Psychological costs of support seeking and choice of communication channel

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Psychological costs of support seeking and choice of communication channel

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While seeking support brings benefits, it also entails some costs to the seeker. We propose that seeking support involves two types of psychological costs: intra- and inter-personal costs. Intra-personal cost is defined as the psychological threat arising from the perception that one fails to achieve one’s own aspiration, while inter-personal cost is defined as the psychological threat arising from the perception that one fails to meet others’ expectation. These costs result from individuals focusing on different aspects of the self and will deter individuals from seeking support. We conducted two studies. In the first study, we adapted, developed and validated scales to measure the two types of psychological costs. In the second study, we examined the impact of both types of psychological costs on individuals’ choice of communication channel when seeking support. We found that only inter-personal cost was significantly related to seekers’ choice of communication channel. Specifically, the higher the inter-personal cost perceived, the greater the likelihood that individuals would prefer email over face-to-face communication. We also found that women were more likely to seek support through email than face-to-face communication compared to men. Implications of the results for research and practice are discussed.

Keywords: social support; support seeking; email; face-to-face

1. Introduction

The need for social support prevails in both organisational and non-organisational contexts. Previous research found that social support is related to positive outcomes. For example, Whitely et al. (1991) found that mentors’ support has a significant effect on protégés’ career success. Scholars explained that often social support functions as ‘inter-personal glue’ that helps build a strong network among employees. Consequently, it is associated with group maintenance and culture (Yukl 1989). When team members provide support to each other through encouraging and recognising individual and team contributions and accomplishments, members are more likely to work cooperatively and develop a sense of shared responsibility for team outcomes (Kirkman and Rosen 1999).

However, previous literature focused more on the effect of social support after an individual has received it. Much less effort has been devoted to examining individual support-seeking behaviour before social support is received. Also, it is often taken for granted that people will seek support when they need it. However, as noted by Taylor et al. (2004), little is known about how people decide whether or not to solicit support from their social networks. To address this gap, we extend previous research on support-seeking behaviour by examining the psychological costs involved in support seeking and their impact on the seekers’ choice of communication channel.

Using self-consciousness theory as the theoretical framework, we proposed that there are two types of psychological costs involved in seeking social support. When seeking support, if the attention is on the inner aspect of self, the seeker experiences intra-personal cost, which results from the perceived failure to meet his/her own expectation. In other words, intra-personal cost is associated with the awareness that ‘I need help’. In contrast, if the attention is on the social aspect of self, the seeker experiences inter-personal cost, which arises from his/her perceived failure to meet others’ expectation. This cost is associated with the awareness that ‘others will know that I need help’. When deciding whether to seek support, individuals experience both intra- and inter-personal costs. However, distinguishing between these two types of psychological costs is important because we predict that they will impact individuals’ support-seeking behaviours differently. This study seeks to address the following research questions:

(1) What is the relationship between psychological costs of support seeking and choice of communication channel (face-to-face vs. email)?

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2. Literature review

The word ‘cost’ often appears in economic, financial and strategic journals, referring to the monetary cost associated with economic exchange. In this study, cost refers to the cognitive cost associated with seeking social support. Seeking support is a form of social exchange, involving the transaction of resources from one person to another (Blau 1964).

Support seeking is an action to elicit resources from others. Such resources can be informational, instrumental or emotional in nature. Support seeking is similar to related behaviours such as feedback seeking, information seeking and help seeking. The costs associated with seeking help, information and other resources can also be applied to seeking support.

Based on previous literature, costs associated with support seeking can be categorised into two types. The first category of cost is related to the notion of ‘self’. Support from others is self-esteem-threatening because it signifies one’s incompetence, dependence and inferiority (Nadler and Fisher 1986) and restricts one’s freedom of choice (Fisher and Fisher 1982). For example, employees react more negatively to imposed support than to no support because the unsolicited support restricts one’s freedom and signifies one’s incompetence (Deelstra et al. 2003). Some researchers also point out that support seeking is associated with ego cost (e.g. Park et al. 2007). If the feedback reveals negative aspects of the self, it will hurt seekers’ pride, ego, vanity and self-esteem. Since individuals are motivated to protect their egos (Baumeister 1999), ego cost has a negative relationship with individuals’ feedback-seeking intention (Ashford and Cummings 1983), especially when they expect the feedback to be negative (Tuckey et al. 2002). The fear of negative feedback discourages individuals with low self-esteem from seeking any feedback (Ashford and Cummings 1983, Northcraft and Ashford 1990). In contrast, individuals with high self-esteem and confidence are more willing to seek feedback about their performance (Ashford 1986).

The second category of cost involves the notion of ‘others’. This type of cost has been called different names such as social cost (Holder 1996, Lee 2002), self-presentation cost (Park et al. 2007), social risk (Morrison 1993), impression-management cost (Ashford and Northcraft 1992), image cost (Ashford et al. 2003) or face-loss cost (Ang et al. 1993). Regardless of the term used, it basically refers to the risk of losing relative social status in a certain social context (e.g. an organisation). This type of cost involves seekers’ concern with others’ negative perception, and it has several implications. First, to seek support, one has to expose one’s uncertainty, need and vulnerability to others (Ashford 1986). Seeking support is a sign of incompetence and dependence, and the seeker risks losing face and being negatively evaluated by others (Lee 2002). On the other hand, seeking and receiving support is a natural and reoccurring process in relationships. While the person seeking support may expose his/her vulnerability to others, it can also signal trust and intimacy. However, note that the focus of our study is on psychological costs of support seeking, and the positive aspects of seeking support (such as signalling trust and intimacy) are not within the scope of this study.

