise in research areas important to her. To increase their productivity, socially assertive

researchers will request favors from others who control vital information, possess valuable research skills, direct research outlets, or wield political clout (Blau, 1963). Hence, we posit that

HYPOTHESIS 2. Social assertiveness has a positive influence on the use of E-mail

HYPOTHESIS 3. Social assertiveness has a positive influence on Network Benefits.

OBJECTIVE SOCIAL STATUS

Social status is multi-dimensional, it may be derived from roles played, appearance, wealth, expertise, and/or social connections (Ibarra 1995; Kilduff and Krackhardt 1994; Thomas-Hunt et. al. 2003). Individuals with high status are likely to have a network that extends beyond their required job-related interactions and immediate organization (Brass 1984). Their status will facilitate the acquisition of social benefits from peers, superiors, and the “dominant coalition” of the bigger professional network. It is even likely for high status individuals to realize benefits from those with whom they do not maintain close ties.

Individuals in professional communities are likely to derive status from their recognized expertise (Wittenbaum 2000). Their distinctiveness, in terms of their apparent possession of attributes recognized as highly valuable by other professionals, will legitimate their status claims and “lubricate the machinery” of social resource exchanges (Flynn 2003; Sutton and Hargadon 1996).

Expertise is generally viewed as possession of an abstract representation of knowledge (Walsh 1995) or context-dependent knowledge that emerged out of repeated experiences in particular domains (Brown and Duguid 1991; Faraj and Sproul 2000). Credible expertise, perceived as unique and expensive to acquire by members of a network, is likely to confer status on the beholder. In a professional career arena, expert status is bestowed on those who contribute to the professional advancement of their fields (Judge et. al. 2004; Kanter 1989) causing members of a community to place a high value on the relative and marginal value of the expertise (Bunderson 2003). There is, also, an “automatic tendency” to treat experts better as they are judged favorably on underlying traits like intelligence and competence (Aquino and Bommer 2003;). These results are in accord with social dominance theory (Sidanius and Pratto 1999) that posits that people of high status will enjoy a disproportionate share of the positive assets.

Social status has been reported to be positively associated with social assertiveness (Aquino et. al. 1999; Filsenger Lorr and More 1980) since high social status increases individuals’ confidence and perceptions of control over the environment (Aquino et. al. 1999). High status individuals are more likely to exercise control over their environments because “they believe themselves to have a more internal locus of causality,” and therefore, are better equipped to purposefully establish relationships (Lorr and More 1980) that increase their access to social support. They become assertive in requesting help because of a heightened sense of entitlement to society’s resources (Ibarra 1995).

A low status person, on the other hand, has limited opportunities to become an important player within the professional network. He or she is less likely to contact individuals beyond that which is required for work interactions among immediate work groups. A low status individual will have difficulties gaining the same social and instrumental support in the workplace that accrues to high status counterparts (Ibarra 1995) because, knowingly or unknowingly, they create the social conditions that lead others to discount their need for support (Egan and Perry 1998). In spite of their needs, a low status person is likely to exercise little social assertiveness and will recoil from identifying with or seeking the support of someone with high status (Hopkins 2002). Thus we hypothesize that

HYPOTHESIS 4. Objective Social Status has a positive influence on social assertiveness

SELF-PERCEPTION

According to Social Cognitive Theory, behavior is a function of self perceptions (Snyder & Williams, 1982, p. 258). Individuals are motivated to behave in ways that are consistent with their self-perceptions in terms of traits, thoughts, actions, and status (Cantor & Kihlstrom 1987). An individual’s confidence in meeting the expectations of others will cause him or her to behave in ways consistent with their sense of where they stand in the community. Empirical evidence has linked social assertiveness, social self-efficacy, and social initiative to levels of self-esteem (Connolly, 1989) contending that individuals who favorably perceive themselves as having status within the community are more likely to exhibit social confidence and exercise social assertiveness.

HYPOTHESIS 5. A positive self-perception has a positive influence on social assertiveness

RESEARCH DESIGN

Instrument Development

Our proposed research model contains five constructs: objective social status, self-perception, social assertiveness, e-mail use, and network benefits. The scales for measuring these constructs were developed based on an extensive review of literature to ensure their content validity, as reported in Table 1.