Second, to receive support, seekers have to initiate communication with the provider, who may not be able to or willing to afford the time and energy. Disclosing oneself may also cause discomfort to the listener (Omarzu 2000). As a result, seekers risk being...
rejected or reprimanded by the provider (Miller and Jablin 1991). In addition, seeking support may also disrupt the harmony of the social group, as the seeker’s problem is imposed on others in the group (Taylor et al. 2004).

The literature on social support also explains that social support is multi-faceted and can take many different forms. While scholars recognise this multi-dimensional aspect of social support, arriving at a consensus on important distinctions has been difficult (Cohen and Wills 1985). Broadly, researchers have distinguished between two types of social support based on their functions. The first, instrumental support, involves providing support in the form of material resources, services or information, which are required to directly address the source of stress. The second type of support, often referred to as emotional support, refers to support aimed at bolstering individuals’ feelings of self-esteem and acceptance by making individuals feel valued regardless of their problems and inadequacies. Emotional supports also help enhance individuals’ ability to deal with the stressor (Cohen and Wills 1985). In this study, we focus on a specific form of instrumental support: support sought in relation to an academic stressor (studies and exams). This form of support can be provided by lecturers or friends.

3. Research model and hypotheses

3.1. Self-consciousness theory and support-seeking cost

Self-consciousness is not only a trait but a theory with long history. Since the seminal work of James (1890), researchers have been studying how people’s self-focus attention influences subsequent experiences or behaviours (Duval and Wicklund 1972, Wicklund 1975). Modern research on self-consciousness begins with Duval and Wicklund’s (1972) book in which they examined the impact of manipulations that induce attention to the self. The self consists of more than one aspect (Fenigstein et al. 1975, Carver and Scheier 1985). For different individuals, the salience of various aspects will differ. Echoing the distinction made by James (1890) between social and spiritual aspects of the self and the distinction made by Wylie (1968) between social and private aspects of the self, researchers distinguish two aspects of self-consciousness, the private aspect and the public aspect. In his book, Buss (2001) reviewed literature on private and public self-consciousness and referred to self-consciousness as a theory (Chapter 5 of the book).

In a similar vein, Fisher et al. (1982) studied recipients’ reaction to help and proposed a threat-to-self-esteem model. They argued that support from others is a combination of instrumental benefits and psychological costs. All types of psychological costs, according to Fisher et al. (1982), are ultimately due to the threat to recipients’ feeling of the ‘self’. Based on self-consciousness theory, we further distinguish between the private and the public aspects of the self and suggest that seeking support will threaten both aspects of the self and render two types of support-seeking costs.

Self-consciousness theory examines individuals’ perception of self in the social context. According to this theory, the self is multi-faceted. Individuals differ in the tendency to focus attention on different aspects of the self. Fenigstein et al. (1975) distinguished between private self-consciousness and public self-consciousness. Private self-consciousness reflects an orientation towards the inner world of ideas, concepts, motives, emotions, memories and other types of self-reflection (Gibbons et al. 1979, Scheier et al. 1979). In contrast, public self-consciousness is the awareness of the overt, social aspects of the self, to think of oneself as a social target (Tobey and Tunnell 1981, Gallaher 1992).

Research shows that self-consciousness influences individuals’ attitudes and social behaviours. For example, when people focus their attention on the private self, they are less susceptible to misleading suggestions concerning their internal states and behave more consistently with their self-report attitudes. They are also more likely to make internal attribution (Buss and Scheier 1976, Briere and Vallerand 1990). On the other hand, when people focus their attention on the public self, they are more concerned with their appearance and social image (Gould and Barak 1988; Bushman 1993, Xu 2008). Also, they are more sensitive to social interaction and act less in accord with their privately held beliefs, attitudes and feelings when in public settings (Scheier 1980).

The concepts of private self-consciousness and public self-consciousness lend support to the notion that there are two types of support-seeking costs. When one’s attention is on the private aspect of self, one tends to compare the status quo with the expectation of self. If he/she thinks that the need for support fails to meet his/her expectation as an independent and competent individual with some autonomy, he/she experiences intra-personal cost, which is defined as the psychological threat caused by failure to achieve one’s own aspiration. In contrast, when one’s attention is on the public aspect of self, one tends to compare the status quo with the expectation of others. If he/she worries that seeking support will make him/her look bad in others’ eyes, he/she experiences inter-personal cost, which is defined as the psychological threat caused by failure to meet others’ expectation.
Hence, in our research model (Figure 1), we examine the relationship between support-seeking psychological cost and choice of communication channels. In addition, we also examine whether there are any gender differences in the choice of communication channels.

3.2. Choice of seeking support face-to-face

When making a decision on whether to seek support, one perceives both intra- and inter-personal costs. However, it is the inter-personal cost that determines one’s decision whether to seek support via face-to-face communication. Recall that inter-personal cost is associated with the assessment of one’s image in front of others. Previous literature reveals that such concern with others influences individuals’ support-seeking behaviours in several ways. First, such concern influences individuals’ decision of who to seek support from. For example, people may prefer to seek support from equal-status others because of the lower psychological cost involved (Lee 1997). The high cost of seeking support from supervisors may offset any potential benefits and inhibits individuals’ support-seeking behaviour (Miller and Jablin 1991, Morrison 1993). Second, since psychological cost will be more salient in public, individuals are motivated to protect their images and avoid seeking support publicly. For example, Ashford and Northcraft (1992) found that people are less likely to seek feedback when they are observed. Moreover, psychological cost also motivates individuals to seek support in an indirect way (Fedor et al. 1992). They may also choose a more indirect communication channel (Shapiro 1980, Ang et al. 1993).

Face-to-face is the most direct form of communication. By choosing face-to-face communication, seekers put themselves under the direct observation of the potential providers. In such a situation, seekers are vulnerable to the judgement of other parties; they also risk direct rejection. Hence, we predict that the likelihood of using face-to-face communication is lower if seekers perceive higher level of inter-personal cost. Hence, we hypothesise that:

H1: The higher the perceived inter-personal cost, the less likely an individual will seek support via face-to-face communication.

3.3. Preferred communication channel: email versus face-to-face

The development of new technology provides an alternative channel for individuals to seek support (Harr and Wiberg 2008, Hwang 2010). Computer-mediated communication (CMC) (e.g. email) differs from traditional social interactions in numerous ways, but a critical characteristic is the absence of direct, face-to-face evaluative feedback (McKenna et al. 2002). Individuals have some degrees of autonomy and anonymity. These characteristics make CMC less threatening in the context of seeking support. Consequently, individuals often prefer to seek support via CMC rather than face-to-face communication (Ang et al. 1993).

The choice of communication channel can be explained by media richness theory (Daft et al. 1987). A summary of recent research using media richness theory is given in the Appendix. Common criticisms of media richness theory are that it fails to account for social pressure (Markus 1994) and cultural and social backgrounds (Ngwenyama and Lee 1997). Although some researchers found no support for media richness theory (Panteli 2002, Otondo et al. 2008) and some found that media richness theory only explained part of the story (Treviño et al. 2008), media richness theory is still being used in the fields of communication, marketing and organisational behaviour.

Basically, media richness theory suggests that a communication channel is considered rich if it is able to convey non-verbal cues and there is capacity for immediate feedback, e.g. in a face-to-face interaction, there is communication of both verbal (in the form of words) and non-verbal cues (in the form of gestures and body language). Feedback is also immediate. In contrast, email is considered a less rich medium than face-to-face interaction since non-verbal cues are largely missing and feedback tends to be asynchronous. Hence, the capacity of a communication channel to convey information and meanings vary in terms of its richness. In general, if the message is certain and unequivocal, less rich media (such as email) may be suitable. Conversely, if the message is uncertain and equivocal, face-to-face interaction is preferred, as it allows for immediate feedback and personalisation depending on the other party’s reaction (Daft and Lengel 1984, 1986).
Previous research has provided some support for media richness theory. Theoretically, Byron (2008) explains why email characteristics lead to miscommunication of emotions. Empirically, CMC is found to be less rich than face-to-face communication (Treviño et al. 2000, Murthy and Kerr 2003, Rockmann and Northcraft 2008). Moreover, perceived media richness has been found to influence the choice of communication channel (Treviño et al. 2000, Brunelle 2009, Anandarajan et al. 2010), trust between communicators (Rockmann and Northcraft 2008), perception of information senders (Cable et al. 2006, Walker et al. 2009) and task performance (Lim and Benbasat 2000).

In this study, we examine two types of communication media: CMC and face-to-face. We argue that CMC mitigates only one of the two types of costs. Support seekers experience psychological costs because they reveal their weaknesses to themselves (intrapersonal cost) or through inter-personal communication (inter-personal cost). Using an indirect and less rich communication medium such as CMC (via email) does not reduce intra-personal cost that results from the awareness of ‘I need help’.

But seeking support though email helps to mitigate inter-personal costs, as the seeker is able to take time to plan, organise and edit their request for support before transmitting the email message to the provider. The provider can reply to the email request at their convenience. This would help seekers run a lower risk of being perceived as intrusive and imposing on the providers. Email is also devoid of contextual features, and, even if the request for support is rejected, the seeker will not be able to directly observe the provider’s gestures and displeasure, if any. Taken together, therefore, we argue that individuals are more likely to seek support using email when the perceived inter-personal cost is high. Hence, we hypothesise that:

H2a: Perceived intra-personal cost has no relationship with the choice of communication channel.

H2b: The higher the perceived inter-personal cost, the more likely an individual will prefer seeking support via email compared to face-to-face communication.