<i>Construct</i>	<i>Operational Definition</i>	<i>Source</i>
Objective social status/ Expert Status (OS)	An objective measure of social status in an academic environment assessing individual contribution to the advancement of an academic field	Judge et. al. 2004
Self Perception(SP)	A self assessment of one’s social standing in one’s community.	Anderson et. al. 2001
Social assertiveness (SA)	The ability to seek, continue, and terminate interpersonal interactions	Lorr and More 1980
Use of E-mail (UE)	The use of email to acquire social resources	Rice and Love 1987, Lea and Spears 1992
Network Benefits (NB)	Resources accessible through social ties and interpersonal interactions.	Flynn 2003, Lin 1999, Seibert et. al. 2001
Table 1. Construct Definition and Sources for Item Development		

Methodology and Sample Data

Our investigation began with data collected from 51 researchers in 24 different universities. Qualitative analysis of interview data suggested that social status influenced the tendency to seek help, in general, and through electronic channels, in particular. These results led to grounding the relationships and elements in Social Cognitive Theory (Bandura 1986). In an attempt to establish generalizability and replicability, we designed a questionnaire based on a search of the literature and on the qualitative data collected in the earlier study. Measures came from earlier studies as well as the qualitative data. Five experts in social networks were recruited to assess the face validity of measures of the new constructs like email use and network resources. A pilot study employing 25 doctoral students in a College Business followed to assess the clarity of instructions, the amount of time required to complete the survey, the thoroughness and relevance of the items and the psychometric properties of the scales. Immediately after the students completed the surveys, we conducted a focus group with them to obtain detailed feedback on their reaction to the survey instrument. Drawing on this feedback, we eliminated some items and edited others.

For the study reported here, we drew our sample from faculty members in a U.S. research university in the southwest. Electronic messages along with cover letters were sent soliciting participation from 929 faculty members who have as part of their academic responsibility, the conduct of research and publication of results in top-tier journals¹. A web-based survey allowed the automatic collection of responses and the mailing of follow-ups to non-respondents. While the majority of studies on social capital and social networks focus on the structure of the population network, this study looked at an individual’s unique set of social contacts known as the egocentric network (Marsden 1990; Morrison 2002). Thus, we do not intend to provide an overall picture of the social structure within the university where we collected the data. Instead, we focus

¹ Instructors, adjunct professors, and faculty assuming administrative positions were excluded from the sample.

on how social resources available to a researcher are affected by the researcher’s own social status, social assertiveness and use of email. A focus on egocentric networks is appropriate for studying researchers in an academic institution since a large number of faculty members have established relationships outside their institution, as well. The profiles of participants for testing the model are reported in Table 2.

<i>Gender</i>	Male: 139	Female; 67			
<i>Academic ranking</i>		<i>College:</i>			
Full professor	58	Arts and Sciences	87	Engineering	19
Associated professor	63	Agriculture	15	Human Sciences	16
Assistant professor	85	Business Administration	29	Law	6
		Education	9	Mass Comm.	6
		Visual Arts	16		

Table 2. Profiles of Participants (N=206)

DATA ANALYSES AND DISCUSSION

Construct Reliability

Many studies note the critical importance of instrument reliability in information systems research (Moore and Benbasat 1991). As reported in Table 3, the constructs have alpha values well above the cutoff value of 0.70 (Nunnally 1978). The composite factor reliability (CFR) values are above the recommended threshold of 0.70, and the average variance extracted (AVE) values for the constructs exceeded the threshold of 0.50 (Segars 1997), indicating the constructs have captured a relatively high level of variance of their measures (Fornell and Larcker 1981). Hence, the reliability checks indicate a relatively high level of instrument reliability.

<i>Constructs</i>	<i>Cronbach</i>	<i>CFR</i>	<i>AVE</i>	<i>Construct Correlation*</i>				
	<i>alpha</i>			<i>OS</i>	<i>SP</i>	<i>SA</i>	<i>EU</i>	<i>NB</i>
OS	0.81	0.88	0.71	(0.86)				
SP	0.88	0.91	0.76	0.32	(0.90)			
SA	0.84	0.87	0.69	0.14	0.37	(0.88)		
EU	0.85	0.88	0.59	0.15	0.26	0.35	(0.79)	
NB	0.82	0.86	0.55	0.10	0.21	0.36	0.32	(0.76)

Table 3. Construct Reliabilities and Correlation

* Value on the diagonal represents the square root of AVE.

Convergent and Discriminant Validity

We, first, carried out exploratory factor analysis to assess initial convergent and discriminant validity reported in Table B-1 in Appendix B. There was no cross loading above 0.40. We also estimated the measurement model (confirmatory factor analysis) (Anderson and Gerbing 1982). The fit indices for the measurement model are reported in Table 4. The normed chi-square for the measurement model was 1.92, which is desirably below the cut-off value of 3.0 or 5.0 (Bhattacharjee 2002; Bentler 1989). RMSEA was 0.06, which is at the 0.06 cut-off, indicating a satisfactory model fit (Hu and Bentler 1999). CFI, and TLI indices were 0.92 and 0.91, respectively, all above the cut-off values of 0.90 for the continuous outcomes case (Bhattacharjee 2002; Hu and Bentler 1999). AGFI index was 0.9483, above the cut-off value of 0.80 (Gefen et al. 2003).

However, GFI was 0.86, below the cut-off value of 0.90. These results suggest that the measurement model adequately fits the data

<i>Fit Index</i>	<i>Measurement Model</i>	<i>SEM</i>	<i>Recommended Cut-off value*</i>
Normed Chi-square ($\chi^2/d.f$)	1.92	1.90	<3.0 or 5.0
GFI (goodness of fit index)	0.86	0.86	> 0.90
AGFI (Adjusted goodness of fit index)	0.83	0.84	> 0.80 or > 0.90
CFI (comparative fit index)	0.92	0.92	> 0.90
TLI (Tucker-Lewis index)	0.91	0.91	> 0.90
RMSEA (root mean square error of approximation)	0.06	0.06	< 0.06
SRMR (standardized root mean square residual)	0.07	0.07	< 0.10

Table 4 Fit Indices for Estimated Models

Factor loadings for the measurement model are reported in Table 5. The loading coefficients for all items are greater than 0.7 (Fornell and Larcker 1981). The *t*-values for the loadings of manifest variables were well above 2.54 supporting the statistical significance of the estimated parameters (Muthén and Muthén, 2003). Moreover, the *R*² values for indicators support the assertion that the indicators are “good” measures of the construct (Bollen 1989, p. 288). Furthermore we used the standardized RMR (SRMR) as an index for badness-of-fit. The SRMR was 0.07, which is below the suggested threshold of 0.10, providing further support for the model fit (Byrne 1998).

Following the procedure suggested by Gefen et al. (2003), we compared the discriminant validity in the original measurement model (CFA) with five constructs against other measurement models with only four constructs, which included every possible combination of collapsing two constructs into one. The Chi-square value in the original CFA was significantly better than the reduced measurement model (Table B-2, Appendix B). Another guideline for discriminant validity is that the square root of AVE for each construct should be greater than the correlation values of the construct with other constructs (Fornell and Larcker 1981). All constructs passed the guideline, providing further evidence for their discriminant validity as reported in Table 3.

We also checked for common method variance, which refers to “variance that is attributable to the measurement method rather than the construct of interest” (Podsakoff et al. 2003). We carried out Hartman’s test which involves an exploratory factor analysis of all items to “determine whether the majority of the variance can be accounted for by one general factor” (Podsakoff et al., 2003). Hartman’s test showed that the first factor accounted for 17.5% of variance.

THE MODEL ESTIMATION

The research model was estimated using SEM and Mplus software (developed by Muthén and Muthén, 2003, based on Muthén and Satorra 1995). The estimation used the mean-adjusted maximum likelihood, which adjusts the estimation result for the non-normality in data. Figure 3 shows the estimation results of the model.

The normed-chi square for the SEM was 1.90. As Table 4 shows, all other fit indices were at or above the recommended threshold values.

Hypotheses 4 and 5 posited that social status influences social assertiveness. The estimation results showed that self-perception of social status positively influences social assertiveness, with a *t*-value of 4.01. However, hypothesis 4 (relating to the impact of objective social status on assertiveness) was not supported by data. Bandura (1997b) has warned that how people behave is better predicted by the beliefs they hold about their capabilities than by what they are actually capable of achieving. This explains why behavior is sometimes inconsistent with competencies, causing some to be over-confident in their ability to perform and others to doubt abilities that they unmistakably possess.