3.4. Gender differences

Previous research has found gender differences in technology usage (Teo and Lim 2000), cyber incivility (Lim et al. 2008, Lim and Teo 2009), e-commerce adoption (Slyke et al. 2010) and use of CMC/email (Gefen and Straub 1997, Debrand and Johnson 2008). Consequently, we also predict that men and women will differ in their choice of support-seeking channel. We attribute this difference to the dissimilarity in men’s and women’s perceived self-construal (Cross and Madson 1997). Society has different gender role expectations for men and women, and such expectations influence gender behaviours in social interactions. Men are expected to demonstrate masculinity and competitiveness; hence, they tend to focus more on outcomes rather than on inter-personal relations. In contrast, women are expected to be more relationship-oriented, focusing on inter-personal relations. In other words, in social communications, men are more result-oriented while women tend to be more concerned about social norms (Hwang 2010, Yates 2001). Further, self-consciousness theory suggests that people who are more concerned with appearance and self-image tend to focus on their public self. It follows that since women are more sensitive to social interaction, women tend to focus their attention on the public self and be more concerned about inter-personal costs compared to men. As a result, when seeking support, women are more likely than men to consider inter-personal costs and more likely to seek social support through an indirect medium. Thus, we hypothesise that:

H3: Compared to men, women are less likely to seek support via face-to-face communication.

While previous research has shown that women prefer face-to-face communication over email as they are more relationship-oriented and generally better than men in decoding and understanding non-verbal cues (Briton and Hall 1995), in the context of seeking support, CMC via email provides an easier and more convenient way to seek support (Hwang 2010). CMC allows for anonymity, and individuals need not worry about their facial expressions and bodily gestures. Because of these characteristics, CMC is especially suitable for those who are shy or socially anxious because it helps them overcome the fear of negative self-presentation in front of others (Stritzke et al. 2004). Since women often prefer a more indirect way to request something they need (e.g. Hess and Hagen 2006), we argue that women have a higher preference for using email compared to face-to-face communication when seeking support compared to men.

Further, previous research on groups has found that men tend to focus on task-oriented activities while women tend to focus more on social-oriented activities (Shelly and Munroe 1999). Men also tend to be more competitive and express dominance compared to women (Briton and Hall 1995). As face-to-face interaction enables the seekers to get results from the support provider, much more quickly compared to CMC, men are more likely to prefer face-to-face interaction when seeking support compared to women.
On the other hand, scholars explained that, in general, women are less assertive compared to men (Costa et al. 2001). Since CMC allows the less assertive to be heard and minimises awkwardness (McKenna et al. 2002), we predict that women would prefer email compared to face-to-face communication when seeking support. Hence, we hypothesise that:

H4: Compared to men, women seeking support prefer email to face-to-face communication.

4. Methodology
Two studies were conducted. In the first study, we developed measurement scales for the two types of psychological cost, namely intra- and inter-personal costs, by adapting items from previous research. We validated the measurement scales before proceeding to the second study. In the second study, we tested the hypotheses in the context of support seeking from friends and lecturers.

4.1. Study 1
4.1.1. Item development
As recommended by Hinkin (1998), a deductive approach was taken in developing the initial set of items. First, a thorough review of the existing literature on support seeking, help seeking, feedback seeking and information seeking was conducted in order to compile a list of possible psychological costs involved in support-seeking behaviours. Next, existing measures of support-seeking cost were examined and included in the initial item pool. Third, some of the existing items were modified to ensure face validity and to establish consistency in tone and perspective across all of the items in the initial pool. Finally, we tried to make the intra-personal cost list and inter-personal list symmetric to each other by rewording the corresponding intra-personal cost items and vice versa. For example, if an existing item of inter-personal cost is ‘if I seek support, others would judge me negatively’, the corresponding intra-personal cost item would be ‘if I seek support, I would judge myself negatively’. The initial pool consisted of 32 symmetric items measuring two types of support-seeking cost. The items (Table 1) were reviewed by two professors from the business school.

Using the approach taken by Schriesheim and Hinkin (1990), the definition of two types of psychological costs were provided at the beginning of the questionnaire. The items were arranged in random order, and respondents were requested to classify these items into either intra- or inter-personal cost. We also ask them to decide whether the item is a measure of the cost of seeking support. They were requested to indicate on a Likert scale scored from 1 (strongly disagree) to 5 (strongly agree). The items were pre-tested with two graduate students. Modifications were again made in the questionnaire, and the final questionnaire was generated. The final list of items used in Study 1 is shown in Table 1.

Data were collected from 74 students taking an undergraduate management class at a university in Singapore. Among these students, 59.5% were women. Majority of them (97.3%) had work experience.

4.1.2. Results
We decided to use a 90% cut-off to delete ambiguous items, that is, only when over 90% of the participants categorise an item to one of the two factors, we adopted the item. This cut-off is slightly higher than that recommended by Schriesheim and Hinkin (1990). This is because of the fact that there were only two factors (intra- and inter-personal costs) for respondents to classify; so, we felt a more stringent criterion was necessary.

Moreover, to ensure that items capture the cost of seeking support, we deleted items that more than 50% of the participants chose the following responses: 1 (strongly disagree) and 2 (disagree) or 3 (neutral). This helps to generate a parsimonious list of items that measures important psychological support-seeking costs.

Of the 64 items, 22 items failed to meet the above criteria and were deleted. As a result, the remaining items were no longer strictly symmetric. This result is interesting, as it suggests that items measuring intra-personal cost need not be symmetric to items measuring inter-personal cost. Consequently, these two types of psychological costs are likely to have different effects on the choice of communication channels used to seek support. Note that the measures of inter-personal cost of seeking support are concerned with what others would think of me, whereas the measures of intra-personal cost are concerned with how I would view myself when I seek support. In other words, intra-personal cost is measured in the context of seeking support and is not a measure of the personality of an individual.

4.2. Study 2
4.2.1. Participants and procedure
Based on the results from Study 1, we designed a survey and administered it to 221 undergraduate students (a different sample from the previous study). Among these participants, about 49% were
4.2.2. Measures

To simulate the psychological cost of seeking support, the following scenario was given to participants:

It is the end of the semester. You have 3 up-coming final exams and 1 major project. The deadlines of the exams and the project are close to each other. You have been working hard for the last few days but there is still a lot to do. Because you were absent for a few of the classes for a module you took, you realize that you are unable to answer past exam questions for this module. You feel very stressed. You know you can seek support from your university friend(s) or lecturer(s) for solutions.

4.2.2.1. Cost. After reading the scenario, the participants were asked to indicate the extent to which they agreed whether each item assessed the cost associated with support seeking. Items were scored from 1 (strongly disagree) to 7 (strongly agree).

4.2.2.2. Support-seeking communication channel. Support-seeking communication channels were measured using single items that capture the type of channels used to seek support (i.e. face-to-face and...
Since university friends and lecturers are two main sources to seek support based on the scenario given, participants were asked to indicate the likelihood of using face-to-face communication or email to seek support from either university friends or lecturers. Items were scored from 1 (very unlikely) to 7 (very likely).

### 4.2.2.3. Preferred support-seeking communication channel

We computed the difference in support-seeking score of email versus face-to-face communication. Since students’ online network is significantly influenced by their real social network (Stefanone and Gay 2008), we computed this variable for both university friends and lecturers.

## 5. Results and discussion

First, we analysed the factor structure for support-seeking cost. Results of each factor analyses were evaluated based on the following two criteria:

1. Only items with loadings of at least 0.35 were retained.
2. Each dimension should have a set of items with loadings close to 1 while the remaining items close to 0. This implies that items with cross-loading of more than 0.35 were dropped.

Based on these criteria, factor analyses were performed for the 42 items from Study 1. Using principal component extraction and varimax rotation method, we deleted items that failed to meet the above criteria. After three rounds, 14 items loaded onto two dimensions measuring intra- and inter-personal costs.

In order to ensure that the items comprising each factor were internally consistent, reliability assessment was carried out using Cronbach’s alpha. A low value of Cronbach’s alpha would imply that the items are not internally related in the manner expected. Each item should add to the value of Cronbach’s alpha. The Cronbach’s alpha test showed that no deletion of any item would increase the alpha value. So, we decided to use these 14 items as a measure of support-seeking cost. Final item loadings are shown in Table 2. All the item loadings were above 0.77. The inter-personal dimension accounts for 49.77% of the total variance, with an alpha value of 0.88. The intra-personal dimension accounts for 18.53% of the total variance, with an alpha value of 0.94. The two dimensions and their correlations with other variables are shown in Table 3.

We used multiple regressions to test the hypotheses in this study. The dependent variables are the choice of communication channels (email and face-to-face), while the independent variables are intra-personal cost, inter-personal cost, age and gender. Note that age is used as a control variable in this study. As our data included support seeking from university friends and lecturers, we ran a series of regression analyses; specifically, four regression models pertaining to university friends and four regression models pertaining to lecturers. In Models 1 and 4, email as the choice of communication channel is the dependent variable, while, in Models 2 and 5, face-to-face as the choice of communication channel is the dependent variable. Further, in Models 3 and 6, the difference score between email and face-to-face communication is used as the dependent variable. Results of regression analyses are shown in Table 4.

Hypothesis 1 predicted that inter-personal cost will influence individuals’ choice of face-to-face