Construct	Items	Loading	t-value	R ²
Objective Social Status	OS1	1.00	0.00	0.57
	OS2	0.89	6.57	0.82
	OS3	0.87	8.65	0.49
Self-Perception	SP1	0.75	11.99	0.59
	SP2	1.00	0.00	0.77
	SP3	0.90	17.33	0.79
Social Assertiveness	SA1	0.75	12.48	0.37
	SA2	1.00	0.00	0.92
	SA3	0.85	17.46	0.82
E-Mail Use	EU1	0.83	15.69	0.57
	EU2	1.00	0.00	0.74
	EU3	0.77	10.18	0.41
	EU4	0.88	15.58	0.56
	EU5	0.83	10.78	0.44
Network benefits	NB1	0.95	6.96	0.55
	NB2	0.95	10.44	0.43
	NB3	0.91	9.11	0.50
	NB4	0.88	5.88	0.46
	NB5	1.00	0.00	0.44

Table 5. Confirmatory Factor Analyses

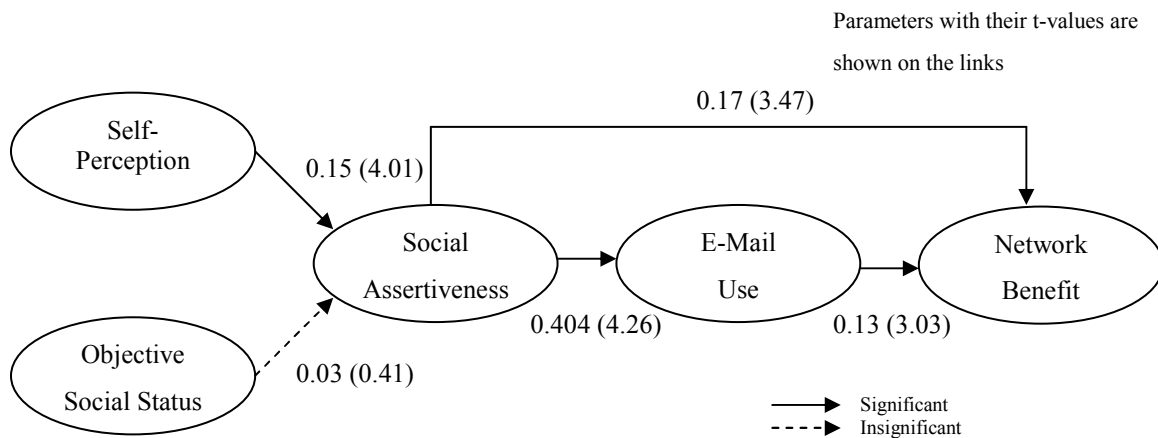


Figure 3. Estimated Model

Hypothesis 2 and 3 in Figure 2 posited that social assertiveness would influence e-mail use and network benefits. These hypotheses were strongly supported by t-values of 4.26 and 3.47. Hypothesis 1 posited that email use to seek help and acquire social resources positively influences network benefits. This hypothesis was supported with a t-value of 3.03.

DISCUSSION

The results reported from the model test indicate that self-perception of social status and social assertiveness influence the use of email to access social resources and the mobilization of these resources for career success. Contrary to what was proposed earlier (that email use will promote social equality), our results suggest that self-perception of social status is associated with social assertiveness to establish connections and maintain relationships. Assertiveness, in turn, influences the use of email to access social resources. It is apparent that a researcher's view of his or her own status affects how much threat he or she feels in communicating with others. Contacting others electronically may be uncomfortable when the researcher perceives himself or herself as inadequate to deal with a higher status individual or lacking the personal characteristics perceived by others as relevant to their goal achievement efforts. As a result, a low status person is likely to self-impose artificial social constraints because of fear of humiliation or embarrassment as a result of revealing their weaknesses. The awareness of low status results in an unwillingness to invest time and effort in maintaining social relations. Lack of confidence in managing social interactions leads to social withdrawal and deprivation of opportunities to accrue social resources, which may facilitate career success.

High status individuals, on the other hand, enjoy high levels of self determination as they are more motivated to exercise control over their network connections. They chose interactions based on how closely a contact's skills match an activity. Enjoying the social powers associated with their status in the community, high status are better equipped to control when, how, and with whom to interact which allow them to avoid negative encounters. They are focused on achieving their professional objectives regardless of resistance which may limit their initiatives. They do not hesitate to use email to secure continuous access to what they perceive as valuable resources.

Our findings add to the growing evidence that personal characteristics influence both individual initiatives to build instrumental relationships and their use of email to procure social resources. Personal attributes, like social status and social assertiveness, act as antecedents to the utilization of electronic communication channels to seek help and accrue social resources. By examining cognitive processes, we should be better able to understand how individuals utilize their social networks to improve behavioral competencies.

Generalizing from this study suggests important implications for organizations. The results draw attention to the importance of establishing strategies for improving the emotional, cognitive, and motivational processes to enable individuals to build a value-generating social network that gives access to instrumental resources. Improving confidence and self-beliefs will work to bolster employees' ability to utilize their networks for career success. The findings suggest the need for an organization to invest in human capital development to augment investment in digital networks for career advancement purposes. As low status individuals start to gain confidence in their skills, they will take the initiatives to establish connections and seek help electronically. They will become less concerned about how others might perceive their messages.

One of the most effective ways for organizations to develop a strong sense of efficacy is through building mastery (Wood and Bandura 1989). Mastery helps individuals build confidence in their capabilities through repeated successes. In the case of academic communities, universities need to orchestrate social settings that increase the chances of interaction between high and low status researchers in different fields. Apart from reducing the power distance, frequent social interactions will help the low status researchers in two ways: 1) high status researchers can socially persuade the low status of their ability to achieve similar success (Wood and Bandura 1989). Realistic encouragement will motivate new comers to exert great effort to become more successful; 2) High status researchers will serve as models and gradually help the low status to build competencies without setting them up, prematurely in situations where they can fail. Similar guidelines for social contact seem appropriate for academic conferences, as well.

CONCLUSION

Our goal in this study was to shed new light on the antecedents to the use of email to access social resources. Our results suggest that the effects of self-perception of status and social assertiveness, while modest, play a significant role in determining who uses email to access social resources. Clearly social status and social assertiveness do not tell the whole story. Thus we hope that our findings and suggestions for future research spur further investigation of this important social phenomenon.

REFERENCES

1. Ahuja, M. K., D. F. Galleta, K. M. Carley. 2003. Individual Centrality and Performance in Virtual R&D Groups: An Empirical Study. *Management Sci.* 49(1) 21-38.
2. Ahuja, M. K., K. M. Carley. 1999. Network Structure in Virtual Organizations. *Organization Sci.* 10(6) 741-757.
3. Anderson, C.P., O. J. John, D. Keltner, A.M. Kring. 2001. The Origins of Status Within Face-to-face Social Groups. *J. of Personality and Social psych.* 81(1) 116-132.
4. Anderson, J., D.Gerbing. 1982. Some Methods for Respecifying Measurement Models to Obtain Uni-dimensional Construct Measurement. *J. of Marketing Res.* 19(4) 453-460.
5. Aquino, k, W. H. Bommer. 2003. Preferential Mistreatment: How Victim Status Moderates the Relationship between Organizational Citizenship Behavior and Workplace Victimization. *Organ. Sci.* 14(4) 374-385.
6. Aquino, K., S. L. Grover, M. Bradfield, D. G. Allen. 1999. The Effects of Negative Affectivity, Hierarchical Status, and Self-determination on workplace victimization. *Acad. Management J.* 42(3) 260-272.
7. Bandura A. 1977a. *Social Learning Theory*. Englewood Cliffs, New Jersey: Prentice Hall.
8. Bandura A. 1977b. Self-efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Rev.* 84. 191-215.
9. Bandura A. 1986. *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.
10. Bandura A. 1989. Social Cognitive Theory. *Annals of Child Develop.* 6(1) 1-60.
11. Blau, P.M. 1963. *The dynamics of bureaucracy: A study of Interpersonal Exchange in Two Government Agencies*. Chicago: University of Chicago Press.
12. Bodenhausen, G., C. N. Macrae.1998. Stereotype Activation and Inhibition. In J. R. Wyer (Ed.), *Advances in Social Cognition* (Vol. XI, pp. 1–52). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
13. Bollen, K. 1989. *Structural Equations with Latent Variables*. Wiley and Son, New York.
14. Borgatti, S. P., R.Cross. 2003. A Relational View of Information Seeking and Learning in Social Networks. *Management Sci.*, 49(4), 432-445.
15. Brass, D. J. 1984. Being in the Right Place: A Structural Analysis of Individual Influence in an Organization. *Admin. Sci. Quart.* 29(4), 518-539.
16. Brown, J. S., P. Duguid. 1991. Organizational Learning and Communities-of-practice: Toward a Unified View of Working, Learning, and Innovation. *Organ. Sci.* 2(1), 40-57.
17. Bunderson, S. 2003. Recognizing and Utilizing Expertise in Work Groups: A Status Characteristics Perspective. *Admin. Sci. Quart.* 48(4) 557-591.
18. Byrne, B. M. 1998. *Structural Equation Modeling with LISREL, PRELIS, and SIMPLIS*. Lawrence Erlbaum Associated Publisher, Mahwah, NJ.
19. Cantor, N., J.F. Kihlstrom. 1987. *Personality and Social Intelligence*. Englewood Cliffs, NJ: Prentice-Hall.
20. Clark, N. 1995. Rear-view Mirrorshades: The Recursive Generation of the Cyberbody. In M. Featherstone & R. Burrows (Eds.), *Cyberspace/Cyberbodies/Cyberpunk; Cultures of Technological Embodiment*. Thousand Oaks, CA: Sage Publications, 113-133.
21. Cooley, M. L., J. G.Hollandsworth Jr. 1977. A Strategy for Teaching Verbal Content of Assertive Responses. In R. E. Alberti (Ed.), *Assertiveness: Innovations, Applications, Issues*. San Luis Obispo, CA: Impact.
22. Egan, S. K., D. G. Perry. 1998. Does Low Self-regard Invite Victimization? *Develop. Psychology.* 34(1) 299-309.
23. Faraj, S., L. Sproull. 2000. Coordinating Expertise in Software Development Teams. *Management Sci.* 46(12) 1554-1568.
24. Flynn, F. J. 2003. How Much Should I Give and How Often? The Effects of Generosity and Frequency of Favor Exchange on Social Status and Productivity. *Acad. Management J.* 46(5) 539-553.