### Table 2. Dimensions, items and loadings of support-seeking cost.

<table>
<thead>
<tr>
<th>Key dimensions and items</th>
<th>Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1: interpersonal cost (Eigenvalue = 6.97, Var = 49.77%, $\alpha = 0.88$)</td>
<td></td>
</tr>
<tr>
<td>1. Others would think worse of me.</td>
<td>0.90</td>
</tr>
<tr>
<td>2. Others would view me as inferior.</td>
<td>0.87</td>
</tr>
<tr>
<td>3. Others would think less of me.</td>
<td>0.84</td>
</tr>
<tr>
<td>4. Others would view me as inadequate.</td>
<td>0.82</td>
</tr>
<tr>
<td>5. Others’ view of me would be more negative.</td>
<td>0.80</td>
</tr>
<tr>
<td>6. Others would think me less worthy.</td>
<td>0.79</td>
</tr>
<tr>
<td>7. Others would have a poor impression of me.</td>
<td>0.78</td>
</tr>
<tr>
<td>8. Others would judge me negatively.</td>
<td>0.77</td>
</tr>
<tr>
<td>Factor 2: intrapersonal cost (Eigenvalue = 2.59, Var = 18.53%, $\alpha = 0.94$)</td>
<td></td>
</tr>
<tr>
<td>9. I would view myself as being incapable of coping with difficulty.</td>
<td>0.85</td>
</tr>
<tr>
<td>10. I would view myself as being incapable of solving the problem.</td>
<td>0.85</td>
</tr>
<tr>
<td>11. I would doubt my ability.</td>
<td>0.78</td>
</tr>
<tr>
<td>12. I would view myself as being unable to cope with stress.</td>
<td>0.76</td>
</tr>
<tr>
<td>13. I would blame myself for not being able to solve the problem.</td>
<td>0.73</td>
</tr>
<tr>
<td>14. I would view myself as lacking confidence.</td>
<td>0.69</td>
</tr>
</tbody>
</table>
Table 3. Descriptive statistics of main variables.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Intrapersonal cost</td>
<td>3.28</td>
<td>1.34</td>
<td>(0.88)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Interpersonal cost</td>
<td>3.11</td>
<td>1.25</td>
<td>0.43</td>
<td>(0.94)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Seek support from friend via F2F</td>
<td>5.98</td>
<td>1.10</td>
<td>−0.18</td>
<td>−0.22</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4 Seek support from friend via email</td>
<td>4.06</td>
<td>1.92</td>
<td>0.03</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Seek support from lecturer via F2F</td>
<td>4.28</td>
<td>2.04</td>
<td>−0.10</td>
<td>−0.24</td>
<td>0.11</td>
<td>0.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Seek support from lecturer via email</td>
<td>5.64</td>
<td>1.71</td>
<td>−0.10</td>
<td>−0.14</td>
<td>0.25</td>
<td>0.25</td>
<td>0.25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Difference of email and F2F (from friend)</td>
<td>−1.92</td>
<td>2.18</td>
<td>0.12</td>
<td>0.12</td>
<td>−0.47</td>
<td>0.86</td>
<td>0.02</td>
<td>0.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Difference of email and F2F (from lecturer)</td>
<td>1.36</td>
<td>2.32</td>
<td>0.01</td>
<td>0.11</td>
<td>0.08</td>
<td>0.11</td>
<td>−0.70</td>
<td>0.52</td>
<td>0.05</td>
<td></td>
</tr>
</tbody>
</table>

Notes: *Correlation is significant at the 0.01 level (two-tailed); bCorrelation is significant at the 0.05 level (two-tailed).

Table 4. Regression results.

<table>
<thead>
<tr>
<th></th>
<th>Seeking support from friends</th>
<th>Seeking support from lecturers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1 (via email)</td>
<td>Model 2 (face-to-face)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.14</td>
<td>9.85</td>
</tr>
<tr>
<td>Age</td>
<td>0.10</td>
<td>−0.16</td>
</tr>
<tr>
<td>Gender</td>
<td>−0.41</td>
<td>0.25</td>
</tr>
<tr>
<td>Intrapersonal cost</td>
<td>0.02</td>
<td>−0.06</td>
</tr>
<tr>
<td>Interpersonal cost</td>
<td>0.00</td>
<td>−0.17</td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td>−0.01</td>
<td>0.08</td>
</tr>
<tr>
<td>F-value</td>
<td>0.47</td>
<td>5.67</td>
</tr>
</tbody>
</table>

Notes: *p < 0.001; b p < 0.01; c p < 0.05.

communication. For both friends and lecturers as sources of support, Hypothesis 1 was supported. In Model 2 of Table 4, inter-personal cost negatively and significantly predicted individuals’ choice of face-to-face support seeking from university friends ($β=−0.17$, $p < 0.01$). In Model 5, inter-personal cost negatively and significantly predicted individuals’ choice of face-to-face support seeking from lecturers ($β=−0.41$, $p < 0.001$).

Consistent with our prediction, intra-personal cost is not significantly related to individuals’ choice of communication channel, i.e. individuals’ choice of communication channel is not influenced by the intra-personal cost of seeking support. Hence, H2a is supported. Hypothesis 2b predicted that the higher the inter-personal cost, the more likely an individual will prefer seeking support via email than face-to-face. This hypothesis was not supported when individuals seek support from friends. In Model 3, inter-personal cost was not significantly related to the difference of using email and using face-to-face communication. The results implied that when seeking support from friends, the medium of communication does not matter.

However, when seeking support from lecturers, our results showed that individuals generally prefer email to face-to-face communication. In Model 6 of Table 4, inter-personal cost is positively related to the difference of email and face-to-face communication ($β=−0.26$, $p < 0.05$). These results suggest that when seeking support from lecturers, inter-personal cost has a significant influence on individuals’ preference for indirect (email) to direct (face-to-face) communication. Thus, Hypothesis 2b was supported only when the support is sought from lecturers. One explanation for this is the power-distance dynamics between students and lecturers in an Asian culture such as Singapore is large. Thus, individuals of lower status often would prefer not to cause too much inconvenience to those of higher status. Respondents in this study may prefer email to face-to-face communication when seeking support, as this would entail less inconvenience on the part of the providers who can reply to the emails at their convenience. This would also help the seekers to run a lower risk of being perceived as intrusive and imposing on the providers.

Similarly, Hypothesis 3 was supported only when individuals decided to seek support from lecturers. In Model 5, gender was positively related to seeking social support from lecturers via face-to-face communication ($β=−0.62$, $p < 0.05$), suggesting that men were more likely to seek support from lecturers using face-to-face communication. One possible explanation for this is
that men may perceive the power-distance between them and the lecturers to be smaller than women. Thus, they would not hesitate to approach the lecturers directly when they need support. However, when seeking social support from friends, we did not find any difference between men and women in utilising face-to-face communication.