25. Foa, E., U.G. Foa. 1980. Resource Theory: Interpersonal Behavior as Exchange. In K. Gergen, M. Greenberg, and R. Willis (Eds.) *Social Exchange: Advances in Theory and Research*, New York: Plenum Press, 215-237.
26. Fornell, C., D. F. Larcker. 1981. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *J. of Marketing Res.* 18(1) 39-50.
27. Gefen, D., E. Krahana, D. Straub. 2003. Trust and TAM in Online Shopping: An Integrated Model. *MIS Quart.* 27(1) 51-90.
28. Hampton, K., B. Wellman. 2001. Long Distance Community in the Network Society: Contact and Support Beyond Netville. *The American Behavioral Scientist.* 45(3) 476-495.
29. Hawley, P.H., T.D. Little. 1999. On Winning Some and Losing Some: A Social Relations Approach to Social Dominance in Toddlers. *Merrill-Palmer Quart.* 45(1) 185-214.
30. Hert, P. 1997. Social Dynamics of an On-line Scholarly Debate. *The Information Society*, 13(1) 329-360.
31. Hopkins, K. M. 2002. Interactions of Gender and Race in Workers' Help Seeking for Personal/family Problems: Perceptions of Supervisor Support and Intervention. *The J. of Applied Behav. Sci.* 38(2), 156-176.
32. Ibarra, H. 1995. Race, Opportunity, and Diversity of Social Circles in Managerial Networks. *Acad. Management J.* 38(3) 673-704.
33. Jones JW. 1989 Personality and Epistemology: Cognitive Social Learning Theory as a Philosophy of Science. *Zygon*, 24(1) 23-38.
34. Judge, T. A., J. Kammeyer-Mueller, R.D. Bretz. 2004. A Longitudinal Model of Sponsorship and Career Success: A Study of Industrial-Organizational Psychologists. *Personnel Psychology.* 57(2) 271-303.
35. Kanter, R.M. 1989. Careers and the Wealth of Nations: A Macro-perspective on the Structure and Implication of Career Forms. In M.B. Arthur, D.T. Hall, and B.S. Lawrence (eds.), *Handbook of career theory*, 506-523. Cambridge: Cambridge University Press.
36. Kilduff, M., Krackhardt, D. 1994. Bringing the Individual Back in: A Structural Analysis of the Internal Market for Reputation in Organizations. *Acad. Management J.* 37(1), 87-108.
37. Lea, M., R. Spears. 1992. Paralanguage and Social Perception in Computer-mediated Communication. *J. Organizational Computing.* 2(1) 321-341.
38. Lin, N. 1999. Social Networks and Status Attainment. *Annual Rev. of Sociology.* 25(1) 467-487.
39. Lorr, M., W. W. More. 1980. Four Dimensions of Assertiveness. *Multivariate Behavioral Research*, 2, 127-138.
40. Majchrzak, A., R. E. Rice, A. Malhotra, N. King, S. Ba. 2000. Technology Adaptation: The Case of a Computer-supported Inter-organizational Virtual Team. *MIS Quart.* 24(4) 569-600.
41. Marsden, P.V. 1990. Network Data and Measurement. *Annual Rev. of Sociology.* 16 435-463.
42. Morrison, E. W. 2002. Newcomers' Relationships: The Role of Social Network Ties during Socialization. *Acad. Management J.* 45(6) 1149-1160.
43. Muthén, B. O., L. Muthén. 2003. *The Comprehensive Modeling Program for Applied Researchers User Guide*, Los Angeles, CA: Muthén & Muthén.
44. Nunnally, J. 1978. *Psychometric Theory*, New York, NY: McGraw-Hill.
45. Patton, P. 1986. *Open Road.*, New York, Simon & Schuster.
46. Podsakoff, P. M., N. P. Podsakoff, S. B. MacKenzie, J. Lee. 2003. Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *J. Applied Psych.* 88(5) 879-903.
47. Rice, R., G. Love. 1987. Electronic Emotion; Socioemotional Content in a Computer-mediated Communication Network. *Communication Res.* 14(1) 85-108.
48. Rodkin, P. C., T. W., Farmer, R. Pearl, R. Van Acker. 2000. Heterogeneity of Popular Boys: Antisocial and Prosocial Configurations. *Developmental Psych.* 36(1) 14-24.
49. Segars, A. H. 1997. Assessing the Uni-dimensionality of Measurement: A Paradigm and Illustration within the Context of Information Systems Research. *Omega.* 25(1) 107-121.
50. Seibert, S. E., M. L. Kraimer, R. C. Liden. 2001. A Social Capital Theory of Career Success. *Acad. Management J.* 44(2) 219-237.