Hypothesis 4 was also supported. In Model 3, gender was negatively related to the difference between email and face-to-face communication with friend ($\beta = -0.66$, $p < 0.05$). This finding suggests that when seeking support from friends, women prefer using indirect communication channel compared to men. In Model 6, gender is negatively related to the difference of email and face-to-face communication with lecturer ($\beta = -0.73$, $p < 0.05$), implying that when seeking support from lecturers, the difference between email communication and face-to-face communication is more significant for women than for men.

Note that for Models 1 and 4, the low $R^2$ values are consistent with the insignificant $F$-values. For other models, the $F$-values are significant. For Model 2, age and inter-personal cost account for 8% variance in seeking support from friends, while in Model 5, gender and inter-personal cost account for 7% variance in seeking support from lecturers. We are of the view that these $R^2$ values are not that small, considering the fact that only two variables in each model were significant. The $R^2$ values for Models 3 and 6 are 3% and 2%, respectively. These low $R^2$ values (despite significant $F$-values) are expected as taking the difference scores between email and F2F reduces variability, with the consequent result of lower $R^2$ values. Further, Chaplain (1991) commented that even low R-squared values may be important. In the context of this study, the results sensitise us to the potential role of inter-personal cost in seeking support from friends and lecturers.

6. Limitations

There are three main limitations in this study. First, although social support may be multi-faceted, our study primarily focuses on instrumental support. This is because we focus on friends and lecturers as support providers and students are not likely to seek emotional support from their lecturers. Thus, controlling for the type of support is important. We do acknowledge that this is also a limitation as support can be emotional as well as instrumental. Thus, one avenue for future research would be to focus on different types of social support.

Second, we did not explicitly differentiate between different kinds of support from the strengths of the relationships. We also did not explicitly distinguish the different levels of tie strengths nor examine the nuances of inter-personal relationships. Future research can address these issues. However, by providing two options as sources of support (support from friends and support from professors), we implicitly tried to compare strong tie (with friend) and weak tie (with professor).

Third, we have focused primarily on psychological costs in seeking support. Future research may use other theories such as social exchange theory to flesh out the intricacies involved in the benefits and costs of social exchange. Indeed, scholars have shown that individuals are more likely to render support to others whom they perceive to be more likely to reciprocate in the future (Shapiro 1980). This is certainly a promising area for future research.

7. Implications for research and practice

Our study has several research and practical implications. First, it introduces self-consciousness theory to the information systems (IS) literature. To our knowledge, this theory has not been previously used in mainstream IS research. We suggest that private and public self-consciousness gives rise to intra- and inter-personal psychological costs, respectively. Future research can further examine the use of self-consciousness theory to better understand how public and private self-consciousness may affect technology adoption and usage.

Second, our study provides explanations for the findings that social support can sometimes bring about negative outcomes (e.g. Bolger et al. 2000, Deelstra et al. 2003). By examining the costs involved in seeking social support, we highlight the ‘dark side’ of social support. This has often been neglected by previous literature on social support.

Third, our findings are consistent with Walther’s (1996) hyperpersonal model of CMC. Compared to face-to-face communication, CMC is a lower bandwidth media because it restricts more communication cues. According to Walther’s model, the filtering of non-verbal cues of CMC provides advantages to communicators. Communicators are strategically able to time the transmission of their messages, plan, organise and edit their communication in pursuit of their goals. Such strategic control in CMC can facilitate negotiation, relationship development and social tasks. Our finding that CMC mitigates inter-personal cost of seeking social support confirms the advantage of indirect communication in social exchange.

Fourth, our results indicate that intra-personal cost has no effect on the choice of communication channel, while inter-personal cost affects the choice of face-to-face communication channel but not email. Future
research is needed to examine how intra-personal cost may influence individuals’ support-seeking costs.

Fifth, the adjusted $R^2$ values relating to face-to-face communication (Models 2 and 5) are much higher than the models relating to email (Models 1 and 4). This suggests that gender effects and inter-personal cost are more salient for face-to-face communication than email. One possible reason is that the widespread use of emails makes the issue of gender effects and psychological costs insignificant. Future research is needed to examine this issue in greater detail.

Sixth, previous research tends to suggest that women are generally better at reading non-verbal cues, and their choice of media is often driven by a need for inter-personal communication and connecting with the other person. Consequently, women tend to favour face-to-face over email communication (Dehkordi et al. 2008). However, our study shows that in the context of support seeking, women prefer email over face-to-face communication. This result is instructive, as it provides empirical evidence that the choice of communication channel is also governed by perceptions of inter-personal costs incurred when seeking support, which may be more salient among Asian women compared to men.

There are also several implications for practice. First, in organisations, people are often reluctant to seek support. As suggested by Shapiro (1984), scholars need to develop a clear understanding of the factors that influence individuals’ decisions to seek help in order to create conditions in which people who need help at work are willing to seek help to solve work-related problems. Examining the costs of seeking support adds to our understanding of how various types of costs can influence individuals’ support-seeking behaviour in organisations and how managers can create a better work environment that reduces the costs. Since one’s online network is often overlapped with social network (Stefanone and Gay 2008), our findings suggest that organisations can create a virtual platform to allow employees to seek support from each other in a relatively ‘safe’ and anonymous environment.

Second, our findings provide empirical evidence that when inter-personal costs are high (i.e. the communication attempt will make others think worse of me, or think me inferior or view me negatively), a person is less likely to seek support of any type, either face-to-face or by email (but, if a person does seek support in this type of situation, he/she is more likely to use email than face-to-face communication). Practitioners can use this result to better understand how psychological cost can affect the choice of communication media and better strategise on the appropriate media for seeking support.

Third, our results extend previous studies on gender differences in the preference of seeking support via email versus face-to-face communication. By understanding how gender can affect communication media choices, practitioners can better understand why a person seeks support using a particular communication media.

8. Conclusion
In this article, we examined the psychological costs involved in seeking social support and their impact on seekers’ choice of communication channel. Based on self-consciousness theory, we proposed that people experience two types of psychological costs. These costs pertain to self and others, respectively. We conducted two studies in this article. In the first study, we validated the measurement scale for psychological costs. In the second study, we analysed the underlying factor structure of the costs and examined the relationship between the two types of psychological costs and individuals’ choice of support-seeking channel.

Results of factor analysis showed that, when considering seeking support, individuals not only felt bad about themselves but are also worried about others’ judgement. Regression analyses showed that it was the inter-personal cost rather than intra-personal cost that determined seekers’ choice of support-seeking channel. This result was consistent with our predictions. Intra-personal cost that is related to ‘self’ is unlikely to affect the choice of communication channel used to seek support. In contrast, inter-personal cost can be mitigated by the choice of indirect communication channel (email). In other words, when individuals perceived a higher level of inter-personal cost, they are less likely to use a direct face-to-face communication channel to seek support. Moreover, the level of inter-personal cost is also positively associated with one’s preference of email over face-to-face communication.

We also examined gender differences and found that women generally preferred to seek support through indirect channels compared to men. This is consistent with previous research that found that men tend to be more direct than women when it comes to communication (Hwang 2010).

References


James, W., 1890. The principles of psychology. New York: Holt.


# Appendix
Summary of recent research using media richness theory.

<table>
<thead>
<tr>
<th>No.</th>
<th>Source</th>
<th>The media under study</th>
<th>Communicators</th>
<th>Main arguments/findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Anandarajan <em>et al.</em> (2010)</td>
<td>Instant messaging (IM)</td>
<td>Not specified</td>
<td>IM is viewed as richer than other forms of CMC (e.g., email); perceived media richness predicts use richness</td>
</tr>
<tr>
<td>2.</td>
<td>Brunelle (2009)</td>
<td>Online business space</td>
<td>People with business relationships</td>
<td>Perceived media richness predicts intention to use online store</td>
</tr>
<tr>
<td>3.</td>
<td>Byron (2008)</td>
<td>Email</td>
<td>Not specified</td>
<td>Because emails communicate few cues and little feedback, receivers tend to neutralise positive emotions and exaggerate negative emotions of senders</td>
</tr>
<tr>
<td>4.</td>
<td>Cable <em>et al.</em> (2006)</td>
<td>Recruitment media (website, electronic bulletin board and career fair)</td>
<td>Job seekers and organisations</td>
<td>Perceived media richness was associated with correspondence between job seekers’ image beliefs and firms projected images; media richness perception enhanced job seekers’ initial beliefs about firm’s image when their beliefs were positive</td>
</tr>
<tr>
<td>5.</td>
<td>Lim and Benbasat (2000)</td>
<td>Text vs. multi-media</td>
<td>Strangers</td>
<td>For less-analysable tasks, only multi-media was instrumental in reducing perceived equivocality levels</td>
</tr>
<tr>
<td>6.</td>
<td>Murthy and Kerr (2003)</td>
<td>Face-to-face vs. CMC</td>
<td>Team members</td>
<td>When the communication process goal involved convergence, face-to-face communication resulted in better performance than CMC</td>
</tr>
<tr>
<td>8.</td>
<td>Panteli (2002)</td>
<td>Email</td>
<td>Employees with different power status</td>
<td>Email signals hierarchical differences</td>
</tr>
<tr>
<td>10.</td>
<td>Treviño <em>et al.</em> (2000)</td>
<td>Email, fax, letters and face-to-face meetings</td>
<td>Employees in organisations</td>
<td>Perceived richness of media, among other variables, influence employees’ choice of communication channel</td>
</tr>
<tr>
<td>11.</td>
<td>Walker <em>et al.</em> (2009)</td>
<td>Recruitment websites: video with audio vs. picture with text</td>
<td>Job seekers</td>
<td>Testimonials delivered via video with audio had higher attractiveness and information credibility ratings than those given via picture with text</td>
</tr>
<tr>
<td>12.</td>
<td>Yoo and Alavi (2001)</td>
<td>Audio conferencing vs. desktop videoconferencing</td>
<td>Group members</td>
<td>The influence of group cohesion on outcome variable is additive, rather than substitutive, to the influence of media richness</td>
</tr>
</tbody>
</table>