51. Sidanius, J., F. Pratto. 1999. *Social Dominance: An Intergroup Theory of Social Hierarchy and Oppression*. New York: Cambridge University Press.
52. Siegel, J., V. Dubrovsky, S. Kiesler, T. W. McGuire. 1986. Group Processes in Computer-Mediated Communication. *Organ. Behavior and Human Decision Processes*. 37(2) 157-188.
53. Snyder, R.A., R.R. Williams. 1982. Self Theory: An Integrative Theory of Work Motivation. *J. Occupational Psychology* 55(1) 257-267.
54. Sutton, R., A. Hargadon, 1996. Brainstorming Groups in Context: Effectiveness in a Product Design Firm. *Admin. Sci. Quart.* 41(1) 685-718.
55. Tajfel, H. 1978. Social Categorization, Social Identity and Social Comparison. In *Differentiation between Social Groups: Studies in the Social Psychology of intergroup Relations*. Edited by H. Tajfel. European Monographs in Social Psychology 14. London: Academic Press.
56. Thomas-Hunt, M., T. Ogden, M. Neale. 2003. Who's Really Sharing? Effects of Social and Expert Status on Knowledge Exchange Within Groups. *Manage. Sci.* 49(4) 464-477.
57. Tsai, W. 2001. Knowledge Transfer in Intraorganizational Networks: Effects of Business Position and Absorptive Capacity on Business Unit Innovation and Performance. *Acad. Management J.* 44(5) 996-1004.
58. Walsh, J. P. (1995). Managerial and organizational cognition: Notes from a trip down memory lane. *Organization Science*, 6(3) 280-321.
59. Wasko, M. M., S. Faraj. 2005. Why Should I Share? Examining Social Capital and Knowledge Contribution in Electronic Networks of Practice. *MIS Quart.* 29(1), 35-57.
60. Wellman, B., A. Q. Haase, J. Witte, K. Hampton. 2001. Does the Internet Increase, Decrease, or Supplement Social Capital? Social Networks, Participation, and Community Commitment. *The American Behavioral Scientist*, 45(3) 436-455.
61. Wittenbaum, G. M. 2000. The Bias toward Discussing Shared Information: Why are High-Status Group Members Immune? *Commun. Res.* 27(3) 379-401.
62. Wood, R. E. & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review*, 14(3) 361-384.
63. Yates, S.J. 1997. Gender, Identity and CMC. *Journal of Computers and Learning*. 13(1) 281-290.